



ProArtisan24

User Guide

ProAction

3QD
DEVELOPMENTS LTD

APDL

ProArtisan24

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Introduction

ProArtisan 24 is a 24 bit **Art** and **Painting** package for the Acorn Risc PC range. It encourages experimentation and allows artistic expression through the wide range of tools available that mimic natural media. It also provides sophisticated image manipulation facilities.

A great deal of effort has gone into creating a user interface that gives access to the power of ProArtisan 24 without making it complex to use. Those of you used to ProArtisan 2 will quickly adapt to ProArtisan 24.

This section contains information that you will need to know in order to complete the tutorials. We advise that you skip it now and refer back to this chapter if you get stuck with the tutorials.

Typographic conventions

- Mouse buttons or keys on the keyboard appear in Corpus font: Select
- Special terms or jargon appear in italics when first introduced: '*Frisket...*'
- Instructions to press a key on the keyboard are shown in Corpus font eg Return. This means press the Return key on the keyboard.
- Menu options that may be selected are in Homerton font: 'Click on Edit to...' means choose the option called Edit from a menu.
- Menu options which lead to sub-menus have an arrow after them: Subset ↵
- Options in dialogue boxes or options in windows are in Homerton font: Initialise
- Something important always appears in **bold**.

Conventions used in this guide

We use the standard Acorn conventions for the mouse buttons:

<i>Select</i>	is the left button, and the most commonly used.
<i>Menu</i>	is the middle button and is used primarily for opening menus.
<i>Adjust</i>	is the right mouse button.

It is assumed that you are familiar with the RISC OS Desktop environment.

Hard disc installation

This procedure is standard RISC OS. Select your preferred directory on the hard disc for the **ProArtisan 24** application, and then drag the ProArtisan 24 icon to that directory display.

If you wish to use ProArtisan 24 in conjunction with other programs it may be sensible to have all of these applications in the same directory.

You have now completed installation of ProArtisan 24 on the hard disc.

Note: We do not advise attempting to run ProArtisan 24 from a floppy drive.

Technical Information

ProArtisan 24 is a 16.7 million colour painting package. These colours are held as 24 bit values. There is also a 256 level Frisket (or mask). Images created in ProArtisan 24 can be any size provided that your machine has enough memory. Pictures are ALWAYS stored as 24 bit images (16.7 million colours) - we make no compromise for 15 bit and 8 bit modes.

You can work in other modes if you wish but internally your images are always held at high resolution and in 24 bit colour, even when you work in a low resolution or low colour mode. When you return to a higher resolution mode the image is restored to the correct resolution. In other words, changing mode does NOT convert the image to that mode and potentially lose information. The image is only converted to another mode at save time and only then if you instruct ProArtisan 24 to save in another mode.

Warning: Editing images when not in a 24 bit 16.7 million colour mode may cause changes that are not apparent until you return to a 16.7 million colour mode.

2. Getting Started

What do I need ?

To run ProArtisan 24 you need an Acorn Risc PC fitted with RISC OS 3.5 or later, a minimum of 4 megabytes of RAM and 1 megabyte of VRAM. Like most applications ProArtisan 24 will benefit from having more RAM and VRAM. Our suggested system would be 2 megabytes of VRAM and 8 megabytes of RAM. Having 2 megabytes of VRAM is the most important upgrade as this will allow you to use an 800 * 600 resolution with 16.7 million colours. Make this your first priority. If you want advice on obtaining VRAM please call us on 01606 48511.

Any of the monitors supplied with the Risc PC will support the 16.7 million colour mode at 800 * 600 resolution but we can attest to the quality of the 17 inch monitor and its usefulness.

Running ProArtisan 24



Run ProArtisan 24 by double clicking on the !ProArt24 icon in the directory display. The ProArtisan 24 icon will then appear on the icon bar. To open a canvas click on the ProArtisan 24 icon with **Select**. This opens the **Create** window allowing you to select a canvas size.

The ProArtisan 24 Philosophy

ProArtisan 24 is a very sophisticated art program with many image processing facilities added. This provides you with a very flexible environment in which to explore your talents.

The ProArtisan 24 tools are designed in such a way as to be used in conjunction with other tools. For example our rather unique Emboss feature can be used with different Blends to provide embossed images in any number of colour ways.

Another major consideration behind the ProArtisan 24 design is that all functions should be carried out quickly so as not to interrupt the creative flow. Probably the slowest tool you will use is the Anti-alias function on a complex picture but even this is quick when compared to other machines.

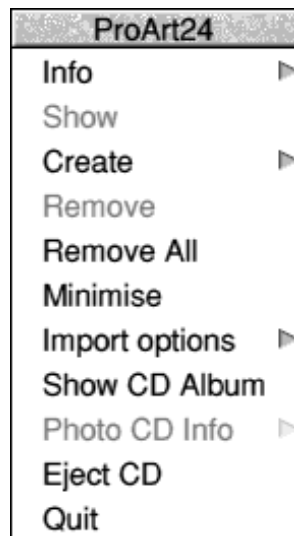
Short Tutorials

We have produced a set of short worked examples to introduce you to ProArtisan 24. These can be found in a separate manual called 'ProArtisan 24 Tutorials'. You do not need to read that manual first but we recommend new users start with the tutorials as this will introduce the features of Pro Artisan 24 more quickly.

3. The Icon Bar Menu

The Icon bar Menu

The first menu to deal with is the Icon Bar Menu. You access this by pressing **Menu** on the mouse whilst the pointer is over the ProArtisan 24 icon on the icon bar.

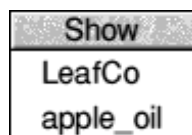


Info

This item contains the details of the authors of the program and its basic function.

Show

This sub menu brings up a list of the images currently loaded in ProArtisan 24. Click on a name to show the image on the desktop. If there are no images loaded or all images are already displayed this item is greyed out.

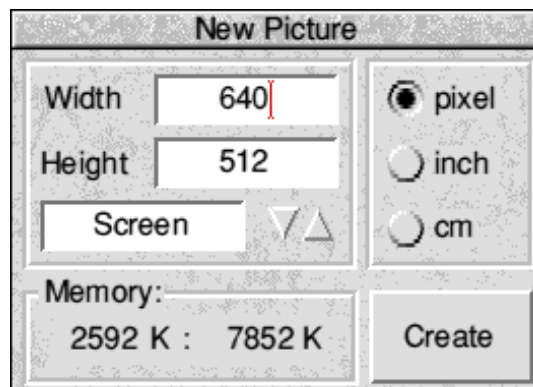


Create

This item leads to a window where you can decide the size that a new canvas will be created at. This dialogue can also be invoked by clicking on the ProArtisan 24 icon on the icon bar.

Canvas units

You can select the units that you wish to work in by clicking on the required button on the right of the window. The options are Pixel, Inch or Centimetre.



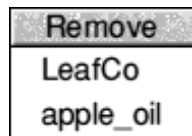
Canvas size

You can set the size of the canvas either by entering the size into the Width and Height boxes, followed by **Return**, or by selecting one of the presets using the arrows either side of the box containing the word **Screen**. If you have cut a sprite into the **Sprite pool** the last item in the list will be **Current** and this takes its size from

the current sprite, as long as it is over 100 pixels square. As you toggle through the list you will note that the size of the canvas and the memory required are also shown. The second memory figure shows the amount of free memory available thus enabling you to see if the required size can be created. To create a canvas click on the **Create** button.

Remove

This sub menu brings up a list of the images currently loaded in ProArtisan 24. Click on a name to remove the image and free the memory. If there are no images present this item is greyed out.



Remove all

Click on this item to remove all images currently loaded in ProArtisan 24. A warning box tells you if images have not been saved. If there are no images present this item is greyed out.

Minimise

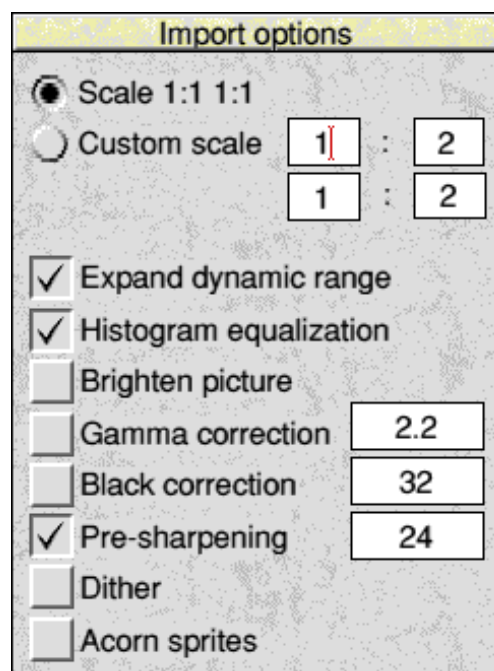
You can only click on this item when no images are loaded. Clicking on it provides you with more memory by removing the **Undo** facility. The removal of the Undo screen means that some of the **Effects** and **Filters** do not work and are greyed out. Some other items work in a slightly different way. We do not advise working in this mode except when absolutely necessary, such as when slightly altering a large image that you do not ordinarily have enough memory for.

If you have used a Frisket you should try to recover the memory from this first by clicking on **Process** → **Remove Frisket**. A Frisket cannot be used when **Minimise** is active.

Import options

ProArtisan 24 can import most file formats that are recognised by ChangeFSI (ie all files recognised by filetype within ChangeFSI). These currently include JPEG, Clear and TIFF files amongst many others. This process requires free space on your hard disc and will fail if there is not enough space available.

The options in this sub menu enable you to select the processing applied to these images when they are imported. See the ChangeFSI section in the Risc OS 3 User Guide for more information. By default all the options are off.



Scale

When this item is selected the image is imported at its normal size.

Custom scale

When this button is selected you can alter the X and Y scaling used when an image is imported. As shown the image will be scaled to half X and half Y dimensions.

Warning: If the result of scaling an image produces an image less than 100 pixels square ProArtisan 24 will not accept this as a canvas and will generate an error.

Expand Dynamic range

This item expands the dynamic range of the image. This means that it expands the colour range to the maximum available.

Histogram equalisation

This item is quite harsh and can often degrade an image. However, it can prove useful on very poor or unusable images or even reveal detail that would otherwise be unseen. This option needs to be tried as it is not always possible to predict the outcome with different images.

Brighten picture

This item slightly brightens an image on loading.

Gamma correction

This item is intended for use when an image is for screen use only. Low values of Gamma (0 to 1) make colours darker and high values of Gamma (above 1) make colours lighter. The default value is 2.2, which is a standard used by the TV industry.

Black correction

This item should be used when you intend printing to a mono printer. It enlarges the black dot. See ChangeFSI documentation for more information.

Pre-sharpening

This item sharpens an image and can be used to overcome some of the blurring effects associated with dithering.

Dither

This item toggles dithering on and off. If you already have a 24 bit image you will probably not need to use dithering. Again this is a try it and see option.

Acorn sprites

When ticked this item applies the above settings to the sprite. Normally sprites are loaded without any processing at all. This option enables you to scale large images for loading into ProArtisan 24.

Importing JPEG files

When importing JPEG files we recommend that you disable dithering and have all the other options off. The exception to this is if you are scaling when it may prove useful to have dithering enabled.

Show CD Album

With a Kodak PhotoCD in the drive, clicking on this option produces a window containing the first ten thumbnail images on the disc. See the section entitled PhotoCD later in this manual.

Photo CD Info

This menu item is found on the icon bar menu and going to the sub menu provides information about the Kodak PhotoCD currently in the drive.

CD Info			
Disc Identifier	3046	1021	1750
Images	82	Sessions	1
Date Created	15:46:54 06-Apr-1994		
Last Modified	15:46:54 06-Apr-1994		

Eject CD

So that the filing system does not become confused with unmounted CD-ROM's, ProArtisan 24 locks the CD-ROM into the player. To remove the CD-ROM you must click on this menu item which first dismounts the CD-ROM and then ejects it.

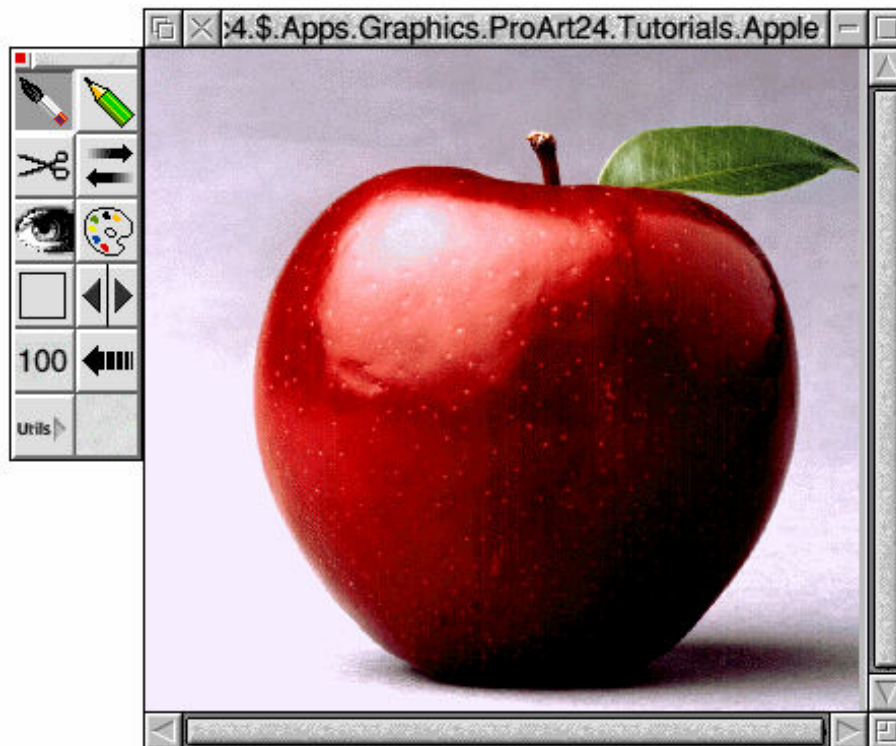
Quit

Click on this to quit the program. You are prompted if there is any unsaved data.

