THE IMAGE SYSTEM

THE ADVANCED USERS GUIDE

CBM 64/128

THE
ADVANCED
USERS GUIDE

Let your creativity flow

CRL dedicate this manual to
ANNE

The Advanced Image System User Guide
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INTRODUCTION

The Image System is a painting and special effects package which allows you to create and manipulate pictures on the screen of your Commodore.

The Image System differs from other painting packages commonly available in that in addition to the usual facilities provided for drawing, it also includes a number of sophisticated features opening up a whole new dimension in home computer art.

When you buy The Image System you also get a facility which will allow you to manipulate and distort pictures.

The Image System is, therefore, a powerful tool for both artist and designer.

The possibilities are many, from producing photographs or slides of computer graphic artwork to creating the graphics for games programs and visual displays – you can even use The Image System to design your own clothes, it's up to you. Have fun!

Getting Started

To load The Image System:

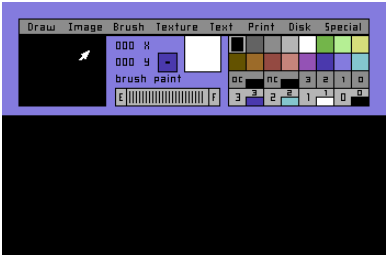
1. Switch on or reset your computer.
2. a) For cassette
   i) Place the cassette into the Commodore Data Recorder and ensure that it is re-wound to the beginning of SIDE A
   ii) Type SHIFT/RUN STOP
   iii) Press PLAY on the Data Recorder.

   b) For Disk
   i) Insert disk into disk drive, making sure that the label is facing UP.
   ii) Type LOAD "*",8,1 then press the RETURN key.
   iii) The program will now LOAD without further intervention.

When The Image System has loaded, you can use either keyboard, joystick or trackball. It is highly recommended that either trackball or joystick be used, since the User Interface has been designed with these devices in mind and is ideally suited to them.

The keys available are as follows:

SPACE	fire
CBM key	replace/remove panel
Control	Draw/panel mode switch
Cursor keys	up/down/right/left



A W.I.M.P.S. Environment

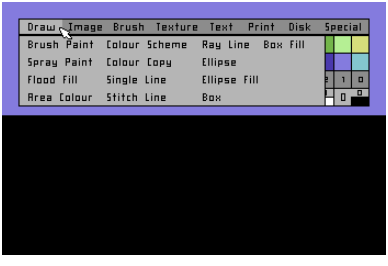
You may find the W(indow) I(con) M(enus) P(ointer) Environment unusual at first since it represents the state-of-the-art in User Interfaces.

Originally a concept created for the Apple Lisa system, the first WIMP environments were created for use with a mouse. This concept has been specially adapted for The Image System to work ideally with a joystick or trackball and is designed for smooth execution of functions which the normal "on/off" selection does not allow.

For Example

Place the cursor over the DRAW icon and press fire

The Draw menu will now drop down

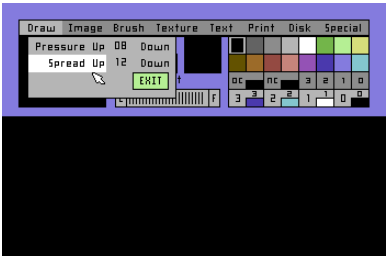


If you now release fire the menu will disappear and no action will have been executed nor will any new function have been set.

Press fire again with the icon over the DRAW menu, but keep fire pressed down. You are free to move the pointer over an icon, let us say

SPRAY PAINT

Now release the fire button. The SPRAY PAINT menu will now drop down.



You are free to move your pointer over the icons which will light up on activation; pressing fire will now execute the self-explanatory function.

Moving your pointer over the EXIT icon and pressing fire will set your function and return you to the panel.

When complimentary functions are chosen, such as the brush select – the functions of your present operation – say DRAW – will not need to be reset.

Getting onto the SCREEN

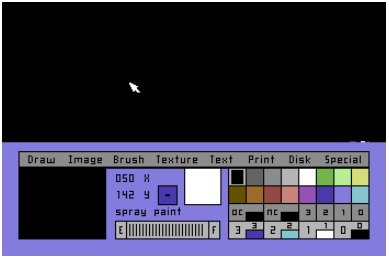
To perform a function once you have made your selection, press CONTROL. Your cursor will now move to the place on the screen where it was last used.

Conversely, if on the screen, pressing CONTROL will place the cursor in the last position it held on the panel.

If you press the CBM key (bottom left of the keyboard) the panel will disappear to reveal the whole screen, whilst a second depression will replace it. You will find this facility ideal for evaluating your larger pictures or working between the two positions of the panel.

Moving THE PANEL

While working on the screen, the panel will move to the opposite section of the workspace automatically to allow you to fully utilise the entire screen without the annoyance of having to do the job manually.



Boxes, Images, Rays & Ellipses

To facilitate ease of use The Image System makes certain logical assumptions about the operation you are performing.

When you have selected BOX and have placed the cursor on the screen using CONTROL, you may move the pointer freely. When you press fire once The Image System will fix the first corner of your box. Moving the cursor will then allow you to "grow" a complete box. Pressing fire a second time will then fix the box and you are now free to move it to any part of the screen. You may do this as quickly as you wish since the box will follow you independently of the cursor, to retain the cursor's ease of movement.

Having positioned your box as you require, pressing fire will draw it on the screen for you. Once again, you are now free to move the box around the screen should you wish to create additional boxes of the same size.

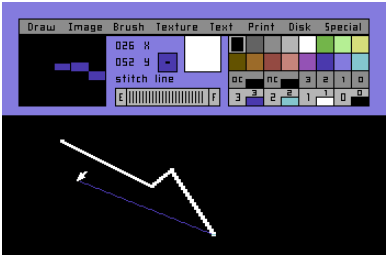
For a different box, however, you should return to the panel and repeat the above procedure.

IMAGE

To define an Image System image, the wimp environment allows you to be within a box area. Therefore, the same box definition logic can be employed as above. For Image Distort, things are slightly different and explained below.

On selecting DISTORT, your cursor will return to its last position on the screen. From there you can now create the new shape for your defined image whether it be zoomed, shrunk, folded or changed into 3-D perspective. Your starting point will be set automatically and the next three presses of the fire button will mark the remaining corners of the area. Each subsequent pressing of the button will move you to the relevant corner thereby changing the shape of the entire box.

