

The Artist Package For The Screens 5, 7 and 8

Manual



H. S. H.

COMPUTER

FINAL GRAPHICS V 1.0

USER MANUAL

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First printing July 1989
Design, layout, H.S.H. Publications
Printed by Rave
West Germany

D-1715 Davensberg.

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## H.S.H. FINAL GRAPHICS: The artist Package

An Artist Tool for MSX2 computers.

### INTRODUCTION

The Artist Package contains three powerfull drawing programs:

FINAL GRAPHICS

ICON PAINT SC5

ICON PAINT SC8

FINAL GRAPHICS being the main program and the most advanced of them all.

FINAL GRAPHICS provides a bit maped graphic mode screen of 512x212 dots, with 16 colours from a palette of 512 (BASIC's screen 7). Best suited for very high quality drawings.

ICON PAINT SC5 provides a bit maped graphic mode screen of 256x212 dots, with 16 colours from a palette of 512 (BASIC's screen 5). Best suited for games screens.

ICON PAINT SC8 provides a bit maped graphic mode screen of 256x212 with 256 colours on the screen at the same time (BASIC's screen 8). Best suited for digitised pictures and very colourful drawings.

These programs help you create art that suits your needs. Whether you are creating flow charts or freehand illustrations, you will find just the tools you need on any of the programs. All of them include special commands such as Zoom, Copy, Enlarge, Reduce, to make it easy to enhance your work. You can even transfer and merge different pictures for easy alteration and enhancement.

You needn't memorize complex commands or instructions. With H.S.H.'s FINAL GRAPHICS you can create art as quickly as you can point with a mouse or press a key.

This guide shows you how to get started with FINAL GRAPHICS or ICON PAINT and provides a quick reference guide to the programs tools, colours and commands. Once you understand these basics, you'll be able to experiment on your own.

The package contains some very high quality, drawn, demonstration pictures. These are on the programme disk in compressed form.

This is a full-featured drawing program, with pull down menus and it allows you to create detailed multicolour pictures using a mouse connected to the joystick port A.

## SOME DEFINITIONS

The following definitions may be helpful as you begin to use the program.

- \* The 'menu bar' contains the names of Final Graphics command menus.
- \* The 'pointer' is the indicator you use to select menus, commands, tools and colours. The pointer changes colour whenever you pick up a new colour. The pointer will get both colours: the foreground and the background colour.
- \* The term 'drag' means to press the left mouse button while moving the mouse.
- \* The term 'click' means to move the pointer onto an icon or menu and to press the left mouse button.
- \* The term 'mark' means to click the left button at the upper/left corner and drag the mouse to the right and down until the whole area to be marked is inside the box. Don't forget to release the button.

## MAKING A WORK DISK

If you are using a two-drive system, make a work disk for your Final Graphics rogram before beginning your drawing session. You will be able to store several art pictures on this work disk far more than you could on a disk containing other files. To create a work disk proceed as follows:

- [1] Turn on the computer
- [2] Put a blank disk in drive B and format it with the command \_\_FORMAT.
- [3] Put the original Final Graphics disk in drive A and run the SET-UP program, by selecting SET-UP from the main menu and follow the instructions.
- It is better to make a work disk for each of the three art programs.
- If you are using a single-drive system follow the same instructions but swap the disks as required.

## STARTING FINAL GRAPHICS V1.0

- [1] Turn on your computer and drive.
- [2] Insert your work disc in drive A.
- [3] Reset the computer. The program loads and runs automatically.
- [4] If your computer is provided with the manufacturer's builtin software, then terminate that software first, and from BASIC type RUN"AUTOEXEC. BAS".

### SELECTING A TOOL AND USING THE MOUSE

To modify or to create your artwork, pick up a drawing tool from the Tools menu at the top of the screen, and use it on your picture by dragging the mouse, that is click the left button while moving the mouse.

