Table of Contents

Commands

Topics

Anzio Versions

Anzio comes in several versions. Some are for Windows, some for DOS. Some are for serial connection, some for network connection. This should help:

Program	Platform	Communication
Anzio for DOS	DOS	serial
AnzioNet	DOS	network (INT 16, INT 6B)
AnzioWin	Windows	serial
AnzioSoc	Windows	network (TCP/IP)
Anzio Lite	Windows	network (TCP/IP)

Anzio Lite is a limited-function version of AnzioSoc, sold at shareware prices. It does NOT have the following features:

- Ability to alter keymaps
- Macros/scripting
- Some setup options
- File transfer (although it does have Kermit auto-download)
- Passthrough print directly to a file or device
- Background bitmap

File Transfer

All versions of Anzio except Lite versions have the following file transfer capabilities:
>	Capture of incoming text to file or printer
>	Simple ASCII upload, with or without designated end-of-file indicator.
>	Proprietary file transfer using Rasmussen Softwares Universal File Transfer (UFT) on the host system.
>	Pass-through print to file, device, or Anzios page-buffering system.
>	Kermit protocol

Anzio Lite has only:
>	Pass-through print to Anzios page-buffering system.
>	Kermit automatic download.

Most forms of file transfer are initiated by the software on the host system.

Key Mapping

Key mapping refers to the mechanism by which Anzio knows what control codes to send to the host for various function keys and special keys such as PgUp. Some keymap information is hard-coded into Anzio, and other information is contained in various keymap files. So, to work properly with a host program that requires function keys, you will probably have to load a key file, using the <u>File:Read Keys</u> menu item.

Keymaps have been supplied for all supported emulation types. For the VT220, there are three keymap files. See <u>VT220 Keys</u> for more information.

In all Anzio versions **except Lite**, the user can alter the keymaps. This is done in a text-based routine that is part of Anzios scripting system, as follows:

1. Get to a Function prompt, by hitting <ctrl-shift-F> or <alt-M>.

2. Type the following command:
   define<space><key><space><string><Enter>
where <key> is the actual keystroke (or combination) you want to program, and <string> is the series of characters. Inside <string>, you must prefix an <Escape> with a <control-P>.

3. You can save your changes, either in the same file or in a new file, by using the menu item File:Save Keys. If you dont, the program will prompt you to do so on exit.

You can define function keys in normal, shift, ctrl, and ctrl-shift modes; arrow keys; special keys; and control-keys. You can also separately define the numeric-pad keys when NumLock is off. Giving a key a new definition will override its hard-coded value, if any.

For more details, refer to the Anzio manual.

See also
<u>Backspace</u>
<u>VT220 Keys</u>

VT220 Keys

The VT220 is a problematic standard, for two reasons. First, its keyboard doesnt match well with the PC keyboard. Second, some keys can change behavior on command from the host. In attempting to support host systems that require a VT220, several assumptions must be made. Some of these are hard-coded into Anzio, and some depend on keymap files.

FUNCTION KEYS

The VT220 has 4 keys (PF1 through PF4) inherited from the VT100. It also has 20 F-keys, but the first five do local operations, and dont send codes to the host.

Anzio hard-codes F1 through F4 as PF1 through PF4. The files VT220.KYS and VT220N.KYS add definitions for F6 through F12 that match VT220s equivalent keys, and Shift-F1 through Shift-F10 to match VT220s F11 through F20 (note two ways to do F11, F12). They also add a made-up definition for F5.

The file VT220S.KYS (S for shift), on the other hand, maps the PCs F1 as the VTs F6, etc.

ARROW KEYS

The VT220s arrow keys can send out two different code sets, called normal mode and application mode. In normal mode (initiated by <ESC>[?1l), they send codes starting with <ESC>[. In application mode (initiated by <ESC>[?1h), they send codes starting with <ESC>O. Anzio has both modes hard-coded.

THE GRAY SPECIAL KEYS

The keys above the cursor pad, such as <Insert> and <PgDn>, are defined in the various VT keys files.

NUMERIC-PAD KEYS AND APPLICATION MODE.

The numeric pad in the VT220 can be shifted into keypad application mode, in which, instead of sending out numbers, they send out control codes. Anzio allows definitions to be attached to these keys, and the VT220N.KYS file (N for Native) contains the standard key definitions. Note that these apply ONLY when NumLock is OFF. If NumLock is ON, these keys send their labelled numbers, etc.

There is no way in Anzio to redefine the NumLock key.