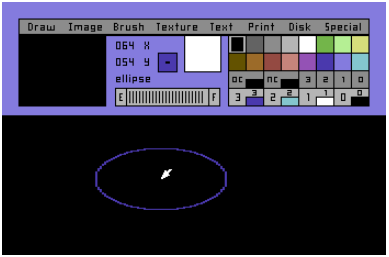
This facility of “elastic banding” works in much the same way as the box function. Pressing CONTROL will fix the shape and return you to the panel whilst pressing the key a second time will return you to the distort area to allow further manipulation if required.



The PRINT IMAGE command allows you to move your newly distorted box around the screen at will and then print it as many times as you may require until you return to the panel using CONTROL .

On all Image System functions the wimp environment attempts to eliminate as many repetitive actions as possible. Functions such as RAY, LINE or STITCH it will make certain assumptions about the operation

involved and performs them automatically. With RAY, for example, all you need do is select the origin – using fire – and the end of the RAY – also using fire – and The Image System will complete the operation returning the cursor to the origin.



Ellipse

When you enter the screen move the cursor to where you want the centre of the ellipse and press fire; you can define the shape you want. If you move the cursor you will see The Image System creating an ellipse relative to your position and your chosen centre. Pressing fire will now fix the shape and The Image System will re-draw the ellipse at any new cursor position.

In conclusion

We hope you have now seen how the environment allows you to simply and easily control the drawing environment with a minimal number of laborious key presses and that it represents a significant saving of both time and unproductive effort. Although it may seem strange at first the Image System user should soon be completely fluid in its operation.

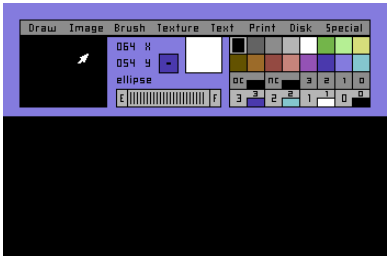
Section 2

Menus and Functions

The Image System has 1 main menu, the panel and eight sub-menus as follows:

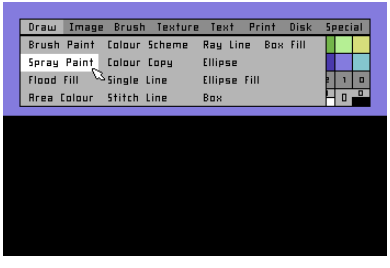
DRAW
IMAGE
BRUSH
TEXTURE
TEXT
PRINT
DISK
SPECIAL

This section will give you an overview of their functions and uses.



The Panel is your entrance to The Image System and its many complexities and it is through it that all the facilities are chosen, parameters selected and status monitored.

DRAW



Brush Paint

This function puts The Image System into drawing mode using one of the brushes defined from the Brush menu.

Spray Paint

This works in the same way as Brush Paint, but allowing you to use an air brush effect the attributes of which can be defined using the Spray Paint menu.

Flood Fill

Flood fill will paint any enclosed area with a texture you have defined from the Texture menu.

>CAUTION! Flood fill means exactly that – if the area is not fully enclosed the fill will "leak" into the rest of the screen and fill that as well! The Run/Stop key followed by CONTROL, however, will stop any function and return you to the panel.

Area Colour

This function sets the screen – within the area you define – to INK 1 and INK 0 colour as defined on the panel.

Colour Scheme

Takes the colour values on OC (Old Colour) and NC (New Colour) as defined on the panel and will replace new for old whenever the old colour appears on the section of the screen you define – useful for fiddly sections!

Colour Copy

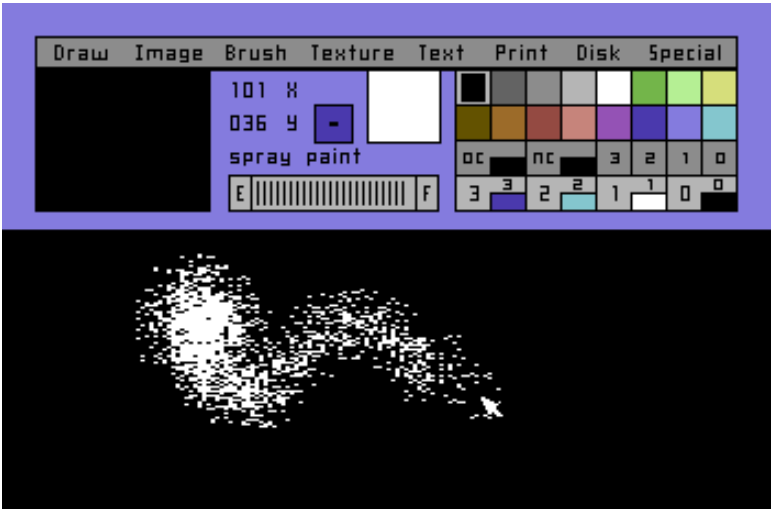
Duplicates the overall colour scheme in one area at any other point on the screen.

Single Line

Using this function you can define a line of pre-determined texture and brush style of any length or vector and print it around the screen.

Stitch Line

Allows the user to draw consecutive lines of defined texture or brush of any length or vector from an origin set at the end of the last line drawn.


Draw Image Brush Texture Text Print Disk Special
101 X
036 Y
spray paint
E
F
oc
nc
3 2 1 0
3 2 1 0

Ray Line

This function creates lines drawn from a common chosen origin of any vector with a defined brush or texture.

See section in WIMP ENVIRONMENT chapter for more information.

Ellipse

Allows the creation of ellipses by the user of any origin and proportions using any defined brush or texture.

See section in WIMP ENVIRONMENT chapter for more information.

Ellipse Fill

This function lets you draw a filled ellipse in the same way as a non-filled one, as discussed above.

Box

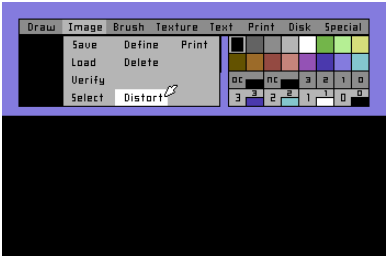
Creates a rectangular box of any dimensions at any point on the screen.

See section in WIMP ENVIRONMENT chapter for more information.

Box Fill

As for BOX but filled with any pre-defined colour or texture.

IMAGE



SAVE

Saves images to chosen medium.

LOAD

Loads images from chosen medium.

VERIFY

Checks that images have been SAVEd correctly onto chosen medium.

SELECT

Chooses any one of 15 images available for definition and use.

DEFINE

Defines image area and contents from the screen.

DELETE

Allows image to be deleted or overwritten in the image store while optimising memory.

