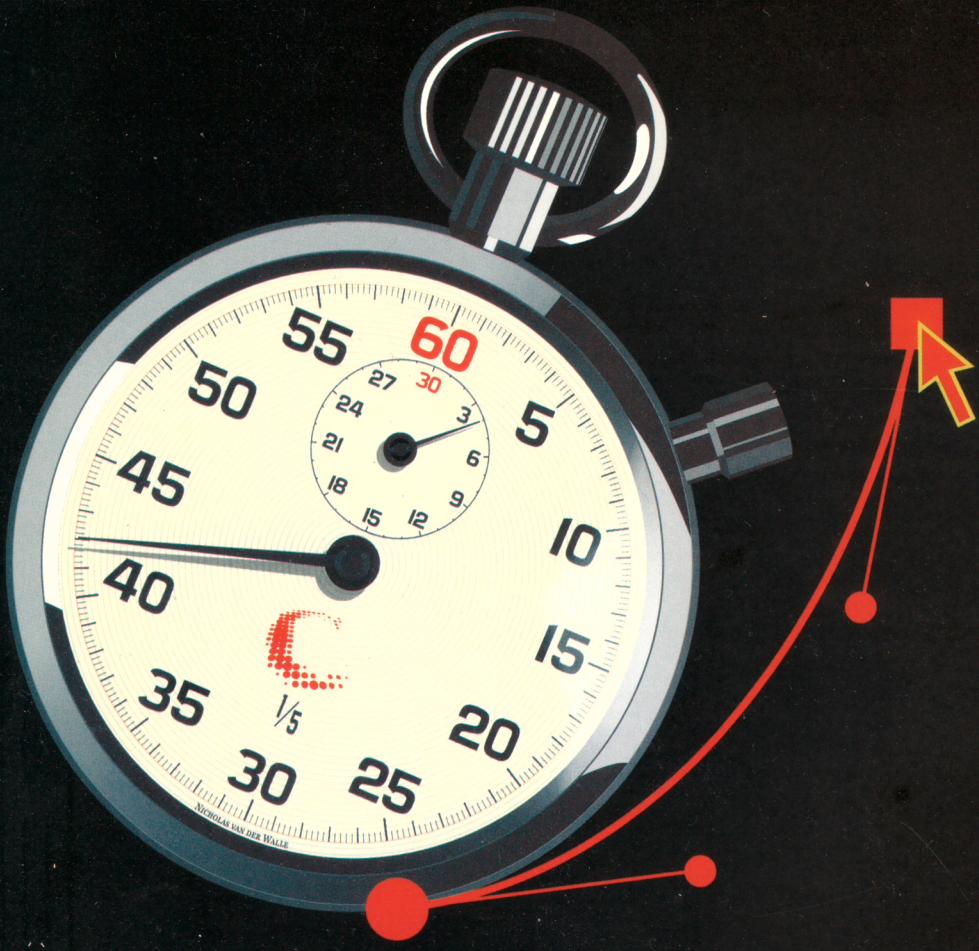


vantage

Designed & Published by

Cerilica

USER MANUAL

1st Edition

Designed and developed by Cerilica Limited
PO Box 40 Ross-on-Wye HR9 7WH ENGLAND

First published 2nd July, 2001
First edition revised 15th October, 2001 for software version 1.01

Printed by Flying Colours, Ross-on-Wye, England
Cover printed by Micro Laser Designs, Bath, England

Please refer to the outside back cover of this manual for Software License Agreement and Limited Warranty.

Due to the nature of software products, continuous developments are being made to both the software and the manual. Cerilica Limited can not accept any liability for any loss or damage caused from the use of this program or the information in this manual.

Screenshots within may vary from the display on your system as each RISC OS desktop can be configured in many different visual manners.

Cerilica would like to hear about any comments or suggestions arising from this manual. Please send these to:

Cerilica Limited,
PO Box 40,
Ross-on-Wye,
HR9 7WH,
ENGLAND

or e.mail cerilica@cerilica.com

Contents

Introduction

Welcome

Welcome to the future of computer-based design and publishing. Welcome to Cerilica Vantage!

The package you have in front of you represents many man-years of work which is hopefully borne out in the visible result. Cerilica Vantage for RISC OS takes up the challenge from where predecessors left off many years ago, bridging a large function gap that had become more and more evident over time.

One of the advantages of Cerilica Vantage over similar packages available on all platforms is that it was hand-crafted by users *for* users. This translates into a system that is both highly efficient and capable of allowing designers and publishers alike to produce results swiftly and accurately. To all users who have been brought up on CorelDRAW and even ArtWorks, once familiar with Cerilica Vantage you will notice what a breath of fresh air this package is.

Enjoy!

About this manual

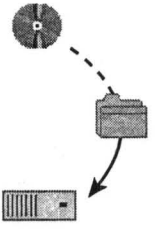
This manual assumes that you are familiar with RISC OS and its methods and standard terms of operation such as the three mouse button names (Select, Menu and Adjust). If you are not, please refer to your RISC OS computer's User and Welcome Guide.

Throughout this manual you may find the exclamation mark as depicted left. Any material next to this is deemed to be important and therefore special attention should be made to those sections.

Another symbol which is of interest is the information "i" as shown left. Whereas these sections are not essential, you may find the comments very useful to aid the use of this software.

Installing and Cerilikey

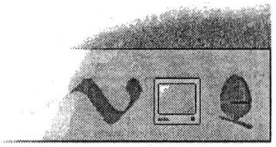
Before installing the software, ensure that you have read and agreed with the software license agreement and limited warranty at the back of this manual before proceeding.



To install the software the **!Cerilikey** application, to be found on the 3½" floppy disc, should ideally be copied into your "Boot Resources" directory when using RISC OS 3.5 or higher. To do this, open your **!Boot** folder (usually found in the top directory of your main hard disc) by holding down **Shift** and **Select-double-clicking** on it. Now open the **Resources** directory in the filer window that has just opened and drag the **Cerilikey** application from the floppy disc into this newly opened directory. In order for Vantage to run, your personal traceable copy of **Cerilikey** needs to be seen by RISC OS beforehand. By placing it in the Boot Resources directory, you have ensured that this is the case with each future boot.

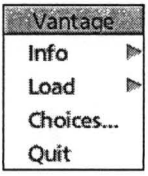
To install Vantage itself, open the Vantage CD filer window and open the **vantag/arc** archive using David Pilling's **SparkPlug** (supplied on the CD) or the commercial **SparkFS**. Copy **!Boot** over !Boot that may be found on your hard disc (thus giving your Boot folder Cerilica-enhanced PostScript resources) and **!DotGain**, **!Monitor** and **!Vantage** into the hard disc location of your choice. Machine re-boot is optional.

Loading and terminology



To load !Vantage, just double-click on the !Vantage icon on your hard disc in the standard RISC OS fashion. The !Vantage application icon will then install itself on your iconbar.

As Cerilica Vantage is a multi-document-capable application, there is usually very little to be gained from loading the application multiple times. An attempt to do so will be subject to a confirmation request, which allows you to proceed or cancel.

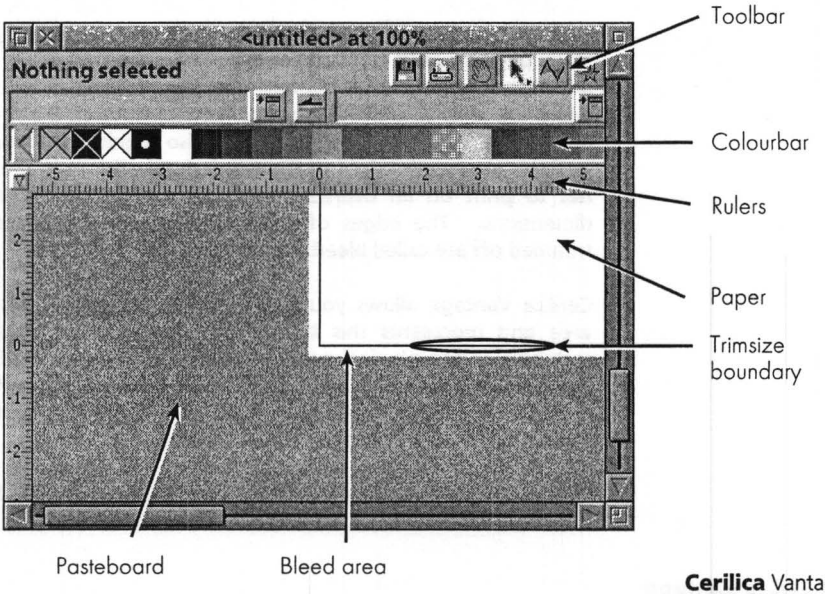


The Vantage iconbar menu gives you three choices:

Select-click	brings up a new document window
Menu-click	shows the iconbar menu (right)
Adjust-click	displays the choices window (which may also be accessed by clicking on **Choices...**)

By accessing the iconbar menu, it is possible to check the version number and license details of your uniquely-registered application by following on from **Info** ▶. Such details as !Vantage version number, date, license type and holder are displayed.

Clicking with **Select** on the Vantage icon on the iconbar, opens a new document window.



You will notice that there are initially no floating toolbars or excess window "furniture" such as fancy scroll-up menus. This is one of the key factors which makes Cerilica Vantage so usable and efficient. The majority of the screen, when the document window is maximised, is occupied with the illustration.

The toolbar and colourbar are separately scrollable which enables all colours and/or tools to be seen in smaller document window sizes. With the most commonly used tools (and often colours) on the left of the bars, both will immediately jump back to their left-most position when pointer crosses the main drawing area.

For those who are likely to use Cerilica Vantage in larger screen modes (such as 1280 × 1024 pixels), please refer to the configuration section which allows you to create a longer and thinner toolbar and therefore enable you to see a greater amount of the page. You will also find (explained in much greater depth, later) that colours can be displayed in your favourite order by **Dragging** the colour squares.

Paper presentation

It is essential to understand the concepts of paper sizes, trim and bleed in order to operate Cerilica Vantage correctly.

With any professional magazine or book, you will see that many page graphics run right to the edge. This is opposed to a desktop printer which typically requires margins all round which are used to grip the paper as it is fed through the print mechanism. Professional print devices also require grip areas, so therefore to print right to the edge of a finished page, one has to print on an oversized sheet and trim to the final dimensions. The edges of the oversized page which are trimmed off are called bleed areas.

Cerilica Vantage allows you to specify an amount of bleed area and represents this by always drawing a thin black rectangle at the physical page boundary. Anything running over this area from the actual page will not be present after the printed page is trimmed. Details of how to control this are described later in this manual under page control.

To make Cerilica Vantage represent the unprintable area for desktop printers instead of the physical page and bleed areas,

load the RISC OS printer driver, highlight the Vantage page and press **Ctrl-F11** (or toggle **Menu ▸ View ▸ Print margin**).

The pasteboard area may have items placed on it. This allows you to temporarily move things around on the page. All items left on the pasteboard will be saved in that position along with the rest of the page.

Vector drawing objects

Vector drawings are different to bitmap graphics (referred to on the RISC OS platform as "Sprites") in that an illustration is made of objects rather than just pixels. This allows the designer to create *and* edit objects without fixing and possibly ruining a drawing.

The word vector refers to the mathematical way of determining a profile through its coordinates relative to the page. The coordinate or ruler origin (0,0) of the page is initially the lower left corner. This is shown in the Vantage window by the numbering on the horizontal and vertical ruler bars.

Normally, users do not have to concern themselves with vector coordinates (X and Y positioning) as Vantage is drag-and-drop throughout. However, circumstances may arise (such as the positioning of a box) where it is possible to accurately state exact positions on the page.

The objects Vantage allows a designer to place on a page include both vector profiles (paths) and bitmaps (pictures). The bitmaps are treated fully in a vector manner, so may therefore have the same transformations applied as to their shape counterparts.

The objects to the right show another subtle but vital variation in vector profiles. Shapes are objects which are dynamic and fully editable in some particular manner. For example, polygons (whose number of sizes and dimensions may be specified and altered) and text (which may be edited like in a word processor). Shapes are always closed objects and they can be filled in a variety of ways. Paths are user created, edited or manipulated objects and may be filled regardless of whether they are open or closed.

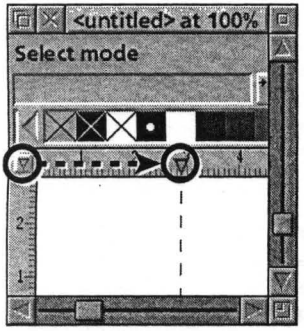
Shapes, above.
Paths, below.

