ARTWORX V1.1

Published in the UK by
THE POWER HOUSE

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*NovelSoft wishes to thank W.E. O'Neill and Debbie Shaggi for their contributions to this program.
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DEFINITION OF TERMS

ATTRIBUTE:
Attributes modify the appearance of the screen by changing specific areas. They are known for applying information to the screen (the arrow in the case of ARTWORX).

CURSOR:
A screen reference marker, showing the current known position for application to the screen.

FONT:
A generic term describing a specific character set.

GREY SCALE:
When using proper software, a full-sized dot-matrix printer can produce a copy of the screen using varying dot densities (shades) to represent the screen colours. This method of reproduction is known as "GREYSCALE".

INTERFACE:
A hardware device which allows the computer to communicate (hook up with) a specific peripheral device; e.g., printer, modem, disk drive, etc.

MENU:
A list of options on the screen allowing control and selection of the program features.

PIXEL:
The smallest addressable dot on the screen. This can be seen using the DOT feature of ARTWORX.

RAM:
Stands for "RANDOM ACCESS MEMORY" and is the amount of free space your computer has for its programs.

ROM:
Stands for "READ ONLY MEMORY" and is the brain of your computer. This section of memory cannot be written to or changed by the user. The ROM contains all instructions needed to tell the computer what to do.

SCREEN:
This is the Selection menu (below the K key) which tells the computer to save the screen as a byte file. Note that this command has no significance for the ARTWORX program. The picture is sometimes referred to as a "SCREENS".

WINDOW:
A variable-sized box, used to define an area on the screen.

INSTALLING THE PROGRAM

The cassette contains programs in this order:

- ARTWORX V1.1
- ZXGALLERY
- Examples: ART1 to ART5

To load ARTWORX, simply type "LOAD" and press ENTER. In a few minutes, a splash will notify you that the program has finished.

NOTE: All references to this manual are for joystick use. If you are using keyboard control, then simply substitute the cursor keys (unshifted 5, 6, 7, 8) for the joystick and the O key for the fire button.

***WARNING***

ARTWORX uses a unique method for accessing the menu. It remains all selections intact at the pixel level (unshifted 5, 6, 7, 8) for the joystick and the O key for the fire button.

You can use it to add BRIGHT, FLASH, or PAPER colour to a local area without disturbing or altering the pixels that are already set in that area. This copying feature is relatively easy to grasp at first, but can feel free to experiment. Refer to the ATTR section of this manual for a more thorough understanding of the attributes.

SPRAY
Provides a spray paint simulation which is active while the fire button is held down. Not all, but some, of the features to the screen increase in rapid succession. Bear this in mind at all times. If you get overly anxious while tagging a feature on, you may call the menu accidentally by pressing the fire button. You can cause "button bounce" and this too can cause accidental menu calls.

ZOOM
Provides six different brushes (the BRUSH menu) for toggling individual pixels. At the point you wish to use the menu, simply substitute the cursor keys for the joystick and press the fire button. The brush menu will appear when the selection box is already in the upper-left corner, surrounding the VIEW feature. The menu will always come down with the selection box in the upper-left corner.

Features are selected by moving the box to the feature you wish to select and pressing the fire button. In all cases, use the joystick now, to get a feel for moving this box around the screen. All features of ARTWORX are controlled with the joystick. The only time you need to use the keyboard is for text entry.

ARTWORX is so friendly and natural to use that there is really only one rule for the novice user to remember: The menu is called down by rapidly pressing the fire button twice. Well, now we're ready to experiment a little! Now, remember that brush we selected? Well, it's still there, waiting to be used. Simply hold the fire button down and start moving the cursor. The brush is active only while the fire button is held down. Now, let's select a different brush. Press the fire button rapidly, two times, and the menu will come down.

This time, select the second BRUSH and draw a small enclosed shape. Make sure that there are no gaps around the edges of the shape. Now call the menu down and select FILL. Move the arrow inside the shape and press the fire button. Presto!

You can now toggle individual pixels on or off with the fire button. When you're finished editing, press the fire button twice and the image will return to its original size in its new edited form.

COPY:
Works the same as MOVE except that the original image remains on the screen, thus "duplicating" the image. Note that COPY can be used to change the colour of the image. Simply select UNDO and press enter to remove the cursor from the screen.

You will use this cursor to apply all features to the screen. Experiment with them to find out which you like. Note that this cursor has an automatic speed control. At first, it moves slowly and controllable. But, the longer you hold the stick in one direction, the faster the cursor will go! The speed will reset to slow when the screen returns to the rest position (cursor stopped).

This "intelligent" cursor is very handy indeed. It's smart enough to know that if you're doing a lot of starts and stops with the joystick, then you probably want a slow speed for that work. If you're holding the stick in one direction for more than a few seconds, then it's a fair bet that you want to cover a large portion of the screen, so the speed increases.

Note, now that brush we selected? Well, it's still there, waiting to be used. Simply hold the fire button down and start moving the cursor. The brush is active only while the fire button is held down. Now, let's select a different brush. Press the fire button rapidly, two times, and the menu will come down.

