DRAW 256 (V3.2) (c) 1993/94 T42 Software Developments

Draw 256 version 3.2 is a shareware product. Please support the development of
Draw 256 and other T42 Software products by registering this program.

Introduction

Draw 256 is a unique art utility. It incorporates standard drawing functions
with digital image processing technology. This version also supports 13 new
SVGA cards, and resolutions from 320x200 up to 1024x768 in 256 colours !

A full suite of new drawing effects is included, including Text mode, various
clipboard manipulation effects, and much more !

Minimum system requirements: VGA, Microsoft compatible mouse,
80286 processor or better, 640Kb RAM (1Mb is better!).

We hope you will find Draw 256 to be a great addition to your software
collection and a useful tool to enhance your computer's graphic capability. We
now continue with a brief manual describing the functions of Draw 256 v3.2.

How to use Draw 256

Once installed, Draw 256 can be run by typing "DRAW256" (enter).
The program assumes a mouse driver to be present in the memory
and will notify you if otherwise. Draw 256 is completely mouse
driven.

After the title dialogue box has been displayed you will be presented
with a blank screen and a small mouse pointer. Simply click the right mouse
button to display the main control menu. Move the mouse pointer to the menu
icon required, and click the left mouse button to select the required icon. On
some icons, the right mouse button may be used to select secondary functions.
A description of each icon follows, starting from the top left corner &
working across and down.

The zoom icons

The first three icons are for magnifying partitions of the screen. Each icon
has a different magnify ration - x2, x4, x8. Press the left mouse button to
display a box. This is the Area that you are going to 'zoom' into. Once in
zoom mode, clicking the right mouse button accesses a submenu of the zoom mode.

In SVGA Modes higher then 320x200, the zoom area is in the top corner of the
screen.

Icons for the zoom submenu are the following:

1. Pick colour   -click on any pixel on screen and its colour will
                    become the current colour. DRAW 256 Automatically
                                        changes to Plot mode after a colour has been
                                        selected.
2. RGB select   -select any of the 256 colours in this mode.
                        Pressing the right button allows manipulation
                        of the RGB value of a selected colour. The
                        left button will select a colour. Select the
                                        OK Button to exit.
3. Plot   -A basic drawing function
4. Exit zoom mode   -Exits back to the Normal screen, updating the
                                        zoomed area.
5. Undo   -Resets all changes made since entering zoom mode.
6. Colour swap   -Click on a pixel on screen to swap all occurences
                                        of it with the currently selected colour.

The Pick colour icon

Same as item 1 of the zoom mode submenu. The Only difference is that this icon
remains active until you select another.

The Colour swap icon

Same as item 6 of the zoom mode submenu. The difference here is that you must
position the Mouse pointer on the colour to change, then use the left mouse
button to select. Use the left mouse button to resize a box over the area to
affect, then press the right button to activate.

The Colour RGB select icon

Same as item 2 of the zoom mode submenu.

The fill icon

You can select TWO Modes with this icon. Click the right button to configure
the FILL function. Click on the left button to select fill.

Click on the area to be filled using the left mouse button.

The configure mode allows you to select the fill system to use. There is a
selection of 3 systems :

- SOLID   : Basic fill with the currently selected colour.
- RAINBOW   : Use the left button to drag the 2 pointers below the
                     Coloured bar in the box to the start and end colours that
                     you wish to cycle through. Select this button to use.
                     When you fill, the area will be filled with vertical bars
                     of these colours.
- CLIPBOARD   : First, Cut out or load some image into the clipboard. Select
                     this Icon and any area you fill will be filled with the
                     image from the clipboard.

Select the OK Button to exit.

The pencil icon

Draw free-hand style on screen using the left mouse button.

The Box and Fill-box icons

Click the left button to display a Box. Hold down the left button to resize
the box, and click on the right button to actually draw the box to the screen.

The Ellipse and Fill-ellipse icons

Same as for Box, except of course that a circle/ellipse will be drawn.

The line icon

Hold the left mouse button down to drag a line. Release the button
to draw the line.

The Plot icon

Plot single points on screen using the left mouse button.

The Spraycan icon

This icon also has TWO modes. Pressing the right button allows you to configure
the airbrush parameters, and the left button selects. Hold down the left button
to draw with the spray brush.

Configuration is by using the left mouse button to drag the flow and area bars
to the desired positions. Select the SPRAY DEMO button for a test (Moving the
mouse cancels the demo) or the OK Button to exit.