Chapter 1

Navigation

It is important to learn the philosophy and terms involved in using Cerilica Vantage. As previously mentioned, drag-and-drop is implemented to a great extent throughout the package. RISC OS users should be familiar with drag-and-drop using everyday operations like copying and moving files in the window-based filer system. Vantage takes this principle further than previously used in practice in order to make the use of Vantage more intuitive.

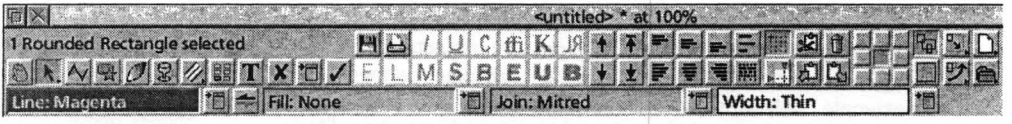
All of the drag-and-drop operations are not about to be covered here, but please try such operations even if you do not fully read this manual. Here are some examples.



- In addition to moving objects in the usual way, it is possible to save selections by **Select-dragging** them off the page and onto a filer window.
- The sequence of colour squares in the colourbar may be rearranged by **Dragging** them along the bar.
- Ruler guides (explained later) may be simply specified by **Select-dragging** the small corner ruler guide arrow icon. See left.
- Objects may have their colours specified by **Select-dragging** the colour square to the fill status boxes on the left side of the toolbar (explained later).

Tools and tool sub-menus

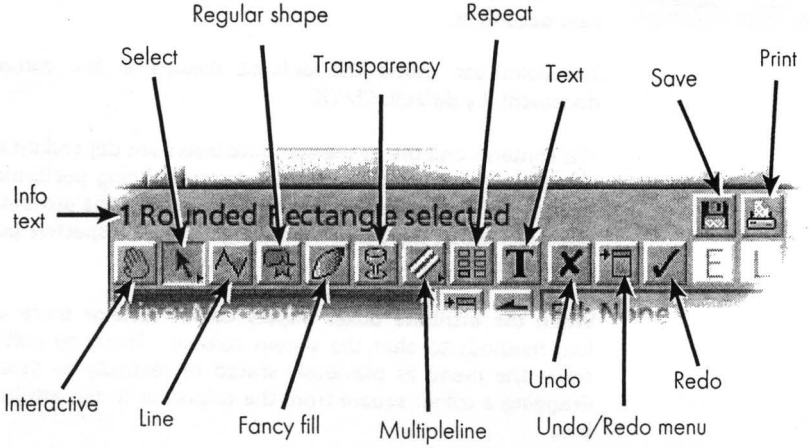
The toolbar gives a user access to a variety of Vantage tools essential to draw, edit and manipulate a drawing.



Full IVantage toolbar is shown above.

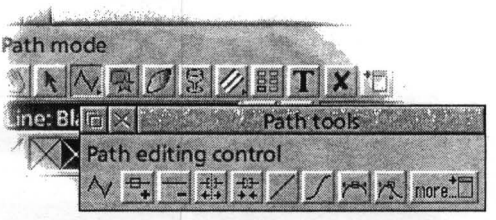
This screenshot is taken with the default choice of "Smaller toolbar for 800 × 600" and suits screen resolutions up to 1024 × 768 pixels. If you typically work in higher screen resolutions and have unset this choice, the layout of the icons will vary.

The first buttons on the Vantage toolbar that you will come across are the main function tools. These tools enable you to access the creation aspect of Vantage as well as perform vital tasks such as saving, exporting, printing and selection.



As with all toolbar buttons, you will be able to determine which one is selected by its "sunken" appearance.

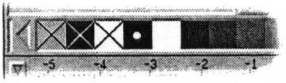
When depressed, some of the tools also exhibit a small black triangle at the lower right-hand corner of the icon. This means that a function sub-window is available, revealed or hidden by repeat-clicking on the function icon.



The Path tools window, above, was brought up by multiple-clicking on the Path tool.

If you have brought up any such function window and then select another tool icon or function, the window will alter accordingly. This maximises screen area as you are only able to perform a single function in one operation.

Colourbar and attribute options



Integral to the Vantage toolbar is the colourbar and the four attribute options boxes which appear blank upon opening a new document.

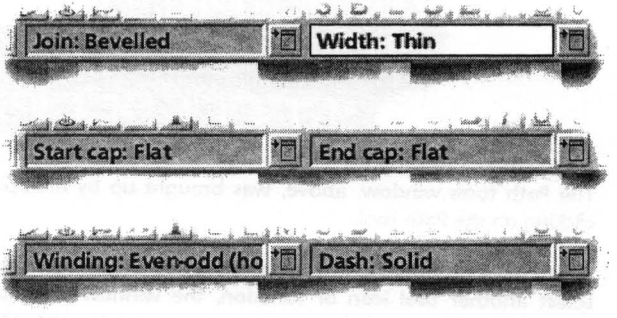
The colourbar shows the defined colours in the current document, by default, CMYK.

The contents and use of the attribute boxes are dependant on the object selection or operation currently being performed by Vantage. When in use, it is possible to alter the attributes displayed within the boxes by clicking on their respective pull-down menu icons to the right of each box.

When the attribute boxes display colour settings there are two methods to alter the shown colours. Firstly by pulling down the menu as previously stated or secondly by **Select-dragging** a colour square from the colourbar to the attribute box.

i

In certain cases, it is possible to display further selected object attributes by **Adjust-clicking** on the attribute box. For example, upon creating a rectangle, one of the attribute boxes may state the join type. By **Adjust-clicking** on this attribute box, it is possible to access start caps and winding rules (all of which will be explained later). Continuously toggling through these attributes in this fashion would eventually return you to the original statement.



Example of accessing different attributes by Adjust-clicking on the boxes. Please note that in this case a pair of attribute boxes change simultaneously.

Entering of dimensions

There are many occasions to be found within Vantage which allows you to enter a dimension within a dialogue box. For example, when determining the dash pattern (**Ctrl-Shift-D**).

In all such cases, it is possible to state dimension in a variety of pre-determined units such as metres, feet and points.

Below is a table of available units.

Abbreviation	*Units*
pt	Point
m	Metre
cm	Centimetre
mm	Millimetre
ft	Foot
in	Inch
pica	Pica
dpi	Dots Per Inch
dpcm	Dots Per CentiMetre

Notes for advanced use only

It is possible to define additional dimensions (eg. fathom) by editing one of Vantage's internal message files. Performing such a task is not advised for those who do not feel competent in doing so, in which case the following is best ignored. If the task is done incorrectly, you could potentially need to reinstall !Vantage.

To add another dimension unit, load the following file into your text editor (such as Edit or Zap):

```
!Vantage.Resources.UK.Messages
```

Search through the file until you find the text "`# Units...`" after the start of a new line. Follow the instructions after this header.

You will need to re-load !Vantage in order for the new units to be recognised.

Panning around a document

Moving the page within the main window can be done in a number of convenient manners. The most obvious one is to use the window's standard scroll bars (remembering that scrolling with **Adjust** allows you to pan in both horizontal and vertical directions).

There are two other methods of panning.

Using the Interactive tool

By clicking on the **Interactive tool** button to be found on the button bar, the mouse pointer changes to a hand when over the view of a document. By either **Select** or **Adjust-dragging,** it is possible to move the document within the window. This feature will remain until a different tool is selected.

Panning by ruler

The final method to pan around the view is to **Adjust-drag** the ruler bar (both horizontal and vertical rulers) if they are visible. To toggle the rulers into view, either select **Main menu ▸ View ▸ Rulers** or press **Ctrl-Shift-F11**.

New view

Vantage is a multi-view capable package allowing the user to view the same page of a document two or more times. By having more than one view, it is possible to zoom into details for accurate editing whilst maintaining an overall document view that is automatically updated to follow any modifications.

To open another view of the current page, either select **Main menu ▸ View ▸ New view** or press **F2** if the window has the input focus (highlighted window furniture).

Monitor Calibration

Before launching into Vantage itself, it is necessary to cover the issue of monitor calibration.

For those users who have never come across this before or are only aware of the term, monitor calibration is basically a process to ensure that the computer software can assume what colours are being displayed by the monitor and is therefore critical to Cerilica Vantage. This assumption of a pure and true RGB full range is rarely achieved as no cathode ray tube monitor is linear in operation or stable over time.

Once you have a calibrated monitor, the on-screen RGB representation of what is about to be printed is much more accurate than on a system that lacks this. Further into this manual when issues such as ink simulation are dealt with, it will be assumed that you are running !Vantage on a calibrated system.

Please note that only RISC OS 3.5 and higher allows monitor calibration. Such as RISC PCs and A7000s. Users without such hardware are advised that their on-screen representation is unlikely to be accurate but rather a much broader approximation. (It does *not* mean that you will lose any functionality.)

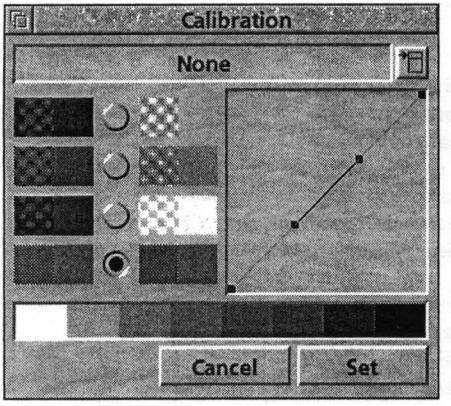
!Monitor and calibrating

!Monitor, as supplied with Cerilica Vantage, is an independent application that allows for refined calibration of your monitor. It may be loaded with or without using !Vantage and may be placed in your computer's boot sequence so that it is loaded every time you use your computer.

First, enter a deep colour mode (a mode of 32 thousand or 16 million colours) then load !Monitor, which should be present alongside !Vantage. The !Monitor icon should now appear on the iconbar.

!Monitor

By clicking select on the icon, you will bring up the **Calibration** window as shown, below.



As can be seen, there are two columns of four colour square pairs — each pair consisting of a chequered (left) and solid (right) variant. The left-hand column has the three monitor colours of red, green and blue as well as grey.

To the right of the window is a gamma Bezier curve which starts off straight with two end points and two control points.

The objective of the !Monitor application is to make the colour pairs appear as similar as possible.

Sequence to calibrate monitor

Ensure that you have Quit any other applications that may use monitor calibration such as *Photodesk*.

1 Turn your monitor contrast level to maximum

2 Adjust the brightness level of your monitor until the two darkest blocks on the right of the lower greyscale row are just about distinguishable from each other.

3 Use the monitor contrast control to set the level of brightness you desire. This may sound strange, but do not use the monitor's brightness control...

4 Ensure that the !Monitor radio (selection) button is selected between the grey colour square pairs.

5 Using the two Bezier gamma curve control nodes, attempt to make the two grey colour square pairs (one chequered, the other solid) identical in colour. To do this you may find it necessary to temporarily squint to blur your vision. Try experimenting with the start and end points of the curve if you feel that it produces the desired result.

6 Upon matching the grey squares, you may find that one of the RGB colour square pairs are not equal. In this event, select the suitable radio button for that colour and fine-tune the Bezier gamma curve to suit.

7 Repeat this process until a satisfactory match has been obtained. Please note that some monitors perform better at this task than others. Some monitors may never give a perfect result.

8 A column of secondary colours (video CMYK) are also present in the right-hand column of colour squares. Ideally these colour squares should also be matched up in the same manner as the RGB counterparts as they represent the other end of the RGB colour gamut.

9 Once you are happy with the result, you will notice that the monitor description stating "none" is now editable. Place the cursor in this white box and enter a suitable description for your monitor/system such as the monitor type. Press **Return** then **Set**. The !Monitor window will close automatically.

If you wish to store or retrieve more than one monitor gamma definition, click on the pull-down menu button on the right of the monitor description which will reveal your new setting plus any pre-determined settings (which are very likely to need adjustment). Click on any of the descriptions to apply or **Remove ticked item** to permanently delete the currently selected one.

To alter a definition, select it, adjust it until satisfactory and press **Return** to store. By clicking on **Set** you are ensuring that that particular gamma correction will be used the next time you load !Monitor.

The calibration storage and retrieval system allows you to specify not only the use of different monitors but also various surrounding lighting conditions which affects your view of colours on screen.