This time, select the second BRUSH and draw a small enclosed shape. Make sure that there are no gaps around the edges of the shape. Now call the menu down and select FILL. Move the arrow inside the shape and press the fire button. Presto!
After defining the window, the original image is erased and is reproduced using a magnification factor of two. The image can be reduced repeatedly. Note that if the image being magnified or "information loss" will be the image would go off the screen when rotated, the original image is erased and is reproduced using a reduction factor of 90 degrees clockwise, and reproduced. The image can be rotated repeatedly. If the image is erased, turned and is reproduced. The image can be rotated repeatedly. After defining the window, the original image is erased and is reproduced using a magnification factor of two. The image can be reduced repeatedly. Note that if the image being magnified or "information loss" will be the image would go off the screen when rotated, the original image is erased and is reproduced using a reduction factor of 90 degrees clockwise, and reproduced. After defining the window, the original image is erased and is reproduced using a magnification factor of two. The image can be reduced repeatedly. Note that if the image being magnified or "information loss" will be the image would go off the screen when rotated, the original image is erased and is reproduced using a reduction factor of 90 degrees clockwise, and reproduced. After defining the window, the original image is erased and is reproduced using a magnification factor of two. The image can be reduced repeatedly. Note that if the image being magnified or "information loss" will be the image would go off the screen when rotated, the original image is erased and is reproduced using a reduction factor of 90 degrees clockwise, and reproduced. After defining the window, the original image is erased and is reproduced using a magnification factor of two. The image can be reduced repeatedly. Note that if the image being magnified or "information loss" will be the image would go off the screen when rotated, the original image is erased and is reproduced using a reduction factor of 90 degrees clockwise, and reproduced.
There is still a rough, blocky mess of green on the screen but since it is PAPER colour, it remains in the background and the INK colours are always in the foreground. In fact, if you change the PAPER colour back to white and erase the INK, you will see this to be true.

**SPECIAL NOTE ABOUT INVERSE**

You may have noticed that "erase" features are conspicuous by their absence. Quite the opposite are three hidden features: entered at the keyboard. CAPS SHIFT and CAPS LOCK work as normal and DELETE provides a backspace. The text will automatically wrap around at the screen edge but will not justify.

When you are finished entering your text, press ENTER to return to the beginning of the feature. Remember that all ATTR settings are applicable to the text, so experiment. Note that the text is applied to the screen in attribute block locations but you may shift the position of the text anywhere you like using MOVE. Use GRID to help you plan where your text will go initially.

Also note that you are not limited to the four fonts which are provided. The text can be enhanced in many different ways with creative usage of BIG, SMALL, ATTR, etc. Some distortion in the lower case ITALIC was unavoidable, so certain letters may seem a little unusual. This is due to the limitations of the computer.

### APPENDIX A

**TIPS FOR GETTING PROFESSIONAL RESULTS**

1. You will find it far easier and more natural to complete the outline of your drawing before adding any attributes (colour, BRIGHT, etc.).
2. Use ZOOM when creating small detailed images.
3. Fast and excellent results can be achieved by first tracing a picture or photograph onto clear acetate and then taping it to the T.V. or monitor.
4. When using the WINDOW routines, note that the boundaries for movement around the screen are determined by the window size and not the shape of the window.
5. Different hues or tones of colour can be created by manually filling an area with individual dots, leaving a one pixel space between each. This is best done using the ZOOM feature.
6. Use OVER to apply text to an area which already has pixels set, e.g., a filled shape.
7. Use OVER with some of the larger brushes for a very interesting effect. This is caused by the brush half erasing itself while it is being drawn.
8. Use OVER with SPRAY to erase in a spray pattern.

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**FILE**

LOAD and SAVE

This category provides I/O (input/output) for saving and loading your pictures to tape or Microdrive. Just answer the prompts and you can’t go wrong! Note that the maximum length for a filename is ten characters. ARTWORX V1.1 supports both tape and Microdrive. The five sample pictures included with ARTWORX can be loaded into either GALLERY or ARTWORX. These samples are loaded immediately after ZXGALLERY.

If a tape error is encountered during loading or saving, you will receive a flashing warning and the program will restart with no loss of picture information.

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**WARNING**

Microdrive errors are not trapped. If you get a Microdrive error during loading or saving, enter GOTO 0 to restart the program. DO NOT USE RUN OR YOU WILL LOSE YOUR PICTURE!

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### APPENDIX B

**USING THE PICTURES IN YOUR OWN PROGRAMS**

The pictures created with ARTWORX can be used as loading screens for your own programs. To load them into the computer when ARTWORX is not present, use the SCREEN$ (extended mode/SYM-BOL SHIFT K) command as follows:

```
LOAD "name" SCREEN$
```

Follow the example below to create a suitable loader:

```plaintext
10 LOAD "name" SCREEN
20 LOAD "your program"
```

Save the loader on the tape, then the picture, then your program. Note that ARTWORX saves the pictures as code, but the pictures can be loaded as SCREEN$.

You will notice that when you load a SCREEN$ into the computer, you are able to watch the picture being assembled as it loads. It is sometimes desirable to reveal the picture to the viewer after it has loaded. One easy way to do this is to set the INK and PAPER colours to the same value while the picture is loading. If this is done, the picture will not be revealed until the last few hundred bytes of the SCREEN$ (the attribute file) are loading.