DATABYTE

Graphic Arts Department
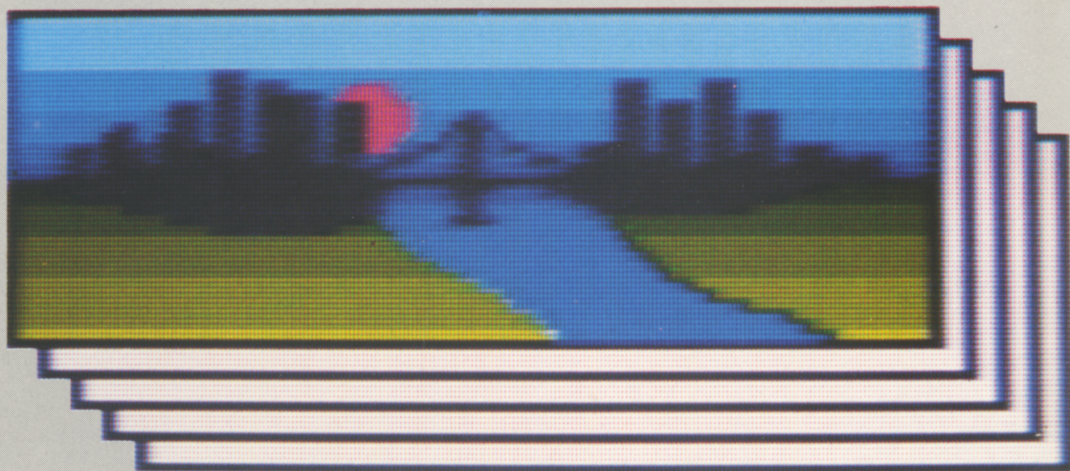
FOR ALL ATARI ™ COMPUTERS

INTRODUCTION

The GRAPHIC ARTS DEPARTMENT is by far the most powerful and most versatile graphic's design software available for the ATARI 8-bit HOME COMPUTER FAMILY. It will add new life to your ATARI. It offers numerous features not found in other software products of a similar nature. The GAD makes extensive use of the ATARI's colour capabilities. This allows the user the ability to create beautiful and colourful pictures. More colours than one could possibly ever want to use can be used in any one picture. Text in nine different sizes can be used. With the ability to create your own FONTS, a choice of fourty paint brushes and the facility to create your own and save them to disk you will just love the flexibility of the GRAPHIC ARTS DEPARTMENT. Pictures created with the GRAPHIC ARTS DEPARTMENT can be used in your own machine code or basic programs. This is a real bonus for those of you interested in writing your own software.

GREAT NEW'S for PRINTER OWNER'S
The GRAPHIC ARTS DEPARTMENT is the answer to all your printing problems. No matter which printer model you own, you will be able to obtain a printout of your pictures.
These are just a few of the many fine features to be found in the GAD. We have made every effort to bring you the best graphic's software tool possible. We believe we have done this. The rest is up to you.

REQUIREMENTS
.ATARI home computer with minimum 48K Ram
.Compatible Disk Drive
.TV set or MONITOR
.Joystick or Paddle

LOADING INSTRUCTIONS
1. Turn off your computer and remove all cartridges.
2. Turn on the power to your TV or MONITOR and Disk Drive.
3. Wait until the RED "drive busy" light turns off then insert the GRAPHIC ARTS DEPARTMENT diskette into the drive label side up with the open section towards the rear of the drive. Close the Drive door.
4. Now turn on the power to the computer. The diskette will load automatically.
NOTE: XL/XE owners should hold down the option key while turning on the computer. This disables the built in basic.

GETTING STARTED
The GAD title screen prompts the user to choose one of the two following options.
1. PRESS START: ARTS BENCH
2. PRESS OPTION: GALLERY
Plug a JOYSTICK into port # 1. To begin painting press the START key. The tiny cursor displayed in the centre of your screen acts as your paint brush (default brush). Use your joystick to move it around the screen. Press the trigger whenever you want to paint.

At this point you should hit the space bar on your keyboard. This action will display the Help Menu. Use your joystick to scroll the Menu up or down. To select a command press the key displayed to the far left of the command you wish to use. Selecting a command automatically exits to the desired fuction. Familiarise yourself with these commands. Experimentation will prove to be your best tutor.
Press the trigger to exit to the drawing screen.