Placing !Monitor in a RISC OS 3.5+ boot sequence

To ensure that the full !Monitor application is loaded every time you run a RISC OS 3.5+ machine, place the application in following directory:

```
!Boot.Choices.Boot.Tasks
```

If using an OS without this directory, please refer to your system manual.

i

Calibrating your monitor upon boot without installing !Monitor

Provision is also made for calibrating your monitor to a pre-determined setting upon system boot without the need for the !Monitor icon on your iconbar.

To do this, run !Monitor, open the window and select the description you desire to use on each occasion.

Press menu over the main window to bring up a utility save window.

There are now two options:

- If using RISC OS 3.5+, select **Inside !Boot** on the save window and click **Save**. The definition is now within your boot sequence until manually removed.

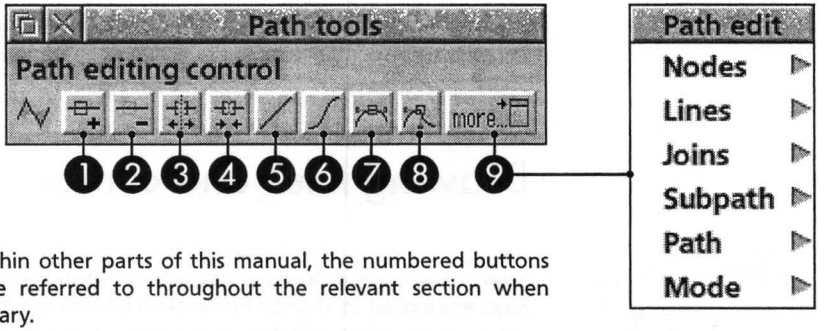
- If using RISC OS 3.1 or another OS which does not support this, drag the utility file to a suitable destination on your system boot disc. Edit the computer's boot sequence to run the gamma utility as outlined in your system documentation.

Path Tool

The best way to learn how to use Cerilica Vantage is to dive into the use of the **Path tool**.

As this is the tool all users will spend the majority of their time behind, much effort has been given to deliver a tool that was fine-tuned to the requirements of usage. For example, as opposed to many other illustration packages, Vantage's path tool does not require constant mouse shuffling between page and toolbars. Instead, a large number of intuitive pointer-based selection sequences and key strokes are provided to enable a designer to perform most profile and object tasks quicker. The option to use menus to gain access to all line editing functions is still present (and will be covered), but it is advised that you get acquainted with all methods to gain the most from Cerilica Vantage.

Load Vantage and click **Select** on the iconbar icon to create a new page. Enlarge to maximise the window and click **Select** on the path tool button. Click **Select** once more on the same icon to bring up the function sub-window, below.



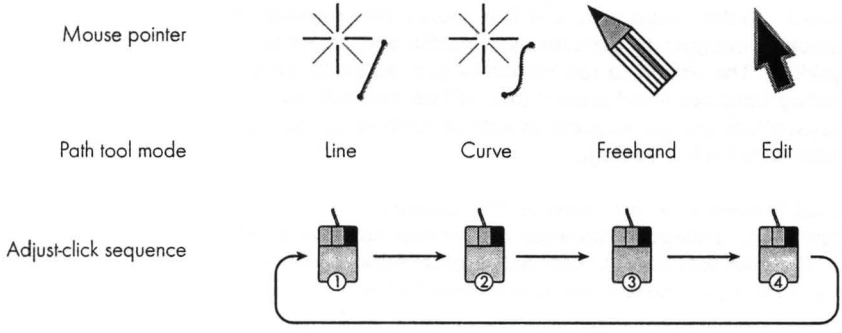
As within other parts of this manual, the numbered buttons will be referred to throughout the relevant section when necessary.

Path tool modes

By entering the path tool, you are accessing Vantage's ability to both create and edit vector paths which may be made of straight lines and Bezier curves. In addition to this, there is a freehand mode which draws a sequence of Bezier curves to follow your movement of the pointer.

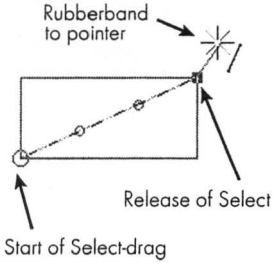
When first selecting the path tool in a new document window, the mouse pointer changes (when over the page) to the line mode. The mode is indicated by the pointer shape, which in this case is a mini-crosshair with a line segment appended as shown left.

The path tool has four such modes; line, curve, freehand and edit. Each mode is toggled through by **Adjust-clicking** with the mouse which can be done at any point of using the path tool. This sequence and the corresponding mouse pointers are shown below.



It is also possible to select the mode by using the path tool function sub-window **More** (9) ▸ **Mode** ▸ option, or by pressing **L**, **C**, **F** or **E**.

Drawing lines and curves



Having opened a new document and entered the **Path tool** after following the previous instructions, ensure that (if you have attempted to change mode already) you are in the line mode which will be indicated by the pointer shape.

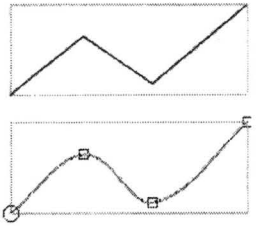
To create a line, just **Select-drag** (and release) a segment on the main page. The result will resemble the illustration, left (perhaps apart from the line orientation and length). You will notice that a bounding box appears around the extremities of the line segment as well as a "rubberband" to the pointer.

You may continue to drag further line segments attached to the last placed node by **Select-clicking**.

Continuing on from the previously drawn line(s), it is possible to draw the next segment as a curve by **Adjust-clicking** to enter the path tool's curve mode (again, shown by the change in mouse pointer). All subsequent segments drawn will now be Bezier curves until the mode is altered once more.

By default newly created Bezier segments will resemble straight lines as the joins are cusped (sharp). To draw Beziers with smooth joins, press **S** and continue to create new curve segments in the same way. To return to creating cusp-joined segments, press **W**.

It is also possible to start drawing a new path with a Bezier curve. To do this, **Select-drag** the first segment in the same manner as described earlier in the line mode.

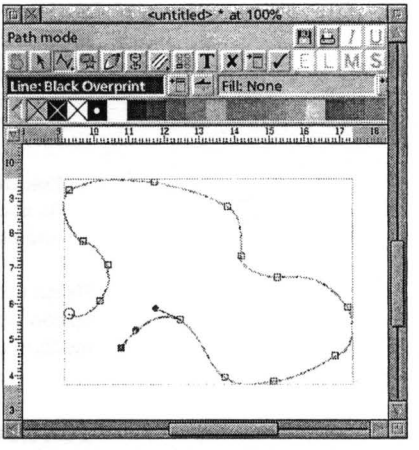


Top: Cusp-joined curves
Bottom: Smooth-joined curves

Freehand drawing

The **Path tool**'s freehand mode is ideal for many design purposes from quickly "sketching" an outline to tracing a picture. It differs from the line and curve mode in that Vantage intelligently interprets mouse (pointer) movement into a closely matched string of Bezier curves that may be later edited as normal.

To start sketching a freehand profile, enter the appropriate mode and **Select-drag** on the page. Continuing to drag a profile allows Vantage to generate Bezier curves in your movement's trail in real-time.



To stop drawing a freehand segment, simply release the **Select** button.

If you have previously drawn a straight line or curve segment or the end node of an existing path is selected, the freehand operation will continue from that last node.

Vantage's freehand accuracy is dependant on the speed in which the trail is drawn. If swift or sweeping movement are made, the resultant curves will be smoother. To specify a cusp (sharp) join in the middle of a trail, simply stop dragging and re-start once more.

Editing a segment

Having drawn a number of segments (constructed of either lines or Bezier curves or a combination of both), it is possible to edit the nodes and associated segments, by entering the **Path tool**'s edit mode. To do this, **Adjust-click** until you toggle through to the red and yellow border pointer.

Before editing any path, it is important to understand the meaning to the differences of appearance between **nodes** and control Bezier curve points.

- **Path start node**
  Large hollow circle indicates the first node of the path

- **Segment node**
  Hollow square is the start or end point for a segment

- **Selected path start node**
  Large filled circle shows that the start node (and last segment if the path is closed) is selected

- **Selected segment node**
  Filled square means the node is selected along with its corresponding segment

- **Bezier curve control point**
  Small filled circles along the segment of a Bezier curve (two per selected segment, one on the following) are control points for Bezier curve handling

- **Pseudo Bezier control points**
  As above but they appear on all line segments — using this node could cause the line to turn into a curve

Please note that all node sizes stated are relative as there is an option within Vantage's **Choices** menu to display either small, medium or large path tool nodes and points.

Selecting and moving single nodes

To move a node, move the path tool's pointer over the node and **Select-drag** it to its new position. Once you are happy with its location, release **Select** to set.

You will notice that the node that you have just moved remains selected (depicted by its filled appearance) along with its associated segment which is highlighted by the classic RISC OS "walking ants". The animation of a selected segment will stop if you move the pointer out of the Vantage window in order to reduce the processing power the program requires whilst not in use.

It is possible to select a node without moving it by just **Select-clicking** on it. Also, by **Adjust-clicking** on a line segment (not a node), it is possible to select that segment and corresponding node.

Multiple node selection

Multiple node selections may be made in a variety of manners.

The simplest is to **Select-click** on the first node you wish, then all consequent selections may be made by **Adjust-clicking**. By **Adjust-clicking** on nodes which are already selected, they will be deselected. Note that by **Select-clicking** on a previously unselected node, all other selection will be removed. This method of multiple selection of nodes can be quite laborious, so it is advised that this method is used in conjunction with one of the following.

One of the most intuitive is to **Select-drag** a box around the desired nodes when in editing mode. Further drag box selections may be added to the existing selection by **Adjust-dragging** consequent boxes.

Finally, it is possible to select all nodes by the standard key press of **Ctrl-A** (or via the path tool's function sub-window by following **More** (9) ▸ **Nodes** ▸ **Select all**).

It may, at some point be useful to reverse your current node selection. This is painlessly done by either pressing **Ctrl-R** or by selecting **More** (9) ▸ **Nodes** ▸ **Reverse**.

Once you have made a multiple node selection, it is possible to **Select-drag** them to reposition as desired. All other node and segment operations that follow may also apply to a selection.

A simple way of deselecting all nodes is to use the standard **Crtl-Z** key press (or again, via **More** (9) ▸ **Nodes** ▸ **Clear**). Note

that the path remains selected so that if you wish to continue modifying or appending to the path, you may do so. If you wish to completely deselect the path so that you may start drawing a completely new object, just press **Ctrl-Shift-Z**.

Editing a Bezier curve

Bezier curves used by Vantage have the common double control point method of editing or stating what the curve should look like. If you have not come across this before (which is unlikely if you have used, say, Acorn's Draw application as supplied with each RISC OS machine), you will find it very intuitive and easy to use.

When a node and its associated segment is selected (determined by the "walking ants"), and it happens to be a Bezier curve, the two control nodes will be filled in. To adjust the curve to suit, just **Select-drag** the control point and the curve will follow dynamically until you release **Select**.

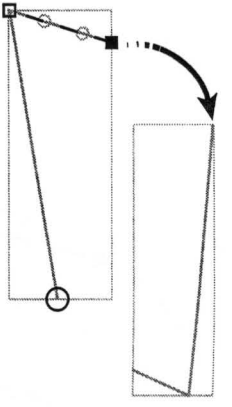
There may be occasions when you only wish to alter the length of the Bezier control point (which determines to what extent the curve will follow) and not affect its angle. To do this, start dragging the control point, then press **Alt** to lock it into its original angle.

Closing and opening a path

Closing a path means joining the ends together to form a complete profile. The closing of a path may take place either whilst drawing a path or after editing it in the same or some later session. There are a number of methods to do this:

- Ensure either a start or end node is selected and then press **Return**. Note that when closed, the start/end node will look like that shown left.
- Select both the start and end nodes and click on the **Join path at node** icon (4).
- Select **More** (9) ▸ **Subpath** ▸ **Closed**.
- Double click on an end node.
- Drag-snap one end node over the other.

You may also find it necessary to break open a profile in order to split it into two new sections. To do this, select the node where you wish the path to be split and press the letter **O** (for **O**pen). An alternative way is to click on the path tool's function sub-window **Split path at node** icon (3).