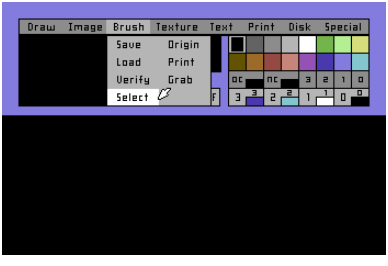
DISTORT

Allows a defined section of the screen (selected by Define Image) to be distorted, zoomed, shrunk, stretched, folded and placed in 3-D perspective.

PRINT

Allows a distorted image to be printed at any point on the screen after it has been selected using DEFINE.

BRUSH



SAVE

Allows the user to save brushes to selected medium.

LOAD

LOADs brushes from selected medium.

VERIFY

Verify allows you to check that brushes have been correctly saved onto your chosen medium.

SELECT

This function allows you to select from any of 16 brushes which are defined by The Image System and draw on screen.

ORIGIN

Allows the user to define which part of a texture is being drawn by a brush.

PRINT

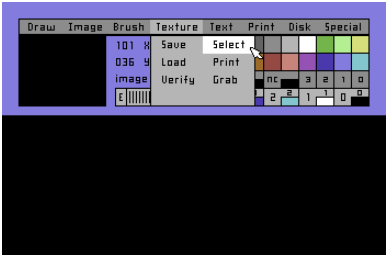
Prints the brush as shown on the panel to any part of the screen.

GRAB

Grab brush defines a brush by "grabbing" an area from the screen and putting it into the current brush.

>CAUTION! The previous brush will be automatically erased.

TEXTURE



SAVE

SAVEs texture to chosen medium.

LOAD

LOADS texture from chosen medium.

VERIFY

Checks texture has been SAVEd correctly.

SELECT

Allows you to choose from 16 available textures for use when drawing on the screen.

PRINT

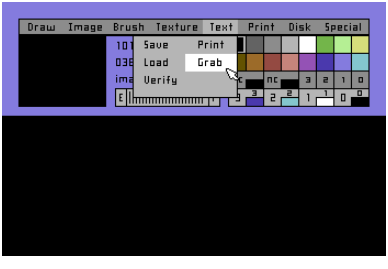
Prints textures to any chosen area of the screen.

GRAB

Defines current texture by “grabbing” any pattern displayed on the screen.

>CAUTION! The previous brush will be automatically erased.

TEXT



SAVE

SAVES text to chosen medium.

LOAD

LOADS text from chosen medium.

VERIFY

Checks text has been SAVEd correctly.

PRINT

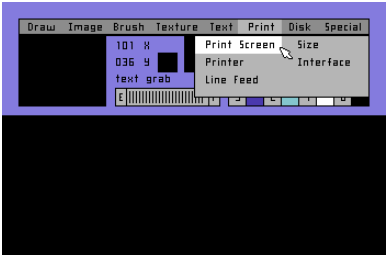
Text Print allows the user to print defined patterns as set-up by Text Grab. You must first define the required font on the screen then grab the images to allow meaningful use of Text Print. Pressing the appropriate key on the keyboard will print the pattern allocated by Print Grab at the screen cursor position.

GRAB

Pressing, for example, the "A" key will define that key as whatever was contained within the grab area, and when Printing Text (see below), pressing "A" will then print that grabbed area.

This function allows you to take a text font of any nature you have designed on the screen and allocate each character to a key on the keyboard. Having designed your font, Grab creates a character "area" which, having been defined, can be placed over individual characters.

PRINT



PRINT SCREEN

Print screen allows the user to print the screen to a compatible printer. >CAUTION! Do not attempt to use this function without a printer attached.

PRINTER

Allows a choice between the two printers supported by The Image System: The Commodore MPS801 and Epson FX.

LINE FEED

Line Feed allows the user to select either automatic line feed or an inhibit when printing.

SIZE

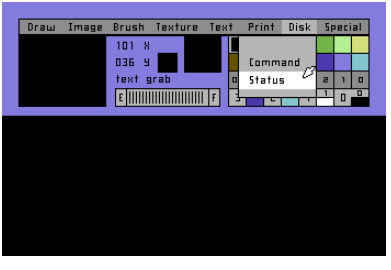
Two possible sizes can be selected with this function, standard or double standard.

INTERFACE

Choose between the Commodore serial interface or Centronics Parallel interface before printing.

>CAUTION! Make sure you set any relevant parameters before attempting to print.

DISK



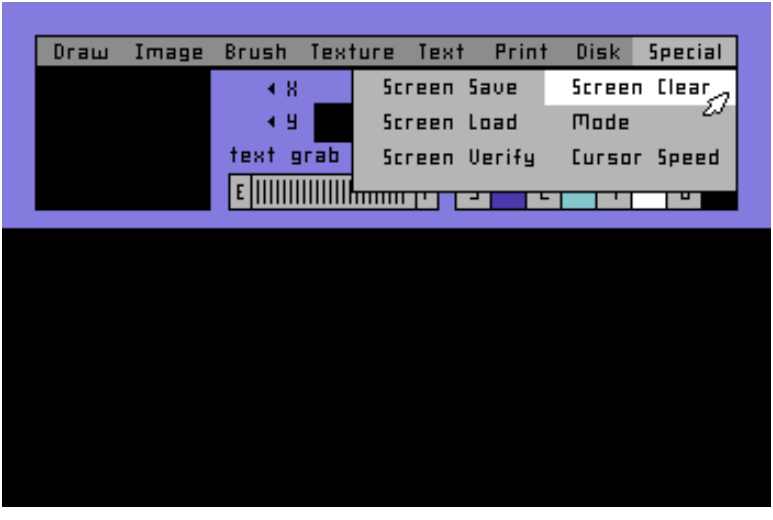
COMMAND

Disk Command allows the user direct control of the disk drive from within The Image System.

STATUS

Disk Status advises the user on the current status of the disk after LOADing, SAVEing or VERIFYing and after the use of COMMAND.

SPECIAL



SCREEN SAVE

Saves present screen to a chosen medium.

SCREEN LOAD

Loads a previously saved screen from a chosen medium onto the current screen.

SCREEN VERIFY

Checks that a screen has been correctly Saved to the chosen medium.

SCREEN CLEAR

Allows the user to delete the entire current screen.

MODE

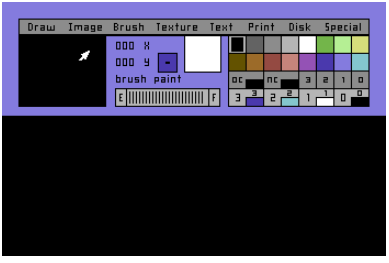
Mode allows the possibility of working on either a multi-colour or a standard screen.

It should be noted that the two formats cannot be used simultaneously.

