ANSI

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Contents

Chapter 1

ANSI

1.1   ANSI/SkyPix Documentation v1.12 - 01 Sep 1994

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SOME USEFUL INFORMATION TO HELP YOU DEAL WITH IT...

Original text file - 03 Jan 1992

Edited and Revised - 11 Jan 1993

First AmigaGuide version - 01 Jan 1994

COMING SOON: C-Net MCI for Morons, the Complete AmigaGuide Dox

O P E N M E ! !

1.2   Table of Contents

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1.3   A Few Tiresome Words From Yours Truly

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## ============================================================
## N T R O D U C T I O N
## =============================================================
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When this document was first released almost two years ago, the tide of
SysOps converting their BBS's from Commodore to Amiga was reaching its
peak. At that time, SkyLine 1.3 was the hottest Amiga BBS around (because
of its unique SkyPix protocol.) Michael Cox, however, decided to release
Version 2.0 without SkyPix implementation, and some would say that the
decline of SkyLine's popularity began there. Fortunately for SkyPix fans
such as myself, however, C-Net Amiga now supports the protocol, providing
a viable outlet for it until a better graphic-oriented protocol becomes
ubiquitous in the Amiga market (such as RIP for instance.)
TO C-NET USERS: the ANSI portion of this document is basically useless to
you (other than as a technical reference), since C-Net's [M]essage
[C]ommand [I]nterpreter mirrors all of the standard ANSI commands .
However, SkyPix commands are not covered by MCI, and BBS artists must still

enter them the old-fashioned way (or with SKYPAINT .) As of version 2.63,

the only way to use ANSI/SkyPix while on-line is through the line editor

(the visual editor will not respond to ESC sequences for some reason, but

this may have been fixed in CNet/3.) Also, you must press ESC twice for

the code to register with the editor (the ESC code will show as a

tilde ~.)

TO SKYLINE 1.3 USERS: this document contains commands to which SkyLine's

built-in editor should (I said SHOULD) respond, and since SkyLine has no

equivalent of MCI, these Escape-commands provide the only method of

changing colour and adding other various effects from within the BBS.

OK, BUT JUST EXACTLY WHAT IS ANSI?

==================================

ANSI is actually an organisation, the American National Standards

Institute, which back in the stone ages decided to introduce

hardware/software standards to make the job of persons in the computer

industry easier. Originally, the ANSI protocol governed printer-to-

computer communications since monitors were rare at that time.

Eventually, however, someone invented the CRT, and ANSI seemed a logical

choice to govern text displays on this new device. When MS-DOS came into

being in the 1970's, MicroSoft picked up on the ANSI standard (implemented

in ANSI.SYS) to allow non-graphics-capable machines (this was before CGA)

to generate pseudo-graphic displays using text and ANSI colour changes.

Then came the 80's and the era of the modem, and some clever programmer

grabbed the standard once again to use for data terminal emulations,

providing SysOps and users with on-line "pictures", colour changes, and

cursor movement which made BBS'ing more interesting. The word "ANSI" can

refer to a variety of standards (such as ANSI C, for instance), but for

now I will refer to only the data terminal implementation.

The ANSI protocol is functionally similar to Commodore's Pet ASCII in that

each command is implemented by a series of weird characters that no one in

their right mind would ever type by mistake. Also like PetSCII, it is

designed so that terminal and host should (ideally) respond identically

to the same command (this is rarely the case, however.) Since all 16-

colour ANSI terminals (including ones on the Amiga) are designed to

emulate the standard ANSI palette , it is possible to view the

same graphics using vastly different machines.

Next Section Table of Contents

1.4   How The Stuff's Put Together

####

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O M M A N D S T R U C T U R E

===

##

####

Standard ANSI Commands are structured as Introducer + Command + Terminator

where the Introducer is almost always the ESC [key sequence and the

Terminator is generally a letter (ANSI) or an exclamation point (SkyPix.)

Confused yet?

The ";" key can also be used within a complex command to join 2 command

strings together. I know this sounds awfully naughty and complex, but

just study the command charts in the following section and I think you'll

see where I'm driving. The key sequences are spelled out key-for-key (they

must be entered exactly.)