The Save file icon

Save the clipboard contents as a particular file format. Select the file-type
button at the bottom of the screen (GIF,PCX,BMP,PAL,CUT or TIF), type the
file name using the keyboard, select the correct drive if necessary, then
select the SAVE button to save the file to disk.

Note : The 'CUT' option is now saved as the BGI 'Getimage' format.

The Load file icon

Load a file from disk. The following formats are supported in this
version: GIF, PCX, BMP, CUT(Clipboard), PAL and TIFF. The program also loads
any file-type which can be examined with the Grab-file function. (to be
explained later in this document). The program automatically decodes
the pictures type, there is no need to specify a picture's graphic
format.

The Dos icon

Exit Draw 256 to Dos. The program asks for confirmation before
exiting to Dos. By pressing CTRL Q, you can automatically abort to DOS,
though this can be dangerous as no prompting is given first !

The Cut icon

The cut icon is used to cut sections of a picture into the clipboard.
Press the left mouse button to display the area to cut out. Operation
is essentially the same as for the box/ellipse Icons. Once a cut is
made, Draw 256 switches to paste automatically.

The Paste icon

Another Icon with TWO Modes! Pressing the right mouse button will allow you
to select whether ANY Paste function (ROTATE, SCALE, ETC) will be
Transparent. That is, any occurences of the CURRENTLY Selected colour in the
area being pasted will be See-through. Select OK to continue.

The left button selects the Icon. Press the left button to display the
box for pasting, then the Right button to paste to the screen.

The Mirror and Flip icons

The mirror icon horizontally reverses the clipboard's contents. The
flip icon vertically reverses the clipboard's contents. (Turns it upside-
down.)

The Grab-file icon

This icon allows you to scroll through a file previously loaded with
the load function. When selected you are presented with 9 functions
at the bottom of the screen. Once the [OK] button is pressed the
contents of the window are stored in the clipboard.

Functions:
<<   Decreases the width of the window
>>   Increases the width of the window
[-]   Decreases the offset into the file data
[+]   Increases the offset into the file data
[--]   Decreases the offset by a page
[++]   Increases the offset by a page
[<]   Decremenets the number of bitplanes viewed
[>]   Increases the number of bitplanes viewed
            NOTE: Only three depths are supported
                      1 (Mono), 4 (EGA/16 Colour), or 8 (256 Colour)

[OK]   Click this button to return to the main menu. The contents of the
            window will be copied to the clipboard for pasting.

Note: Clicking the left mouse button in the data display window
            resizes the window to the position of the mouse.

The Histogram icon

After selection, press the left mouse button to display a box which may
be resized as per the other Box/Ellipse/Cut functions. Pressing the right
button will display a Histogram of the percentage of each palette colour used
in the selected area.

The Swap-pages icon

You can work with two pages concurrently, depending upon the amount of memory
your PC-AT/Clone has. This icon switches between the two pages.

The Mouse-xy icon

Displays the current X,Y position of the mouse on the bottom-right
corner of the screen.

The Clear-screen icon

Clears the screen using colour 0 of the palette.

The Digital Image Processing Icon

The user is presented with a set of 10 digital image processing functions.

These functions are explained below. Please note that some functions will
require that the palette be converted to GREY or COLOUR using the next icon
(explained below).

After selecting the function, simply size a box over the area to affect as per
the Box/Ellipse functions. Press the right button to activate. The only
function that operates in a different manner is the MOSAIC function. When
selected, this function will first ask for a 'Tile' size (with CANCEL option)
before you can select the area to apply it to.

The functions are:
1. Smooth - Blends pixels to create a softer image.
2. Sharpen   - Highlights pixels in the image using a sharpen filter.
3. Mosaic - Enlarges pixels to create a 'Blocky' image.
4. Median - Statistically filters pixels (good for smoothing out grainy
                            pictures).
5. Inverse - Creates a photo-negative of the picture.
6. Histogram   - Pictures with badly contrasting colours are subjected to a
                            histogram stretch.
7. Emboss - Creates a 'relief' view of the image
8. Low pass   - A lowpass function is applied to the image. It effectively
                            filters out bright colours. (Darkens the picture)
9. High pass   - Opposite of the Low pass filter.
10. Canvas - Another sharpening type function. When used on detailed
                            images, the effect can resemble that of a painting on a
                            canvas !

The Palette Manipulate icon

Converts the existing palette to a special Grey or Colour set. The palette may
also be darkened or lightened using the [DRK][LGT] slider. Red, Green and Blue
saturation of the palette can also be manipulated. [UNDO] resets Any changes
made to these sliders. [REMAP] can be selected as either on/off and indicates
whether the image on screen is remapped with the correct palette values or not.