PATTERN SELECTION
The pattern selection screen is used extensively throughout the GAD for FILLS, and SOLID GEOMETRICS. Entry is always automatic in such cases. Manual entry is necessary if you wish to paint with a pattern Press "CONTROL P" for manual entry to this screen.

To select a pattern use your joystick to move the cursor over the pattern you wish to use and press the trigger. The arrow indicates the current choice. To exit with your selection move the cursor over the E-icon and press the trigger.

LOADING A PATTERN SET
To load a new pattern set move the cursor over the FLOPPY DISK ICON and press the trigger. Now enter the name of your new pattern set and hit the return key. The GAD will now load that set into the pattern screen
NOTE: If you are using the default brush then you must change it for another if you wish to paint with a pattern. See brush selection

BRUSH SELECTION
Press "B" to enter the brush selection screen. To select a new brush move the cursor over the brush you wish to use and press the trigger. The arrow indicates the current choice. You can change this selection as often as you wish.
To exit to the drawing screen with your current selection move the cursor over the box marked exit and press the trigger.

LOAD NEW BRUSH SET
To load a new brush set move the cursor over the FLOPPY DISK ICON and press the trigger. Now enter the name of your new brush set and hit the return key. The GAD will now load that set into the brush selection screen.

BRUSH SPEED
Press "CONTROL S" Use your joystick to select the drawing speed of your brush and then press the trigger. Now select the non-drawing speed (traveling) of your brush and press the trigger.

DEFAULT BRUSH
Press "CONTROL B" to use the default brush. This is the brush displayed when you first enter the drawing screen after loading the GRAPHIC ART DEPARTMENT.

CHOOSING AND MIXING COLOURS
You can use keys 1 to 4 to change colour while in the drawing mode.

THE PALETTE SCREEN
Press "P" to select the palette screen. To exit move the cursor over the box marked return and press the trigger.

SELECTING A PAINTPOT
Move the cursor over one of the paint pots at the bottom of the screen and press the trigger. A check mark indicates the current selection.

MIXING COLOURS
Select the paint pot you wish to change. The arrows displayed next to the colour and shade bars indicate the current colour mix displayed in your paint pot. Move the cursor over the new colour you wish to use and press the trigger. Now do the same for the shade.

UNDO COLOUR CHANGES
Move the cursor over the box marked UNDO COLOUR CHANGES and press the trigger. The previous colour will now be restored.
RESTORE DEFAULTS
Move the cursor over the box marked RESTORE DEFAULTS and press the trigger. All paint pots will have their default colours restored.

RAINBOW (colour rotation)
Select a paint pot to rainbow. Now select RAINBOW UP or RAINBOW DOWN by moving the cursor over the box of your choice and press the trigger. You are now back at your picture and it is rainbowing.

ADD/DELETE DLI
Move the cursor over the box marked DLI OFF and press the trigger to turn on the DLI mode. Once you have turned on the DLI mode it will remain on until you turn it off again. All you have to do now is press the "A" key while in the drawing screen. Use your joystick to make your selection from the menu

(A) ADD DLI. Move the cursor to the area you wish the colour change to begin and press the trigger. This action will exit you to the palette screen where you can select a new colour. A new marker is added each time you add a colour.

(B) DELETE DLI. move the cursor over the DLI marker you wish to delete and press the trigger.

(C) REMIX DLI. Allows you to change a prevous colour. See (A-ADD DLI).

FILL AREA
Press "F" to fill in an area of your picture. This command automatically exits you to the pattern selection screen. (see pattern selection)
Once you have selected a pattern it will give you a special fill brush. Use this brush to fill in the area you want with a pattern. To select another pattern you will have to exit the fill mode and enter it again.

Press "CONTROL F" to exit the fill mode

GEOMETRIC SHAPES

NOTES: The begining of your lines the axis of your circles and the corners of your squares are set by the position of your brush before you enter a geometric shape routine.

All of these routines except the ellipse draw are rubber banding, that is the line or shape is visible at all times, but will not be drawn until you press the trigger.

(L) DRAWING LINES

Press "L". Use the joystick to make your selection from the menu.

(A-LINE) Length and direction control. Use the joystick to pull out your line and position it where you want. To draw and exit press the trigger once.

(B-LINE MODE) Length and direction control. The same as (A-LINE). To draw press the trigger once. To exit press the trigger twice.

(C-RAY MODE) Length and direction control. The same as (A-LINE). To draw and exit see (B-LINE MODE).