Click on **Discard** to lose the image and continue or click on **Cancel** to abort the Quit and allow you to save the image(s).

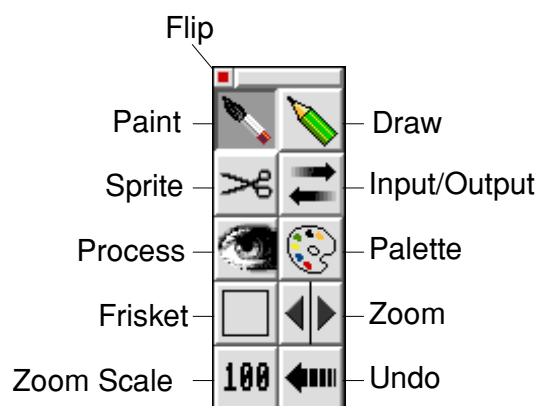
4. The Canvas

The main window is made up of the edit window, called the canvas, and a tool pane. Each tool in the pane is accessed by clicking on it with **Select**. Each tool has its own associated menu which is brought up by pressing the mouse **Menu** button with the pointer on the canvas.



The Tool pane can be flipped horizontally by clicking on the red icon in the top corner. The pane can also be offset from the canvas by dragging it with its title bar. The pane then maintains that offset from the canvas when it is moved.

The Tool pane is the core of ProArtisan 24. It gives access to all of the functions available. There are ten icons on the Tool pane and five of these give access to five different menus. The others are options in their own right or are for information. The reason for having the Tool pane and associated menus is to simplify the use of the program. The icons and menus relate to useful groupings of tools. This method also reduces the number of menu levels that you need to move through in order to get at the function you require.





Show Palette

The palette window can be viewed by clicking **Select** on the above palette icon in the tool pane. This brings up the palette window shown below. Although you can use up to 16.7 million colours in ProArtisan 24 it would be very difficult to choose colours if you were presented with all of these at once. ProArtisan 24 provides 32 palettes each containing 256 colours. These palettes are logical groupings and have useful names such as flesh or grey scale. You can edit and save these palettes to contain any colours that you require from the full range of 16.7 million. This is explained later.

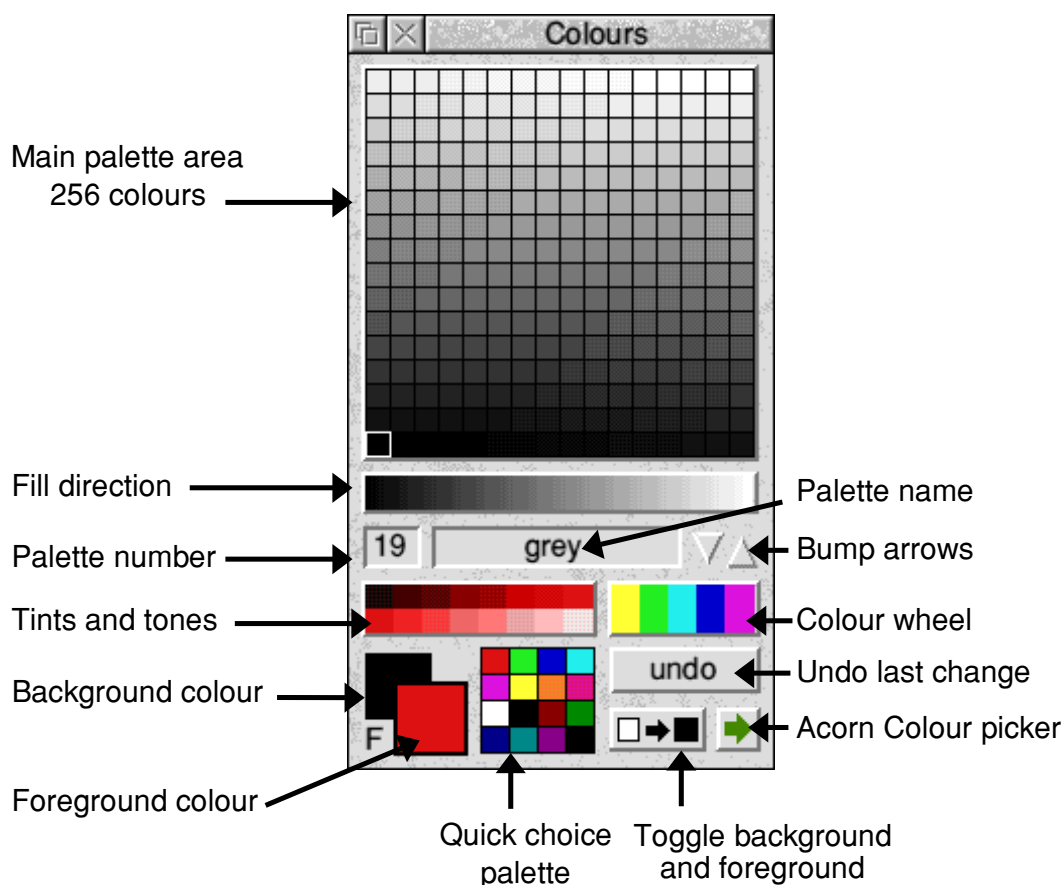
Selecting Colours

Colours can be selected in a variety of ways. The obvious way is to click on the required colour in the palette window. The chosen colour is then assigned to either the foreground colour or the background colour depending upon which one is currently selected. In addition, you can select a colour and then edit it using the Acorn Colour Picker.

A colour can also be selected off screen by holding down **Shift** and clicking on the colour on screen. The colour is then placed in the first position in the Picker palette (number 32). You can then select the colour from here. In addition you can hold down **Shift** whilst banding a box over an area of the screen. This transfers up to 256 colours into the Picker palette where they can be selected.

Palette Colour Selector

The Palette explanation is taken out of turn and explained here so that you are able to access it correctly as you work through the rest of the reference section.



Main palette

This shows the current palette of 256 colours. Each colour can be individually selected as either foreground or background colour. In addition each colour can be edited using Acorn's Standard Colour picker to be any of 16.7 million colours.

By dragging **Adjust** between one colour and another in the Main palette area, intermediate colours are calculated and inserted.

Individual colours can be dragged from one position to another within the main palette or from the main palette to the Quick choice palette. Tints and Tones can also be dragged to the main palette and the Quick choice palette. Palette files can be imported from disc by dropping them onto the main palette. This replaces the current palette with the new one. Note that the Undo button does not work in this case.

Fill direction

The bar immediately above the palette name shows the **Fill direction**. This uses all the colours in the current palette and is used with all graduated fills. Clicking anywhere on the bar reverses its direction.

Palette number

This shows which of the 32 Palettes you have selected. Clicking on the number with **Select** toggles between the current palette and **The Picker** (palette number 32).

Palette name

The **Palette name** is a textual reminder of the current palette eg., Flesh tones. The name of any palette can be edited and when **Save palettes** is used from the **Input-Output** menu, all 32 palettes are saved, except for the palette called **Picker** which is only saved if you change its name.

Bump arrows

These move through the available palettes.

Undo

The **Undo** icon is used to undo graduated colour transitions created by dragging **Adjust** or any change to the colours in the palette made using the Acorn colour picker. In addition it can be used to restore the Picker palette after you have picked colours from the screen. It is a one step undo and as soon as another change is made you lose the ability to undo the previous change.

Tints and Tones

This icon gives tints (grading to white) and tones (grading to black) of the current colour. This allows you to select variants of the current colour (useful for shadows etc). These colours can be dragged to the main palette or Quick choice palette.

Colour wheel

This icon shows colours evenly spaced in steps of 60 degrees around the colour wheel. This allows complementary colours to be selected.

Foreground colour

This icon toggles between foreground and background colour. The one selected is indicated by a black square around its edge and the letter F (Foreground) or B (Background). With **Foreground** selected any colour that you select in the palette becomes the new foreground colour.

As well as showing the current colour for brushes, this icon is used for items in the **Draw** menu, as indicated by the **Style** dialogue. The foreground colour is used for the outlines of any Draw objects.

Note: If you do not get the colour that you expected when using the **Paint** menu check that you have **Foreground** selected otherwise the colours chosen from the palette will go into the **Background** colour.

Background colour

As above except that the Background colour is used as the fill colour for any Draw objects and the **Magic brush**.

Quick choice palette

This is a sixteen block working palette which can be used to transfer colours from palette to palette, or from one position in the palette to another. Colours may be dragged between this working palette and the main palette. Colours may also be dragged from the Tints and Tones. Choices from this Quick choice palette also become the current colour and affect the **Tints and Tones** and **Colour wheel**. The colour in the bottom right of this palette has special significance as it is the colour used by the **Magic Wand** for outlining areas. See **Magic Wand** for more information.

Toggle Background & Foreground

Clicking on this icon toggles the background and foreground colours. The background colour becomes the foreground and vice versa.

Acorn Colour picker

A 'gateway' icon to the Acorn colour picker. Any colour chosen in the Acorn colour picker will replace the currently selected palette colour. See the Acorn Risc PC documentation for information on using the colour picker.

Frisket

ProArtisan 24 has an 8 bit, or 256 level, **Frisket** facility which enables you to protect parts of the canvas from alteration by any of the tools. It has the reverse effect of a cardboard **stencil**. With a stencil you can only paint through the stencil onto the area where the stencil is cut out. With a Frisket the area '**cut out**' is protected to varying degrees dependant upon the level of the frisket.

The word frisket originally referred to a frame on a hand printing press that carried a piece of parchment to protect the non printing areas. So any area defined as a frisket in ProArtisan 24 is a protected area.

The default red colour used to show the frisket can be changed to any other colour in the **Frisket** menu with the **Frisket Colour** option. The **Frisket** option is explained in detail later.

The next two items are also taken out of turn but they are tools that you will find useful from the start.

Zoom

The **Zoom** option has two icons. The first shown above enables you to zoom up or down by clicking on the relevant arrow. The second icon shows the current zoom size.

You can click on the **Zoom scale** icon with **Select** to revert to 100% size. Clicking on the **Zoom scale** icon with **Adjust** reverts to the previous zoom size. Note that all ProArtisan 24 tools work at any zoom scale.

Undo

The **Undo** icon enables you to undo any actions taken since the canvas was last confirmed. ProArtisan 24 does this by holding a back screen which keeps the image as it was **before** the last actions were taken. In general a screen is 'confirmed' when you choose a new tool from the **Tool Pane** or select a new colour from the **Palette**.

In some circumstances changing tool mode does not force a confirm. For example, going into the **Process** menu to use the **Make Last** item still enables you to undo the changes thus enabling you to make a frisket from your last action and then delete your last action.

5. The Paint menu



Painting mode

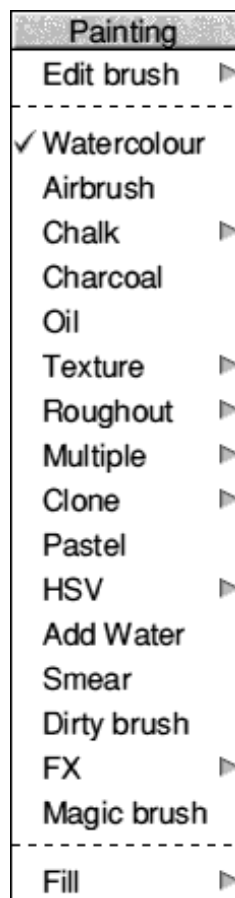
Click on this icon to enter **Paint mode** and then press **Menu** with the pointer on the canvas. This brings up the **Painting** menu.

Undo

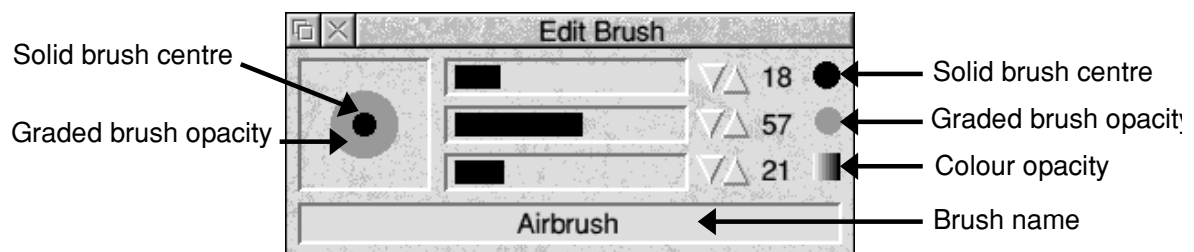
If you hold down **Ctrl** whilst painting you get an **Undo** brush which restores the screen in a similar way to using the **Undo** button, except that the last action is selectively undone. Undo uses the current brush settings.

Colour selection

If you click on a colour on the canvas whilst holding down **Shift** this becomes the current colour for either foreground or background depending upon which one is selected in the Palette.



Edit Brush (**Ctrl B**)



This dialogue can be accessed from the menu and will disappear when you leave the dialogue box. If the keyboard short cut, **Ctrl B**, is used to bring the dialogue up, it will stay on screen until you close it with the **Close** icon.