TO SUMMARIZE

VT220.KYS   Basic VT220 keymap

VT220S.KYS   Shifts function keys by 5

VT220N.KYS   Native set; defines numeric pad keys and more

Printing

Anzio can do screen printing as well as passthrough printing, in which the host system sends down data with control codes indicating it goes to the printer.

There is an inherent incompatibility between the passthrough-print model and Windows approach to printing. In Windows, the program paints elements onto a page, and groups pages into print jobs, which are usually spooled. But the passthrough-print approach is to feed a group of characters at a time to the printer, and the terminal program never knows when the job is finished. More on this below. Also, the data coming from the host may be just printable characters, or it may contain control codes for formatting a particular type of printer.

There are two methods of printing in Anzio.

THE WPRN APPROACH

The standard method in Anzio is called WPRN. This is driver (inside Anzio) that paints characters on a page until the page is full (based on page size and font size), or a formfeed (FF) is received. At that point, WPRN closes the page. The document will remain open until it is flushed, as explained below. Depending on your Windows spooling options, the document may or may not start printing before it is flushed.

The WPRN approach lets the user choose a <u>printer font and size</u>, through menu items.

If the data stream from the host contains control codes for the printer, such as to change orientation or to select a font, those codes will be **printed** instead of **obeyed**. This is not what you want. In that case, you will want to turn on <u>Low-level print</u>in the File menu. That tells Anzio to pass the data to the printer directly. This would also be appropriate if the data stream contained PostScript code already.

PRINTING TO A DOS FILE/DEVICE

This approach, which is not available in the Lite version, is activated by the command PRINTER LPT2, for instance, entered at a Function prompt. This causes Anzio to do a DOS file open of the indicated name. Passthrough print data is then written to that file. Control codes are obeyed by the printer. This is essentially the same approach that is used by a DOS-level terminal emulation program.

The Printer file will remain open until the print job is flushed, as explained below.

With this method, printer font selection through Windows is not available.

FLUSHING THE PRINT JOB

Flushing is the process of releasing a print job, so whatever spooling mechanisms are active (outside Anzio) will send it to the printer. This happens when a) Anzio quits; b) the user issues the File:Eject command from the menu; c) the user or a macro issues the FLUSH macro command; or d) the FLUSHTIMER times out.

The FLUSHTIMER is initialized at 5 seconds. Thus, 5 seconds after receiving the last printout information (whether from window print or passthrough print), Anzio releases the document. The timer value can be changed by executing the following command at the Function prompt (via <ctrl-shift-F> or <alt-M>):

FLUSHTIMER <n>

where <n> is the number of seconds. To disable the flushtimer feature, set <n> to zero. You might want to do this, or set it very high, if your passthrough print documents were getting broken up into multiple jobs.

<u>Command Line Parameters</u>

Command-line parameters to Anzio can be as follows:

Startup macro	Any one-character parameter
Host name	/h:host
Host name and port	/h:host:port
Settings-file name	Any parameter more than one character long, not starting with /.
Macro definition	/d:<key><string>
Have user choose a settings file	/c

Working with Web Browsers

Most Web browsers, such as Netscape, can be configured to invoke Anzio when a telnet session is needed. In the appropriate place in the configuration screen, enter the following (change the path as appropriate):

    c:\anzio\anzioscr.exe /h:

The browser will add to the end of this the host name and telnet port.

See also:
Command Line Parameters

The Anzio Terminal Type

Many users can avoid the hassles of trying to synchronize keymaps, terminfos, etc. by telling the host system that the terminal type is ANZIO. This setup is VT220 plus color and a few other enhancements, with lots of function key and special key combinations mapped straight through. To support this, several files are included. Install as follows:

1. Move the file anzio.tic to your host system. This is a terminfo definition file.

2. If your host system is AIX, edit anzio.tic as it indicates.

3. As superuser (root), run the command:
        tic anzio.tic
to compile the file and add it to your terminfo system of files.

4. Set Anzios terminal type to Anzio.

5. In Anzio, do <u>File:Read Keys</u>:Anziotic.kys.

6. Set your host systems TERM variable to anzio.

Some software on the host system may use its own terminal definitions. Anzio includes two definition files:

1. If you use Acucobol, copy anzio.cap to the host system, and append it to Acucobols A_TERMCAP file.

2. If you use Word Perfect for Unix, copy anzio.trs to the host system, and place it in WPs terminal definition directory. This combination gives you familiar key mappings, passthrough print support, and graphical print preview.

File Menu

Open New File To Receive...
Open File To Transmit...
Background bitmap...
Clear Background Bitmap
Browse Directories...
Change Logged Directory...
Save Defaults...
Read Keys...
Save Keys...
Merge Keys...
Printer Setup...
Printer Font...
Low-level print
Flush Timer
Print Screen
Eject
Quit

Note: Your particular version of Anzio may not have certain listed items.