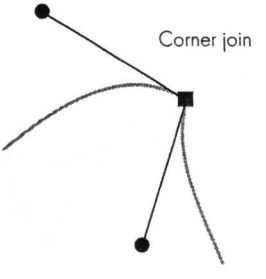
Joining separate paths

It is possible to join separate open paths converting them into single continuous paths. To do so, first select the paths you wish to join using the **Select tool** (temporarily available if the left **Alt** key is held down) and revert back to the **Path tool**.

Regardless of the mode currently selected (**Line**, **Curve**, **Freehand** or **Select**), drag one of the end nodes to snap over one of the other line's end nodes, as shown right.

Smoothing a join and creating a corner

There are three possible path segment joins; corner, smooth and dynamic. In order to achieve a type other than corner, the node selected (at which point two segments join) must have at least one Bezier curve leading to it.



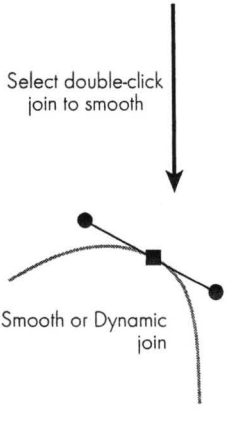
There are four ways to alter the type of a node.

1 Press **W** to cusp, **S** to **S**mooth or **D** to create a **D**ynamic join.

2 **Select double-click** on the node to smooth.

3 Use the **Smooth join** and **Corner** buttons on the path tool's function sub-window (7 and 8, respectively).

4 Through the path tool's function sub-window **More** (9) ▸ **Joins** ▸ entries.

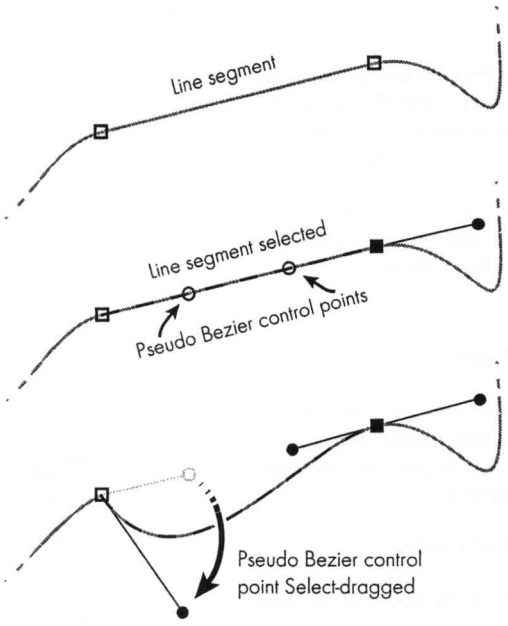


The result of smoothing a corner can be seen right. A smooth or dynamic join allows the join to remain smooth when the Bezier control points are being edited.

When changing a smooth or dynamic join back to a corner, there will be no visible difference until one to the connecting control points is moved in which case it will do so without affecting any other such points.

Changing lines to curves and vice versa

Once you have drawn a line it is possible to later convert it into a curve. Conversely it is possible to change a Bezier curve segment into a line. In each case, the end points of the line remain constant.



As with many other path tool options, there are a number of ways to perform the task of converting from line to curve. The simplest is to use the pseudo Bezier handles that appear on a line segment.

Firstly, select a line segment that you wish to change to a curve (for example by **Adjust-clicking** on the line segment itself if you are unsure which node represents that particular line). The two small hollow circular handles that appear equi-spaced along every line segment may be **Select-dragged** as you would do with a normal Bezier curve. By doing this, the line converts to a true Bezier and the control point handles turn solid to represent a Bezier curve. This sequence is shown left.

The following table shows other ways to convert lines to curves and vice versa after selection.

Method	Line to curve	Curve to line
Key Press	**C**	**L**
Function window icon	6	5
More (9) ▸ **Lines** ▸ entry	**Curve**	**Line**

All methods apart from dragging pseudo Bezier control nodes may be applied to a multiple segment selection.

Adding and deleting nodes

A very common operation is to both add and delete nodes from a path. Any node or selection may be deleted (including the start and end one). To add a node, a single line segment has to be selected — highlighted by the "walking ants".

Once again, there are a number of ways to both add and delete nodes. The table below shows how such an operation may be performed to selected nodes.

Method	Add node	Delete node
Key Press	**+ or Insert**	**Ctrl-X or – or Delete**
Function window icon	1	2
More (9) ▸ **Nodes** ▸ entry	<none>	**Cut**
More (9) ▸ **Lines** ▸ entry	**New node**	<none>

In addition to the above methods, you may also add a node in any segment (selected or unselected) by **Select-clicking** at any stage along a line or curve.

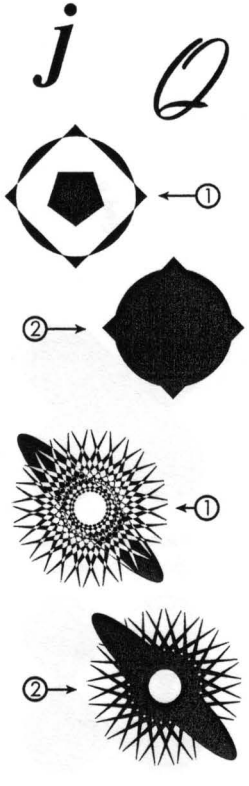
Sub paths

It is possible to have more than one path within a single object by having sub paths. However, it is more than a variation on grouping as sub paths can "react" with each other to create some useful and unusual effects.

The most common example of having two paths in a single object occurs in text. Fonts are made up of files that contain many path-based objects representing the full computer character set. For example, the letter "O" is constructed by having two concentric circles in the same object, the inner one being a sub path of the outer.

Objects which are constructed from sub paths do not have to follow any pattern. Whatever can be made from lines and or Bezier curves can be made to be a sub path of another path.

The shapes to the right are all made of a number of paths (sub paths) in the same object. Notice that the four lower shapes are two different objects each having either an "even-odd" winding rule (1) giving holes or a "non-zero" winding rule (2) which is solid. This will be described later.



i

The first instant you will probably come across sub paths within Vantage is when you start opening (or splitting) paths which was described earlier in this chapter. When you conduct this operation on an open object made of a number of segments, you will be presented with a pair of lines with a common bounding box. Sometimes this may be what you require but often you will wish for two completely separate objects.

In order to separate two distinct sub paths, select the object and follow **Main menu ▸ Style ▸ Line ▸ Split paths** or press **Ctrl-O**. This will cause the two sub paths to split and become two distinct objects.

The reverse may apply and these paths may be merged once more by clicking on **Main menu ▸ Style ▸ Line ▸ Merge paths** or pressing **Ctrl-I**. This particular command may be engaged to any number of selected paths to create the effects as shown previously.

In order to obtain the effects as shown where holes appear where the paths intersect themselves, it is important to note that the sub paths must be closed. To ensure this, select all nodes (**Ctrl-A**) and then press **Return**.

i

Another useful facility to be found in the path tool when operating on sub paths is the special sub path node select all facility. By clicking on **More** (9) **▸ Nodes ▸ Select subpath** or pressing **Ctrl-Shift-A** all the nodes of any sub path where at least one of its nodes is already chosen will be selected. This will be handy when you wish to completely move a single sub path relative to the other paths merged with it.

Non-zero, above
Even-odd, below

Winding rule

Winding rules were touched on in the sub path section, but are applicable to all paths. Basically, it allows a user to determine whether a path will create holes or just remain fully filled when the path intersects itself. It is clearest to show the outcome graphically, left. In this example, the same two rounded rectangles were merged and given a black fill colour and lighter outline.

By default, all objects are given an even-odd winding rule. To alter a closed multi-path object, choose your preference from the menu entries **Main menu ▸ Style ▸ Line ▸ Winding rule ▸** .

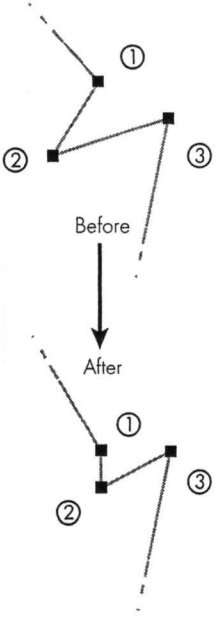
Node alignment

The ability to align nodes in a path varies from all previous node manipulation processes in that it doesn't alter the properties of the actual node or profile but rather modifies its location automatically.

You may already be aware of object alignment tools in other vector drawing packages — the ability to equi-space objects or align a selection relative to each other. !Vantage's node alignment tools work in much the same way, except that it acts on nodes rather than whole objects.

A common requirement may be to ensure that a particular line or selection of lines are either horizontal or vertical. Adjusting a node position by hand and eye in an attempt to perform this task usually fails slightly due to either anti aliasing or zoom factors getting in the way. In order to confirm that a line (which ends at the selected node) is square to the page, first select it (or any amount) using any of the previous methods. Next, click on **More** (9) ▸ **Lines** ▸ and either **Horizontal** or **Vertical** to suit. This function will align the selected node(s) relative to the previous node (start point of the line). Key presses of **H** and **V** apply to these operations.

Related to this is the ability to align a selection of nodes horizontally or vertically relative to the extreme (top, bottom, left and right) node or the centre of the selected nodes. To illustrate this, the path shown right has three nodes which were transformed in two steps.



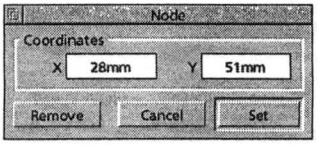
1 Nodes 1 and 3 were selected. **More** (9) ▸ **Nodes** ▸ **Bottom** was chosen (or alternatively, **Shift-F7** was pressed) which brought node 1 down to node 3's level.

2 Nodes 1 and 2 were selected and 3 deselected. This time node 2 was aligned to the right so that it was vertically under node 3 by choosing **More** (9) ▸ **Nodes** ▸ **Right** (or again, by pressing **F7**).

Benefits of using this method are clear to see when dealing with a large quantity of nodes.

A final node alignment entry is that of distributing or justifying the nodes so that the selected nodes become equi-spaced from each other. **More** (9) ▸ **Nodes** ▸ **Justify** deals with this horizontally and **...Distribute** vertically.

Node co-ordinates



It is possible to precisely enter a node's co-ordinate relative to the page. To do so, **Adjust-double-click** on the node to open the **Node** window shown left.

Enter new co-ordinates in the **X** or **Y** entry boxes using any available dimension such an **inches** or **cm**.

Clicking on **Set** defines the new node co-ordinate and **Select-clicking** on **Cancel** closes the window without change. By **Adjust-clicing** on **Cancel**, the original co-ordinates are re-entered following any changes to the window.

Remove will remove the node being edited.

Select Tool

It is only when objects exist on a Vantage page that the select tool has any purpose. The reason for this tool is to allow you to select, sort and quickly transform objects, be they paths or bitmaps. Sorting may include moving an object up and down a stack and quick transformation can allow you to rotate an object or selection of objects. It must be noted that another chapter, later, covers the matter of transformation in much greater detail.

It may be useful to either draw a number of miscellaneous paths or have a ready-made example file ready before you commence. Ensure that you then save this file, preferably in a temporary directory such as the RISC OS RAM disc, so that you will not destroy any valuable files. Once you have done this, click on the select tool once. For the purposes of this chapter, the select tool function sub-window (entitled **Style dropper**) is not necessary, so if open may be closed by either the conventional RISC OS manner or by clicking once more on the select tool icon.

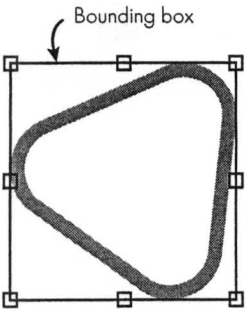
Selection of objects

Once you have drawn an object it is important for many operations to be able to select it as this is the way of telling !Vantage that the particular selection(s) is the one you wish to apply an operation to.

Selection of objects is very much in the standard RISC OS fashion — there is the ability to select all, deselect all, drag a box around the objects you want etc. There are also the main menu entries to duplicate these functions as well as key stroke short-cuts.

Selection and deselection of single objects

Selection and deselection of a single object is a simple matter of point and clicking on the object itself. **Select-clicking** on the object selects it and **Adjust-click** will either deselect it if already chosen or add it to the selection list if unselected. If you already have a selection (of one or more objects) and you



then proceed to **Select-click** on a previously unselected object, that new object will be chosen and the former choice(s) deselected.