Drag the sliders or use the bump arrows to alter the settings of **Solid brush centre**, **Graded brush opacity** and **Colour opacity**. The **Solid brush centre** is the size of the brush that applies full colour, as specified by the current foreground colour in the palette and the setting of the **Colour opacity** slider. The **Graded brush opacity** provides a graduated effect to the brush. The **Colour opacity** slider defines the opacity (strength) of the selected colour.

Each brush has its own associated settings which are recalled when you change brushes. You can save the brush settings from the **Input-Output** menu by clicking on the **Save brushes** item.

The brushes provide a very wide range of effects. These effects are made even more flexible by the combined use of the 3 sliders in the **Edit brush** dialogue. A short description of each brush is given below, but a quick try with each brush will soon acquaint you with its properties. The brushes provided mimic their natural counterparts very closely indeed. While experimenting, try setting the **Colour opacity** slider to full, this makes it easier to see exactly what they do.

Watercolour

Adds the current colour at the current opacity with a watercolour effect.

Airbrush

A soft spray in the current colour and opacity

Chalk

Applies a Chalk effect in the current colour and opacity with **Hard** and **Soft** variants, using the current **Texture**.

Charcoal

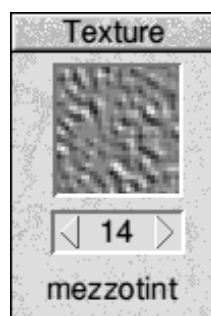
Applies a Charcoal effect in the current colour and opacity. Try it with black, but due to the wonders of computers you can have any colour charcoal that you wish.

Oil

Applies an Oil effect in the current colour and opacity using the current **Texture**.

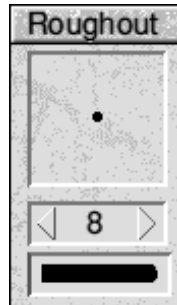
Texture

Applies a texture using the current brush settings. To choose a texture click on the arrows. When you brush over the canvas with a texture the texture is applied to the canvas but without disturbing the colours on the canvas - it is a true texture. The texture selected here is also used in other brushes, such as Chalk and Oil.



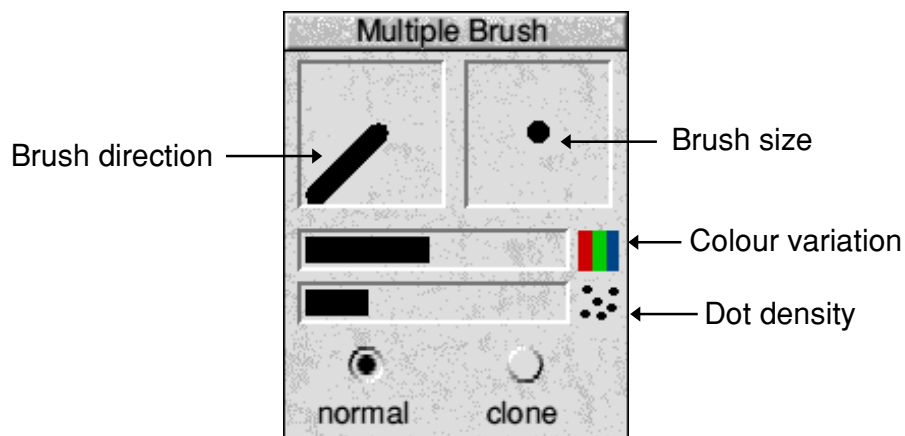
Roughout

This item provides a **Pencil** and **Inkpen** effect. Toggle between the two by clicking on the bottom icon in the dialogue box. **Pencil** provides a plain drawing tool in the current colour at full opacity. **Inkpen** provides a calligraphy pen that starts thin and gets progressively thicker. In both cases, the **Edit brush** dialogue has no effect. The current colour is used at full strength and the size is controlled in its own dialogue box by dragging the brush or using the bump arrows.



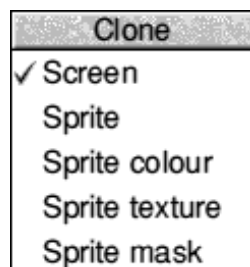
Multiple Brush

Drag the **Brush direction** and **Brush size** icons in the dialogue box. A small size and an angle similar to that shown will give a pencil sketch effect. The **Colour variation** slider controls the spread of colours from the current colour and **Dot density** controls the number of points plotted. With the **Normal** button selected, the current colour is used. With **Clone** selected the colour is read from the screen beneath the brush and written back according to the settings in the dialogue. The **Clone** option is ideal for turning scans or PhotoCD images into Pointillist or sketched images.



Clone

This option provides various cloning options as detailed below.



Screen

Click **Adjust** on the canvas to set the start point to clone from and then spray at the new position. A circle shows the source area that you are cloning. The brush settings can be altered to provide very subtle blending of the cloned area with the canvas.

Sprite

Sprays the current sprite as a tile pattern. To adjust start position, click on the canvas with the **Adjust** button. The sprite is painted relative to its centre.

Sprite Colour

Uses the current Palette to tone and clone the current sprite. The image is taken from the sprite but the colours are from the current palette. The colours used are relative to the 256 levels of brightness in the sprite.

Sprite Texture

Uses the grey scale value of a sprite to texture the canvas. The sprite does not have to be grey scale as a grey scale is computed first before application. Try the sprites in the supplied directory called **Textures**. These enable you to add to the texture effects provided.

Sprite mask

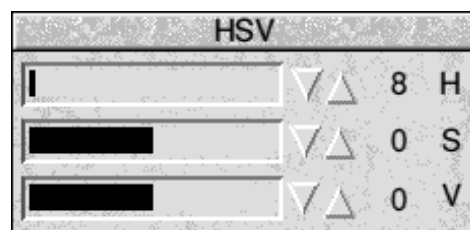
Uses the sprite as a graduated mask and paints in the current foreground colour.

Pastel

Uses the current texture and colour which is applied according to the current brush settings.

HSV

Alters the Hue, the Saturation and the Value (brightness) according to the slider settings.



Add Water

Runs colours together as if using a wet paint brush on water colours. Particularly good for softening hard edges. This is commonly known as anti-aliasing.

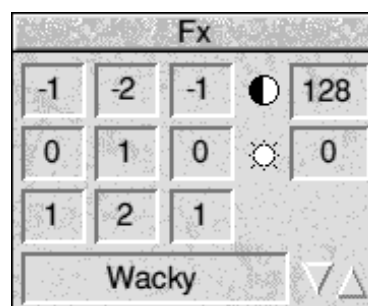
Smear

This is similar to smearing paint with your finger. A stronger version of **Add Water**. The higher the slider the more persistent the original colours.

Dirty Brush

Like **Smear**, but also adding a component of the current colour to 'muddy' the canvas. Like painting on top of wet paint.

FX



This dialogue is the same as the one provided for **Effects ç Generic filters**. In this case, the generic filter is applied with a brush instead of being applied to the whole canvas. See the Effects menu section for more information.

Magic brush

This item uses the Picker palette (palette number 32) to store the colours that you want to change. The colours are then changed to the background colour using the brush settings.

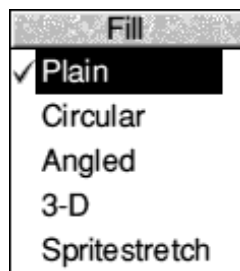
To insert the colours for change into the Picker palette you can click on the colour on screen whilst holding down **Shift**. This places the colour in the bottom left square of the Picker palette. Alternatively, you can band a box over a number of colours whilst holding down **Shift**. This then puts the colours into the Picker.

At this point we need to sound a warning. Banding too large a box will pick up too many colours, particularly on PhotoCD images, and you get no warning that there has been an overflow of the Picker. Keep the box small to avoid overspill and then band another small area later.

Only the first 64 colours (from the bottom left) of the Picker are used due to speed constraints. However, to overcome this and the above limitations we only check the first 8 bits of the colour to be changed. This means that 256 shades of each colour are changed to the background colour.

Hint: If using this option you can select a small number of colours; change them to the background colour and then click on the **Undo** button in the Palette window to clear the Picker palette to white again. You can repeat this as many times as required to clear the area that you want to convert to the background colour.

Fill



Plain

A simple fill using the currently selected colour to fill all connected pixels of the same colour as the start pixel.

Circular

This provides a fill with 256 colour graduations. To initiate a Circular fill, hold down **Select** at the point you wish to be the centre and drag out the arrow before releasing **Select**. The further you drag the line, the wider each colour band will be. A small line means small bands with the final colour filling any area left to fill. Once you try it you will see how easy it is. Note that the arrow head does not have to stay within the region to be filled.

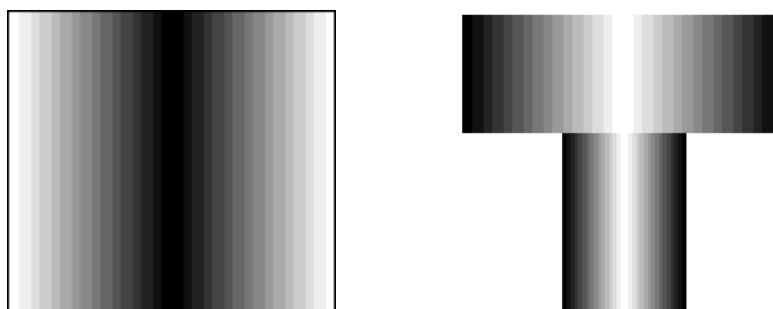
A circular fill can be done into any shape, it just means that the fill is calculated in a circular pattern which radiates from the central point. The colours used are taken from the currently selected palette. You can reverse the direction of the fill by clicking on the **Fill direction** bar in the palette window.

Angled

This provides a fill with 256 colour graduations. It works in the same way as Circular fill but the direction of the arrow indicates the direction of linear graduation. Again, the colours used are taken from the currently selected palette. You can reverse the direction of the fill by clicking on the Fill direction bar in the palette window.

3D

Applies a pseudo 3D effect using the current palette (see below). Only one point needs to be clicked and this forms the centre of the fill. You can reverse the direction of the fill by clicking on the Fill direction bar in the palette window.

**Spritestretch**

Stretches the current sprite into the area to be filled.

6. The Drawing menu

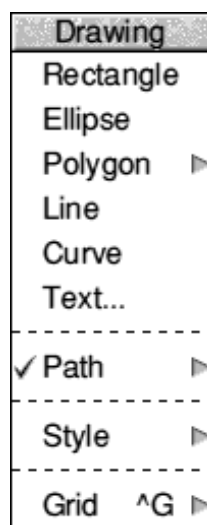


Draw mode

Click on this icon to enter **Draw mode** and then press **Menu** with the pointer on the canvas. This brings up the Draw menu which deals with all drawing associated with geometric shapes such as lines, rectangles and polygons. It also contains the text menu. The items in this menu use the Draw module resident in ROM and so the manipulation of the objects will be familiar if you use Draw.

All the items in this menu are either drawn in the current foreground and background colours according to the settings of the **Style** dialogue or they are drawn using the currently selected brush, see later. The colours can be changed in the palette. See the section on the Palette for more details.

Frisket - all the Draw items can be used to draw in the **Create frisket** mode as long as the brush in the **Path** dialogue is set to **Style**. The relative brightness of the background colour dictates the strength of the colour used for the frisket eg black as the background colour means a frisket at full opacity but white means no frisket. A green background colour will give something like a 50% opaque frisket.



Rectangle

To place a rectangle position the first point by pressing **Select** and *drag out* the rectangle to the required size before releasing **Select** to fix it. The rectangle is drawn using the foreground and background colours and takes account of the **Style** setting discussed later.

Ellipse

The ellipse is placed in the same way as the rectangle above. Plot the first point and drag out to place the ellipse onto the canvas.

Polygon

The polygon item has a sub menu where you can select the shape of your polygon.



Use the arrows to select from 3 to 32 sides and place the polygon by clicking **Select** to define its centre and drag out to define its size and orientation. Use a 32 sided polygon to create circles.

Line

Lines and **Curves** generate paths. When the path is complete they are stroked, filled or stroked and filled depending upon the settings in the **Style** sub menu. **Stroked** means that the line is drawn using the line thickness set in the **Style** sub menu. **Filled** means just that, the area inside a closed path is filled. **Filled** and **Stroked** is only noticeable if you have the **Style** sub menu set up so that the outline or stroked colour is different to the fill colour (see the Style menu).

To create a line plot the first point by clicking with **Select**. Move to the next point and click again. Continue until you have completed all required line segments. To finish, press **Adjust**. The line will either be left as it is, or if the **Style** sub menu is set to **Closed** then the start and end points will be connected.

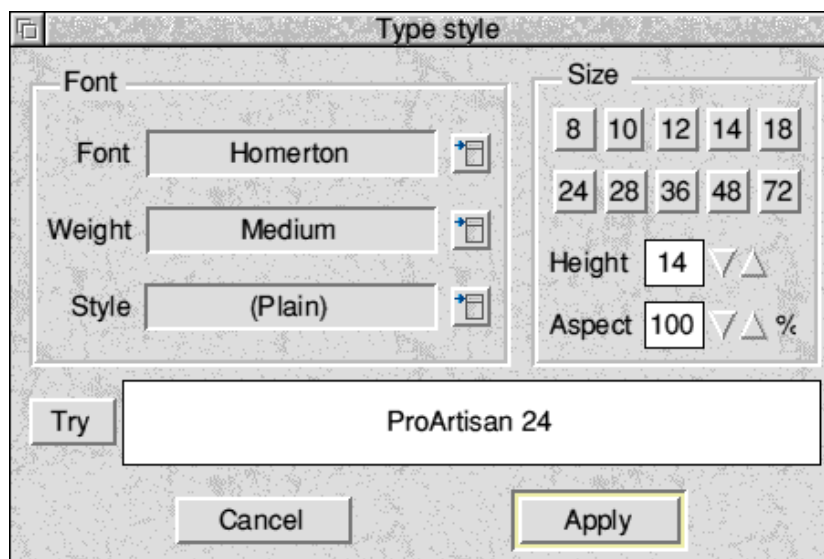
If **Open** is selected in the **Style** menu then the lines finish at the last point and do not join up. This is best seen if you use the **Style** menu to have a filled shape with a different coloured outline.