1.5   The Section You've All Been Waiting For

####

##

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N S I C O M M A N D S

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##

##

NOTES:

· [ ] - refers to optional parts of a command.

· '[n]' or '[m]' - always decimal numbers, containing one or more ASCII

digits to express their value.

· Where '[n]' occurs in a command and the value of 'n' is not explicitly

defined, it usually defaults to 1.

· 'ESC' - an ESCape key press (HEX $1B or DECIMAL 27) - Use CTRL-[if you

don't have an ESCape key (Commodore 64's, for instance) - in some

implementations, $DB also works as a command introducer, but ESC is much

more widely-used

· Commands involving upper or lower-case letters are always case-sensitive.

· Where applicable, the equivalent C-Net MCI commands (version 2.0 and

beyond) have been included for reference.

· All sequences should be entered WITHOUT SPACES - the spaces are included

for readability only.

Cursor Positioning Making your screen do the tango

Text F/X Italics, Boldface, and international intrigue

Changing Colours Monochrome users may skip this part

Next Section Table of Contents

1.6   Cursor Positioning Commands, or Watch the Bouncing Letters

CURSOR POSITIONING COMMANDS

===========================

Backspace Left Arrow Key (CTRL-H)

Tab Tab Key (CTRL-I)

Line Feed (Down One Line) Down Arrow Key (CTRL-J)

Up (Up One Line) Up Arrow Key (CTRL-K)

Clear Screen (Form Feed) [MCI \f1] CTRL-L

Carriage Return (Move To First Column) Return Key (CTRL-M)

Insert n Characters [MCI \-n] ESC [[n] @@

Cursor Up n Lines [MCI \^n] ESC [[n] A

Cursor Down n Lines [MCI \!n] ESC [[n] B

Cursor Forward n Spaces [MCI \>n] ESC [[n] C

Cursor Backward n Spaces [MCI \<n] ESC [[n] D

Cursor Down n Lines And To Column 1 ESC [[n] E

(Multiple Carriage Return) [MCI \nn]

Cursor Up n Lines And To Column 1 ESC [[n] F

(Opposite Effect Of Above)

Cursor to the beginning of the current line ESC [G

Cursor To Row n, Column m [MCI \f0\!n\>m] ESC [[n] ; [m] H

Erase To End Of Display ESC [J

Erase To End Of Line ESC [K

Insert Line Above Current Line ESC [L

Delete Current Line ESC [M

Delete n Chars From Under Cursor Forward ESC [[n] P

Scroll Display Up n Lines ESC [[n] S

Scroll Display Down n Lines ESC [[n] T

Set Carriage Return Mode (What Is Transmitted

Whenever You Hit RETURN)

RETURN = Line Feed + Carriage Return ESC [20 h

RETURN = Carriage Return Only ESC [20 l

1.7   Text F/X, or Emphasis Made Easy

TEXT F/X

========

Normal Display (clear all F/X) ESC [0 m

(turns off reverse, brightness, and boldface; sets text and background to

default colours . In SkyPix, this will also reset the font to Topaz-8.)

Activate Bright Colours (STANDARD ANSI ONLY) ESC [1 m

(forces the next colour change to use the second 8 colours instead of

the first. This command is ignored in SkyPix mode.)

Activate Italics (STANDARD ANSI ONLY) ESC [3 m

(This only worked on a few terminals I tried.)

Activate Boldface (STANDARD ANSI ONLY) [MCI \o1] ESC [5 m

(This command is also ignored in SkyPix mode.)

Reverse Display [MCI \r1] ESC [7 m

(interchanges the background and foreground colours.)

FLASHING TEXT AND OTHER STUFF

============================

Many of the above commands are dependent upon the terminal used. For

instance, on many IBM terminals Boldface text (ESC [5 m) appears

instead as flashing (blinking) characters. On other terminals, the

(ESC [1 m) command activates flashing text instead of turning on bright

colours (TERM, for instance, uses flashing text to represent the second

8 colours on 8-colour (3 bit-plane) screens.) Still others represent the

second 8 colours by Boldface text. You will need to experiment to figure

out how your terminal implements each of the above commands.