All selected objects will have a bounding box shown around it (as depicted left).

Within RISC OS vector software there are two methods of determining if an object should be selected — one having been derived (in RISC OS use) from Acorn's !Draw, the other from Computer Concept's ArtWorks.

The Draw method uses the bounding box area of an object to determine if a pointer click is indeed picking that particular object. Even if the click is made outside the shown edge of the object's profile but is within the object's bounding box area, the object will be selected. This means that objects beneath another that are hidden by the bounding box of the one above are only accessible by **Select-double-clicking**.

The ArtWorks method allows a user to select an object by clicking anywhere it is visible. This means that an object is not selected if a **Select-click** is made within its bounding box but outside its boundary profile.

Cerilica Vantage currently employs the !Draw method of object selection as its style is consistent with Vantage's extensive use if bounding boxes to control objects. An option may be provided in future versions.

Drag-selection of objects

In order to select a group of objects, it is possible to **Select-drag** a box over the page. To follow convention, **Adjust-dragging** allows further selections to be added.

When performing this form of selection, ensure that you are not starting the drag above any object otherwise you will move it instead of determining a selection. To overcome this, hold down a **Ctrl** key which will force a new drag-selection.

i

The drag box must fully encompass an object if it is to select or deselect it. If you wish for all objects which appear under any proportion of the drag box to be selected or deselected, hold down the **Shift** key *before* you start to drag a selection box out.

Select or deselect all

Having become familiar with the vast majority of standard RISC OS applications (and many Windows™ ones) you will probably be more than aware that **Ctrl-A** selects all objects and **Ctrl-Z** deselects (clears) them. Both functions are also present in the **Main menu ▸ Edit ▸** menu.

Selection of types of object

By having the ability to select specific types of object, !Vantage allows you to modify similar objects. For example, if you have imported a number of objects, some of which are RGB in colour, you may find that selection of just RGB objects allows you to specify the use of certain inks (all explained in depth later).

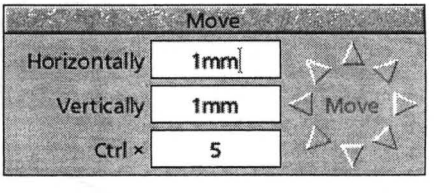
In order to do this, use **Main menu ▸ Edit ▸ Select All ▸** entries.

Moving objects

Having made a selection of any particular object(s), it is possible to move any object in any direction.

The simplest and most intuitive is to **Select-drag** an object by starting the drag with a **Select-click** over the object.

It is also possible to specify the amount in which an object or collection of objects should move by using the **Move** dialogue box which may be found by following **Main menu ▸ Arrange ▸ Move ▸**. Remember that it is possible to enter values in any unit available as described in the introduction.



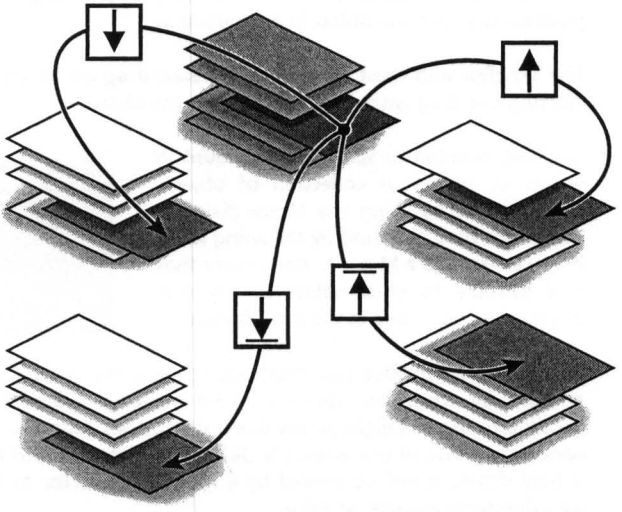
The window provides two methods to precisely control the amount by which an object may be moved. Firstly, it is possible to use the eight arrow direction buttons found in the window. If one of the arrows is clicked on whilst the **Ctrl** key is held down, it will be moved by a multiplying factor of the user-definable associated value.

Secondly, the values entered in this window determine the amount by which selected objects are moved when pressing any of the four keyboard arrow keys. Again, holding down **Ctrl** whilst using the arrow keys will multiply the movement factor.

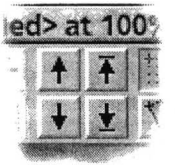
Moving objects up and down the stack

Objects drawn on top of one another may be represented as a stack of paper placed on the drawing board. The first object drawn on an imaginary piece of transparent paper will be at base level, whilst the next object on a separate page would be placed above the first. The third object to be drawn on yet another leaf of paper would be put over the second sheet and so on.

This stack is very important as objects obscure one another so it will become necessary to rearrange the order when you wish to view the object at the back. In order to move objects up and down this stack, there are a number of buttons and commands to be found in Vantage.



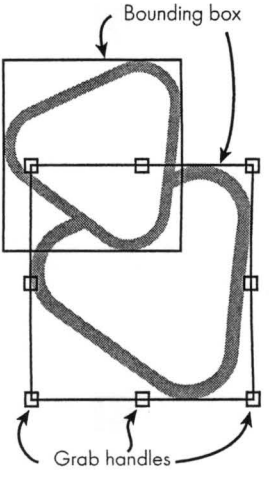
Along Vantage's toolbar, four arrow buttons may be found (shown right). These button's actions have been illustrated in the stack order diagram, above. The original stack order (top, centre) can be simply altered by pressing the appropriate toolbar button. All four buttons are mimicked by a key stoke as well as a **Main menu ▸ Arrange ▸** entry.



Icon	Key stroke	...**Arrange ▸** entry
	Ctrl-F	**Front**
	Ctrl-B	**Back**
	Ctrl-Shift-F	**Forward**
	Ctrl-Shift-B	**Backward**

Bounding boxes and grab handles

Upon selecting single or multiple objects, both bounding boxes and grab handles appear. The bounding box is used to depict the object(s) selected, whilst the grab handles allow easy access to all logical transformations such as rotate, scale, stretch and skew.



As transformations are to be covered later, please refer to the appropriate section.

Delete, copy, cut and paste

Many users will be aware of the concept of these four operations. Cerilica Vantage implements each one in a conventional manner with the use of the standard key short cuts or by clicking on specific toolbar icons.

The clipboard

Before we continue into the use of copy, cut and paste, it is necessary to understand what a clipboard is.

Virtually all design and publishing packages, desk top publishers, art packages and the like possess a clipboard. This feature gives the ability to temporarily store a selection for

later use. If a selection is brought onto the clipboard it will be stored there until another selection is transferred over from the actual page at which point the original contents will be automatically deleted to make way for the new arrivals.

Deleting

Unlike the three other associated functions, deleting an object does not affect the contents of the pasteboard. This implies that once an object is deleted, it can not be pasted back onto the page thereafter.

To delete an object or selection, make your selection and then either click on the toolbar icon (shown left) or press **Ctrl-K** (Kill). Alternatively, follow **Main menu ▸ Edit ▸ Delete**.

Copying

Copying does not affect the originals in any form. All this operation does is to copy the object or selection onto the clipboard so that it may be pasted thereafter. Not only are the object(s) exact copies, but the location on the page is also stored so that when pasted back onto the same or other page afterwards, it will be placed in an identical position to the original.

To copy an object or selection, make your selection and then either click on the toolbar icon (shown left) or press **Ctrl-C**. Alternatively, follow **Main menu ▸ Edit ▸ Copy**.

Cutting

Cutting is a combination of both deleting and copying. By performing this operation to any object or selection, you will not only remove them from the page but you will also have copied them to the clipboard.

To cut an object or selection, make your selection and then either click on the toolbar icon (shown left) or press **Ctrl-X**. Alternatively, follow **Main menu ▸ Edit ▸ Cut**.

Pasting

Having copied or cut a selection to the pasteboard, it is possible to place it back to your currently highlighted document in an identical location.

To paste an object or selection, make your selection and then either click on the toolbar icon (shown right) or press **Ctrl-V**. Alternatively, follow **Main menu ▸ Edit ▸ Paste**.

Quick copying

Vantage provides a very quick method of copying any object. Select and start to drag the object you wish to copy. Whilst dragging the object by holding down the **Select** mouse button, press and hold down **Shift**. The mouse pointer will now show a "+" icon. First release the mouse **Select** button before the **Shift** key in order to place a copy back on the page.

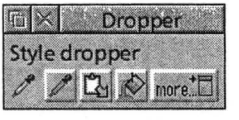
Temporary use of Select tool

You may find it useful to be able to temporarily use the select tool when in other modes. For example, if you are drawing profiles and then wish to edit another one, the temporary use of the select tool will easily allow for this.

When in any mode, it is possible to perform select tool operations by holding down the left **Alt** key. Upon releasing this key, you will revert back to your previous mode.

The right **Alt** key may be more useful if you wish to temporarily enter the select tool and perform certain key-press functions like select all objects (**Ctrl-A**). When in any other mode and pressing the right **Alt**, you toggle to the select tool mode and remain there until the right **Alt** key is pressed for a second time.

Style dropper



The **Select tool** function sub window (click again on the toolbar select tool icon to toggle this window in and out of view) gives access to Vantage's style dropper.

Objects may have one or more of the following attributes assigned (see later chapters for details); fill colour, line colour, line style, text colour, background, font, text size, text angle and palette. It is possible with the style dropper to "read" the

style from an existing object and assign it to another as well as ensure all future objects start off with these styles until further selections are made.

By first selecting an object you wish to read the styles off, click on the pipette icon (left). Alternatively, clicking on the clipboard icon reads the attributes from the object currently held within the clipboard (also selecting **more...** ▸ **Clipboard**).

To apply the attributes to any newly selected objects, click on the paint pot icon (left).

It is possible to determine which attributes should be taken from the original object and which should be applied. To do this, click on the function sub-window's **more...** button and follow the **Take** ▸ and **Apply** ▸ entries.

i

Note that if the attributes are altered whilst in that object's tool (such as line colour in the **Path tool**), objects later created in that tool will adopt the newly selected attributes.

Using the Style Dropper for text creation

i

The style dropper is an ideal tool when creating documents with text lines. It is often the case that text lines should be of a uniform font, colour, size and aspect ratio. To ensure this, select the line that you wish to continue the style of and then opt to pick the style before creating a new text line.

This is especially useful when returning to an existing document in a later session.

Note that text creation and editing is fully explained in a later chapter.

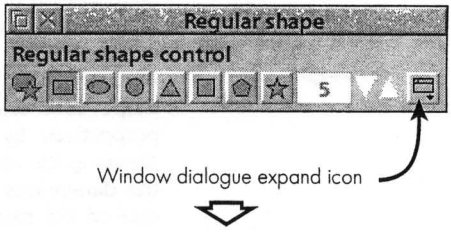
Regular Shape Tool

When using Cerilica Vantage you will find that when creating illustrations, you will commonly call upon the ability to simply specify and place standard shapes. This is allowed through the use of Vantage's **Regular shape tool.**

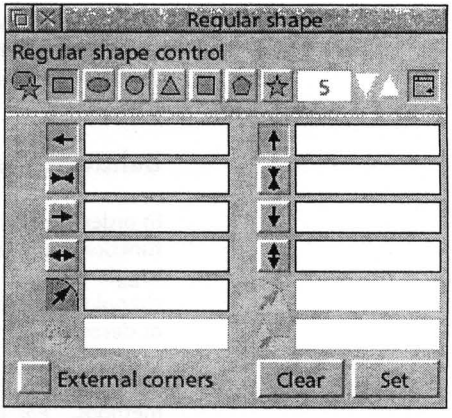
Before continuing, create a new page and click on the **Regular shape tool.**

Function sub-window

If you haven't already done so, bring up the **Regular shape tool** function sub-window as shown, right. As is common with a number of other Vantage windows, it is possible to expand the window in order to show further information.



In the case of this sub-function window, by clicking on the icon indicated, the menu shows a more detailed control over regular shapes. Whereas it is not essential to use this further control, it will be beneficial if learnt from the outset.

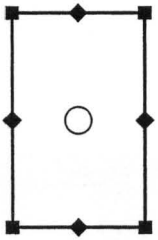


If you wish to hide this extra information once more, just click on the window expansion icon for a second time and the window will revert to its more compact size. If using !Vantage in a low resolution mode, it may be best to keep all windows as small as possible in order to maximise the viewing area of the page itself.