Curve

This works in a similar manner to the **Line** item. Curves are automatically smoothed at joins. For sharp changes in direction place points close to one another or complete a section with **Adjust** and start a new one.

Text

Click on this item to bring up the Text dialogue box.



Font

This dialogue box is broken up into three main areas. The top left section allows you to select a font, weight and style by accessing the sub menus.

Point size

The area on the right allows you to set the font size either by clicking on one of the sizes provided or by entering in your own requirements in the Height box. You can also set the Aspect ratio.

Try

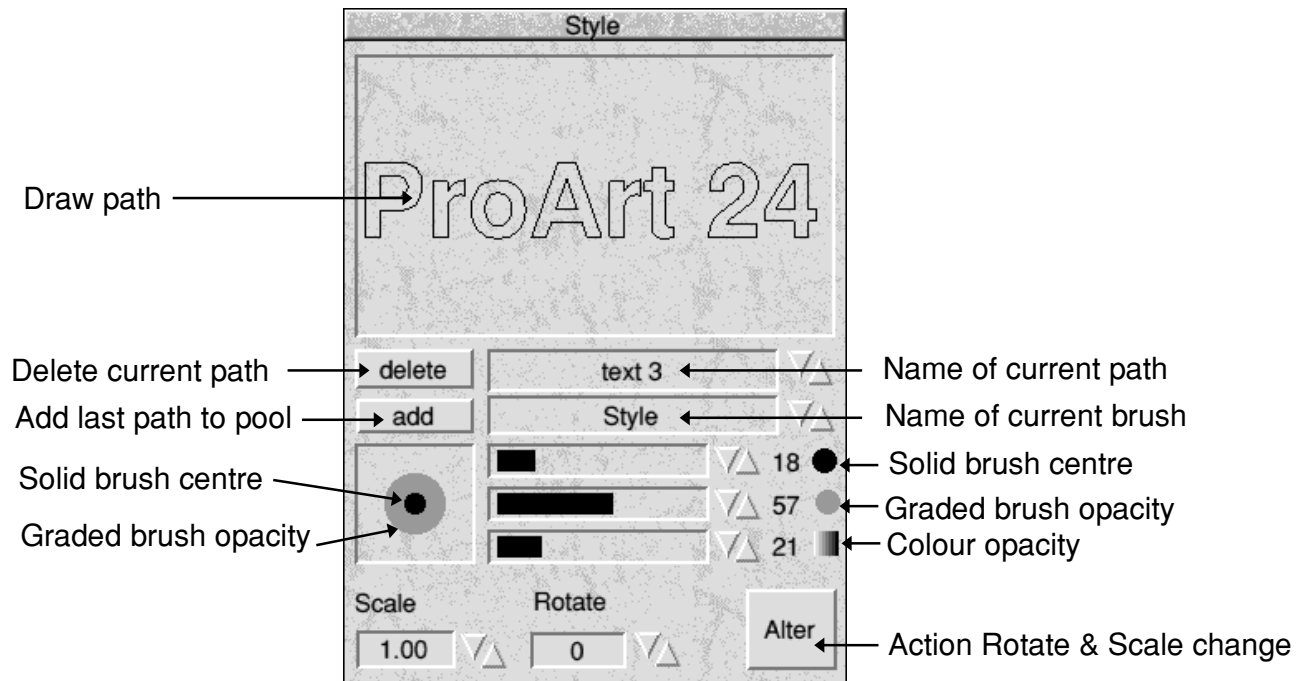
Click on this box to see the effect of your choices. The box to the right is where you enter the text that you want to paste onto the canvas. By default this has the word ProArtisan 24 in it. You can now click on **Apply** or **Cancel**. **Apply** will place the text at the bottom left of canvas ready for re-positioning. To move the text drag from a point within the bounding box. To paint the text onto the canvas click on a point outside the bounding box. Text is drawn in the background colour.

All text items are converted to Draw paths before pasting. See the **Path** dialogue for more information. When the text is pasted it cannot be removed (except with **Undo**) as it is now a bit image.

It should be noted that **Text** is not designed to provide anti aliased text. If you place text onto a multi coloured background anti aliasing does not work. However, you can use the anti alias option in **Process ç Filters** to provide this effect.

Path

This dialogue provides a very sophisticated and useful tool. The **Path** dialogue controls the way in which Draw paths are stroked to the canvas and allows for the insertion and deletion of paths from the **Path Pool**.



Draw path

This area shows the current Draw path. A Draw path can be a text object as above or any other object, such as a Polygon, created in the Draw menu. Alternatively, it can be a Draw file loaded onto the canvas. A copy is automatically placed in the **Path pool**. You can immediately delete the Draw file on the canvas using the **Undo** option if you wish. If you paste a Draw file on the canvas, but it is not visible, you can re-align the path to the canvas origin by clicking on the Draw path window with **Adjust**.

Delete

Double click on this to delete the current Draw path from the pool.

Add

Double click on this to add the last Draw path created to the pool.

Name of current path

Use the bump arrows to move through the paths available.

Name of current brush

Use the bump arrows to select the required brush. You can choose **Style**, which renders the path according to the **Style** settings (see below), or choose a particular brush (airbrush, charcoal etc), with associated slider settings. The brush sliders work in exactly the same way as those in the **Edit brush** dialogue.

Scale

Scale paths by using the bump arrows to set the desired scale and clicking on the **Alter** button.

Rotate

Paths may be rotated by setting the number of degrees of rotation required and clicking on **Alter**. Subsequent clicks on **Alter** will rotate by the same number of degrees again.

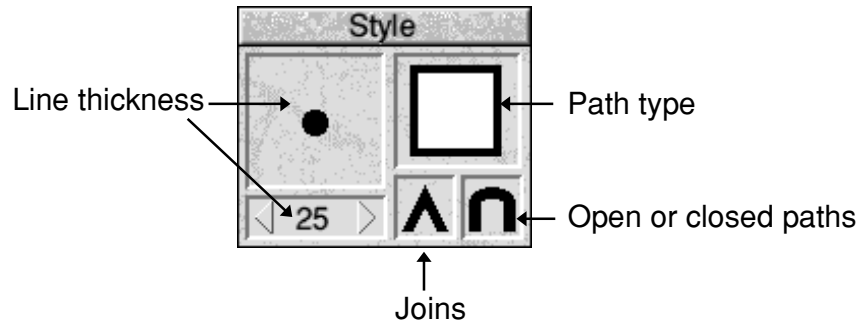
When the chosen settings have been made, click **Select** on the Draw path itself to transfer it to the canvas ready for re-positioning, by dragging within the bounding box. To render the Draw path, click outside its bounding box. Draw paths are rendered in the current foreground colour.

In some cases the Draw path may be larger than the canvas, thus not allowing you to click outside the Draw path boundary. In this case, clicking inside the boundary with **Adjust** will render the Draw path. Note that subsequent placements of the same Draw path are placed exactly on top of the last position. This is particularly useful for creating effects such as shadows etc.

Draw files can be loaded into ProArtisan 24 by dragging the Draw file to the canvas. The Draw file is rendered at the pointer position. As well as being plotted on the canvas the Draw file is also placed in the Draw Path Pool. From here you can render the draw file using any of the available brushes.

Style

This dialogue box enables you to define how the drawing objects will appear.



Line thickness

The thickness of the line is shown graphically and numerically. The size can be altered using the bump arrows or by dragging out the circle.

Path type

The Path type can be toggled between **Stroked**, **Filled** or **Stroked and Filled**. The Path Type icon changes to reflect the differences. The foreground colour is used for stroked or outline objects, whilst the background colour is used for the filled area of objects.

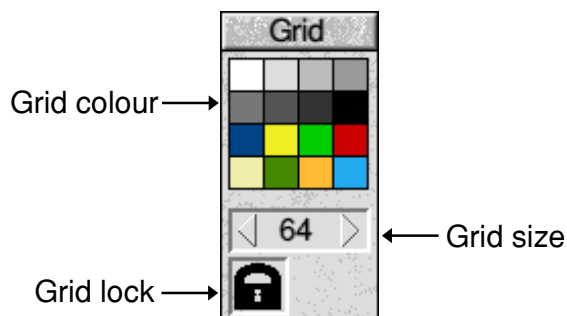
Joins

This icon is used to select whether the joins are Butt, Round or Square. Toggle between the options by clicking on the icon.

Open or closed paths

This icon is used to indicate whether the lines and curves should create closed or open objects. Clicking on this icon toggles between the options available.

Grid



This item provides an on screen grid to help with positioning. It is not part of your picture, it is simply overlaid. The Grid is turned on and off by clicking on the **Grid** item in the menu or by using the keyboard short cut **Ctrl G**.

Grid colour

You can select the colour to be used for the grid so that it is always visible but unobtrusive.

Grid size

The Grid size is based on pixels. You can set the size of the grid from 2 to 256 pixels, using the bump arrows.

Grid lock

This icon is the Padlock and can be toggled between **Grid Lock On** or **Off** by clicking on the icon. The diagram above shows the grid lock as On. Note that you cannot have **Grid Lock** active without a **Grid** on screen.

7. The Sprite menu



Sprite Mode

Click on this icon to enter **Sprite mode** and then press **Menu** with the pointer on the canvas. This brings up the Sprite menu which deals with areas which are cut from the screen or imported into the sprite pool.

A sprite is an area of the screen and it can vary from one pixel to full screen size.



Cut

The **Cut** item enables you to cut a piece of the canvas for use in other options. It has a sub menu with two items.

Rectangular

This item cuts out a sprite using a rectangle. You click with **Select** at the start point, drag out the rectangle and release **Select** to cut the area inside the rectangle. This is automatically pasted into the Sprite pool with the name *Temp*. You can edit the name to whatever you want, except Temp, if you want to retain it for future use.

Irregular

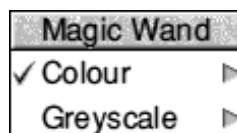
This item lets you trace around an area by holding down **Select** whilst tracing. When you release **Select** the area is pasted to the sprite pool.

Magic Wand

This is an extremely powerful option for automatically cutting out sprites by tracing around a boundary which is defined by closeness of grey scale or colour to the starting pixel colour. When a boundary has been followed everything inside the boundary is transferred to the **Sprite Pool**. The outcome is that it is possible to click on an object and have it transferred to the sprite pool.

However, there are some limitations and you may have to experiment a little. It is easiest to use on objects with clearly defined borders and experience shows that clicking just inside the right hand edge of the area required produces the best results. This option becomes more predictable with use. Sometimes it may be necessary to slightly alter an image in order to pick up the correct object. For example a circular object with a few missing pixels may not be correctly picked up unless you close the circle by adding a few strategically placed pixels. Slight changes in the start position can have dramatic effects on the results as the colour of the start pixel might be very different.

An easy thing to try it on is some large text placed using the **Text** option.



There are two methods for defining the range of colours or intensities acceptable when comparing pixels for the boundary follow.

Colour

The range of colours acceptable when doing a boundary follow with **Magic Wand** is defined by dragging out the slider to the required position. The colour range is based on a colour cube model and the range is the

offset either way from the start pixel. If you understand about colour cubes then the above will make sense. If you do not then the easiest thing is to play with it.

Grey scale

This option is a little easier to understand as the range relates purely to intensities. Again the offset on either side of the start pixel is defined by the range slider. For example clicking on a black pixel with a very low range setting will cause the **Magic Wand** to search just for black pixels.

Magic Wand Hint

Internally the Magic Wand uses a single colour to trace the outline. This colour is in the default Quick Choice palette at the bottom right corner. You can use this to paint around an area that you want to pick up and then by clicking on the line the area inside the line is picked up by the Magic Wand.

Paint

This item lets you paint using the currently selected sprite. See the **Sprite pool** for information on selecting a sprite. This option provides an unlimited number of brushes because you can draw what you want, grab it as a sprite and then use it as a brush.

Fill

The Sprite fill item allows you to fill an area with the current sprite in a similar way as filling with a plain colour except that the sprite fills the area at the size of the original sprite, tiling the sprite to fill the area if required.

Distort

The Sprite distort item is very powerful although extremely simple to use. Again it works with the current sprite. A single click places the current sprite on the canvas at its original size. Alternatively, you can band a box on the screen by clicking on a point with **Select** and dragging the box out before releasing it. In either case this leaves a box on screen with four square blocks, one at each corner. If you click **Select** on the canvas the sprite is plotted.

To move the box to another position click and drag with **Select** on any of the four blocks. Release **Select** to drop the box at the new position. To distort the box drag any of the four blocks with **Adjust**. When you have designed the required shape click with **Select** at any point on the canvas.

The clever thing about this item is that the points can cross over each other to create different effects such as a curl at the edge of a page. It is very easy to get perspective effects with this feature.