CURSOR SPEED

Enables the user to define the speed at which the cursor will move across the screen. The higher the value, the lower the speed of the cursor/pointer.

The Image System
STEP BY STEP



STANDARD SCREEN MODE

Firstly, we need to set a background colour:
Move the cursor to yellow and press fire – the yellow icon will flash. Now move the cursor to the background colour box in the lower right hand corner – again, press fire. The small box in the bottom right hand corner will now flash yellow.

We must now select an ink colour:
Move the cursor to the black icon at the top left of the colour palette and press fire. The icon will now flash.
You can then move down to the ink icon (to the left of the background colour icon) and press fire.
The small box in its left-hand corner will now turn to black.

We can now turn to texture.

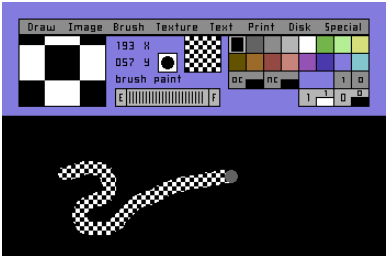
Move the cursor to the texture icon and hold down the fire button. The texture menu will now drop down into sight. Move the cursor to SELECT and release the fire button. The Texture Select menu will now appear. Move the cursor to UP and press fire. Up will be highlighted and on pressing fire, the texture will change.
Select, say, texture 6, then move the cursor over EXIT and press fire. The menu will disappear, leaving texture 6 displayed in the texture window.

We will now select a brush

Pull down the brush menu and, whilst holding down the fire button, move the cursor to SELECT. Release fire. The Brush Select menu will appear and in the same way as you chose texture 6, select brush 7.

Move to EXIT and press fire.

The panel should now be displaying the chosen brush.



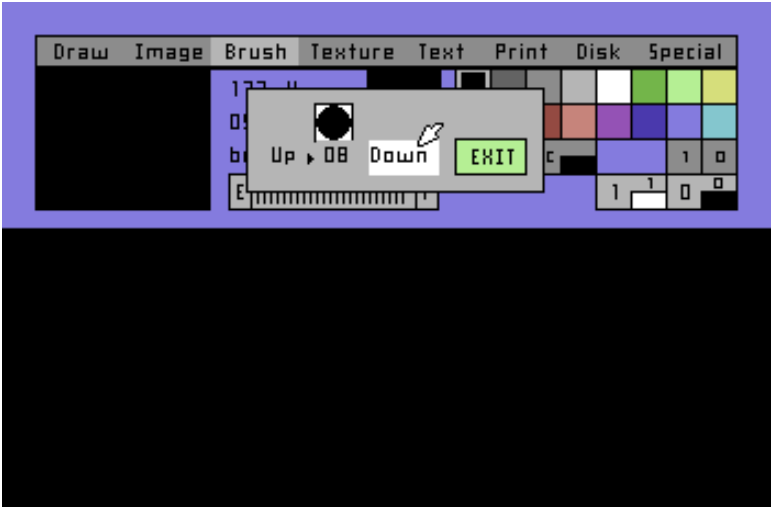
Press CONTROL to return to the screen.

You will now see a flashing circle which is the new cursor, set in the shape of your chosen brush. You are free to move it about the screen. Press fire and you will leave a “trail” of the selected black texture behind in the shape of your chosen brush.

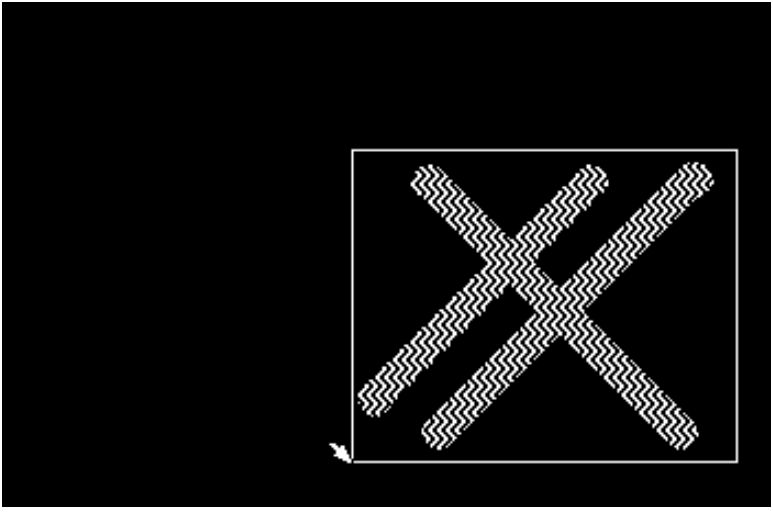
You can now draw freely – remember, releasing the fire button allows you to move without drawing, pressing it reinstates the draw status. We will now clear the screen.

Press CONTROL and return to the panel and pull down the SPECIAL Menu and select Clear Screen – you will be given a YES or QUIT option in case you have made a mistake – select YES and the screen will clear.

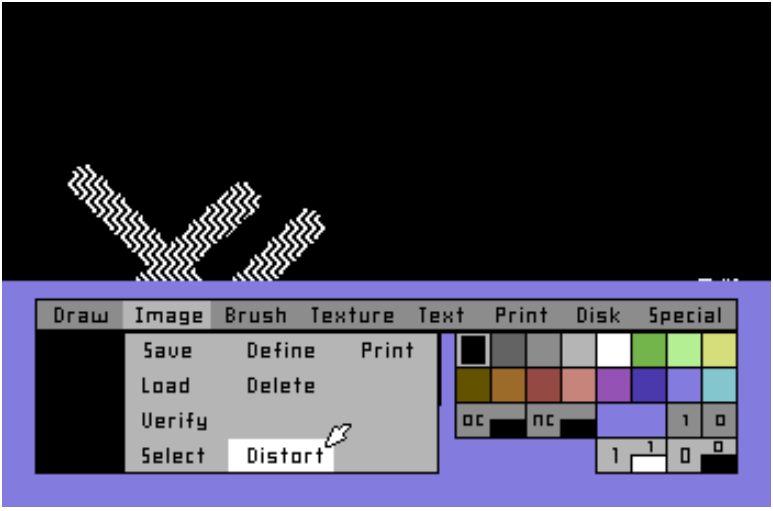
We will now Create and Distort an image
Pull down the DRAW menu and select Brush Paint then enter screen mode using CONTROL. Press the CBM key to remove the panel.