- [1] If the menu bar isn't on the screen then press the right mouse button.
- [2] Move the pointer onto the Tools title and click the mouse button.
- [3] The Tools menu will be displayed.
- [4] Move the pointer onto a drawing tool, and click the item currently highlighted.
- [5] Drag the pointer to draw using the chosen tool. This method will be used on all the programs.

## SPARE and UNDO: F2 and F1 keys.

There are two commands that are accessed through the keyboard, the UNDO and the SPARE commands. The video RAM of the MSX2 computers allows us to have from 2 to 4 full graphic screens in memory. In Final Graphics only two screens are used, one is the working screen and the second is the spare screen. Each time you select a menu, your picture is saved on that spare screen. The F1 key restores your picture by copying the spare screen onto the working screen. The F2 key makes a copy of your working screen on the spare screen while in draw mode, this is usefull before trying something difficult, or after a few minutes or hours of hard work.

TOOLS and MENU SUMMARY.

This chapter describes the functions of H.S.H.'s Final Graphics Tools and Menus.

1.- FILE MENU > LOAD PICTURE

SAVE PICTURE

MERGE PICTURE

SAVE BLOCK

PICTURE DUMP

BLOCK DUMP

FAST EPSON DUMP

FAST MSX DUMP

COMPRESS PICTURE

The program will use its own extensions for the files. Don't type an extension when loading or saving pictures. The extensions used are:

EXPAND PICTURE

- [1] .PIT Used by the commands LOAD and SAVE PICTURE. Denotes a picture that can be loaded from BASIC with the COPY command.
- [2] .COL Used to save the colour file. LOAD, SAVE, COMPRESS and EXPAND will use this extension for the colour file.
- [3] .BLK Denotes a saved Block. SAVE BLOCK.
- [4] .FNT Denotes a Font file. The Font and Text editors use this extension.
- [5] .BSH Denotes a Brush file. The Select Brush and Brush editors use it.
- [6] .CMP Denotes a compressed picture. Used by the Compress and Expand commands.

## SAVING A PICTURE

H.S.H.'s FINAL GRAPHICS has three options for saving your art work or picture, all of them can be selected from the File menu.

- [1] Use the command Save Picture to save a picture and its colour settings, as a file that can be loaded from BASIC with the COPY command.
- [2] Use the command Save Block to save just a part of your picture.
- [3] Use the command Compress to save a whole picture in the compressed format, this will save from 50% to 80% of disk space. This is a special format only available in this program.

#### LOADING A PICTURE

There are also three ways to get a saved picture to the screen:

[1] The LOAD PICTURE will load a picture and its colour settings which has been saved with the SAVE PICTURE command. You may use these pictures on any of your programs by using a program like the following one:

10 SCREEN 7: COLOR 0,0,0: CLS

'set screen 7
'read in colours

20 OPEN "filename. COL" FOR INPUT AS #1

30 FOR I=0 TO 15

40 INPUT#1, A,B,C

50 COLOR = (I, A, B, C)

60 NEXT I

70 CLOSE #1

80 COPY "filename. PIT" TO (0,0),0

'load picture

90 GOTO 90

The MERGE BLOCK is used to merge a saved picture or block with your current picture. The selected file will be loaded and displayed. Mark the block you want to copy onto your current picture, by clicking and dragging until you enclose the area. After marking the block you will see your current picture, move the block where you wanted and click. When releasing the button you will return to the first picture. This operation can be repeated as many times as needed. Click the second button to abort and return to the menu.

This is a very useful tool. You can save drawings with different objects that can be used on many pictures. You can build a whole data base of pictures and merge them when required. For example:

draw a picture including different Christmas objets, like a present box, a tree, Santa Claus, children playing, etc. If you want to create some Christmas post cards you may use some of the objects in them by drawing first the background and them importing the objects from the file. The same could be done with animals, birds, clouds, etc..

[3] The EXPAND PICTURE will load a compressed picture. All the demo pictures have been saved in a compressed format to save disk space.

LOAD PICTURE :	< Title.
	and dilu payon mend and dalku annin
	< Here you will write the filename.
Directory:	< Click here to get a new directory.
N:	<pre>( Click on this 'N' to scroll the   files.(N = next)</pre>
	< Click over any filename to select it.