Edit menu

Copy
Copy Screen to Output File
Paste

Note: Your particular version of Anzio may not have certain listed items.

View menu

Beep On
Beep Idle
Show Gauge
Show Status Line
Scroll On
Block Cursor
Zoom
Jump Scroll
Color...
Font Size
Screen Size

Note: Your particular version of Anzio may not have certain listed items.

Diagnose menu

Monitor
Interpret
Review

Note: Your particular version of Anzio may not have certain listed items.

Communicate menu

Send Break
Unlock
Auto Linefeed
Full Duplex
Lock On
Port
Baud Rate
Data Bits
Stop Bits
Parity
Setup...
Host name...
Reconnect
Auto connect on startup
Host System
Terminal Type
TERM Name...
Backspace
Dial...

Note: Your particular version of Anzio may not have certain listed items.

Transfer menu

Capture
Transmit
Transmit With Trailer...
Transmit with Trailer Ctrl-D
Receive Quiet
grand Abort
Retransmit
Kermit
Delays...

Note: Your particular version of Anzio may not have certain listed items.

Open New File To Receive...

Creates a file on the PCs disk to receive data from the host.

See Also
File Menu

Open File To Transmit...

Opens an existing file on the PCs disk, ready to transmit to the host.

See Also
File Menu

Background bitmap...

Using this menu item, you can open a bitmap to use as a background in your Anzio window. The bitmap can be muted out by adjusting its brightness and contrast, so that the work area is still usable for terminal emulation.

Bitmaps are not included with your Anzio software, but are available from a wide variety of sources. Start by looking in the Windows directory, as bitmaps are often used for Windows wallpaper.

For acceptable results, select a 256-color bitmap. Also, your video driver must be running in 256 colors.

Select the bitmap of your choice. To adjust brightness and contrast, click or drag the **second** (usually the right) mouse button to different areas of Anzios window. The vertical axis controls the brightness and the horizontal axis controls the contrast.

See Also
File Menu

Clear Background Bitmap

Removes the background bitmap - the background becomes a solid color.

See Also
File Menu

Browse Directories...

This item simply lets you look at various directories on your disk, without bringing up the Windows File Manager.

See Also
File Menu

Change Logged Directory...

Allows you to change the current working directory.

See Also
File Menu

Save Defaults...

Saves all user settings.

See Also
File Menu

Read Keys...

Allows you to read a file of key definitions, that is, a key map file. All existing key definitions are deleted.

Anzios system of key definitions (macros) encompasses both the codes sent to the host when you hit a special key, such as a function key, and user macros.

See Also
File Menu

Save Keys...

Saves the macro keys to a disk file.

See Also
File Menu

<u>Merge Keys...</u>

Allows you to read a file of key definitions, that is, a key map file, merging them with those already in effect.

Anzios system of key definitions (macros) encompasses both the codes sent to the host when you hit a special key, such as a function key, and user macros.

See Also
<u>File Menu</u>

Printer Setup...

Brings up the standard Windows Printer Setup box, allowing you to select a printer and set printer-specific options.

See Also
File Menu

Printer Font...

Lets you select the font and size that Anzio will print in.

The printer font size determines the line spacing. The line spacing, in conjunction with the page size, determines how many lines will fit on a page.

See Also
File Menu

Low-level print

Tells Anzio to pass the stream of data to be printed directly to the printer at a low level. In this case the indicated font and size will have no effect.

Low-level print is appropriate if the data stream coming from the host in pass-through print contains control codes for this specific printer type.

See Also
File Menu
Printing

Flush Timer...

Anzio needs to know when it should flush (dump) its print data and close the print job. This menu item allows you to set a value, in seconds. If Anzio has printed something, and this number of seconds elapses without receiving any more data to print, Anzio will flush the data and close the print job.

This value starts at 5, which should generally be sufficient. If you are doing passthrough print, and your print jobs are being broken into multiple jobs, increase this value.

To disable this behavior entirely, set this value to zero. Then you will need to manually flush the job, such as by doing a File:Eject.

See Also
File Menu
Printing

Print Screen

Copies the text from the screen to the Anzio printer buffer, but does not eject the page.

See Also
File Menu

Eject

Causes Anzio to dump its printer buffer to the printer, and close the job.

See Also

File Menu
Flush Timer

Quit

Ends Anzio

See Also
File Menu

Copy

Copies to the clipboard, in both text form and bitmap form.