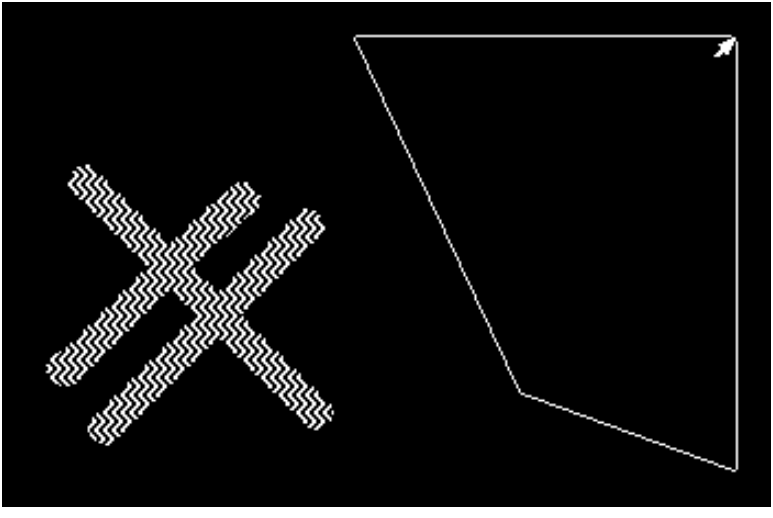
Draw a cross (ie an X shape) near the bottom of the screen. Pull down the Image Menu and select DEFINE. Re-enter screen mode and place the "elastic box" around the cross, as discussed in the WIMP ENVIRONMENT chapter. Fix the box and press fire again.



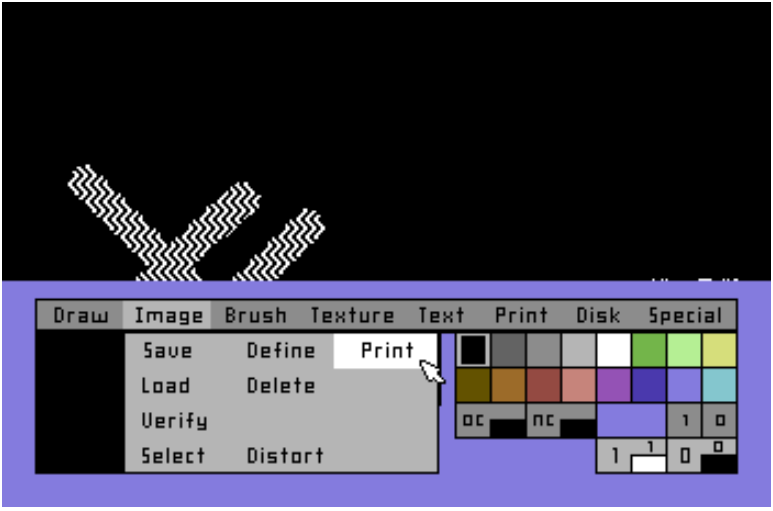
The box will disappear and you can return to the panel (using CONTROL). Pull down the Image Menu again and select DISTORT. Enter screen mode and remove panel allowing full sight of the whole screen.



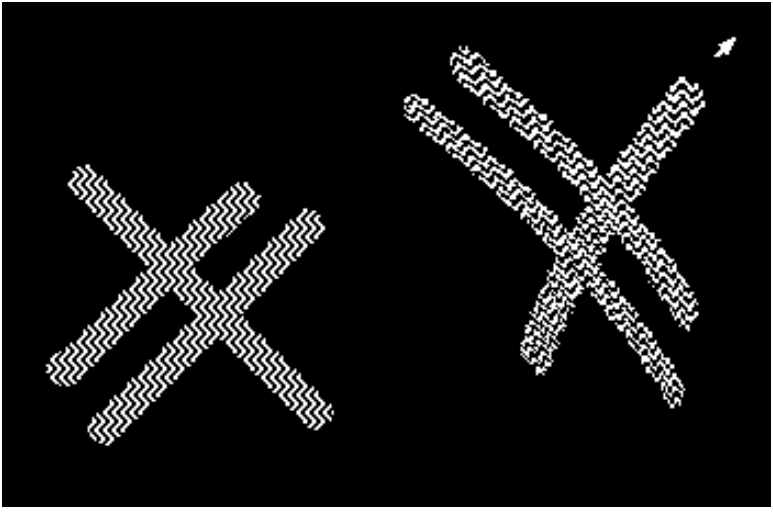
Fix the corners of the Image Distort area into a large rectangle in the top right hand corner of the screen. Return to the panel.



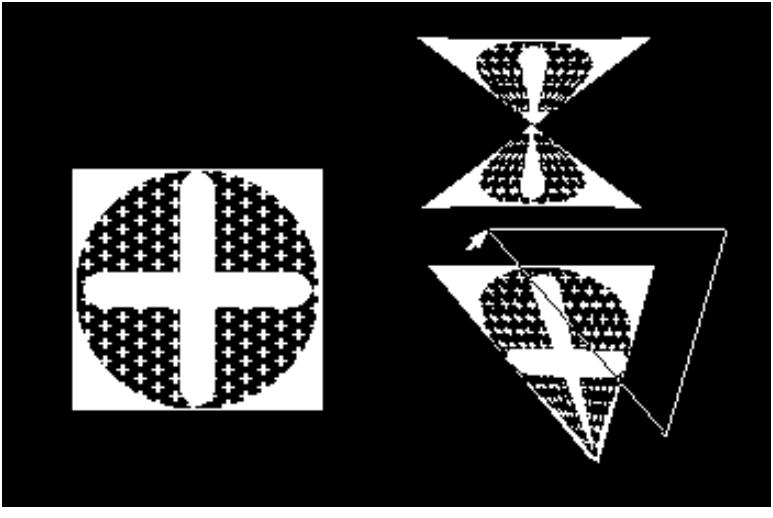
Pull down the Image Menu and select PRINT. Return to screen and remove panel.



You can now move the Distort Image area at will around the screen. Pressing fire will print the image and you should see a scaled up version of the original. You can Zoom part of this by defining a section of the whole image as a second image and then scaling it up.