Rotate

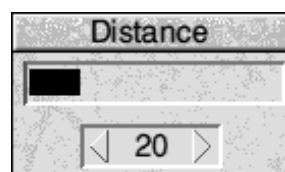
This item enables you to rotate the sprite through any angle. By default the scale of the original sprite is preserved but if you hold down **Shift** you can also alter the scale of the sprite by dragging it out. Keep **Shift** held down until you have fixed the sprite otherwise it will revert to its original size. The centre of rotation is the bottom left of the sprite.

Scale

This item lets you scale the current sprite. To do this just click with **Select** to position the bottom left corner of the sprite and drag the sprite to the required size and release **Select**.

Sphere

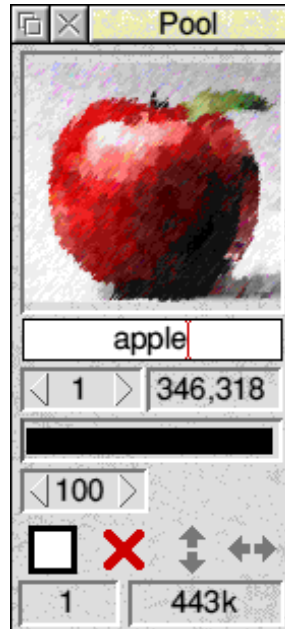
This is yet another very powerful feature that, once understood is simple to use. It allows you to distort the current sprite into a sphere. However, there is a lot more control than this and you can tile the sprite to fill the sphere with more than one sprite.



The Distance parameter governs how many copies of the sprite are pasted onto the surface of the sphere. The size of the sphere does not matter as the program always attempts to paste the same number of sprites irrespective of the size.

Show Sprite Pool

The sprite pool window is always shown on screen when you are in the Sprite menu, unless you click on the close icon. If you do close it or it is obscured you can display it again by clicking on the **Sprite** icon in the **Tool Pane**. The Sprite pool window is shown below. The current sprite is shown in the window with its name in the box below, **apple**, in this case. The name can be changed at any time by clicking into the box and editing it before pressing **Return**. The default name used for a sprite when you cut it out is **temp** and if you want to retain the sprite you should rename it otherwise next time you grab a sprite it will be overwritten because the new sprite will default to the name **temp**. Try to make a habit of always naming your sprites - you can always delete them later if you do not want them.



The left and right bump arrows are used to move through the sprite pool if you have more than one sprite.



This icon shows the size, in pixels, of the current sprite.



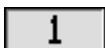
You can delete a sprite by clicking on the **X** icon when the sprite is visible. You can delete **all** the sprites in the pool by holding down **Shift** and clicking with **Select** on the delete icon.



Click on this icon to flip a sprite horizontally.



Click on this icon to flip a sprite vertically.



This icon indicates the total number of sprites in the pool.



This icon indicates the total memory used by the sprites in the pool.



The black outline box icon indicates that the soft paste option is available. In this mode the slider and associated percentage indicator control the amount of transparency for the whole sprite. A value of 100 means no transparency.

Auto blend

To auto blend the current sprite select the required blend from those shown below and click on the sprite in the sprite pool window. The sprite is attached to your pointer and when you click **Select** the sprite is blended into the canvas using the blend template. The slider and related percentage indicator has no effect as the blends are pre programmed.

The auto blend templates are selected by clicking on the white box in the bottom left of the sprite pool window to show the icons below.



This icon will soft paste around the sprite boundary, 'feathering' an irregular sprite into the background upon which it is placed.



This icon pastes the sprite in with a solid centre feathering out in a circular pattern.



This icon pastes the sprite in with a solid centre feathering out in a rectangular pattern.



This icon fades the sprite from left to right.



This icon fades the sprite from right to left.



This icon fades the sprite from the centre to the right edge. In other words the left half is solid and the right half gradually fades.



This is the same as above except from right to left.



This icon fades the sprite from top to bottom.



This one fades the sprite from bottom to top.



This one fades from the centre to the bottom.



This one fades from the centre to the top.



This one is solid in the centre but fades to each side.



This one is solid in the centre but fades to the top and bottom.

All of the above features are extremely powerful and it is worth getting to know how they work.

Loading Sprites

Sprite files can be loaded to the ProArtisan 24 canvas as full images provided that there is only one sprite in the file. Alternatively they can be loaded into the Sprite Pool by dropping them onto the Sprite Pool window.

Due to technical restrictions compressed (Squashed) sprite files replace all existing sprites in the pool whereas uncompressed sprite files merge with those already present. So if you want to merge your sprite files you must decompress them first.

If you do merge sprites and the new sprites have the same internal sprite name as one already in the pool then the old one is overwritten.

Only sprites or Squashed sprites can be loaded to the Sprite pool.

8. Input/Output Menu



Input/Output mode

This menu deals with all the input and output concerned with ProArtisan 24. This includes disc saving and printing.



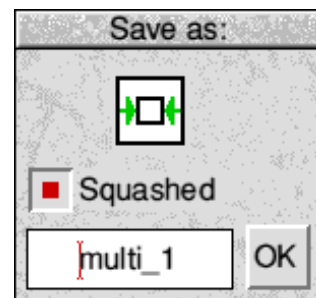
Save Picture

This menu leads to a standard save dialogue. You can enter the name and drag the file to a directory viewer or you can enter a full pathname and click on **OK**. If the **Squashed** box is ticked in the **Save** box then the file is saved in a compressed format called *Squash*. Squash is supplied with all RISC OS 3 machines.

Squash files can be reloaded into ProArtisan 24 by dropping them on to the canvas. If the file is not a recognised format it is ignored.

Squash is an efficient compression tool for any file but it does not allow you to specify a file type. This means that you must have a little discipline when saving compressed files. It is advised that you store all ProArtisan 24 pictures in a directory called ProPics or similar. ProArtisan 24 will not crash if incompatible squashed files are dropped on to the canvas, it will just ignore them.

The save dialogue will look as below depending whether the **Squashed** option in the save dialogue is ticked or not.



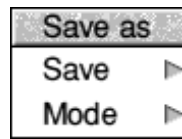
Save Pool

This option is as for Save Picture except that it saves the contents of the **Sprite pool**. The pool can be squashed or not. These files can be restored to the sprite pool by dragging them from a filer to the **Sprite Pool** window. Due to technical restrictions Squashed sprite files replace all existing sprites in the pool whereas uncompressed sprite files merge with those already present. So if you want to merge your sprite files you must decompress them first.

Squashed files can be unsquashed by running the !Squash application and dragging the files onto the !Squash icon. You then select the **Unsquash** option to convert the file. Alternatively you can double click on the squashed file once !Squash has been run to convert the squashed file into a standard sprite file. These can then be loaded normally.

Save as

This item leads to a sub menu with two entries

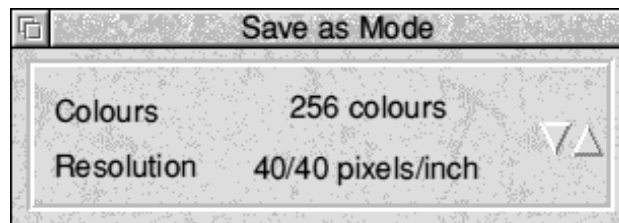


Save

This item leads to a further save box which is used to save in the same way as described above except that the **Mode** item below allows you to specify which mode the image is saved in.

Mode

This item leads to a dialogue from where you can choose a combination of 256 or 32 thousand colours and resolutions from 40 or 80 pixels per inch. The first value is the image width followed by the image height eg 80/40 is 80 pixels per inch wide and 40 pixels per inch high. When you save an image using **Save as** & **Save** the image is converted to the specified mode and saved in that mode. Note that if your image is not screen sized, eg A4, the resulting image has the same dimensions but it takes on the resolution and colour characteristics of the new mode.



Warning: This facility is provided for those wishing to produce an image for a particular mode and should only be used on the final image. If you edit the image later you may find that you have lost colours, resolution or both.

Save JPEG

This item leads to a sub menu that enables you to save an image in JPEG format. This is a highly compressed format, typically 1:10 compression, that does lose some quality from an image. ProArtisan 24 saves JPEG images with a default setting of 75. Note that a setting of 100 still degrades the image slightly.

Save

This dialogue enables you to save a JPEG file in the same way as all the other save dialogues.

Quality

This dialogue lets you set the quality to be used when saving a JPEG file. The default setting is 75. A setting of 95 gives the highest quality whilst providing good compression. Values above this provide very little increase in quality but the files are greatly increased in size.

Warning: You should try to limit saving in JPEG format to the final image as repeated loads and saves of a JPEG image will degrade the image. After ten such saves the degradation is quite noticeable. Do not be alarmed by this and avoid using JPEG. You should just be aware of the limitations of this compression system.

Save palettes

Clicking on this item saves the current batch of palettes as the defaults. The only palette not saved is the Picker palette, although this is also saved if you rename it.

Save brushes

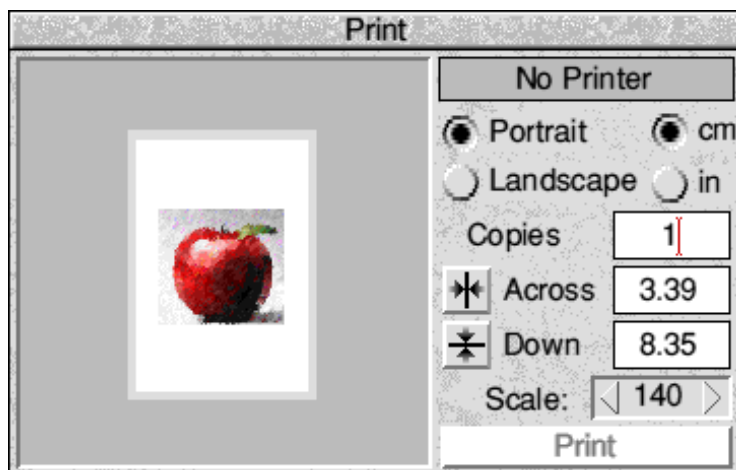
Clicking on this item saves the current settings of all the brushes. You can alter the brush settings using the **Edit brush** dialogue in the **Paint** menu. Each brush can have its own settings and when saved they become the default settings whenever the program is run.

Print

This item leads to the **Print** dialogue box which presents a novel approach to printing.

The area to the left represents the possible printing area and the white area within it represents the paper. The slightly lighter grey around the white area is the printer margin. These values are derived from the printer driver. If no printer driver is present then an A4 page with 10mm margins is assumed.

You can drag the canvas image around on the paper to position it where required.



The right side of the dialogue box has several controls. First the panel at the top tells you which printer driver is loaded. You can also toggle between Portrait (upright) or Landscape (sideways). The selection is reflected in the white area.

Next you can select to have the measurements below in centimetres or inches.

The box below this enables you to enter how many copies of an image you want.

The writable icons below this are the X (across) and Y (down) position of your picture relative to the bottom left corner of the paper. This means that if you placed your picture so that its bottom left corner was in the bottom left corner of the paper then your picture would be at position 0,0.



You can click on this icon to centre the picture horizontally on the page.



You can click on this icon to centre the picture vertically on the page.

You can also scale the image using the **Print Scale** option to set a percentage scale.

If a canvas is larger than the printable area an outline box shows what area of the canvas will be printed.

Finally there is the **Print button**. Click on this to print your picture, assuming that you have a printer connected and on line.

Importing files

ProArtisan 24 can accept files from several sources but the two most common are **Sprite** and **Draw** files. In addition to these files ProArtisan 24 can also import most files recognised by ChangeFSI. These currently include JPEG, Clear and TIFF files amongst many others. See Section 3 - Import options for more details.

Sprites

Sprites are loaded by dragging them onto the ProArtisan 24 icon on the Icon Bar or by dropping them into an already open canvas. In the latter case the new image replaces whatever was on the canvas. Sprites can be squashed or unsquashed.

Sprites can also be loaded into the **Sprite Pool** by dropping them onto the **Sprite Pool** window. If the sprites are squashed then they replace any sprites already in the **Sprite Pool**. If the sprites are not squashed then the new sprites are merged with the existing Sprite Pool.

Draw

Draw files can be loaded by dragging the Draw file to the canvas. The Draw file is rendered at the pointer position. If you want to position the Draw file accurately you are best to take it into a blank canvas first and cut it out as a sprite. You can then place it on your working canvas and manipulate it in the same way as any sprite. See the section on the Draw Path Pool for an alternative.

9. The Frisket Menu

Before moving on to the **Process** menu you need to understand what a frisket is. Some of the information here is also in the Tutorials guide.

What is a Frisket ?

A Frisket, or mask in the traditional sense, was a piece of strong paper or card that could be placed onto a painting surface and would stop subsequent actions of painting, drawing, crayoning etc from affecting the covered area. ProArtisan 24 allows you to choose the colour of this masking paper from a palette of 16 million colours. This allows you to see where the frisket is. To see the frisket more clearly, choose a colour that does not exist in the original picture. The colour you choose does not affect the way the frisket operates, it is purely a visual display of the frisket.

A traditional frisket was strictly a protect/no protect device. ProArtisan 24 goes a step further and allows the frisket to have varying opacity, or levels of protection. Imagine a paper frisket that allowed only a fraction of the airbrush or crayon to find its way onto the picture. The frisket in ProArtisan 24 uses 256 levels of opacity, providing varying degrees of protection, ranging from total protection, to none at all. ProArtisan 24 has 3 different modes that affect how the frisket works. These are **Frisket Inactive**, **Frisket Active** and **Create Frisket**.