(T) DRAWING TRAINGLES

Press "T". Use the joystick to make your selection from the menu.

(A-TRAINGLE). Size and shape control. Use the joystick to pull out your base for the triangle and position it where you want. Press the trigger once. Now pull out your top angle and position it where you want. To draw and exit press the trigger once.

(B-SOLID TRIANGLE). Exits to the pattern selection screen. Please consult section on PATTERN SELECTION. For shape and size control see (A-TRIANGLE). To draw and exit see (A-TRIANGLE).

(C)DRAWING CIRCLES

Press "C". Use the joystick to make your selection from the menu.

(A-CIRCLE) Size control. Use the joystick to pull out your circle to the size you want. To draw and exit press the trigger once.

(B-SOLID CIRCLE) Exits to the pattern selection screen. Consult section on PATTERN SELECTION. For size and control see (A-CIRCLE). TO draw and exit see (A-CIRCLE).

(B-SOLID CIRCLE) Exits to the pattern selection screen. Consult section on PATTERN SELECTION. For size and control see (A-CIRCLE). To draw and exit see (A-CIRCLE).

(S)DRAWING SQUARES

Press "S". Use the joystick to make your selection form the menu.

(A-SQUARE) Size and shape control. Use the joystick to pull out your square to the size you want. To draw and exit press trigger once.

(B-SOLID SQUARE) Please consult the section on PATTERN SELECTION. For size and shape control see (A-SQUARE). To draw and exit press the trigger once.

(E)DRAWING ELLIPSES

Press "E". Use the joystick to make your selection from the menu.

(A-ELLIPSE) Size and rotation control. Enter semi-major, semi-minor, and degrees of rotation through the keyboard. The GAD will then execute the ellipse and exit.

(B-SOLID ELLIPSE) Please consult the section on PATTERN SELECTION. For size and rotation control see (A-ELLIPSE)

(K)KALEIDOSCOPE MODE
Press "K" to draw symetrically at four locations at the same time. Press "K" to exit to normal drawing conditions.

(V)VELOCITY MODE
Press "V" to enter or exit this mode. Useful for drawing circles, arcs, etc. freehand

(J) JUMP TO A POINT
Press "J". To jump to new coordinates (a point) you must enter new X and Y coordinates from the keyboard. Your brush will appear at its new location. May be used anytime.

(?)CURSOR LOCATION.
Press "?" to display the current location of your brush in X and Y coordinates. May be used anytime

INVERT AREA
(I)Press "I". Use the joystick to make your selection from the menu.

(A-INVERT SCREEN)
Action. This will invert the full screen, using the inversion type you have choosen

(B-INVERT AREA)
To invert an area use the joystick to pull out a frame over the area you wish to invert and press the trigger.

(C-SELECT INVERT TYPE)
Select either A,B, or C from the menu. Your choice will now be the inversion type used by the invert command.

ROTATE AREA
(R)Press "R": To define the area you want to rotate use the joystick to pull out a frame over the area you wish to rotate and presss the trigger. To rotate this area use the joystick. Move left to rotate left. Move right to rotate right. Press the trigger when you have rotated the picture the way you want it.

MOVE BLOCK
(M)Press "M". Use the joystick to make your selection from the menu.

(A-MOVE FULL BLOCK)
Use the joystick to pull out a frame over the area you wish to move and press the trigger. Now move your brush to the left hand corner of the area you wish to move the block to and press the trigger.

(B-MOVE FOREGROUND)
This selection operates the same as (A-MOVE FULL BLOCK)

(C-MOVE AGAIN)
Move the last block you moved using the position of your brush as the upper left corner to move to.

MIRROR/FLIP AREA
(Key "CONTROL-R"). Use the joystick to make your selection from the menu.

(A-FLIP VERTICALLY)
Use the joystick to pull out a frame over the area you wish to mirror and press the trigger.

(B-MIRROR HORIZIONTALLY)
To mirror an area: works the same as (A-FLIP VERTICALLY)

PUTTING TEXT IN YOUR PICTURES
(W). Press "W" if you wish to write something on the screen. Three choices are available

(A-WRITE MESSAGE)
Type in your message from the keyboard and hit the return key. Enter the height 1-9 and width 1-9. Now use your input device to position the message where you want it and press the trigger.

(B-LAST MESSAGE). Lets you use the last message you wrote. Useful for overlays. Position the message where you want it and then press the trigger.