Drawing a shape

Regardless of the state of the sub-function window, you will find a row of icons depicting the basic shapes on offer. These are, from left to right; rectangle, ellipse, circle, triangle, square, polygon and star.

To draw a rectangle, ensure that the rectangle icon is depressed (which is default when just starting with the tool).



Move the mouse over the page and you will see that the pointer represents the fact that this particular form of shape is the current selection. Using **Select**, drag a rectangle out and release the mouse button. Once released, you will see a rectangle on the page along with corner control points, side mid-points and the object centre circle (shown left).

After an object has been drawn and still having the Regular shape tool selected, it is possible to adjust the shapes proportions by **Select-dragging** one of the handles. By dragging the corner points, you will be enlarging or reducing the dimensions of the object (note: *not* scaling) and in the case of the rectangle, with the opposite corner as a locked position unless **Alt** is held down when it is from the centre.

The side mid-point nodes allow you to adjust the width and height of the rectangle, where as dragging of the object centre circle enables you to reposition the object.

Behaviour and handles of differing shapes

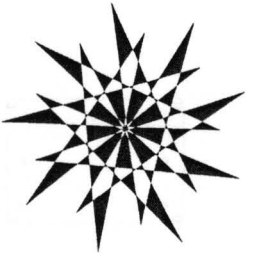
In order to draw differing shapes, just click on the appropriate function sub-window icon or **Adjust-click** on the page to toggle through all available shapes (represented by the changing mouse pointer). **Select-drag** to draw a new shape as described for the rectangle, above.

Other shapes have differing control points and drawing methods. For instance, a triangle is drawn by starting the drag from the centre of the object and when releasing the mouse button, you will place one of its three corners at that point. Having drawn the triangle there are no edge mid-point nodes and dragging one of the corner nodes resizes the object relative to its centre and **Alt** is used to allow for free rotation.

All differences are logical ones and rather than describing each one in detail, it is best to use the tool and discover such things.

In addition to these differences, two shapes — the polygon and star — command extra options. Both polygons and stars allow the user to determine the number of sides. When choosing such a shape, the editable value entry box un-greys along with its value adjusters (up and down arrows). If either object type is selected, it is also possible to increase/decrease the number of sides by pressing the + or - keys, respectively.

Stars also bring the additional range of inner corner handles which may be dragged towards or away from the shape origin to determine the inner node's radius relative the outer node's radius. To unlock the angular restraint of the inner nodes, start dragging and then hold down **Alt** which enables shapes such as those shown right to be created.

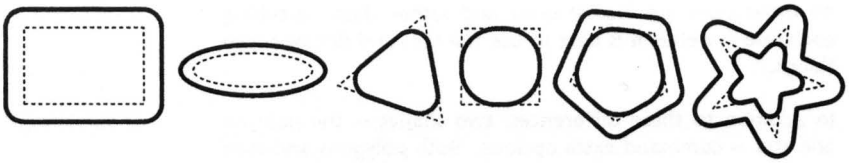


Altering the type of an existing shape

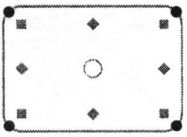
Once a shape exists on the page, it is possible to alter its type by selecting it, and **Adjust-clicking** the new shape icon in the function sub-window. This function is duplicated in the two right-most subject-sensitive attribute wells on the lower part of the toolbar. The reason for this duplication is so that object types may be altered when in the **Select** mode and will therefore be described later along with other general object settings.

Adding rounded corners

Any shape may have either internally or externally rounded corners. The most common example of this in use within other applications is that of rounded rectangles as shown right. By not restricting this to just internal radii on a rectangle, within Cerilica Vantage it is possible to produce dynamic objects as follows.



As can be seen, any regular shape may have an internally or externally applied radii. In the diagram above, the dashed line represents the original regular shape and the thick solid line profiles, copies of the original but with rounded corners.



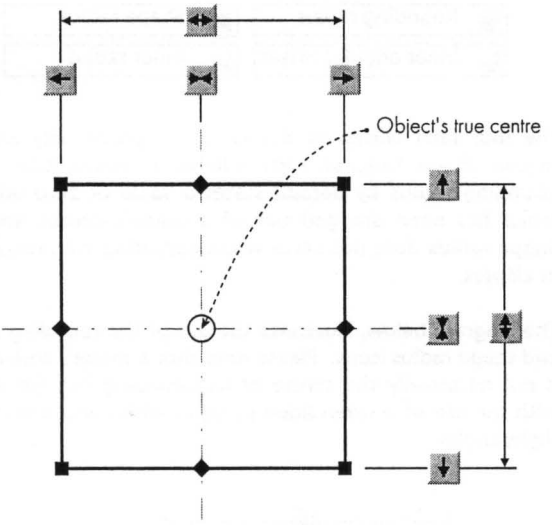
In order to achieve this, **Adjust-drag** any corner of a regular shape. Dragging in or out of the original profile will determine if it's a positive (outward) or negative (inward) radii. Once you release the drag operation, a new set of rounded nodes appear either on the apex of a corner (for positive/external radii) or at the centre of the corner (for negative/internal radii). These new handles may now be dragged with either **Select** or **Adjust** in order to modify the profile.

Precisely specifying shapes

It is possible to specify a shape's attributes such as form and location through the function sub-window. You will have noticed, if you draw an object with the sub-window extended, that the numeric display in the boxes animates whilst regular shape creation and adjustment takes place.

Each box within the function sub-window may have a value entered by hand to decimal accuracy. You may also specify any number with a negative value. Whilst moving the mouse pointer over each entry, the help text in the function sub-window will indicate what each box represents (in addition to the icons). This information is replicated, below.

Left edge	Top edge
True centre	True middle
Right edge	Bottom edge
Width	Height



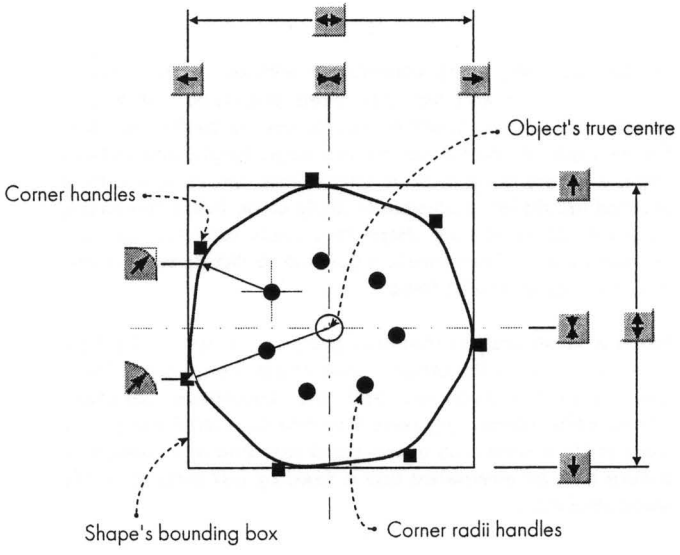
As may be seen, every conceivable method of specifying a shape's location and size has been presented. It is also possible through all these entries to specify conflicting data. For example, if you stated the top edge, height and bottom edge, it is very likely without calculations that what you have entered would be impossible (a likely cause being the wrong height in order for the shape to comply with the top and bottom edges). Therefore it is possible to dictate which entry of each column is to be fixed.

Fixing a value ensures that that particular entry will be kept regardless of how the other related values are specified. As in the function sub-window and the descriptive depiction, above, each column may have only one such fixed entry. The fixed entry is shown by a depressed icon and it is possible to ensure that an alternative one is fixed by just clicking on the associated icon.

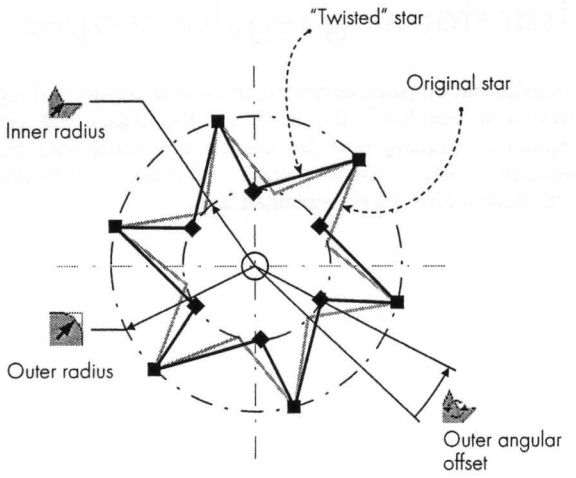
Rounding radius	Shape radius
Inner angular offset	Inner radius

The four final entries in this window appear only when a regular shape requires such additional information. The **Rounding radius** by default states a value of zero unless a radius has been dragged out of a shape's corner, whilst a **Shape radius** does not occur when operating with rectangles or ellipses.

The diagram below, illustrates the use of the rounding radius and shape radius icons. Please note that a shape's true centre is not necessarily the centre of its bounding box (as shown with the use of a seven-sided polygon which was drawn at a slight angle).



The two final entries of **Inner angular offset** and **Inner radius** only apply to stars. The diagram on the following page illustrates these entries on a star that has been "twisted" by holding down **Alt** whilst moving one of the inner radius handles.



Untagging shapes

A tagged object is an item created by Vantage which may be modified dynamically yet retain its form type. Regular shapes are one such form of tagged object which allows a user to change its proportions and characteristics, yet it will remain as a shape and not just a series of lines and curves. However, circumstances may arise which would mean that you would *want* to convert a regular shape into a series of lines and Bezier curves. One such use is when loading !Vantage files into Acorn's !Draw application.

Whereas !Draw will load and show a tagged regular shape, it is impossible to edit it. Therefore to ensure that !Draw (and associated third party applications) is capable of understanding the vector profile of a tagged object, it is necessary to first untag it. By doing this, you will not be able to modify a shape as a shape, but rather you will have to enter the path tool which will allow you to drag specific nodes as you desire.

i

To untag an object, select **Main menu ▸ Object ▸ Untag**.

Another way to untag a regular shape is to select it, enter the path tool and just drag one of its nodes. By doing this you are automatically untagging an object as well as modifying it.

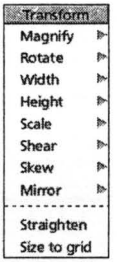
i

Transforming regular shapes

i

Transformation (such as stretch, shear and rotation) of regular shapes is possible. By doing so, the shape will remain dynamic, including rounded corners and value may still be entered into the shape's function sub-window. Transformations will be explained later.

Transforming Objects

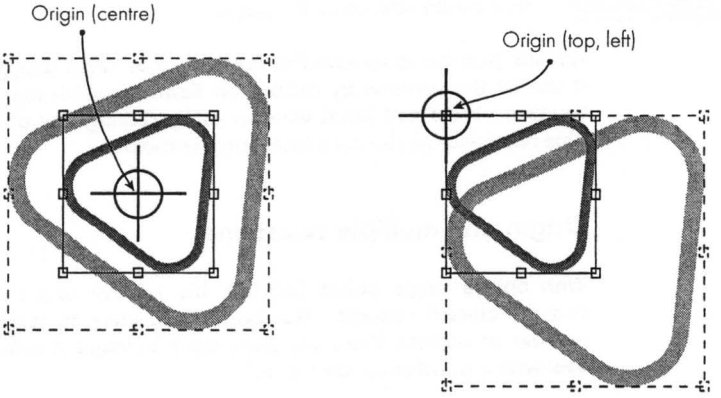


So far, this manual has covered the basics of creating vector profiles. Once created it is usual that they will be modified in some way, be it scaling, rotating, stretching or shearing/ skewing. It is possible, within Vantage to perform any of these transformations to any object, be it vector or bitmap. Therefore what is covered here will apply to all other object types covered later on.

There are two basic ways to operate transformations; by the **Main menu ▸ Transform** menu or using the grab handles covered very briefly in the Select tool chapter. By using the menu, precise instructions may be requested, whereas dragging of object's grab handles is intuitive and very fast. In addition to this, the menu system allows for further options like whether or not to modify line widths or to specify an origin from which to base transformations.

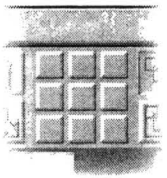
Specifying an object's origin

Before any transformations take place, it is important to understand how to choose an origin from which to conduct this operation.