The program doesn't use the B drive directly. To access the second drive do it by writting the filename starting with 'B:'. You don't need to position the pointer to type a name, just type it and it will be written in the right place. Use the [BS] key to correct errors and [RETURN] to finish.

If you posses an H.S.H. MSX Hard Disk System, you can also access this by simply carying out the same procedure as above.

The following Hard Disk Systems are available for the MSX from H.S.H.:

# USING THE DUMP ROUTINES:

H.S.H.'s Final Graphics was designed to be used with MSX and Epson compatible printers, there are three options for dumping screens on a Epson printer and just one for the MSX printers.

- [1] PICTURE DUMP: this option will print the whole screen on a Epson compatible printer. This is a black and white dump with 64 shades.
- [2] BLOCK DUMP: The same as above but it will print only the marked block.
- [3] FAST EPSON DUMP: This option prints the whole screen in a reduced format. It uses a special file EPS-DUMP.BIN. You may use this file on your own program. Use it with BLOAD"EPS-DUMP.BIN", R.
- [4] FAST MSX DUMP: This is the same routine as above, but for any standard MSX printer. It uses the file MSX-DUMP.BIN. You may also use this file in any other program with BLOAD" MSX-DUMP.BIN", R.

By including these print routines, H.S.H. has made some useful and powerful 'tools' available to the MSX User which for a long time have been the cause of some 'head ache'. You are now able to use these routines as 'Stand alone programmes' or incorporate them into your own programes, enabling you to get HARD COPIES of the appropriate screens quickly and easily.

2. - THE TOOLS MENU >

TEXT

BROAD PEN PENCIL ERASER LINES

CONTINUED LINES

TRIANGLE RAYS RECTANGLE FILLED BOX INVERTED BOX

VERTICAL BARS HORIZONTAL BARS

BRUSH DOTED BOX AIR BRUSH PAINT/FILL CIRCLE

FILLED CIRCLE

These are the available tools. The colour used by these tools is the foreground colour, but some of them will use also the background colour. Both colours can be seen on the pointer, and they can be selected from the palette menu.

TEXT:

Use this tool to write text onto the screen.

BROAD PEN:

This tool lets you draw dotted freehand with any of the 12 shapes (selected in the 'PEN SHAPE'). Use it by OPTIONS menu:

dragging the mouse.

PENCIL:

Draws a thin line.

ERASER:

Erases the features of a drawing along the pointer path.

LINES:

Draws a straight line.

CONTINUED LINES: Draws continued straight lines.

Draws a triangle.

Draws stright lines with the same starting point.

parahousestoplest sex duck a erid on

RECTANGLE:

Draws a box with square corners.

reconlected on (Toronth used theo Robins)

FILLED BOX:

Draws a box filled with the foreground colour.

INVERTED BOX:

same as above, but it does an XOR logical operation on the colours. If you want to create a negative of your picture just select the white colour and use this tool.

VERTICAL BARS:

Draws a box filled with vertical bars. It uses both colours, the foreground colour and the background colour.

HORIZONTAL BARS:

Draws a box filled with horizontal bars.

BRUSH:

Paints in the current pattern. The pattern can be selected from the OPTIONS menu. The brushes are include in the file BRUSHES. BSH, and they can be edited with the brush editor. You can have as many files of brushes as you want.

DOTTED BOX:

Draws a box filled with dots of the foreground and background colours. Very useful to create new colours. By using this tool you can simulate 512 colours on the screen at the same time.

AIR BRUSH:

Sprays paint in the current colours. If no colour is selectes from the options menu, the foreground colour is used.

PAINT/FILL:

Fills an enclosed area with the foreground colour. The area must be drawn in the background colour.

CIRCLE:

Draws a circle or an ellipse.

FILLED CIRCLE:

Draws a circle filled with the foreground colour.