Warning: A frisket requires additional memory equivalent to 1/4 the size of your canvas. Once you toggle the **Frisket Icon** a frisket is created. If you do not need the frisket and want to recover the memory use **Process > Remove Frisket**.

The **Frisket** icon has three states:

Frisket Inactive



In this state the frisket does nothing. All painting and drawing tools have no reference to the frisket, they operate as though the frisket does not exist.

Frisket Active



In this state the frisket is active and the area defined by the frisket is protected from change. All drawing and painting tools use the frisket and have a varying effect according to the level of protection in that part of the frisket.

Note: When this mode is first entered, the frisket is created as having no protection. You need to use the frisket tools to create protected areas; so go to the next stage.

Example

Make sure that you are in **Frisket Inactive** mode and select the **Watercolour** brush in the **Paint** menu. Set all the sliders in **Edit brush** to maximum and paint some squiggles onto a blank canvas using any colour. Now click on **Make Last** in the **Process** menu, the squiggles are taken as the frisket, replacing any existing frisket.

Toggle the Frisket icon to **Frisket Active** and choose a different colour. Return to the **Paint** menu and try to paint on the frisket (your squiggles). You will see that you cannot obliterate the squiggles, you can only paint onto the rest of the canvas.

If you click on **Invert Frisket** you will now be able to draw on the area defined by the squiggles but not anywhere else.



Create Frisket

In this state a new menu, the **Frisket** menu, becomes accessible.



When the frisket tools are used, they are defining different levels of protection. In this mode there are two ways of viewing the frisket:

Mixed

The Frisket and picture are mixed to show how the frisket lies on top of the picture. This allows very accurate masking of specific areas of the picture.

Unmixed

The Frisket only is shown on a white background. Remember the colour of the frisket is only a visual clue as to where the frisket is in relation to your picture.

The easiest way to see the frisket in action is to load a picture and select **Create Frisket** mode. Next select **Frisket ▶ Invert** to place a totally solid frisket over the image. Now select **Frisket ◀ Eraser**. As you move the mouse over the frisket you are eroding or cutting out the frisket. If the **Mixed** option is in operation, as you erase over the window the picture is revealed. The marks you make will 'unprotect' areas of the picture so that when you use the drawing and painting tools in **Frisket active** mode they will only affect the unprotected areas.

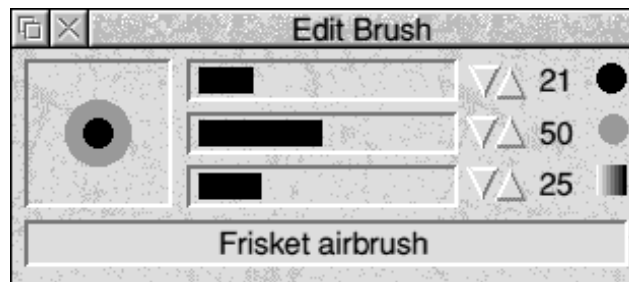
Try altering the sliders for the **Eraser** on the **Edit brush** dialogue. The size of the brush and its opacity affect the **Eraser**.

There are numerous tools in the **Create Frisket** mode. These tools will only affect the frisket. They range from airbrush, fills, global effects like texture and blur, to special effects like adding red, green or blue levels of the picture into the frisket. If you de-select the **Mix** item in the frisket menu, the frisket appears on a white background.

The frisket is a tool, it does not alter the saved or printed image.

Edit brush

This item is exactly the same as that for the **Paint** menu except that the brush name indicates that the brush is a Frisket brush. **Ctrl B** will leave the dialogue on screen.



Airbrush

This provides an airbrush tool for the frisket. Note that holding down **Ctrl** whilst using this tool does not work as an eraser as it does in the Paint menu. See **Eraser** below. The level of protection afforded by the airbrush varies with the density of the colour. By default the Frisket colour is red and varying shades of red indicate different levels of protection.

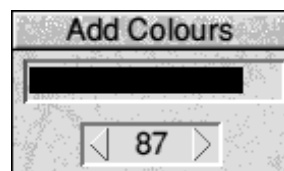
Eraser

This is a separate erase tool with its own brush settings as described on the previous page.

Watercolour

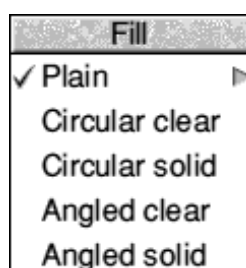
This works in the same way as the normal watercolour brush, except that it works into the frisket.

Add colours ▸



This item is very useful for adding irregular shaped areas with large numbers of colours to the frisket. It adds pixels to the Frisket, dependant upon their colour in relation to the pixel that you click on. The slider gives a range either side of the chosen colour. Try a setting of 5 and then try a setting of 50. A small setting used repeatedly is useful for increasing the area in the Frisket under your control.

Fill



Plain

This fills all connected pixels of the same colour as the initial pixel. The fill colour is the Frisket colour and the transparency is that set by the **Plain** slider.

The following fills create a frisket that has varying levels of transparency. Where a solid frisket colour appears the frisket stops any change to that area when the frisket is active but as the frisket colour lightens the effect of the frisket alters. The effect you get depends upon the tool and colour that you will be using through the

frisket and the colour of the image that you are painting on to.

Circular clear

This is a circular graduated fill that goes from clear (no frisket colour) to full frisket colour.

Circular solid

This is a circular graduated fill that goes from solid frisket colour to no frisket colour.

Angled clear

This is an angled graduated fill that goes from clear (no frisket colour) to full frisket colour.

Angled solid

This is an angled graduated fill that goes from solid frisket colour to no frisket colour.

Example

Try the following using the supplied PinkCar image.

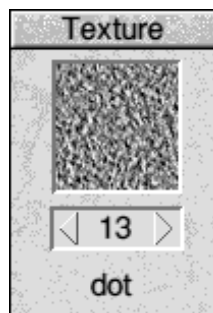
1. Toggle the Frisket icon to **Create Frisket**.
2. Do a **Fill** ➔ **Circular clear** by dragging the arrow from the top left corner of the canvas to the bottom right. Note the graded fill in the frisket colour.
3. Toggle the Frisket icon to **Frisket Active**.
4. Select **Paint** ➔ **Watercolour** and set a large size with full colour opacity.
5. Select a dark blue from the **Quick choice palette** and paint over the canvas randomly.

Note that the blue is solid where any white appeared in the frisket but as you progress towards the solid frisket colour the blue becomes more transparent until it has no effect at all. Try this with the other fills. Use **Frisket** ➔ **Clear** to remove the frisket and try a new one.

Blur

This tool softens the edges of the frisket to provide a smooth transition. This is useful for going from a solid frisket to no frisket over a short space and for anti-aliasing friskets.

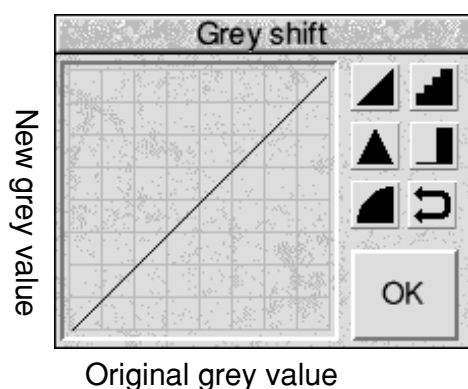
Texture



This item creates a frisket using the currently selected texture. The level of opacity of each pixel is calculated from the grey scale value of each pixel in the texture map.

Grey shift

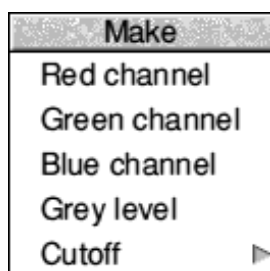
This item works in the same way as the normal **Grey shift** (see the section on **Filters**) but is applied to the Frisket. The whole image is analysed and each pixel assigned a grey scale value depending upon its intensity. The grey level is calculated in a linear manner and the shift allows you to change the mapping of original to new value. The results are written into the frisket.



The next three menu items are also extremely powerful, so please take a little time to understand them.

Make

All items in the **Make** menu replace an existing frisket with the results of the action chosen here.



Red channel

Click on this item to make the red components in an image into the Frisket. The frisket is created according to the amount of red in each pixel. It is important to remember that the pixel colour may contain an element of red even if it is not obvious to the eye. Apply this item to the PinkCar picture and note that the frisket is applied to the car paintwork as expected (pink contains red) but that the man to the right of the car in a green T-shirt is unaffected because the green of his shirt contains no red. Using a blue **Watercolour** brush with **Frisket active** paint over the area. You will note varying levels of transparency. Look especially at the sky in the top left corner. This is white and white is made up of 100% red, 100% blue and 100% green. Therefore the white sky is made into a solid frisket area and provides total protection.

Green channel

This is similar to Red channel except that it applies to the green component in each pixel.

Blue channel

This is similar to Red channel except that it applies to the blue component in each pixel.

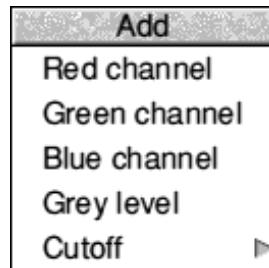
Grey level

This item analyses the image by converting it to a grey scale image internally and then applying the frisket according to the grey level of each converted pixel. The image is not actually changed to a grey scale image.

Cutoff

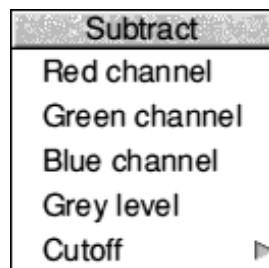
This item uses just two levels of frisket colour, full and none. The cutoff point is determined by the level of colour intensity and anything below this level is left unaffected whilst anything above it is set to the solid frisket colour. Five on the slider results in almost no frisket and 100 on the slider results in everything being in the frisket.

Add



The items in this sub menu are exactly the same as those in the **Make** sub menu but they allow you to **add** to the frisket instead of replacing anything that was already there. This allows you to create a frisket of the blue and red components in the image for example. The **Cutoff** tool is especially useful in this menu as it allows you to fine tune what is included in the frisket by altering the slider in small steps and adding to the frisket.

Subtract



Again this sub menu is the same as the previous two except that the components chosen are removed from the frisket. It will only have any effect if there is already a frisket in use.

Invert

This item literally inverts the frisket. However, remember that the frisket has 256 levels and the inversion is relative to the original position in the 256 levels. For example, level 1 inverts to level 256, level 2 to 255 and so on.

Clear

Click on this item to clear the frisket and start again. This does not recover the memory used by the Frisket.

Frisket colour

This sets the current foreground colour as the primary frisket colour.

Mix

When ticked this item shows the picture and current frisket mixed together. If the item is unticked then you see just the current frisket on a white background. The mixed option is most useful but unmixed can be used where colours can be confused or when you want to touch up a frisket.

The unmixed option can also prove useful when using **Frisket & Eraser** as you can concentrate on erasing just the right area of frisket.

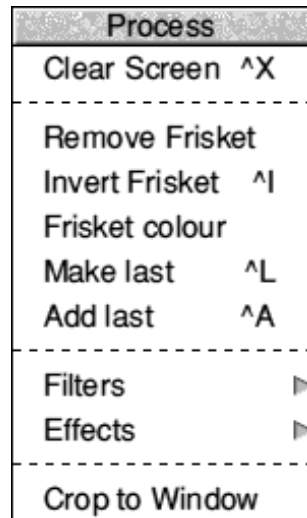
10. The Process Menu



Process mode

This menu provides the interface to the image processing section of ProArtisan 24 and also to some very powerful **Frisket** facilities. The **Filters** and **Effects** are described in functional terms in this chapter but in Appendix 1, we provide some easy to use examples that illustrate the use of many of these items.

The real power of the **Filters** and **Effects** is that they can be selectively applied to any discrete area of the canvas by using a Frisket.



Clear Screen

Click on this menu item to clear the canvas to the current foreground colour. Alternatively use **Ctrl X** at any time the program has the input focus. If you hold down **Shift** whilst pressing **Ctrl X** the canvas is cleared to white.

Remove Frisket

Clicking on this item removes the current frisket and recovers the memory used by it. A frisket requires 1/4 the amount of memory as your current canvas. This has the same effect as **Frisket ç Clear** except that it also recovers the memory used by the frisket.

Invert Frisket

Clicking on the icon, or pressing **Ctrl I**, inverts the frisket so that an area that is protected by the frisket becomes the area that can be worked on and vice versa. This has the same effect as **Frisket ç Invert**.

Frisket Colour

Clicking on this icon sets the frisket colour to the current foreground colour. This lets you set the frisket colour so that it is easily distinguished from the colours in the canvas. This has the same effect as **Frisket ç Frisket colour**

Make Last Ctrl L

Click on this icon to make your last action the frisket. This applies to almost any action. For example, if you had filled an area then the filled area becomes the frisket when you select **Make Last**. Other useful friskets can be created after using **Magic Brush** and then making the changed colours the frisket. You can even undo the last action after you have made it the frisket.

ProArtisan 24 has a one step **Undo** feature, see page 4.6, which allows you to delete operations and restore the previous screen. This 'back screen' is what is used in the **Make Last** and **Add Last** items. When you click on either of these items the program compares the 'back screen' with the canvas and any changes or additions to the canvas that do not appear on the 'back screen' are used to form the frisket. However, because you still have the 'back screen' you can choose to **Undo** the changes and revert to your previous canvas. The key thing to remember is that the changed areas are now stored in the frisket and can be used to protect areas on the canvas.

This item has no parallel in the **Frisket** menu as it is used to make **any** change into the frisket.