If you have selected a rectangular area of the Anzio window with the mouse, only that area will be copied. Otherwise, the entire window will be copied.

See Also
Edit Menu

Copy Screen to Output File

Copies the text of the Anzio window into the current output file.

See Also

Edit Menu

Paste

Pastes text data (from the clipboard) through Anzio into the host system, just as though you had typed the same information.

See Also
Edit Menu

Beep On

If this item is checked, Anzio will cause the PC to beep when it receives a bell code (hex 7) from the host system.

See Also
View Menu

Beep Idle

Using this item, you can tell Anzio to beep every few seconds when the host system is waiting for you.

See Also
View Menu

Show Gauge

Tells Anzio to display a line gauge on the bottom line of the window.

See Also
View Menu

Show Status Line

Tells Anzio to display status information on the bottom line of the window. Information includes the state of the CAPS LOCK and NUM LOCK keys, as well as communication errors, etc.

See Also
View Menu

Scroll On

If this item is checked, Anzio will scroll the entire screen into the review buffer whenever it receives a clear-screen command from the host.

See Also
View Menu

Block Cursor

Lets you select a block (vs. an underline) cursor.

See Also

View Menu

Zoom

Zooms (or unzooms) the Anzio window, just like clicking on the zoom box in the upper right corner of the window. By having this item in the menu, it can have a shortcut key (alt-Z) attached to it.

When Anzios window is zoomed, Anzio takes over the whole screen, by adding space between lines and on the right and left margins.

See Also
View Menu

Jump Scroll

These settings govern how Anzio deals with a rapid incoming stream of data.

If Jump Scroll is **off**, Anzio shows you every line of text.

If Jump Scroll is **medium**, Anzio will suspend scrolling until it is about one-half screenful behind.

If Jump Scroll is **fast**, Anzio will suspend scrolling until it is an entire screenful behind.

See Also
View Menu

Color...

This item has three submenu items. **Normal** sets Anzios standard color table. **Reverse** sets up a green-on-black table. **Custom** takes you to the Colors screen, where you can set Anzios color translation table explicitly.

When Anzio is emulating a monochrome terminal, the host may send out video attributes such as reverse, underline, and blink. Anzio translates these attribute combinations into color combinations, according to the color table.

If the host sends out explicit color-setting escape sequences, according to the ANSI standard, Anzio will react properly if it is emulating a VT220 or related terminal (SCO ANSI, AT386, ANZIO). This aspect of color handling requires no setup.

Changing the color table does not affect characters already on the screen - it affects only characters arriving after the change is made.

See Also
View Menu

Wait...

Lets you tell Anzio to wait a period of time.

See Also
View Menu

Sleep...

Lets you tell Anzio to sleep until a certain time.

See Also
View Menu

Font Size

These various menu items allow you to choose the font size Anzio will use.

Anzio uses the Terminal fonts provided by Windows, because they must be fixed-space as well as in the PC (OEM) character set (for line-drawing characters).

The easiest way to choose a font is to cycle through the available choices using alt-L for larger fonts and alt-S for smaller fonts.

When you change the font size, Anzio adjusts the window size accordingly.

See Also
View Menu

Screen Size

These menu items let you tell Anzio how many lines and columns you want. Note that this may need to be coordinated with the host system.

Anzio adds one more line, which is used for status and gauge information.

See Also
View Menu

Monitor

When Monitor is turned on, Anzio displays control codes it receives, rather than reacting to them.

See Also
Diagnose Menu

Interpret

This brings up the Interpret screen, which shows the last 2048 character received from the host.

See Also
Diagnose Menu

Review

Initiates Review (screen scrollback). Anzio maintains a 64 K buffer of lines that have scrolled off the top of the screen. The Review function allows you to scroll through them.

This feature is sometimes referred to as screen scrollback.

See Also
Diagnose Menu

Send Break

Sends a break signal to the host.

See Also
Communicate Menu

Unlock

Unlocks communication from Anzio to the host. Affects both XON/XOFF locking and NCR ITX locking.

See Also
Communicate Menu

Auto Linefeed

If this item is on, each carriage-return (CR) either entered or received will have a linefeed (LF) added.

See Also
Communicate Menu

Full Duplex

If Full Duplex is ON, that means the host system is assuming the responsibility of echoing your keystrokes back to you.

See Also
Communicate Menu

Lock On

Turns on a special locking protocol used with certain NCR host systems and with certain proprietary file transfer schemes.

See Also
Communicate Menu

Data Bits

Sets the number of data bits used for serial communication.

This item is usually 8 if Parity is Off, or 7 if Parity is Even or Odd.