4. - PALETTE MENU >

SELECT ADJUST RGB LOAD SAVE RESET SAVE PREFERENCES ANIMATE

SELECT and

ADJUST RGB:

Both access the same window. From this window you can select any of the 16 colours or adjust their RGB value to suit you picture. This gives you access to the 512 colours of the MSX2 palette. To adjust the RGB of a colour move the pointer onto the colour and click. Then move the pointer onto one of the slides and drag the mouse up or down. To close this window press the right button of the mouse. SAVE: Saves your current RGB settings on a disk file of

your choice.

Loads a saves colour files. LOAD:

Resets the colours to the default Final Graphics

values.

Saves your colour preferences in a COLOR. DAT SAVE PREF.:

file, which will be used when starting the

program again.

ANIMATE: Produces the effect of movement by changing colours. First select up to 15 colours. Then set

the speed by clicking over the + or - and then click onto OK to start. Press the right button to abort the colour animation (keep the button down

until it stops).

5. - OPTIONS > SELECT BRUSH

2D GRID:

PEN SHAPE LINE WIDTHS

MIRROR 2D GRID 3D GRID

SPRAY COLOURS

SELECT BRUSH: Click over this command. Give the filename to be loaded. Move the pointer over the desired brush,

and click. This will be the current brush to be used with the brush tool. This tool will be

automatically selected when a brish is selected.

PEN SHAPE: Selects the pen shape to be used with the broad

LINE WIDTHS: Selects the line widths to be used with the line tool.

MIRROR: Selects the symmetry to be used with the pencil

tool.

This is a regular pattern of lines on your screen. The first time you access this option you will turn the grid on, the next, will turn it off. Why and how to use it? The reason of this grid is to be able to draw difficult pictures on your screen from photos or paper drawings. get a transparent plast and draw a grid on it (for example 0,5 cm each block). Then get picture you want to draw on your screen and the grid on it. Count how many vertical squares you need and create the grid on your screen. the pencil to sketch your drawing, remove the grid and then add the details and colour.

3D GRID:

Draws a 3D grid to help you draw 3D perspectives like houses, trees, people, mountains, etc. After selecting this option click where you want the origin of your perspective to be. Again just sketch your drawing with the pencil, then remove the grid (by accessing the same option) and then add the details and colour.

SPRAY COLOURS: This option lets you select up to 15 colours and three sizes to be used with the AIR BRUSH tools. Select the colours by clicking on them and select the size of the spray.

6. - SPECIAL >

ENLARGE/REDUCE ZOOM SCROLL MOVE COPY/PASTE BLOCK COPY/PASTE SHAPE DISTORT VERTICAL DISTORT HORIZONTAL ROTATE LEFT ROTATE RIGHT FLIP VERTICAL FLIP HORIZONTAL SWAP COLOURS

Under the name SPECIAL you will find all the block functions. You may move, copy, distort and flip in all the ways you wish any part of your picture. Try them to create titles from a simple text (text tool), enlarge it, distort it, etc.

ENLARGE/REDUCE:

Mark the block to be enlarged/reduced. Move to where you want the copy and generate a box of the size you want the copy. original picture (block) will be enlarged or reduced according to the size of the second box, no matter how many times.

ZOOM:

Allows part of the picture to be enlarged over the whole screen for correction, fine drawing or adding detail. The UNDO at the bottom of the zoom window is to undo the changes you may have done. To zoom a part of the screen move the box to the position where you want to work, and click. Click the second button to zoom another part of your picture.

SCROLL:

Slides the picture up, down, left or right. The scroll is rotational, this means any part of the picture that moves off the edges of the screen will appear at the other edge.

MOVE

Moves a block from one area to another.

COPY/PASTE:

Uses any part of the picture as a brush. Use it to copy a block, to create special effects, or to create a big brush.

COPY/PASTE SHAPE:

Lets you copy or use any part of the screen as a non rectangular brush.

DISTORT VERTICAL/HORIZONTAL:

Copies a marked block and lets you distort it by moving the mouse up/down or left/right.

ROTATE RIGHT/LEFT:

Copies and rotates a marked block.