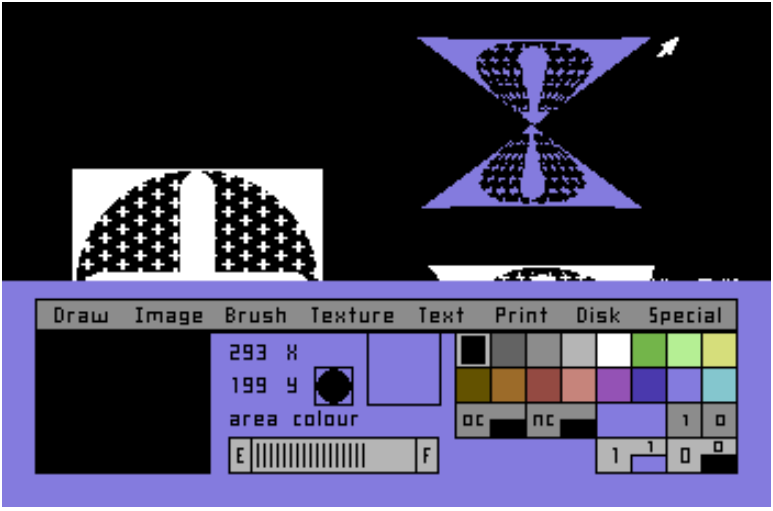


Experimentation with Image Distort will allow you to create numerous interesting effects and give you a good grasp of the tremendous capabilities of The Image System.
DON'T BE AFRAID TO EXPERIMENT – remember, you can easily CLEAR the screen using CLEAR from the panel as described above.

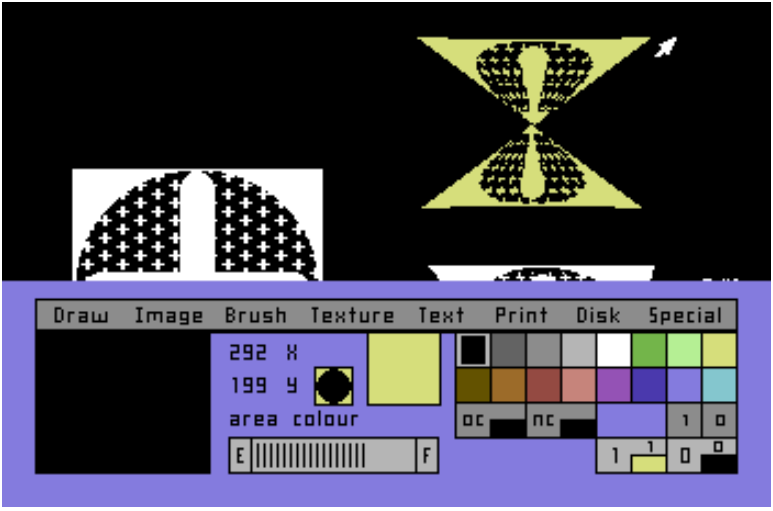


We are now ready to DRAW

Pull down the Draw Menu and select AREA COLOUR. This will now be printed as a reminder below the brush window. Press CONTROL. The Image System will switch to screen mode and the cursor will move off the panel. Guide the cursor to the bottom left corner of the screen. Hold the fire button down and move the cursor upwards and to the right. An elastic box will now cover the screen when you reach the top right corner. Press fire to fix the box.



Press the button again to set the ink and background colours. CONTROL will now return you to the panel where you can pull down the Draw Menu and select Brush Paint. This will now replace Area Colour as the message on the panel.

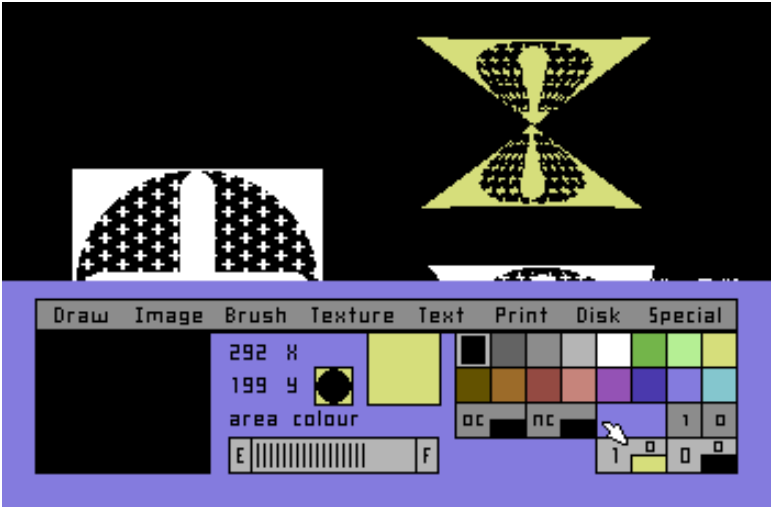


COLOURS, FILTERS and NEW & OLDS

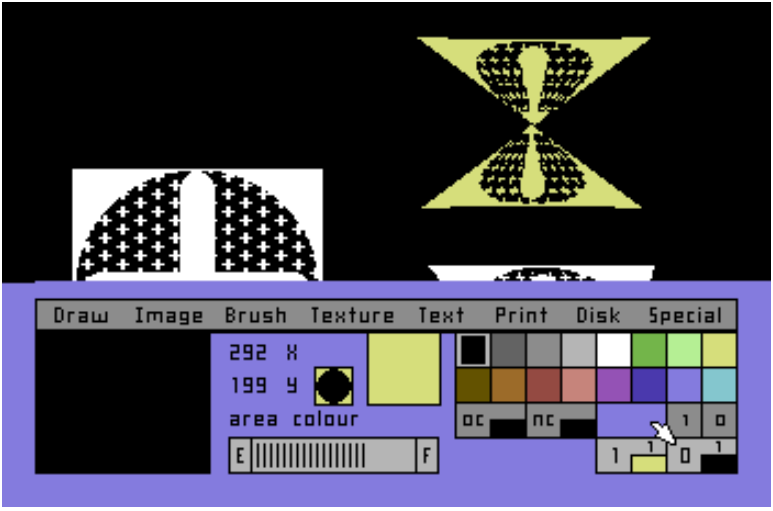
When you have finished with the Image Menu, clear the screen using the SPECIAL Menu. Once the screen is clear, move the cursor to the small filter box 'little zero' Press fire. The box will flash.

Now move the cursor over ink colour box 1 and press fire – the small 1 will become a 0 and the filter box will stop flashing. If you now try to Brush Paint, nothing will appear to happen.

This is because anything that would have been painted in black is now being painted in yellow – so obviously it doesn't show up! This is due to your setting 1 filter to 0 which, in this case, is yellow. Colour zero, as you can see in the 0 colour Box, is yellow.