See Also
Communicate Menu

Stop Bits

Sets the number of stop bits for serial communication. Usually 1.

See Also
Communicate Menu

Baud Rate

Sets the baud rate for serial communication.

See Also
Communicate Menu

Host System

Tells Anzio what kind of host operating system it is communicating with.

If uncertain, select Unix.

See Also
Communicate Menu

Terminal Type

Tells Anzio what kind of terminal to emulate. Note that changing this item does not change the key mappings for function keys, etc., because you may have some set up specially. **So you may want to do a Read Keys** operation after changing terminal types.

Following is a brief description of each terminal type:

N7900   An obsolete NCR terminal with no function keys and awkward attributes.

VIEWPOINT   The ADDS Viewpoint, plus enhancements made by Wyse and others. Supports only one attribute on-screen at a time.

WYSE50   The Wyse 50 has fewer features than the Wyse 60, and handles attributes differently.

WYSE60   The Wyse 60 has good monochrome attribute support.

VT220   The industry standard. Good attribute support. Anzios VT220 support also supports color. Uses ISO character set.

ANZIO   A superset of the VT220, with some features added for speed. Uses ISO character set.

SCOANSI   Emulates the console of SCO Unix. Basically VT220 plus color, plus some quirks.

AT386   Emulates the console of ATT Unix V.4. VT220 plus color, with slight color differences from SCOANSI and ANZIO.

See Also
Communicate Menu

TERM Name...

In environments where the host system can request a terminal type (i.e., a telnet session), this item allows you to set the exact response.

If this item is blank, Anzio will respond with the terminal name as in the Terminal Type menu item.

See Also
Communicate Menu

Parity

Sets the parity for serial communication: Even, Odd, or None.

See Also
Communicate Menu

Port

Specifies the communication port for serial communication.

See Also
Communicate Menu

Backspace

Sets the code Anzio will transmit when you hit the Backspace key: 8, 21 (obsolete), or 127.

See Also
Communicate Menu

Setup...

Brings up the CrowComm setup dialog box.

See Also
Communicate Menu

Host name…

Specifies which TCP/IP host you want to connect to.   Entering a new value causes Anzio to drop the current connection and initiate a new one.

The host entry can be either an IP address, of the form nnn.nnn.nnn.nnn, or a host name, assuming your TCP/IP setup has the means of translating the host name to an address.

You can specify a different TCP/IP port number by attaching it to the end of either the IP address or the host name, following a colon. That is:

   hostname:port

See Also
Communicate Menu

Reconnect

This item governs how Anzio will behave if the host end of a TCP/IP connection terminates.

If Reconnect is ON, Anzio will immediately attempt to reconnect, usually resulting in a new login prompt.

If OFF, Anzio will quit.

See Also
Communicate Menu

Auto connect on startup

On startup, if this item is ON, ANZIO will immediately issue a connection request to the host name saved from the last session.

If OFF, Anzio will always ask you for the host name.

See Also
Communicate Menu

Dial...

For a serial modem connection, this item prompts for a phone number to be dialed.

See Also

Communicate Menu

Capture

Initiates a simple ASCII file capture to the current output file.

See Also
Transfer Menu

Transmit

Initiates a simple ASCII file transmission, from the PCs current open input file.

See Also
Transfer Menu

Transmit With Trailer...

Initiates a simple ASCII file transmission, from the PCs current open input file.

Anzio first prompts for a sequence of characters to be sent at end-of-file.

See Also
Transfer Menu

Transmit with Trailer Ctrl-D

Initiates a simple ASCII file transmission, from the PCs current open input file. At end-of-file, Anzio sends a control-D.

See Also
Transfer Menu

Receive Quiet

If ON, causes file transfer (both directions) to NOT display on the screen.

See Also
Transfer Menu

grand Abort

Breaks Anzio out of every trap, endless loop, macro transmission, and file transfer.

See Also
Transfer Menu

Retransmit

Resends the last data string or response code. Used with file transfer.

See Also
Transfer Menu

Kermit

Items in this menu initiate Kermit file transfer.

Send   Prompts for a file to send to the host.

Receive   Prompts for a file to receive from the host

Auto reception   Checking this item allows automatic reception of a file via Kermit.

Command   Allows you to send various commands to a Kermit server.

See Also
Transfer Menu

Delays...

Prompts for two numeric values that cause Anzio to slow down its output to the host. Both are measured in units of approximately 10 microseconds.

Line Delay is a line turn-around delay, affecting communication when LOCK is ON, such as with NCR ITX systems and/or file transfer.

Delay is a delay between characters.

See Also
Transfer Menu