If you only want to alter the palette, say before loading a CUT image, then by
turning REMAP off, the operation will be much faster.

The undo icon

The undo icon undoes the last function. (With SVGA modes, this operation will
be dependent upon the amount of Memory available in your machine).

The Scale icon

Yep, another Icon with Two modes! Pressing the right mouse button will allow
you to select a scale factor for the clipboard. The left button allows
you to resize manually. This is accomplished in a similiar fashion to the
box/ellipse function. (Right button pastes to screen)

With the scale mode, use the keyboard to enter the percentages to scale by.
TAB switch between the X and Y scale factors. ENTER sets the size. Press the
left mouse button to display the paste area, and the right button to paste
the scaled area to the screen.

The VGA mode icon

When you select this icon, you will be presented with a list of screen
resolutions to use. If your card does not support the selected mode, DRAW 256
will notify you of this. Select CANCEL to abort this function.

If you have selected the incorrect SVGA card at the beginning of the program,
or your machine does not support SVGA, then some modes may produce garbage
on the screen. If this does happen, pressing ESC will return you to VGA 320x200
mode automatically.

Note that selecting a new mode will destroy the contents of the screen. Please
save your work BEFORE changing VGA mode.

The Text icon

Two Modes - Press the Right button to configure the Text to use, The left to
switch to typing mode. In typing mode, position the mouse to the top-left
corner of the area you wish to type into, then type your text using the
keyboard. To exit from this mode, press the right mouse button.

The Configure mode allows you to select a font to use. Two types are available
for use - Scalable stroke fonts and bitmapped. Use the left mouse button to
select a font. Scalable fonts are presented as buttons, Bitmapped fonts are on
the right side of the box in the form of a scroll box. (Click on the two

buttons to scroll, click on the name to select.)

When selected, the letters 'T42' will be displayed in the top viewing window
in the current font and colour. Use the left mouse button to adjust the size
bar to size the font (Scalable only).

OK exits back to the program.

The Rotate icon

Press the left button to display the paste area. Holding down the left button
will allow you to rotate the area by moving the mouse, the right button will
paste the area to screen. Note that due to extensize floating point
calculations, this function can be quite slow. Registered users can get the
next version of DRAW 256 with a much faster Rotate function (Plus other new
stuff of course.)

The Polygon icon

Move the mouse to the starting point for your first line and press the left
button. Move the mouse to the next point, and press the left button to draw
a line, or the right button to exit the polygon function.

The Fisheye icon

This is the first effect in a NEW range of paste functions (Which will be
available in the next version of DRAW 256). When selected, press the left
button to display the paste area. Pressing the right mouse button will paste
the area in a 'Spherical' format, giving a similiar effect to that of a
Fisheye lens on a camera.

                    - End -

History of DRAW 256 :

-Version 1.0 was originally developed by Peter de Vocht, March 1993.

-Version 1.5 enhancements were added in by Kevin Phillips, May 1993.
Various Bugs fixed, Area select for DIP, Saved Working Directory.

-Version 2.1 Beta enhancements were added by P.de Vocht, June 1993.
First implimentation of SVGA, GIF/TIFF inclusion.

-Version 2.5 Beta enhancements added by P.de Vocht, August 1993.
Memory management system installed, Basic Text mode added.

-Version 3.0 enhancements added by P.de Vocht & K.Phillips, Nov 1993.
New Menu/User interface, SVGA bugs fixed, Rotate/Scale added, Bitmapped
fonts added.

-Version 3.1 enhancements added by P.de Vocht and K.Phillips,Dec 1993
Bugs fixed, Enhanced most functions, added fisheye, etc.

Any suggestions or improvements to the program are welcome.

If you want to register this software, please send a BANK CHEQUE
(Made out to Mr. Kevin Phillips) for US$15, A$25, NZ$30, 10 pounds(UK), or
equivalent (+15% for currency fluctuations) to :

T42 Software,
PO Box 7116,
Wellesley st,
Auckland,
New Zealand.

Registration entitles you to:
- Update of Draw 256 when available
- Disk of T42 Software/Files (If available)
- Personal REGISTRATION number.
- Free help and advice.
- No ANNOYING pauses/menu's etc.

More information on DRAW 256 and T42 Software can be read in the
accompanying files READ.ME and LEGAL.TXT.

Crash and Burn little computer Dudes!