1.8   Changing Colours, or Chartreuse Your Way to Social Ridicule

CHANGING COLOURS

================

NOTES:

· If Reverse Display is activated, the foreground colour becomes the

background colour

· In SkyPix mode, the first 8 colours can be accessed with standard ANSI

commands (to allow compatibility with ANSI screens), however the second

8 SkyPix colours can only be accessed by changing the SkyPix Pen Colour ,

which is discussed later in this text.

· Only the first 8 colours may be used as a background.

· The foreground and background colours can be mixed and matched to achieve

128 total colour combinations.

TEXT (FOREGROUND) COLOUR [MCI \cn]

==================================

DARK (ESC [0 m) BRIGHT (ESC [1 m) SKYPIX

---------------- ------------------ ------

0 - Black Dark Grey Black ESC [30 m

1 - Red Bright Red Bright Red ESC [31 m

2 - Green Bright Green Bright Green ESC [32 m

3 - Orange Yellow Yellow ESC [33 m

4 - Dark Blue Bright Blue Dark Blue ESC [34 m

5 - Violet Bright Violet Violet ESC [35 m

6 - Cyan Bright Cyan Medium Blue ESC [36 m

* 7 - Light Grey White White ESC [37 m

* = default colour

BACKGROUND COLOUR [MCI \zn]

===========================

DARK (ESC [0 m) BRIGHT (ESC [1 m) SKYPIX

---------------- ------------------ ------

* 0 - Black N/A Black ESC [40 m

1 - Red N/A Bright Red ESC [41 m

2 - Green N/A Bright Green ESC [42 m

3 - Orange N/A Yellow ESC [43 m

4 - Dark Blue N/A Dark Blue ESC [44 m

5 - Violet N/A Violet ESC [45 m

6 - Cyan N/A Medium Blue ESC [46 m

7 - Light Grey N/A White ESC [47 m

* = default colour

AMIGA IMPLEMENTATIONS

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For Amiga terminals, the accepted standard ANSI palette (which most closely

approximates the original CGA text colours) is as follows:

R G B COLOUR | R G B COLOUR

----------------------------------+----------------------------------

0 = 00 00 00 Black | 8 = 06 06 06 Dark Grey

1 = 10 00 00 Red | 9 = 15 00 00 Bright Red

2 = 00 10 00 Green | 10 = 00 15 00 Bright Green

3 = 10 06 00 Orange | 11 = 15 15 00 Yellow

4 = 00 00 10 Dark Blue | 12 = 00 00 15 Bright Blue

5 = 10 00 10 Violet | 13 = 15 00 15 Bright Violet

6 = 00 10 10 Cyan | 14 = 00 15 00 Bright Cyan

7 = 11 11 11 Light Grey | 15 = 15 15 15 White

1.9 'Smart' Code and What it Can Do For Your Social Life

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####
## ##
## ===========================================================
## ### E N E R A T I N G ' S M A R T ' C O D E
## ## =============================================================
## ##
#####
```

Often in generating long ANSI screens with many colour changes , it is

important to consider the time that the screen will take to display over

the modem (especially at 2400 baud.) Programmes like BBS-DRAW will

automatically generate 'smart' ANSI code which transmits in the least

amount of time possible, but generating such code by hand takes a little

bit of ingenuity on the part of the BBS artist.

The first thing to bear in mind when generating 'smart' code is that any

two (or more) ANSI codes which have the same command terminator may be

combined into a single command.

Example: To set the text to bright cyan and the background to violet on an

ANSI screen,

either enter ESC [1 m then ESC [36 m then ESC [45 m

or enter ESC [1; 36 ; 45 m

where the ; is the division character in the combined command, and the "m"

is the common terminator of the three combined commands. As you can see,

the second, 'optimised,' code contains four fewer characters than the first

(those characters can add up after a while.)

Another thing to consider in optimising your code is that colour,

background, and text F/X changes remain in effect until they are removed

in some way (by another change or by resetting to defaults.) So, if you

wanted a whole passage of text to have a bright purple foreground but

wanted to change backgrounds in the middle, it would only be necessary to

enter something such as:

ESC [1 ; 35 ; 43 m This is a test of the

ESC [44 m Emergency Broadcast System.

instead of entering

ESC [1 ; 35 ; 43 m This is a test of the

ESC [1 ; 35 ; 44 m Emergency Broadcast System

However, if for some reason you wanted the text of "Emergency Broadcast

System" to appear in dark purple instead of bright purple, you would need

to specify a longer command:

ESC [1 ; 35 ; 43 m This is a test of the

ESC [0 ; 35 ; 44 m Emergency Broadcast System

This is necessary since ESC [0 m not only turns off brightness but resets

the colour and background as well.

COMPLEX DICE

============

OK, let's take a quantum leap here. Let's say you wanted to clear the

screen, jump down 14 lines, jump over 43 columns, change the text colour to

dark red, change the background colour to yellow, and then make your

machine quote Monty Python.

CTRL-L clears the display

ESC [14 B jumps down 14 lines

ESC [43 C jumps over 43 lines

ESC [7 ; 1 ; 33 ; 41 m the only way to use a bright colour as a

background is through Reverse Mode

type "I didn't expect a kind of Spanish Inquisition !"

1.10   Extremely Silly Reference

NOBODY expects the Spanish Inquisition! Our chief weapon is surprise...

surprise and fear... fear and surprise.... Our two weapons are fear and

surprise... and ruthless efficiency... Our THREE weapons are fear,

surprise, and ruthless efficiency... and an almost fanatical devotion to

the Pope... Our FOUR... no... AMONGST our weapons... Amongst our