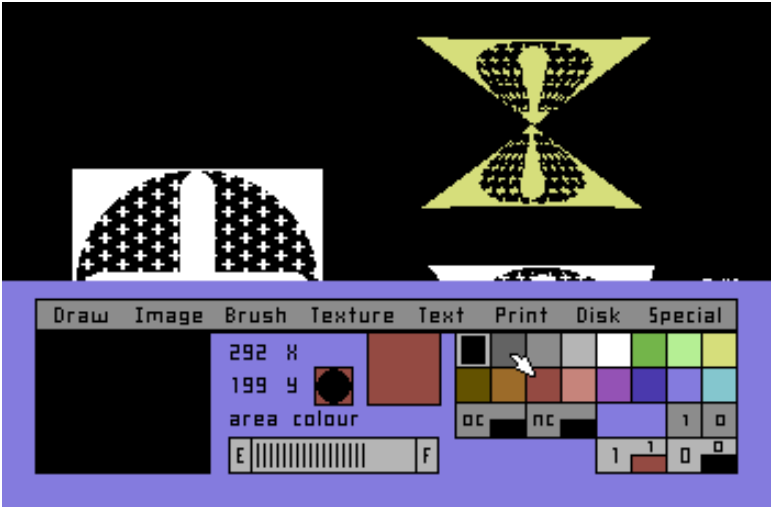
Now reset filters: Colour 1 to 1, and Colour 0 to 0.
Place the cursor over the RED icon in the colour palette and press fire. The icon will flash. Now select Colour 1 and press fire. The colour indicator icon will now turn red.
You will notice that if you try and paint, the colours have not changed because except in the zoom window at the left of the panel. To activate the new colour, use Area Colour to paint all or part of the screen. You will see it become red without affecting any colours outside that area.



Therefore, if we set both filters 1 and 0 to 1, which is black rather than yellow, the background colour has been forced to black.
Now set both colour 1 and colour 0 to filter 1 in the same way as before. Return to screen mode and paint. You will find that you are painting in solid black. This, of course, means there are four possible permutations:

0	0	Paint in background colour
1	0	Paint in ink on background colour
0	1	Paint in background colour over ink colour
1	1	Paint in ink colour

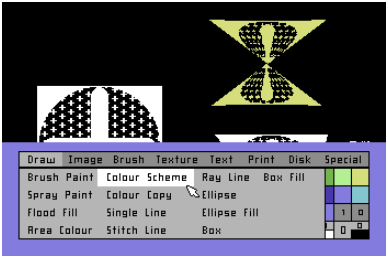
Please also remember that if the colour indicators are not flashing these colours are switched off.

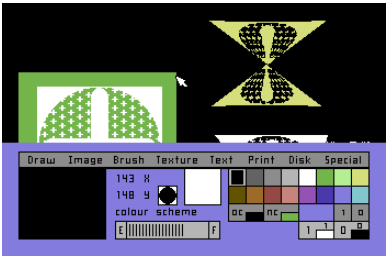


Now let's try New Colour, Old Colour.

Set Icon OC (Old Colour) to black and Icon NC to dark green in the same way as Colour 1 and Colour 0 were set. Pull down the Draw Menu and select Colour Scheme. Set the elastic box over the whole screen, starting from the bottom left corner. Fix the box, and press fire.

You will observe that all the black has changed to green, while leaving both the yellow background and the red pattern in its own area unaffected.

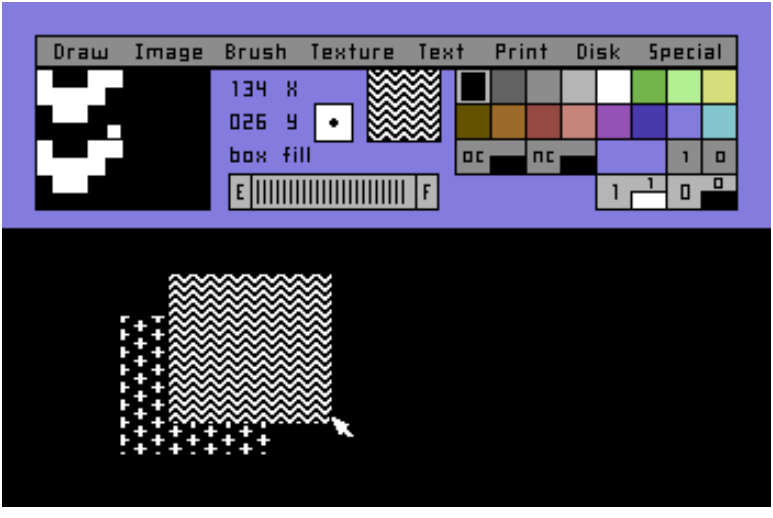




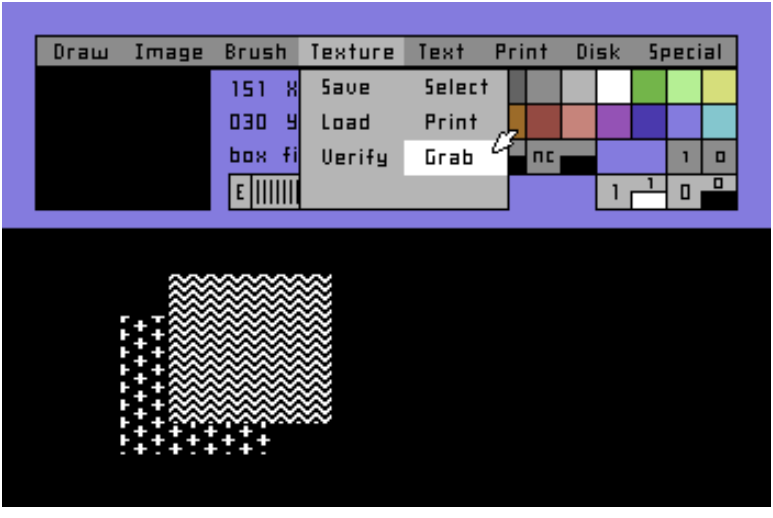
GRABBING, BRUSHES & TEXTURE

Grabbing A Texture

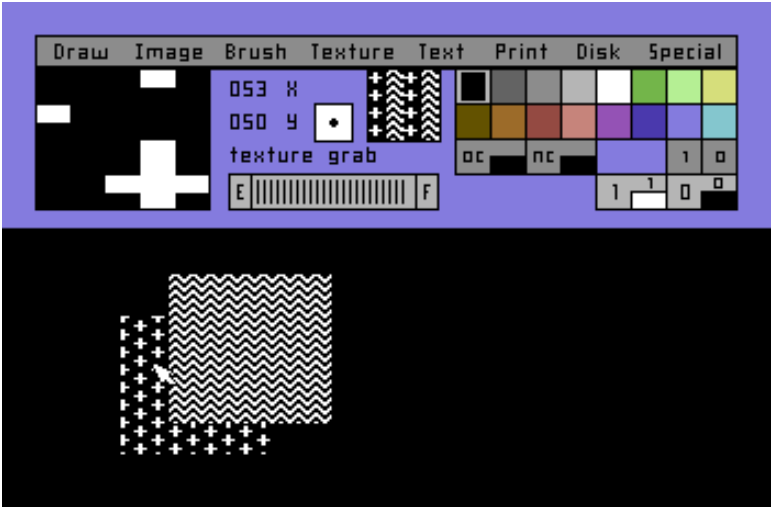
Clear the screen
Select Brush 5
Using Texture 10 and Texture 7, draw two over-lapping rectangles.