(C-NEW FONT)
This option allows you to load a new font for future messages. Enter the name of the font you wish to load and hit the return key. The GAD will now load that font into memory.

UNDO LAST COMMAND
(U)Press "U" to restore your picture to the way it was before the last function you performed.
An example would be a fill that leaked and covered your picture.

UPDATE/UNDO PAGE
(CONTROL-U). Press "CONTROL U" to prevent the UNDO COMMAND from deleting something you just did.
Example: Use this command in the middle of freehand painting to preserve something you just did incase you decide to delete the next freehand painting you do.

ZOOM (A closer look)
(Z). Press "Z" to see your picture magnified. There are three levels of zoom. All commands work in this mode.
Press "CONTROL Z" to demagnify your picture.

CLEAR SCREEN
Press the "CLEAR" key to erase your current drawing. Type Y(yes) or N(no) in answer to the prompt and hit the RETURN key.

SCROLL PICTURE
Use the ARROW keys to scroll your picture manually. Each of the four keys represent a different direction

DISK UTILITIES
(D)Press "D" to display the menu. Three options are available. Use the joystick to make your selection.

(A-LOAD PICTURE)
Type Y(yes) or N(no) in answer to the prompt. Enter the name of the picture you wish to load and hit the RETURN key. The GAD will now load that picture into the drawing screen.

(B-SAVE PICTURE)
Type the name of the picture you want to save and hit the RETURN key. The GAD will now save that picture.

NOTES:Save your pictures to a DOS formatted disk. To format a disk see option C.

(C-DISK UTILITIES)
All you have to do is follow the prompts. If you have any problems then consult you DOS handbook

THE EDITORS
Use the "ATARI LOGO" key to select the editors. Use the joystick to make your selection from the menu.

(A-PATTERN EDITOR)
Use your joystick to select a pattern to edit. The arrow indicates the current choice. To exit to the editing screen move the cursor over the E-ICON and press the trigger.

Press "H" to view the help menu. All the commands used here are self explanitory so no explanation is required.
Press "Q" or hit the SPACEBAR to return to the editing screen.
Press "Q" to return to the drawing screen during the editing session

(B-FONT EDITOR)
SEE (A-PATTERN EDITOR)

(C-BRUSH EDITOR)
SEE (A-PATTERN EDITOR)

QUIT EDITING
(Q)Press "Q" to leave the drawing area. This action returns you to the
GAD tm title screen.

ART GALLERY
The GALLERY program is self contained and can be written to your
picture disks. Boot the GRAPHIC ARTS DEPARTMENT disk. Press the
"OPTION" key to load the GALLERY into memory. Select option two
from the menu and follow the prompts to write the GALLERY to your disk
(s).

To obtain a printout of your pictures you must first choose a PRINTER.
Select option three from the GALLERY menu. If you don't own one of the
printers listed then select option four (other) and type in the correct
control codes for your particular printer. Consult your printer manual if
you experience any difficulties. If you still have problems getting your
printer to work then call us and we will do our best to help you.

You only need to do once this during a printing session. Make a note of
your printer control codes for future use.

Once you have selected a PRINTER choose option four from the main
GALLERY menu to print your picture.
Load the picture you want to print and answer Y (yes) to the prompt to
continue. This action will display the picture shading selection screen. If
you change your mind or load the wrong picture accidently then press
the BREAK key to return to the main menu.
Four shade bars are displayed at the top of your screen. Each one is
assigned a pattern placed directly beneath it. Other patterns fill the rest
of the screen. Each has a letter beside it. The patterns beneath the shade
bars effect the way your pictures are shaded at printout time. The shade
bars are numbered one to four from left to right. To change a pattern
press the desired number. Now press the letter of the new pattern you
want to use.
There is no correct way to select a pattern you will have to experiment
and compare the printouts of your pictures.
You can of course skip this option and just printout your picture by
pressing the RETURN key as soon as you enter this screen.

USING THE GAD PICTURES IN YOUR BASIC PROGRAMS.
The GAD disk contains a program called BASICL. OBJ. This a
machine code file. For advanced users we have included the source
code for this program. Its called BASICL.SRC. You should use dos to copy
these files to your own diskette.
Use the DOS option to load a binary file into memory. BASICL.OBJ
resides at page 6 ($0600) of your computers memory. Once you have
OPEN # 1,4,0 "D:FILESPEC". GRAPHICS 23.X = USR(1536)

OPEN No. 1,4,0, "D:FILESPEC". GRAPHICS 23.X = USR(1536)
Filespec is the name of the picture you want to load.
Advanced users can reassemble the source code and include it in their
own software.