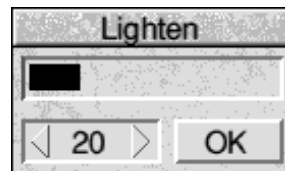
Add Last Ctrl A

This is similar to **Make Last** above except that the frisket defined by the last action is **added** to any frisket that already exists, allowing you to build up a complex frisket.

This item has no parallel in the **Frisket** menu as it is used to add **any** change to the frisket.

Filters & Effects

Many of the entries in the Filters and Effects menus use a common slider box to set a percentage value. One box is described here to avoid duplication.



The slider can be altered either by dragging the black bar or by clicking on the bump arrows. The current value is shown between the bump arrows. The significance of the value is explained in each item. Click on **OK** to confirm the value and initiate the action. If you want to carry out repetitive operations use **Adjust** to click on the **OK** button. In this case the effects are cumulative. This enables you to use small settings so that you can fine tune the effects in order to achieve the required effect.

Filters

This sub menu and the next contains a wealth of exciting options which are extremely versatile, particularly when used in conjunction with the **Frisket** or other **Filters** and **Effects**. The best way to appreciate these filters is to try them out on an image. You can use the same image in each case and then use the **Undo** option before moving on to the next filter. Be warned that some of the filters are processing massive amounts of data and so they may take a little while to complete but the effects are worth waiting for. On the more complex filters you can press **Escape** to abandon an operation and preview the effect as far as it has reached. The filters work horizontally down the screen. You can then use the **Undo** option and repeat the effect or alter the parameters in the knowledge that the effect will be what you require and thus worth waiting for.



You may like to use a small image for trying out some of these filters.

Inverse

Clicking on this item inverts the canvas colours logically, providing a colour negative effect. The canvas is still in colour. Technically the effect is NOT RGB and is created from the following formula - (255 - RED) + (255 - GREEN) + (255 - BLUE).

Tint

Click on this item to remove all colour from the canvas and turn the image into a tinted image using the current palette. If the palette is the grey scale then you will get a monochrome effect. Other sets will provide different tints. For example Palette 5 (Autumn) gives a sepia effect.

Lighten

This option has a sub menu, shown on the previous page, which lets you set the amount that a picture is lightened by adding a percentage to the grey level values of the current pixels. Click on **OK** to lighten the image. Remember that you can use **Adjust** to apply successive changes.

Darken

This item is the opposite of lighten and the slider lets you set the amount by which a picture is darkened. Once the value is set click on the menu entry to darken the image.

Cutoff

This item enables you to posterise the image. It changes the image to just two colours. The slider determines at which intensity the switch from one colour to the other takes place. The two colours used are white and black. A value of 5 on the slider gives a totally white image. A value of 100 results in a totally black canvas.

Contrast

This item applies contrast to the image. Contrast is the balance between light and dark. The larger the value the greater the contrast.

Anti-Alias

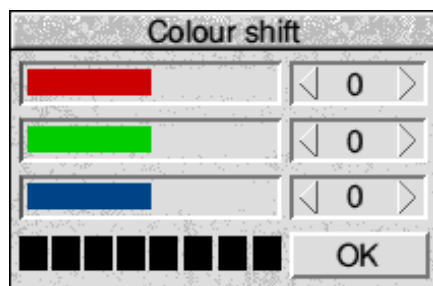
This item softens the image by blurring the edges so that objects merge into each other.

Remove Dots

This item is of most use on scanned or digitised images. Its purpose is to remove isolated dots in the image. The slider controls the target dot size. Large clusters of dots are anti-aliased, single dots are removed and replaced by their surrounding colour.

Colour Shift

This item enables you to alter the colour balance in an image.



The sliders in this window are Red, Green and Blue (RGB). They range from -128 on the left and 128 on the right with a mid point of zero. If you raise the red slider up towards 128 the image gets progressively more red because the red component is being intensified. Moving the slider to the left towards -128 progressively removes the red component and at -128 almost all the red is removed from the image. You cannot see the effect of the change until you click on **OK**.

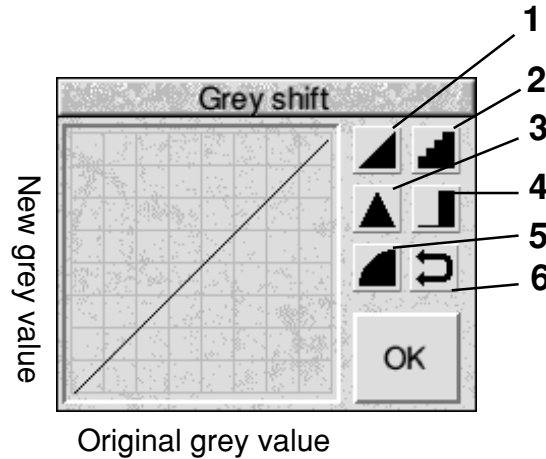
Exactly the same applies for the other sliders except that they control the green and blue components.

The row of blocks to the left of the **OK** button enable you to *lock out* areas of differing intensity. A block is selected when it is solid. If you only have one block on the left selected then the colour shift only applies to the darkest colours. If you add the next block then all colours up to that intensity are affected. You can have individual blocks selected so that you only affect one band of intensity. The block at the far right selects only the brightest intensities.

Grey Shift

This item first converts the image to a grey scale using standard algorithms and then processes the grey scale according to the gradient slope defined by the line in the dialogue window.

The source image grey scale lies on the horizontal axis and the resulting grey scale lies on the vertical axis. Black for each axis is in the bottom left corner. This all sounds very technical but as it is easy to try it you are best doing so and noting the effects.



When used on images that are originally colour, the number of resultant greys depends upon the colour distribution in the original image. If you are trying to understand this filter you are best using the supplied image called **Greys** as the results with a grey scale image are much more predictable.

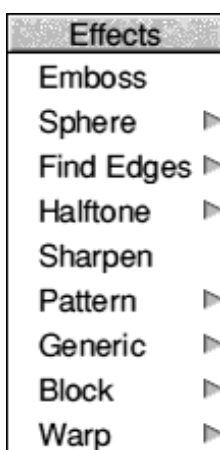
The icons in the window are numbered above and their function is detailed below.

1. **Standard** - The default line of a 45 degree slope leaves all the greys as they were. This is because all of the greys represented in each square on the horizontal axis are mapped to the corresponding square on the vertical axis.
2. **Posterise** - This reduces the number of colours in the image.
3. **Solarise** at 50% - All the colours from black to mid grey are mapped to a progressively brighter grey (except for black which stays the same) with mid grey converting to white. The line then goes down so mid grey becomes white and as you move further towards white in the original the greys become darker ending up with white on the original becoming black. Try it on the **Greys** image and re read the above.
4. **Posterise** at 50%. This has the effect of reducing the **Grey** file to a small number of colours. All colours from black to mid grey are converted to black because there is no vertical component and all colours from mid grey to white are converted to white because the horizontal line is at the top of the vertical axis. This is the same as the Cutoff filter.
5. **Mid range boost** - This has the effect of keeping black and white constant but brightening all the greys in between.
6. **Invert** - This reverses the effect of any gradient already defined. As well as the supplied gradients you can draw your own into the grid by altering one of those already there.

Grey Shift is useful for processing images that are to be printed in monochrome and is also very useful for manipulating grey level sprites. You can for example boost some areas and reduce the effect of others.

Effects

This menu provides lots of special effects that can be applied to the canvas.

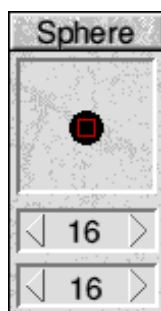


Emboss

This effect is quite amazing. It uses the current Palette to create an *embossed* image on the canvas. Initially you should try it with the grey scale palette. This feature can also be used to make some interesting backdrops for your desktop.

Sphere

This item wraps the whole canvas onto an imaginary sphere.



The first parameter controls the size of the sphere used and the second controls the distance your imaginary viewpoint is away from the sphere. These are represented by the sphere and square respectively.

Find Edges

This item uses the familiar drag box to set a value. When you click on **OK** this item attempts to find any edges that occur in the image. The value of the drag box controls the width of the edge on the resulting image.

Halftone

This item creates a fractal halftone which gives a more natural mezzotint type diffusion that avoids patterning normally associated with half toning. The drag box controls the cluster size around which the fractal is based. A halftone consists purely of two colours, the foreground and background colours.

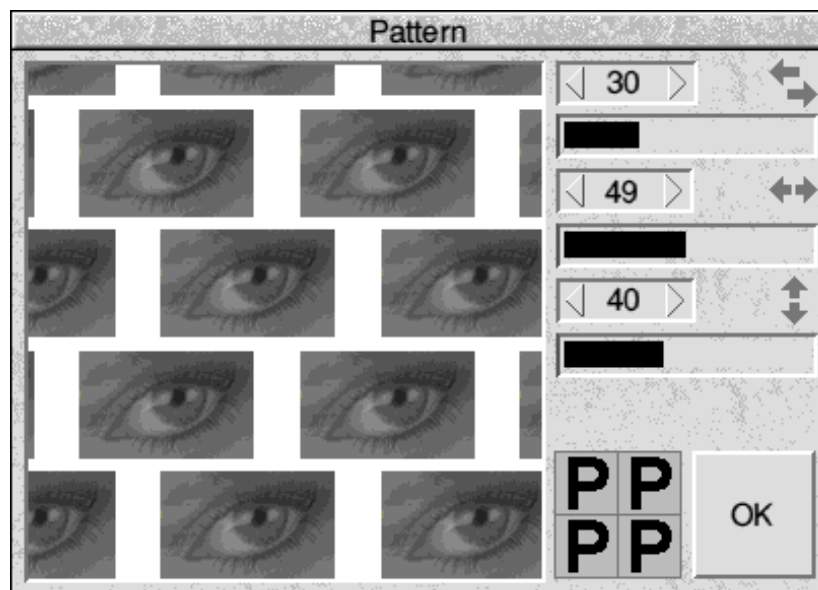
When used in conjunction with the frisket you can use **Halftone** to add random 'noise' to areas of the canvas before further processing. For example a **Halftone** followed by an **Emboss** gives new textures.

Sharpen

Clicking on this item applies a sharpen filter to the image which sharpens up the edges and makes them *harder*. It is similar to the **Emboss** item but enhances the colours present rather than using the current blend set.

Pattern

This item leads to a **Pattern** dialogue window.



The large area shows the current sprite. Depending upon the size of the sprite you will see part of it or the sprite repeated a number of times. This dialogue only has relevance if the sprite is repeated.

To alter a value drag the sliders or click on the bump arrows. The sliders and bump arrows from top to bottom are:

Horizontal offset - which slides the repeated patterns horizontally to provide an offset between rows of the sprite.

Horizontal displacement - which opens up the horizontal gap between the sprite tiles. The white area will be transparent and show the canvas through it.

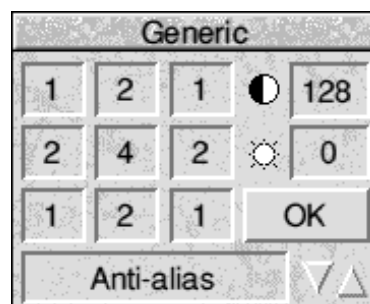
Vertical displacement - which opens up the vertical gap between the sprite tiles. The white area will be transparent and show the canvas through it.

Sprite orientation - the four **P** icons can be clicked on to alter the orientation of the relevant sprite tiles in the pattern. The sprite that is flipped depends upon the size of the original sprite. Clicking on the top left **P** icon will always flip the sprite to the right of the one flipped by the top left icon.

To apply the pattern to the canvas click on the **OK** button.

Generic

This item leads to a sub menu dialogue window that has thousands of possible combinations for designing your own filters.



A number of pre-defined filters are provided by clicking on the bump arrows to move through the list. You can either modify one of the existing filters, which have meaningful names, or go to the last filter titled **Null/User** and alter that one. The latter action is preferred as any changes to the existing filters remain in force until the

program is run again.

The two icons above the **OK** box provide **Contrast** and **Brightness** settings. The nominal base, or neutral position, for these is 128 for contrast and 0 for brightness.

Filter Design

This is a slightly more technical description of what the **Generic Filter** is and what it does. Most of the filters supplied in the **Filters** menu can also be created using the **Generic** option. The filter is applied to every pixel in an image and the current pixel being processed is always at the centre of the matrix.

The 3 by 3 matrix allows you to set weighting values that are applied to the pixel in the centre of the grid. Taking the example of the filter shown in the dialogue box above, the resulting pixel is made up of 4 units from the central pixel, 1 unit from each of the corners and two units from the centre pixels of each side. This then anti-aliases the image because the pixel retains more of the centre or original pixel than any others but is influenced by the other pixels to varying degrees. The following matrix sharpens an image by making the pixel 'stronger' than those surrounding it:

$$\begin{matrix} 0 & -1 & 0 \\ -1 & 5 & -1 \\ 0 & -1 & 0 \end{matrix}$$

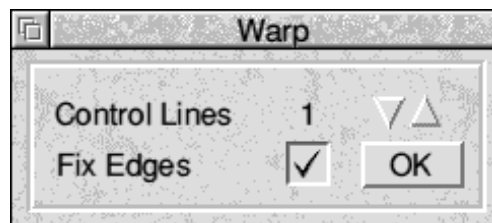
All that we can suggest with this item is to experiment, but do keep a note of any particularly nice filters that you discover as you may want them in future. We would also be pleased to hear of useful filters.