Select Texture 6
Select Texture Grab

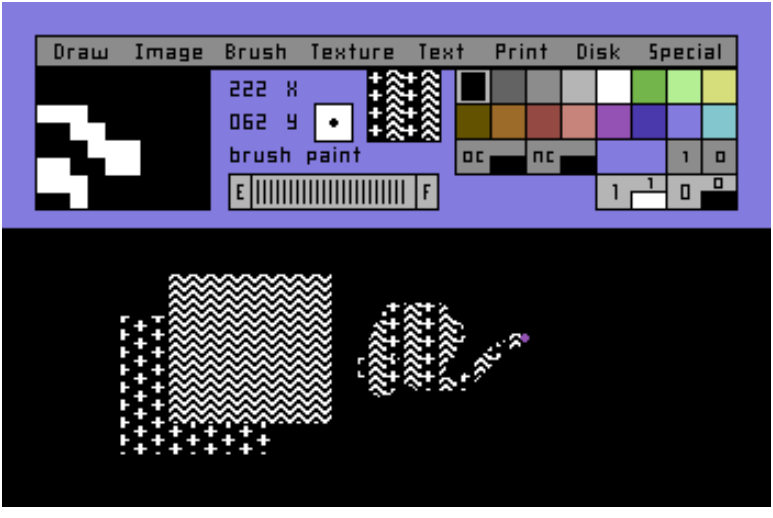


Now enter the screen
Move the cursor over the section where the two textures overlap and press Fire.



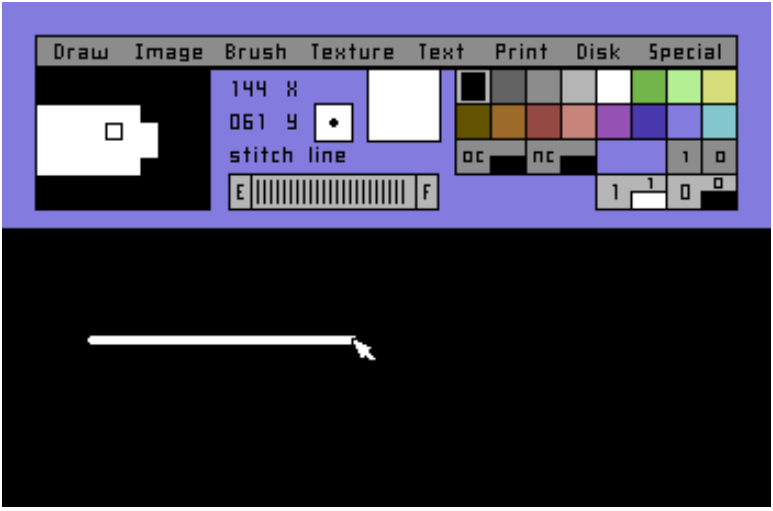
The Texture window will change – and you can select the texture you want by holding down Fire and moving the cursor.
Returning to the panel will fix the texture.
Now return to the panel and select Brush Paint.

When you paint you will see the new texture displayed in the Texture Window being painted.
>CAUTION! The old texture will now be destroyed.

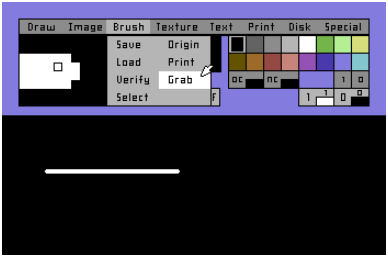


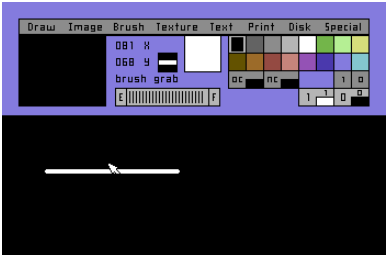
Grabbing a Brush

Clear the screen and select Texture 2, Brush 5.
Select Brush Paint and enter the screen.
Draw a horizontal line across the centre of the screen.



Now return to the panel.
Select Brush 4 and select Brush Grab. Re-enter the screen.

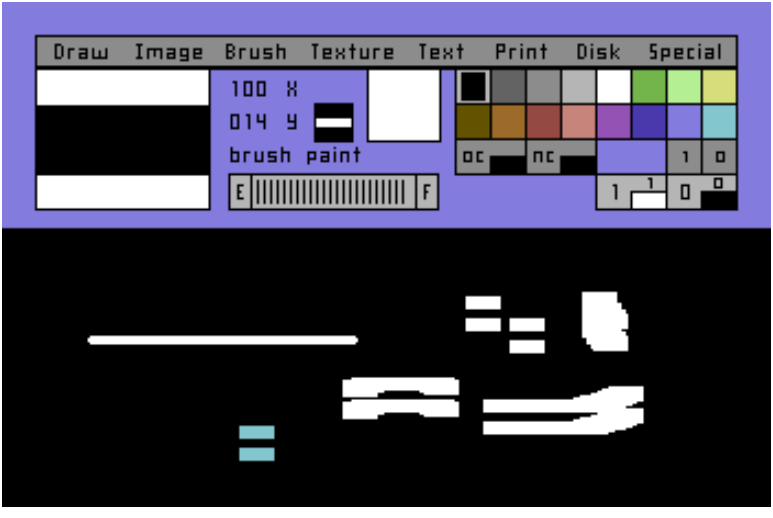




Move the cursor over the horizontal line; press fire and locate the white line over the centre of the Brush Window on the panel.

Returning to the panel will fix the brush.
Select Brush Paint, enter the screen and paint.

You will see that the middle of the texture is not painted when used horizontally and that the brush works in very much the same way as a pen nib.



Now try the brush with some other textures.
>CAUTION! Please note that the old Brush 4 will have been destroyed by the new. You can, however, SAVE your Brushes and Textures to either your Cassette player or disk drive and use them later.
By now you should be proficient enough – and familiar enough – with The Image System and its' concepts and controls to venture off on your own and explore some of the many exciting features of the system.

CRL Group PLC, CRL House, 9 Kings Yard, Carpenters Road, London, E15 2HD