weaponry... are such elements as fear, surprise... I'll come in again.

Jane! Stop This Crazy Thing!

1.11   SkyPix Commands, or Cox's Folly

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K Y P I X C O M M A N D S

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##

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SkyPix is defined as a sub-set of the ANSI standard, and in fact most ANSI

commands have the same effect in SkyPix mode. There are however several

SkyPix-specific commands (each followed with a characteristic "!" [bang]

terminator) which can only be used from a terminal equipped to emulate the

SkyPix protocol (all 2 of 'em ;)

NOTES:

· All SkyPix graphics are implemented on a default screen of 640x200

(8 colours) with the default palette described below (unless the palette

or number of number of bitplanes is changed.)

· All sequences should be entered WITHOUT SPACES - the spaces are included

for readability only.

Commands:

1 - SET PIXEL 9 - PLAY SAMPLE 16 - XMODEM TRANSFER

2 - DRAW LINE 10 - SET FONT 17 - SET DISPLAY MODE

3 - AREA FILL 11 - NEW PALETTE 18 - SET PEN B COLOUR

4 - RECTANGLE FILL 12 - RESET PALETTE 19 - POSITION CURSOR

5 - ELLIPSE 13 - FILLED ELLIPSE 20 - (NOT IMPLEMENTED)

6 - GRAB BRUSH 14 - DELAY (PAUSE) 21 - CONTROLLER RETURN

7 - USE BRUSH (BLIT) 15 - SET PEN A COLOUR 22 - DEFINE GADGET

8 - MOVE PEN

1.12 Command #1

1 - SET PIXEL ESC [1 ; x ; y !

(Sets the pixel at the specified X and Y coordinates to whatever colour
is in Pen A)

1.13 Command #2

2 - DRAW LINE ESC [2 ; x ; y !

(Draws a line in the current A pen colour from the existing pen
position to the point X,Y)

1.14 Command #3

3 - AREA FILL ESC [3 ; m ; x ; y !

(Floods, in mode m, the area beginning at X,Y)

1.15 Command #4

4 - RECTANGLE FILL ESC [4 ; x1 ; y1 ; x2 ; y2 !

(Draws a filled rectangle in the current colour. Numeric parameters
are the top left X and Y coordinates followed by the lower right X and
Y coordinates)

1.16 Command #5

5 - ELLIPSE ESC [5 ; x ; y ; a ; b !

(Draws Ellipse with center at X,Y; major [horizontal] axis A pixels,
and minor [vertical] axis B pixels)

1.17 Command #6

6 - GRAB BRUSH ESC [6 ; x1 ; y1 ; a ; b !

(Stores a piece of the screen as a brush in memory. From there it will
behave exactly like a brush that has been received remotely. X1 and Y1
define the starting point, A the width and B the height)

1.18   Command #7

7 - USE BRUSH (BLIT) ESC [7 ; a ; b ; c ; d ; e ; f ; g ; h !

A = upper-left X coord. of the source bitmap

B = upper-left Y coord. of the source bitmap

The above two will usually be 0. HOWEVER, you can use these to blit

parts of a brush to the screen.

C = upper-left X coord. of the destination (the screen X coord.)

D = upper-left Y coord. of the destination (the screen Y coord.)

E = horizontal (X) size of brush

F = vertical (Y) size of brush

G = MINTERM to be supplied to the blitter (commonly 192)

H = MASK to be supplied to the blitter (commonly 255)

The above commands blit what is in the brush buffer (following a

CRC Transfer or a GRAB BRUSH command) - if no brush is found, the

command aborts.

1.19   Command #8

8 - MOVE PEN ESC [8 ; x ; y !

(Move the drawing pen to X,Y - NOT the cursor)

1.20   Command #9

9 - PLAY SAMPLE ESC [9 ; a ; b ; c ; d !

(Plays a simple sample. A is the "speed" of the sample, B is the

starting point in bytes, C is the ending point in bytes, and D is the

number of loops to perform)

NOTE: Parameters A-C are not yet implemented.

SPINY'S NOTE: As of C-Net version 2.63, SkySound is not yet

implemented. Hopefully it will be added by the developers in the

future.

1.21   Command #10

10- SET FONT ESC [10 ; y ! fontname.font !