Block

This item converts an image into blocks by converting individual pixels into larger blocks. It gives the same effect as is seen on TV to hide a person's identity. It also brings back memories of graphics on the BBC micro. The slider controls the size of the block.

Warp

This item allows you to warp the image in many different ways. You can control the number of lines using the bump arrows. Each control line requires two lines to be plotted; a control or source line and a destination line. Each pair of lines are colour coded for reference. In addition you can decide whether the edges of the warp area should be fixed or not.



By specifying a number of control lines, areas of the canvas may be warped from one position to another. Lines are dragged in pairs of **Source** and **Destination**. All the points on the **Source** line will be warped to the equivalent position on the corresponding **Destination** line. Points not on the source line are affected in inverse proportion to their distance from the source line. If you do not wish to keep the edges fixed the picture may warp right off the canvas or may shrink into the middle. A nice swirl may be obtained with just one control line and fixed edges. Make the source line horizontal near the centre and the destination line the same length, vertical and cutting the source line at the centre. Experiment!

Crop to Window

This item performs a crop on the canvas. This means that areas are removed from the image to reduce the canvas to the size shown in the window. To perform a **Crop** scale the main window so that the portion that you want to retain is shown in the window and then click on **Crop to Window**. Note that you cannot retrieve areas thrown away by cropping so it may be sensible to save the whole image first as a safeguard.

This facility has many uses including the cropping of scans to leave the required area. Before cropping any frisket is removed.

11. The PhotoCD Menu

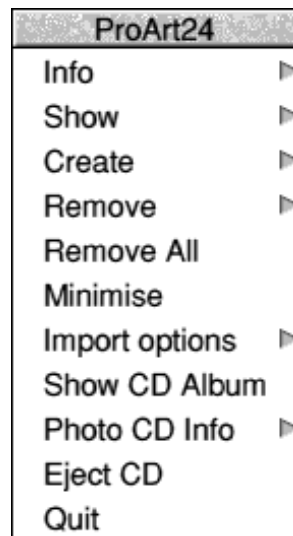
This short chapter introduces the Kodak PhotoCD capabilities. ProArtisan 24 is Kodak PhotoCD enabled. This means that you can load and manipulate PhotoCD images directly. The rest of this chapter will introduce you to the concepts of PhotoCD and its uses.

Before you can use Photo CD you must have a CD-ROM drive capable of reading PhotoCD images and also a version of CDFS 2.20 or later. A useful source of drives, cards and CDFS is Cumana Ltd (Tel. 0483 503121).

PhotoCD - Getting started

With a suitable CD-ROM drive installed on your computer load ProArtisan 24 in the usual way.

The ProArtisan24 icon appears on the icon bar. Click over the icon with **Menu** and you will notice three menu entries relating to CD.



Before going any further you must insert a Kodak PhotoCD into your CD-ROM drive. If you do not insert a **Kodak PhotoCD** into the drive, you will receive the warning message 'Can't open file' from ProArtisan 24.

Show CD Album

With a Kodak PhotoCD in the drive, clicking on this option produces a window containing the first ten thumbnail images on the disc.



Note: Do not click on this icon whilst the Busy light on the CD Player is lit.

As you can see from above, the thumbnail images are a series of radio icons labelled 1-10, 11-20 and so on. To view the thumbnails of the images numbered 11 to 20 click on the relevant radio icon at the top of the window. The same applies for the rest of the images. In some cases it is possible to have more than 100 images on a PhotoCD. To access any images above 100 hold down the **Shift** key whilst selecting the relevant radio icon, for example:

Shift + radio icon 1-10 shows thumbnails for images 101 to 110.

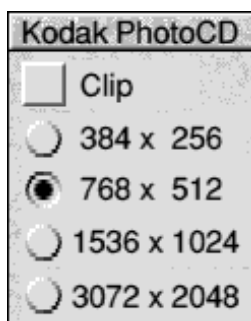
To load a full version of a thumbnail image, double click on the thumbnail image itself with **Select**. See the entry for **Control panel** on the next page to see how to load images at different resolutions.

Transfer

This button is found in the top right corner of the Album window. It is used to transfer the thumbnail images into the **Sprite pool**. The images are transferred in blocks of 10. If you do not want all 10 you can go to the **Sprite pool** and delete those not required. These images can be useful with the **Pattern** option in the **Effects** menu.

Control panel

Clicking with **Menu** over the **Album** window will bring up the **Control panel** options window.



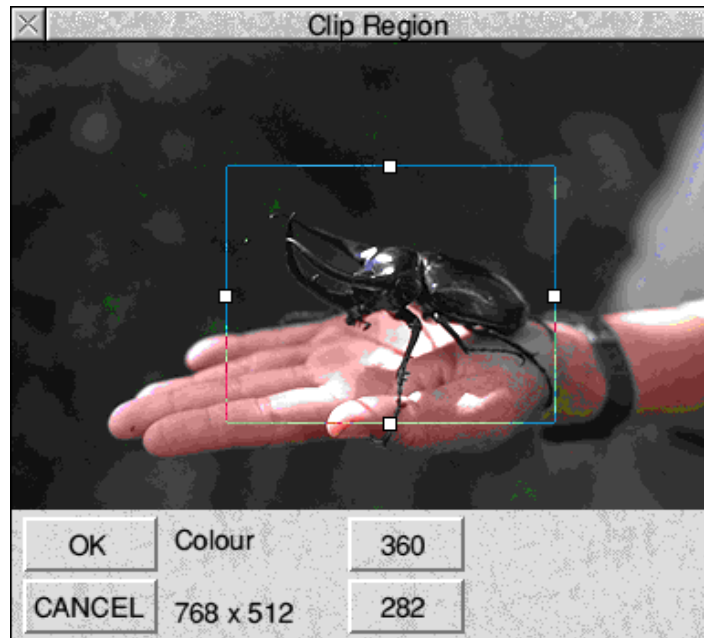
Resolution

The bottom of this window is occupied by four radio icons followed by differing resolutions. These resolutions are the size, in pixels, of the images that can be accessed from your PhotoCD. The maximum size that you can load is limited by your available RAM. You will not be able to load the highest resolution images without at least 32Mb of RAM. Most users will be unable to load the 1536 * 1024 images in their entirety. For this reason we have provided you with a **Clip** facility, see below.

Clip

This icon is provided to overcome the requirements of huge amounts of RAM for the higher resolution images. The largest image of 3072 * 2048 (16*Base in Kodak terminology) requires 24 Mb ($3072 \times 2048 \times 4 = 25165824$ bytes), this is without allowing for an Undo buffer and a Frisket (another 30 Mb) !

If you select the **Clip** option before double clicking on a thumbnail, the image is not loaded immediately but a **Clip** window appears. This enables you to select just part of the image for loading - thus enabling you to load parts of the highest resolution images. For larger images, it may take quite a while for the **Clip** window to appear due to the inherent speed of CD-ROM.



In the illustration above, we have selected to clip just the beetle from the image. To select an area you can either, modify the existing selection box, or simply drag over the area required. This creates a new box, replacing the original. If you want to edit the **Selection box** you can move the sides by dragging the **Selection blocks** with **Select**. If you drag any of the blocks using **Adjust**, the whole **Selection box** moves.

The text between the two sets of icons inform you of the current settings in the **Control panel**. The two icons to the right are the size of the image bounded by the **Selection box**.

To initiate a load of a clipped region click on **OK**. Note that clipping from a high resolution image will take a little while to do. Clicking on **Cancel** closes the **Clip window** and re-opens the **Album window**.

Photo CD Info

This menu item is found on the icon bar menu and going to the sub menu provides information about the Kodak PhotoCD currently in the drive - be patient.

Eject CD

So that the filing system does not become confused with unmounted CD-ROM's, ProArtisan 24 locks the CD-ROM into the player. To remove the CD-ROM you must click on this menu item which first dismounts the CD-ROM and then ejects it. Ejecting Photo CD's in any other way will confuse the system and result in an error message similar to that you receive when trying to view a non compatible PhotoCD.

Short Examples

These examples are also printed in the Tutorials guide.

This section contains lots of short examples which illustrate some of the effects possible with ProArtisan 24. This is in no way a comprehensive list but we hope that the examples will trigger off other ideas that you can try yourself. One of the aims of these examples is to get you to understand that the features in ProArtisan 24 can be mixed in an unlimited number of combinations to achieve lots of effects. Each new example assumes that the program is in its default state and particularly that the **Frisket** icon is set to **Frisket Inactive**.

The examples are deliberately kept short and terse to encourage you to try them out. In some cases starter files are provided and in these cases you will be told to load the file eg **Invert1**. In some cases a file showing the expected result is also provided and this always has the designation 2 at the end of the filename eg **Invert2**.

Invert

Load the image **Leafco**. Toggle the Frisket icon to **Create Frisket** and select the **Paint** icon. Press **Menu** to bring up the **Frisket** menu and click on **Frisket ▶ Make ▶ Blue channel**. This turns any blue components in the image to red, the default Frisket colour. Untick the **Frisket ▶ Mix** item to see the frisket and then turn **Mix** back on again. Toggle the Frisket icon to **Frisket Active**; select **Process ▶ Filters ▶ Inverse**. Note how the changes relate to the intensity of the frisket colour when you viewed the Frisket unmixed with the image. You may find it useful to use **Process ▶ Filters ▶ Inverse** on the image without a frisket active. This will illustrate that difference that the frisket makes.

Re-create the image and try using **Process ▶ Invert Frisket** followed by **Process ▶ Filters ▶ Inverse**. Note the different effects. Also try using the other **Frisket ▶ Make** options.

Shaded

Use blank white canvas (Disc label size) and place the word **TEXT**, in black, on screen in 72pt Homerton font. Remember that text uses the current background colour and for it to be solid you must set **Draw ▶ Style** to be solid. Click **Process ▶ Make Last** to create a mask from the text and then click on **Undo** to remove the text. Do a circular fill over the whole canvas using the grey scale palette. Set **Frisket** icon to **Frisket Active** and use **Process ▶ Clear Screen**. The text appears shaded with the fill because you have protected the filled area under the frisket. Use **Process ▶ Filters ▶ Anti-alias** to smooth the text.

Texta

Use a blank white canvas and place the word **TEXT**, in red, on screen in 72pt Homerton font. Circular fill each letter from top left corner using the grey scale palette. Go to the **Drawing ▶ Path** dialogue and ensure that **Style** is the selected brush. Click on the text path to paste it onto the canvas. Place it slightly higher and to the right of the original text and click outside the outline to give text with a drop shadow.

Textb

Using the image generated in Texta use **Paint ▶ Fill ▶ Plain** to fill the first letter in yellow (the foreground colour is the fill colour.. Now click on **Process ▶ Add Last**. Repeat this procedure for each of the remaining letters in turn. Now use **Process ▶ Invert Frisket**. Set Frisket icon to **Frisket Active**. Next use **Process ▶ Effects ▶ Half Tone** set at 50. Notice the yellow flecks on the red text. Now use **Process ▶ Effects ▶ Emboss** to get a nice effect.

Texture

Load the image called Lindos. Bring up the Palette and go to the Picker palette (number 32). You can do this quickly by clicking on the current palette number. Hold down **Shift** and drag a box from just above the door as far as you can towards the window on the right but without picking up any other colours from the roof or window. You should notice 3 or 4 rows of greys in the Picker. Select magenta as the background colour. Go to **Paint ▶ Magic Brush** and paint over the walls of the church. When finished click on **Process ▶ Make last** followed by **Undo**. Click on **Process ▶ Invert Frisket**.

Toggle the frisket icon to **Frisket Active** and use **Paint ▶ Texture** with the pebble texture to wipe over the walls of the church. You have just rebuilt the church in rough stone.

Sprite Stretch

Load the **Applepoint** image into the **Sprite Pool** by dropping it onto the **Sprite Pool** window. Clear the canvas and paint some wavy thick black lines down the canvas about 3 inches wide. Select **Paint ▶ Fill ▶ Spritestretch** and click into the black area to see the sprite fill the area.

Red apple

Load the file called **LeafCo** and toggle the **Frisket** icon to **Create Frisket**. Use **Frisket ▶ Add colours** at a setting of 20 and click on the apple. The screen will show a red frisket covering part of the apple. Select magenta from the quick choice palette as the foreground colour and click on **Frisket ▶ Frisket colour** to make the frisket easier to see. You will need to repeat the **Add colour** process several times on the bits of the apple that are not covered by the frisket. Don't worry about any other areas being affected as we will deal with this later. When the apple is completely covered by the frisket select **Frisket ▶ Eraser** and set the **Edit brush** so that the opacity slider is full on. Now wipe over the screen (avoiding the apple. to erase the frisket everywhere except the apple. If you toggle the **Frisket ▶ Mix** item you Will see any stray areas of frisket that you missed and you can erase them. Toggle the **Frisket** icon to **Frisket Active**. Ensure that palette 19, grey scale, is selected and use **Process ▶ Filters ▶ Tint** to make the canvas grey, except for the red apple ! If you invert the frisket before applying the Tint then only the apple becomes grey.

Acorn 1

Load the supplied image called **Acorn** and then type the word **Acorn** into the **Draw ▶ Text** box using black text in Homerton 24 point. Place the text on top half of the acorn but inside the green boundary. Click on **Process ▶ Make Last** followed by a click on **Undo**. Toggle **Frisket** icon to **Frisket Active**. Use the Autumn palette and do a **Paint ▶ Fill ▶ Angled** by dragging from top to bottom of the top half of the acorn. Note the text in the green of the original acorn. Select the grey scale palette and click on **Process ▶ Effects ▶ Emboss** and note that the current palette is used for embossing.

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