NOTICE

If you intend using the GRAPHIC ARTS DEPARTMENT program to
develop pictures to use in commercial software products then we
require that you display the following credits in the boot up sequence of
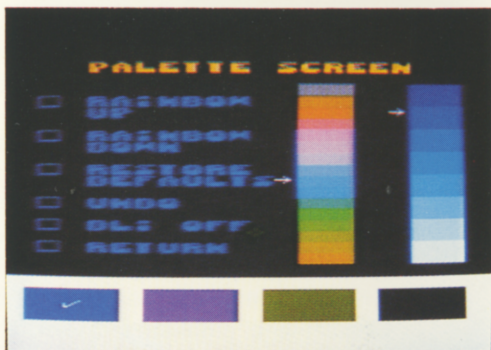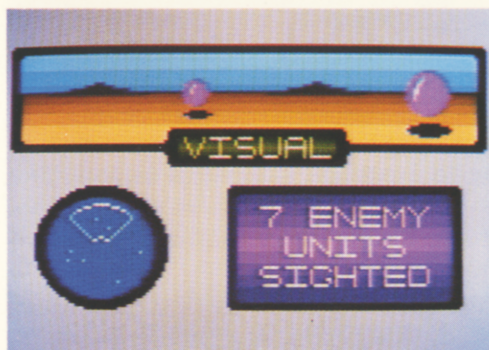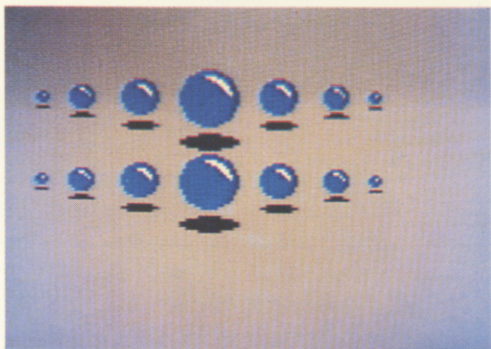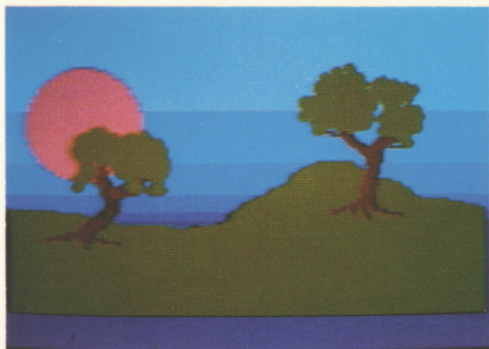all such products. The credits are as follows

GRAPHIC ARTS DEPARTMENT was used to develop the graphic's for
this software product.
GRAPHIC ARTS DEPARTMENT is a trademark of DATABYTE and its
AUTHORS. (c)1985 DATABYTE

LIMITED WARRANTY

THE GRAPHIC ARTS DEPARTMENT

Introduction

The Graphic Art Department is the most powerful, most versatile graphics design program available for the Atari Home Computers. It's simplicity of use make it a joy for people of all ages to paint with. It has more than 30 different commands to choose from. An incredible 128 different colours can be used in any one picture. A three stage Zoom feature allows one the ability to do very detailed and intricate work.

Other features include: the use of text in your pictures, 40 different brush patterns, a brush editor to create your own brush patterns, character editor, circle draw, brush speed control, mirror and you can even obtain a printout of your pictures. These are just a few of the many fine features to be found in the GAD. Ask your dealer for a demonstration now.
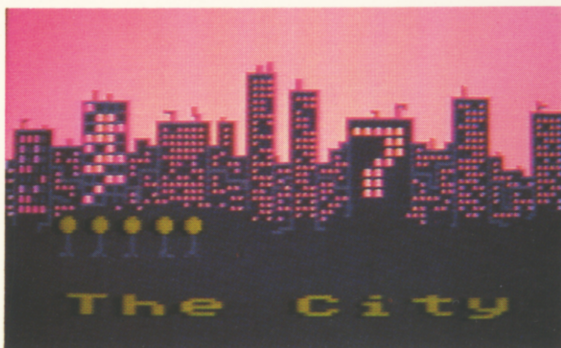
Programmed by Greg Anderson, Steven Grimm and Phil Johnson