(Y is the size of the font, and fontname is the name of the font - the

font must be in the fonts: directory of both the BBS and the Remote

user for this command to work!)

SPINY'S NOTE: It's wise to stick to just the basic 7 Workbench fonts,

since you know everyone will have them available on their system disk.

Next Command 'SkyPix Commands' Menu Table of Contents

1.22   Command #11

11- NEW PALETTE ESC [11 ; c1 ; c2 ; c3 ; ... ; c15 ; c16 !

Sets the palette to the sixteen colours C1-C16 [you must enter all 16

colours even if you are just in 8-colour mode !] The parameters C1-C16

are decimal numbers arrived at in the following way:

Take a grey, for instance, whose R-G-B value is 12-12-12. Then convert

that to C-C-C (since 12 is hex $0C). Now take the hex number CCC and

convert back into Decimal, which gives you 3276.

NOTE: Unless you are a massochist, I'd suggest using SKYPAINT since it

does all of the above automatically. Even if you just need to set the

palette, load up SKYPAINT and begin recording, go to the palette screen

and set it to what you want, then end recording. You can then look at

the tiny file you created and tell what ESC [11 command is needed in

your final project.

Next Command 'SkyPix Commands' Menu Table of Contents

1.23   Command #12

12- RESET PALETTE ESC [12 !

Resets to the SkyPix standard palette, which is

R G B | R G B | R G B | R G B

----------------+-----------------+-----------------+---------------

0 = 00 00 00 | 4 = 00 15 01 | 8 = 00 11 06 | 12 = 00 00 15

1 = 01 01 15 | 5 = 03 10 15 | 9 = 00 13 13 | 13 = 07 00 15

2 = 13 13 13 | 6 = 15 15 02 | 10 = 00 10 15 | 14 = 12 00 14

3 = 15 00 00 | 7 = 12 00 14 | 11 = 00 07 12 | 15 = 12 00 08

This would have the same effect as entering:

ESC [11 ; 0 ; 287 ; 3549 ; 3840 ; 241 ; 943 ; 4082 ; 3086 ; 182 ;

221 ; 175 ; 124 ; 15 ; 1807 ; 3086 ; 3080 !

[See also Command #15 for info on the default palette]

Next Command 'SkyPix Commands' Menu Table of Contents

1.24   Command #13

13- FILLED ELLIPSE ESC [13 ; x ; y ; a ; b !

(Same as standard Ellipse [Command #5], except this one is filled-in)

Next Command 'SkyPix Commands' Menu Table of Contents

1.25   Command #14

14- DELAY (PAUSE) ESC [14 ; a !

(A is a value in jiffies [60ths of a second])

Next Command 'SkyPix Commands' Menu Table of Contents

1.26   Command #15

15- SET COLOUR OF PEN A ESC [15 ; a !

Sets Pen A to colour a, where a is one of the following (assumes

default palette)

0 = black 4 = bright green 8 = dark green 12 = dark blue 2

1 = dark blue 1 5 = med. blue 1 9 = cyan 13 = indigo

2 = white 6 = yellow 10 = med. blue 2 14 = violet 2

3 = bright red 7 = violet 1 11 = grey-blue 15 = magenta

Next Command 'SkyPix Commands' Menu Table of Contents

1.27   Command #16

16- CRC XMODEM TRANSFER ESC [16 ; m ; a ; b ! filename !

Files will be sent to whichever directory BRU: is assigned.

M (MODE) 1 = IFF Brush

2 = IFF Sound Sample

3 = FutureSound Sample

20 = General Purpose (saves to default dir.)

A & B are the X and Y size of the IFF brush, if that is what is being

transmitted.

Next Command 'SkyPix Commands' Menu Table of Contents

1.28   Command #17

17- SELECT DISPLAY MODE ESC [17 ; m !

M is 1 for a 3-bitplane display (first 8 colours) or 2 for a 4-bitplane

display (all 16 colours allowed). Note that if M is 1, then the second

8 colours (see Command #15) are disabled.

Next Command 'SkyPix Commands' Menu Table of Contents

1.29   Command #18

18- SET B PEN ESC [18 ; b !

(Sets background pen to colour B [see Command #15] - this is useful

for allowing ANSI commands to access more colours)

Next Command 'SkyPix Commands' Menu Table of Contents

1.30   Command #19

19- POSITION CURSOR ESC [19 ; x ; y !