FLIP VERTICAL/HORIZONTAL:

Flips a marked block. (Doesn't copy the block)

SWAP COLOURS:

Swaps the background with the foreground of the marked block.

7. - EDITORS > FONT EDITOR
TEXT EDITOR
BRUSH EDITOR
3D EDITOR

After selecting any of the editors the editors program will be loaded, and a new main menu will appear.

FONT EDITOR : TEXT EDITOR : BRUSH EDITOR : 3D EDITOR : FINAL-GR.

FONT EDITOR:

Clicking over this menu will first ask you for a filename. Then a window showing the font editor window will appear. This editor is for creating special letters for titles, thus it uses only the upper case letters. It allows you to define 32 characters of a size of 32x16 and in 16 colours. The characters are the ASCII codes from 65 to 95, these are the capital letters and the characters @[] ' ^.

To start editing press the character you want to edit. The character will be enlarged (if it was defined already) and then uses the mouse to drag the colours and shape. When all the characters

are ready click on the SAVE icon to save your font file to disk. To quit just press the right button of the mouse.

TEXT EDITOR:

This is an editor to create titles, and includes a few editing functions. First load the font file, then just type the characters at the pointer position. The icons at the left are self explaining and use them by moving the pointer onto them and clicking the left button of the mouse. The SAVE TO DISK option will save the marked area as a TEXT. BLK file, this is meant as a momentary file.

Here are some tips of how to produce a title:

- [1] Before selecting the editors, clear the screen from the Final Graphics main program, selecting the transparent colour.
- [2] Load a font file.
- [3] Write the text. Don't worry about how it looks on the screen.
  - [4] Copy the text on to your screen, by selecting COPY TO DRAWING.
  - [5] Quit the editor by pressing the right button of the mouse.
  - [6] Return to Final Graphics.
  - [7] Use the enlarge/reduce, distort, zoom commands and other tools to enhance the title.
  - [8] Save the title as a block.
  - [9] Load your picture.
  - [10] Merge your title using any of the logical options. Try different logical operations and see the results. Normally you will use the TPSET. See your computers manual for details about these logical operators.

THE BRUSH EDITOR: Enter the filename. The window is very similar to the font editor. Move the pointer onto a blank space of the bottom of the screen (to create a new brush) or onto a brush (to modify it) and click the left button. The brush will be enlarged and now you a ready to edit it. When ready with all the brushes, just move the pointer onto the SAVE icon and click it. The brushes will be saved under the filename you selected.

The brushes are 32x16. If you need bigger brushes use the COPY/PASTE of the Final Graphics program:

THE 3D EDITOR: With this editor you may edit figures that are circular in shape, like balls, bottles, glasses, wheels, cups, etc. To edit the shape click on the DRAW 2D SHAPE icon. Drag and click the mouse to draw the lines of the shape of your object. Press the right button when ready and the 3D object will be drawn. This will be a wire frame object that you can save to disk (3D-SAVED.BLK), or copied to your drawing, rotated through any angle, drawed again, etc, just by using the icons at the left.

FINAL-GR.: Click on this menu to return to the Final Graphics main program.

ICON PAIRT ACCT The palette has the 16 colours and the

. no dittor self species and objects and be policy to the resident.

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These two programs are, two short but, powerful programs to be used in the other screen modes, screen 5 and screen 8. The user interface is completely different from that of Final Graphics. The user interface is icon orientated. The pictures can be also saved and loaded as in Final-Gr, but they are saved as a binary file. This means that the pictures can be loaded later just by typing: BLOAD"filename", S.

Again, don't use extensions when naming files. The programs will use their own extensions. ICON PAINT SC5 will use '.SC5' and ICON PAINT SC8 will use '.SC8'. As you may understand SC5 refers to SCREEN 5 and SC8 to SCREEN 8.

The icons are the same in both programs, and the only difference occurs in the PALETTE menu.

You access the menus by clicking the right button of the mouse. The menus appear at the cursor position, and the menus disappear when the pointer leaves the menu area. This makes the interface very fast and easy to use.