The origin does not normally appear on the page, but is illustrated in the diagram, above, by the (over-emphasised)

circle and cross-hair. The dark/solid smaller object represents the original object, whilst the light/dashed version is the result after magnification. In both cases shown, magnifying an object upwards (enlarging it) can have different results depending upon where the origin was placed before-hand.

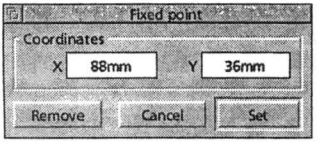


It is possible to determine the origin relative to the object selected by clicking on one of the nine origin buttons to be found on the toolbar (left) before commencing with a grab handle drag. The nine buttons represent an origin top left, middle, lower middle, etc. The currently selected option will be represented by a sunken button. If you attempt to transform an object via a grab handle about its centre of origin, the origin will temporarily flip to the opposite corner.

Specifying an origin relative to the page

Origin handle

There will be many occasions where you will wish to determine an origin relative to the page (possibly an object already placed upon it) as opposed relative to the object you wish to transform. In order to do this, **Select-drag** one of the nine toolbar origin buttons to the page. On releasing the mouse button, an origin handle will appear, as shown left.



There are two possible ways to move this origin once placed; by **Select** or **Adjust** dragging it or by **Select** or **Adjust** double-clicked in order to bring up the **Fixed point** window (left) which allows you to accurately enter its location relative to the page.

It is also possible to remove this fixed origin by either dragging it out of the window by clicking on **Remove** which may be found on the **Fixed point** window or by clicking any of the nine relative origin buttons found on the toolbar.

Origin and multiple selections

With only a single object selected, the relative origin is a straight-forward concept. However, if you were to select a number of objects, there are three ways Vantage is able to deal with a transformation request.

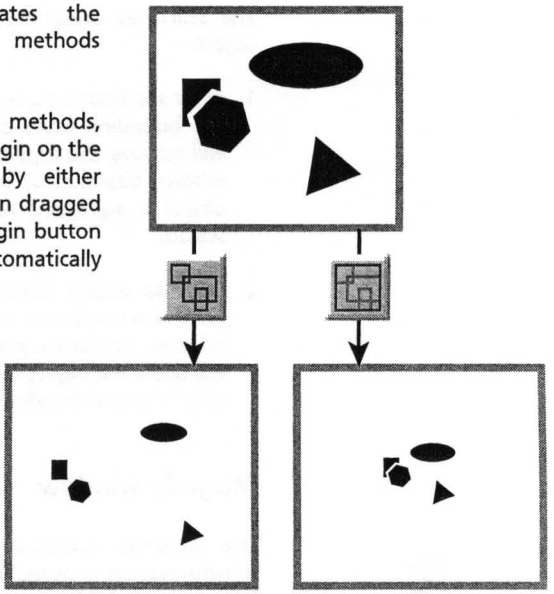
The first is to treat every object on an individual basis with each having a relative origin. To to this, ensure that the toolbar button, shown left, is selected.

The second method is to ensure that the selection is handled as a pseudo-group — ie. all individual objects are transformed around the same origin, but relative to the bounding box of the selection. By clicking on the toolbar button shown right, you have to imagine a boundary box around the selection as a whole.

The diagram, right, illustrates the differences between the two methods covered so far.

To transform by either of these methods, ensure that there is no visible origin on the page. This may be done by either removing an origin that has been dragged on or by selecting a relative origin button on the toolbar which will automatically remove any visible origins.

The third way of dealing with origins and multiple selections is by using an origin on the page. Whenever you have a visible origin (by dragging it from the toolbar), a multiple selection will be transformed as if it were grouped.



Magnification of selection as separate items

Magnification of selection as pseudo-group

Both cases with centre as relative origin

Magnifying

Having created an object, select it using the Select tool. A bounding box will appear around the edge of the object along with the four corner and four middle grab handles. To magnify the object, just **Select-drag** any of the corner handles to its new desired size. Doing this will also alter all of the object's attributes such as line width, but not the line pattern.

When **Select-dragging** in order to transform an object, by moving over the horizontal or vertical axis of the origin will also flip an object about that axis.

As you will find with stretching and shearing, magnifying and rotating are easily interchangeable in operation by holding **Shift** down before dragging a grab handle.

Likewise, using **Adjust** also gives access to the "opposite" transformation.

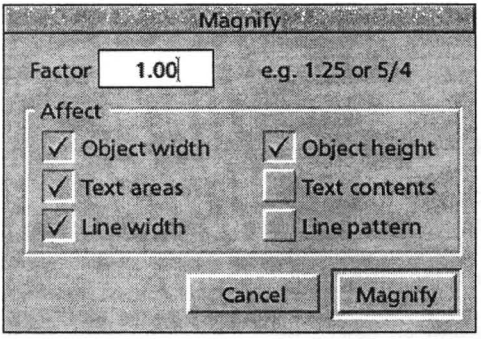
The **Shift** key brings two further options when scaling an object:

1 After starting to scale an object by **Select-dragging** one of the bounding box's corner handles, holding down **Shift** will remove the aspect ratio lock. This in turn means the relative direction of the drag will determine whether an object is squashed horizontally or vertically as well as scaled.

2 With an object selected, holding down **Shift** when the pointer is within the bounding box's area will animate the pointer. Whilst keeping **Shift** held down, **Select-dragging** will allow the object to be scaled. This may be of particular use if the grab handles are not visible.

Magnify window

The **Magnify** window which allows for more precise transformation is available via the toolbar's button (shown left) or through **Main menu ▸ Transform ▸ Magnify**.



When magnifying through the grab handles of a selected object, all attributes will be magnified along with it, apart from any line patterns applied. By using the controls to be found in this window (shown, left), it is now possible to determine the affect over six attributes as well as a further option with regards to the object's origin.

Object width and **Object height** options are duplicated by **Width** and **Height** menus (see later) as well as the object's grab handles, but they do not allow you to combine this transformation with the other four attribute options.

The **Line width** and **Line pattern** options are self-explanatory. Both text and line attributes are described in various later chapters.

The origin of magnification is applied as previously stated.

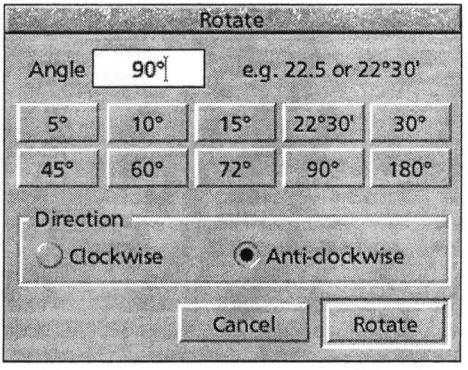
Rotating

As most transformations follow the same basic principles, rotation is not too dissimilar to performing a magnification of an object. In order to rotate a selected object when using the **Select tool**, there are two methods, as previously stated. The first is to hold down **Shift** before dragging any one of the bounding box's corner grab handles. The pointer will animate to a rotating arrow to illustrate this. The second is to use **Adjust** whilst dragging a corner grab handle. Upon releasing **Shift** once more, the corner grab handle will revert back to the standard magnify mode.

Rotate window

As with magnify, the rotate function has a dedicated window to allow for precise control. Either click on the toolbar button shown above right or follow **Main menu ▸ Transform ▸ Rotate** to open the **Rotate** window.

As a rotation transformation does not alter an object as such, there is no need to specify what attributes rotate with the selection.



A number of angle pre-sets are conveniently available from this window which when clicked on inserts the angle in degrees (°) in the writable icon. It is also possible to enter the angle in degrees and minutes by entering component of minutes behind the degrees value, in turn followed by an unsexed single quote ('). It is equally possible to simply specify the angle in decimal fractions such as 23.7°.

The final option to state whether the value entered is to be applied in a clockwise or anti-clockwise direction.

The origin of rotation is applied as previously stated.

Width and Height (stretch)

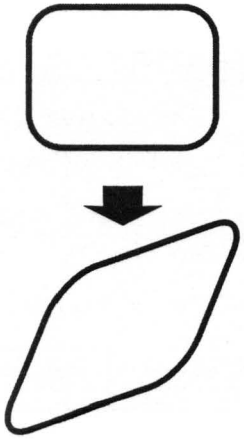
Stretching an object or selection, ie. the ability to squash it vertically or horizontally, is also accessible through the use of the grab handles or menu.

In order to conduct such a transformation, just **Select-drag** one of the bounding box mid grab handles. By dragging the side handles, you will be affecting the horizontal scale, whilst the upper and lower mid-handles have direct control over the vertical scale.

There are two separate menu entries for stretching. The **Main menu ▸ Transform ▸ Width** and **...Height** menus are self-explanatory. In order to obtain another scale factor in addition to the standard ¼, ½, 2 and 4 given, just follow **...Other**. Squashing is achieved by entering a decimal fraction.

Shearing and Skewing

Original rounded rectangle



Rounded rectangle sheared and skewed

Some users may now have come across the ability to directly shear or skew objects before using Vantage. Shearing slants and object to the left or right whilst skewing does so up or down. Combining these can produce results as shown, left.

One interesting note is that the rounded rectangle used left, was still dynamically alterable through the use of the **Regular shapes tool** even after being both sheared and skewed.

In order to shear an object or selection from within the **Select tool**, either **Adjust-drag** or **Shift-Select-drag** any of the bounding box mid-horizontal grab handles. Likewise, by using the mid-vertical grab handles, the object is skewed. When holding down **Shift**, the pointer animates to show the mode of operation you are about to undertake.

Once again, a menu entry mimics this operation. **Main menu ▸ Transform ▸ Shear** and **...Skew** allows you to shear or

skew by pre-determined amounts or by entering a precise value. **Shear** menu entries followed by an **L** shears to the left whilst **R** is to the right. **Skew** menu entries followed by an **U** skews up whilst **D** skews down. If entering alternative values in the **...Other** menus, a positive entry shears to the right and skews up, whilst a negative value shears to the left skews down.

Scaling

A quick way of resizing an object or selection precisely through the menu system is to use the **Main menu ▸ Transform ▸ Scale** entry. Again a pre-set number of scales are presented along with the option to enter a precise value (a decimal fraction indicating a reduction in scale).

A scaling operation does not affect line width and is not exactly duplicated by a drag operation, although drag-magnifying an object produces a similar result.

Mirror

The second quick transform option to be found in the menu structure is the ability to flip an object in either the horizontal or vertical axis. The axis itself is denoted by the origin.

As these two functions are deemed to be ones users will often resort to, two appropriate key short cuts are supplied.

Ctrl-Shift-X flips an object around a vertical axis (left-right).

Ctrl-Shift-Y flips an object around a horizontal axis (up-down).

Straighten

The **Main menu ▸ Transform ▸ Straighten** menu option applies to regular shapes which have been transformed in any manner. As Vantage retains a regular shape's last specified values, and only applies transformation on top of this information, it is possible to make Vantage revert the regular shape back to its rightful profile.

This option has no affect on any other form apart from text where it removes any rotation or shearing and sprites which are reverted back to their original resolution.

Size to grid

The menu entry of **Main menu ▸ Transform ▸ Size to grid** allows selected objects to be resized and re-positioned simultaneously so that they fit precisely into the current grid setup. Also refer to the relevant chapter detailing grid settings.

Zoom

One of the most significant features about a vector-based design and publishing package as opposed to, say, a bitmap application is the ability to zoom in and out of the page maintaining maximum quality of view. Regardless of how much you have zoomed in and out of the page, a line at an angle will not become a classic "staircase" or lost from sight. This principle is slightly lost when incorporating bitmaps, but Cerilica Vantage even ensures that these are rendered as smooth as possible.

Vantage adopts a principle first brought to the RISC OS platform by Acorn's !Draw application. In order to zoom in or out, there are two distinct methods; a key short cut or via a menu. Vantage has added another more intuitive method to zooming — via the use of a drag-box magnifier. As many users have found, the key short cut was almost always used due to its simplicity and speed.

Please note that zooming never affects the contents of a document. It should really be compared to standing nearer or further away from an object.

Zooming in

Zooming in (ie., enlarging the view of the page) can be done by pressing **Ctrl-W** to double the current scale.

Zooming out

This is very much the opposite of zooming in, in that the key short cut to halve the zoom factor is **Ctrl-Q**.

Previous zoom level

It is possible to toggle between the current and previous zoom level by pressing **Ctrl-R** when in select mode.

Zooming to 100%

In order to revert back to 100% zoom, a key short cut of **Ctrl-D** is provided (except when in the **Text tool**).