(Moves text cursor to X,Y. Does NOT affect the position of the

drawing pen)

NOTE: This is not the same as ESC [[n] ; [m] H . In this case x and y

refer to pixels on the screen and not to rows and columns of text.

Next Command 'SkyPix Commands' Menu Table of Contents

1.31   Command #21

21- CONTROLLER RETURN ESC [21 ; c ; x ; y !

(This is SENT from the terminal every time a controller is activated -

c=1 for left button mouse click at coord. x,y ;

c=2 for menu selection [x is the menu item #, y is ignored])

SPINY'S NOTE: Due to a bug in JR-COMM 1.02 (which was fixed in 1.02a),

the ESC code is not sent with this command. This should be taken into

consideration when adding mouse control to your own applications.

Next Command 'SkyPix Commands' Menu Table of Contents

1.32   Command #22

22- DEFINE A SKYPIX GADGET ESC [22 ; n ; c ; x1 ; y1 ; x2 ; y2 !

(N is the gadget # (1-20), C is the command # associated with it; X1,Y1

defines the top left corner and X2,Y2 the lower right. The gadget

appears in the colour of Pen A [see Command #15])

Next Section 'SkyPix Commands' Menu Table of Contents

1.33   IBM Graphics, or IBM ASCII's Better Half

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B M G R A P H I C S

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What is IBM Graphics? Well, it's yet another throwback to the early IBM

days (as the name indicates.) All IBM's and compatibles have a special

set of graphic characters built into the upper half of their ASCII table

(128-255) as a way for text-only programmes to make boxes, windows, lines,

and such. Use of IBM Graphics found its way into terminals and BBS

programmes much like ANSI did.

Of course, the Amiga with its ROM-based windows environment had no need for

such primitive methods of generating graphics, but once Amiga terms started

emulating IBM ANSI the need for emulating the IBM ASCII table arose as

well. Fortunately, all that was required was a special font containing all

of the necessary characters.

THE BBS END

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IBM Graphic characters can be generated easily in most ANSI editors using

point-and-click gadgets, but they can also be generated the old-fashioned

way by using special key sequences entered in a text editor or terminal

which has an IBM Graphic font selected as its default. An IFF-ILBM screen

showing the most commonly-used IBM Graphic characters and their associated

key sequences (assumes keymap 'usa0') has been included in this archive for

your viewing pleasure. You can display it either by clicking below or by

using a viewer of your own devising.

Click Here to View!

THE TERMINAL END

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USING IBM GRAPHICS WITH ANSI: To enable IBM Graphics on any Amiga terminal,

simply select an IBM Graphic font as the terminal's default text font.

(a good IBM font has been included in this archive for those who don't have

one.) This information is generally entered in a requester somewhere in

the terminal's configuration.

USING IBM GRAPHICS WITH SKYPIX: This requires a bit more work, but believe

it or not, it's possible. JR-COMM uses Pearl rather than Topaz-8 as its
default font in SkyPix mode, so all you need to do is replace Pearl with
an IBM Graphic font (such as the included CleanIBM.) This is accomplished
simply by copying the '8' file from the FONTS:CleanIBM/ subdirectory into
the FONTS:Pearl/ subdirectory and running FixFonts (for good measure.)
NOTE: If your terminal has an option for 'High-Bit Stripping' or '8th-Bit
Stripping', it must be turned off for IBM Graphics to function.

1.34   Keeping Up With the Joneses