#### 1. - PALETTE MENU.

ICON PAINT SC5:

The palette has the 16 colours and the possibility to adjust their RGB values, to fully use the 512 MSX2 palette. To select a colour just click on it. To adjust the RGB just click on 'R', 'G or 'B' and the values and colour will change. The icon at the bottom is to clear the screen.

lopy the text of to your screen by subscribe

ICON PAINT SC8:

The palette shows only 64 of the 256 colours available. The icon with a down arrow shape is to display the next group of 64 colours. The other icon is to clear the screen.

The colours are displayed in four groups, each one containing a different quantity or level of BLUE. This makes selection of colours very easy.

## 2. - THE TOOLS MENU.

The tools menu on both programs are the same. here is a complete description of all of them.

The icons are described from left to right and from top to bottom.

PENCIL: Draws a thin line.

DOTTED PEN: Draws a dotted line.

PENCIL +XY MIRROR: Draws a thin line with XY symmetry.

PENCIL + X MIRROR: Draws a thin line with X symmetry.

PENCIL + Y MIRROR: Draws a thin line with Y symmetry.

LINE: Draws a strait line.

CONNECTED LINE: Draws a strait line and the end point becomes

the start point of the next line.

RAYS: Draws strait lines with the same start point.

BOX: Draws a box.

FILLED BOX: Draws a box filled with the foreground

colour.

CIRCLE: Draws a circle or an ellipse.

FILLED CIRCLE: Draws a circle or and ellipse filled with the

foreground colour.

.PAINT/FILL: Fills an enclosed area (drawn in the back-

ground colour) with the foreground colour.

BRUSH: Paints in the current colour.

AIR BRUSH: Sprays paint in both colours, foreground and

background.

ZOOM: Zoom in on the picture at the point marked.

TEXT: Writes text on the picture.

EXCHANGE COLOURS: Exchange the background colour with the fore-

ground colour on the marked area.

3. - THE BLOCK MENU.

COPY BLOCK: Copies the marked block. Can be used as a

brush.

MOVE BLOCK: Move the marked area.

COPY SHAPE: Copies a nonrectangular area. Can be used as

a brush.

DISTORT HORIZONTAL: Copies and distorts the marked block. The

distortion is controlled by the mouse.

DISTORT VERTICAL: Copies and distorts the marked block

vertically.

ROTATE RIGHT: Copies and rotates the marked block.

ROTATE LEFT: Copies and rotates the marked block.

FLIP VERTICAL: Flips vertically the marked area.

FLIP HORIZONTAL: Flips horizontally the marked area.

ENLARGE/REDUCE: Copies, enlarges or reduces the marked area

depending on the the size of the second

marked block.

4. - THE FILE MENU.

DISK: Allows LOAD, SAVE and MERGE pictures.

PRINTER: Dumps the screen on a Epson printer.

DIGITISE: Digitise a picture.

END: Stops the program.

Both programs ICON PAINT SC5 and SC8 have the UNDO key, the F1 key. ICON PAINT SC5 can work with two screens at the same time. The screens are swapped with the F2 key.

If you want to dump any picture from these two programs on a MSX printer, use the following program:

10 SCREEN 5 'or SCREEN 8

20 BLOAD"filename. SC5", S 'or filename. SC8

30 BLOAD" MSX-DUMP. BIN", R 'Load and run the MSX dump routine

40 END

If you have doubts or trouble with any part of these programs please drop us a line, we'll be very glad to help you:

H.S.H. Computervertrieb GmbH Romberg Str. 16 D - 4715 Davensberg West Germany

Tel: 02593-6168 Fax: 02593-7234

Programmed by: J. Salas The programme has been provided in good faith, however, should H.S.H. Computervertrieb GmbH find updating necessary, by filling in the coupon below and returning it to H.S.H., we will notify you of any such updates and offer them to you at a special price.

SURNAME	
FIRST NAME	
ADDRESS	
COUNTRY	
DATE OF PURCHASE:	
INVOICE NO. :	