```
## ##
## ##
## ## ==========================================================
###### O W T O G E T S T A R T E D
## ## ===========================================================
## ##
## ##
```

You don't need an intricate understanding of the ANSI protocol to start
making pretty pictures. All you really need is a good ANSI editor. An
ANSI editor is something of a cross between a paint programme and a text
editor. A good one is designed to provide the user with an easy-to-use,
intuition-based, DPaint-like format for 'drawing' ANSI screens and to do
most of the nuts-and-bolts ANSI code generation automatically. For
instance, the user would simply click on a gadget to change text colours
rather than entering the full ANSI code.

For non-animated ANSI screens, I would highly recommend using BBS-DRAW .
It is extremely easy to use and is available through most Public Domain/
Shareware archives. I have used this programme for close to a year and
have found that it generates code very nearly as 'smart' as my own with
only a very few exceptions (plus working with it is considerably easier
than pounding out ESC codes blindly in a text editor.)

I'd also highly recommend getting a copy of SKYPAINT . SKYPAINT has the
virtue of being the only ANSI editor equipped to interpret and generate
standard SkyPix code. It is also relatively versatile and easy to use and
it implements most of the SkyPix commands automatically using a
point-and-click gadget box. At any rate, it's a GREAT DEAL faster than
trying to enter them by hand and you can see the immediate results of each
command as you create your file.

For ANSI animations (ANSI-Mations), I generally use DIANE (Digital
Intelligence Animation Editor.) This programme also uses an intuition-
based interface, but it employs a clever device which treats each
character placed on the screen as a separate 'frame' in the animation,
allowing the user to move between 'frames,' add, and edit 'frames' much
like a real animation program. Backdrops for the entire animation can
also be loaded. The only drawback of DIANE is that it is limited to 8
colours, but it is still my first choice.

For the other end of the line, I would recommend getting TERMINUS v2 or
TERM v4 (Workbench 2 and above) for emulating IBM ANSI. If you use
TERM, I would also recommend using the (included) xemibm.library, since it
seems to provide better ANSI compliance than TERM's built-in ANSI/VT-102
routines. For SkyPix, JR-COMM is still your best bet. SKYTERM is
another option, although (surprisingly enough, since Michael Cox wrote it)
it does not conform as well to the SkyPix standard as JR-COMM. Most
SkyPix-supporting BBS's (mine included) are designed to work with JR-COMM
rather than SKYTERM.

1.35   Where to find TERM

TERM v4.0

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Copyright ©1990-93 by Olaf 'Olsen' Barthel, All Rights Reserved.

TERM can be downloaded from most Public Domain/Shareware archives

including wuarchive.wustl.edu

It is freely-redistributable ShareWare with a suggested fee of

whatever the user feels is appropriate (it's a great programme, so

don't be stingy!)

Its author can be reached through E-Mail at

olsen@sourcery.han.de

or through Snail-Mail at

Brabeckstrasse 35

D-30559 Hannover

Federal Republic of Germany

1.36   Where to find TERMINUS and JR-COMM

TERMINUS v2.0d, JR-COMM 1.02a

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Copyright ©1993 by John P. Radigan, All Rights Reserved.

The unregistered version of TERMINUS (with auto-dialer disabled) is freely-

redistributable and can be found in most PD/ShareWare archives

(including wuarchive.wustl.edu.) The registered version can be ordered

through the author for a ShareWare fee of $40 or for a $10 upgrade fee if

you are a registered JR-COMM user.

The author can be contacted through E-Mail at the following addresses:

GENIE: JRADIGAN

COMPUSERVE: 76545,201

BIX: JRADIGAN

INTERNET: jprad@faatcrl.faa.gov

or bang path ...!rutgers!faatcrl!jprad

or through Snail-Mail at

Dynalogic

P.O. Box 444

Ocean City, NJ 08226

TERMINUS and JR-COMM are also supported on

Dynalogic Product Support BBS - FidoNet: 1:266/61

(609) 398-7453 (24hrs/7days)

3/12/24/96/14.4/16.8kbps HST/v.32bis

For SkyPix fans, I'm not sure whether Radigan still supports JR-COMM 1.02a

or even if it is still available from his BBS. However, the unregistered

version of JR-COMM 1.02 or 1.02a (with the delay screen) is freely-

redistributable and can be found in many Amiga archives such as

wuarchive.wustl.edu and on most Amiga-supporting BBS's.

JR-COMM 1.02a (unregistered) can also be found on the [A]miga [U]ser

[I]nternational Userdisk #6 (11/91) Magazine Disk, and my BBS carries the

original archive as a free download.

1.37   Well, Now Comes the Bad News...

SKYPAINT

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SKYPAINT might be a little difficult to obtain. Unfortunately, Michael Cox

limited its legal release to Registered SkyLine SysOps only (which is how I

acquired the programme.) The legalities are a bit vague since he

abandonned the protocol, but I would assume that distributing SKYPAINT is

still technically a no-no.

Perhaps someone more proficient in programming than I could design a

freely-redistributable SkyPix editor and win my life-long friendship (hint

hint.)

1.38   Where to find BBS-DRAW

BBS-DRAW v4.01

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Copyright ©1991-92 Henrik Lindqvist, All Rights Reserved.

BBS-DRAW is freely-redistributable ShareWare with a fee of $10.

Its author can be reached through Snail-Mail at

Henrik Lindqvist

Ullângergatan 19

16228 Vällingby

Stockholm, Sweden

1.39   Where to find DIANE

DIGITAL INTELLIGENCE ANIMATION EDITOR

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Written by PER of Digital Intelligence

Copyright ©1991 Digital Intelligence, All Rights Reserved.

DIAne is freely-redistributable ShareWare with a suggested fee of $15.

Its author can be reached through Snail-Mail at

P-E Raue

Bieslook 92

1422 RS Uithoorn

The Netherlands

1.40   Whereabouts I Can Be Found (On Odd Thursdays)

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H E R E I C A N B E R E A C H E D

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I can be reached through E-Mail at the following addresses:

drc76795@jetson.uh.edu

or drc76795@tree.egr.uh.edu

I can also be reached through Snail-Mail at

The Flaming Hedgehog

P.O. Box 73

Port Neches, TX 77651

Alternately, you can reach me on my BBS (The Flaming Hedgehog),

Bartertown (1-409-898-4969), or Leisure World (1-713-859-0902).

If you'd like to see first-hand the capabilities of SkyPix and C-Net

(including full mouse-control), boot up JR-COMM 1.02 or 1.02a and dial

1-713-661-1930

I hope this whole mess has been helpful in some tiny way.

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