Zooming using the magnifying pointer

A more intuitive method to zoom is to use the mouse pointer to drag out a region you wish to zoom in or out of.

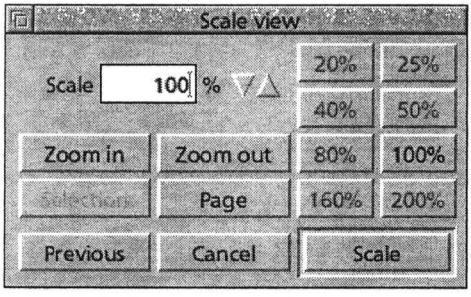
To zoom in using the pointer, hold down **Ctrl-Shift** whilst over the document view (which will change the pointer to a magnifying glass) and **Select-drag** out the area you wish to zoom in to.

Likewise, **Adjust-dragging** a region out whilst holding down **Ctrl-Shift** will zoom out in proportion to the area you have specified.

i

All zoom functions work regardless of the tool mode you are currently in.

Magnifier window



The zoom window, left, may be found by following **Main menu ▸ View ▸ Zoom** (or by pressing **Ctrl-F9**). This menu is designed to give quick access to pre-defined zoom levels as well as access commonly used zoom functions. It is also a good way to clear the decimal description of zoom levels that were obtained using the magnifier pointer.

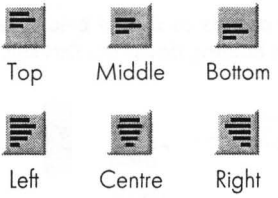
Apart from typing in specific zoom levels into the text entry box, it is possible to select one of the eight predefined levels ranging from 20% to 200% by just clicking on the numbered slabs.. **Zoom in, Zoom out** and **Previous** zoom as described earlier by the key strokes is also replicated.

Page zooms the window to fit the page and if an object(s) is selected prior to opening the window, it is possible to zoom into that object by clicking on **Selection**.

Object Justification

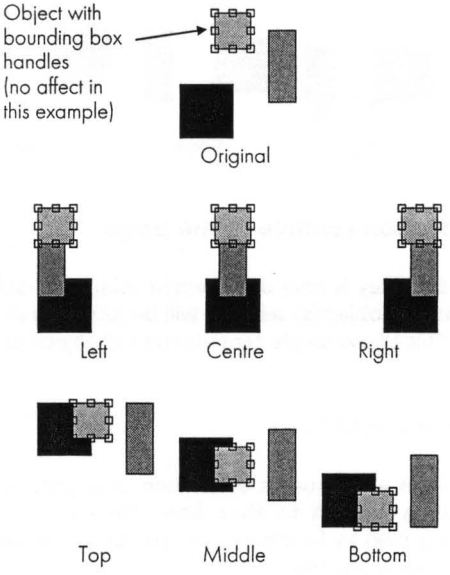
Vantage's toolbar features eight text justification buttons; six of which can be used for object justification.

The Justifications buttons are as follows:



Simple justification of multiple selections

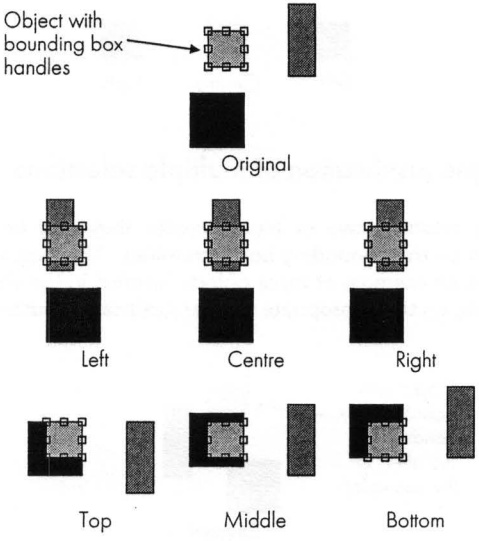
Upon selecting two or more objects, they may be justified based on their bounding box extremities. The diagram below shows an example of three objects justified in the six ways by clicking on the appropriate toolbar justification button:



Justification relative to object with handles

As before, this form of justification applied to multiple selections. However, whereas the simple previous justification ignored which object in the selection displayed the bounding box handles, this form bases its justification on that particular object. It is possible to toggle the object displaying the handles in a multiple selection by pressing the **Tab** key.

To justify the objects as shown below, use the toolbar justify buttons whilst holding down the **Ctrl** key:



Justification relative to the page

If the **Shift** key is held down whilst using the toolbar justify buttons, the object(s) selected will be justified relative to the page. This allows simple centralisation of objects on a page.

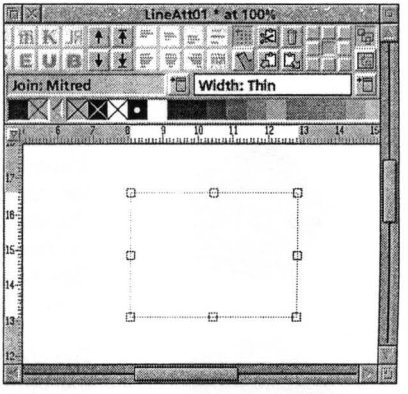
Justifying text lines

If text lines are amongst a selection of objects, they can be justified in relation to their base line and start (not the bounding box) by holding down the **Alt** key whilst using the toolbar justify buttons.

Line Attributes

The lines which form the profile of a vector profile (be they shapes or connected lines and curves) may be drawn in various manners apart from altering their colour. Styles such as dash patterns may be introduced, whilst control over how a corner is finished is also possible, etc.

Before continuing, please draw a simple rectangle using the Regular shape tool. Once completed, enter the select tool and ensure that the new rectangle is the one item selected. By doing this, you should have a view that resembles the one, right.



As you will notice, having a selection fills up the attribute boxes (in this example, stating **Join: Mitred** and **Width: Thin**). These are the two attribute boxes that we shall be concentrating on throughout this chapter. Please ignore the two left-most colour attribute boxes for the moment.

Line width

The most commonly altered line attribute is that of the line's width. By default Vantage draws a **Thin** line when starting a new document. "Thin" translates into the narrowest line possible on the output device chosen. This even applies to a monitor display, where thin is represented by a line one pixel wide. On printers, it is printed as the smallest ink deposit possible. In the case of ink jet printers, this equals one drop and with professional printing, an almost invisibly thin hair-line.

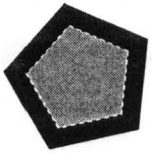
In order to alter this default value to something, either pull down the menu by clicking on the icon to the right of the width attribute box and select one of the pre-sets, or enter a value in the white attribute box itself. Remember that it is possible to specify the units by stating **mm** or **in**, etc. For more information about this, refer to the Introduction chapter.

Another route to defining the line width is to follow **Main menu ▸ Style ▸ Line ▸ Width.**

i

It may be useful to note that the configure option has a useful entry to allow you to default the line width unit to any desired unit available. Therefore if you prefer to work in **mm** as opposed to **pt** (points), choose **mm** in from the configure window and just enter the value in the attribute box without having to write **mm** afterwards

Reversing the render order



Normally lines are rendered *after* the fill of an object has been drawn with the centre of the line being the profile edge of the object. To illustrate this, look at the two pentagons, left. The top pentagon has proportionally a very large line width defined. Because the line width is drawn after the fill, very little can be seen of the fill colour. (The white dashed line represents the profile edge.)

The lower pentagon has been assigned the same line width as the upper one except that it was defined as negative (just place a (-) in front). As you can see, the fill colour has now been drawn *after* the line. You will find this feature useful when dealing with colour trapping.

Join

Mitred join

Rounded join

Bevelled join

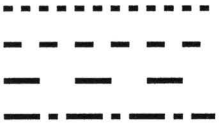
The **Join** is the method the corners of a profile are drawn. Throughout various packages of this type, there are three main join styles; **Mitred, Rounded** and **Bevelled.** In order to understand the difference between each, please refer to the illustration, left.

Join styles become more obvious the greater the line width. If an angle is too acute, Vantage will not allow a mitred join but revert to a bevelled one. This is because if the angle is very small, a mitred corner would become very long indeed.

In order to alter a selected object's join, just pull down the **Join** attribute menu (by clicking on the icon to the right of the join attribute box) and select one of the three styles. This menu is also under **Main menu ▸ Style ▸ Line ▸ Join.**

Hint: In order to make regular straight-edged shapes (such as the box that was suggested at the start of this chapter) with sufficient line width look "sharp", ensure that a mitred join is specified. A bevelled join can make such an object look distinctly "blunt" so the default join is "mitred".

Dash pattern



By default, lines are solid. However, it is possible to use or create new patterns as demonstrated, right. Whilst line patterns are found on all such packages, Vantage allows the user to select an existing !Draw or ArtWorks style, or an arbitrary !Vantage one or even precisely define a new one.

In order to set a line with a dash pattern, there are two ways to achieve this. Before explaining each, it may be useful to select the rectangle used previously in this chapter from within the **Select tool**.

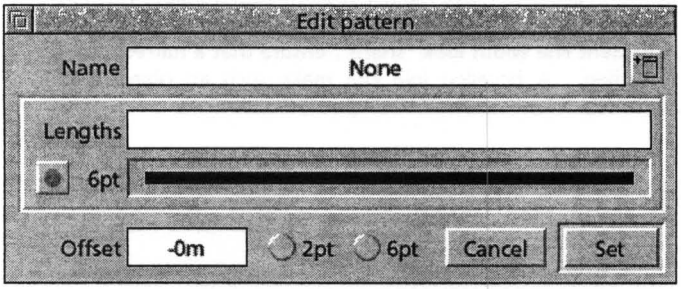
The first method is to **Adjust-click** on either of the two line attribute boxes (that is likely to state **Join...** and **Width...**). Clicking with **Adjust** twice will toggle through until one of the attribute boxes states **Dash: Solid**. In order to alter this setting, bring up the dash pattern menu (by clicking on the icon right of the attribute box) and select a desired pattern. You will find that all of !Draw's and ArtWorks' patterns are listed as well as a number of alternative ones.

The second method is to follow **Main menu ▸ Style ▸ Line ▸ Dash pattern ▸** to find the same listing of patterns as by using the toolbar system as outlined above.

Editing or creating a new dash pattern

Having brought up **Main menu ▸ Style ▸ Line ▸ Dash pattern ▸** you will have noticed two extra entries in this menu; **New pattern...** and **Edit pattern...**. Clicking on either of these will present you with the **New pattern** or **Edit pattern** window respectively, as shown on the following page.

In order to bring up the **Edit pattern** window as shown next, it is also possible to press **Ctrl-Shift-D**.



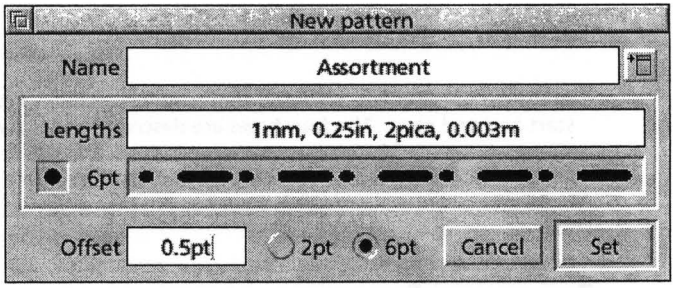
The procedure for creating a new or editing an existing dash pattern is the same, except that to edit one, you may select the one you wish to edit by clicking on the menu icon to the right of the name.

All named dash patterns are listed in the pattern menu, including user-defined ones. As this information is stored in !Vantage and not a document, the patterns are readily available in every future session. The name itself may be entered into the writable dialogue box.

The long **Lengths** entry box is where a user may define a dash pattern in terms of the length of dash followed by the length of space with a comma separating each value. This may be repeated several times in order to obtain an irregular pattern, an example of which is most commonly the centre line. As with all Vantage dialogue boxes where dimensions are to be entered, it is possible to state the values with units of your choice, as explained in the introduction. In the case of this box, it is possible to mix units on the same line. This is demonstrated next.

Having requested a "1mm, 0.25mm, 2pica, 0.003m" dash pattern, a 1mm dash followed by a 0.25mm space followed by a 2pica dash followed by a 0.003m space would have resulted. This sequence is then repeated in order to obtain the continuous dash pattern.

Other options available include the chance to display with the pattern rounded ends (by clicking on the dot button to the left of the example display) as well as requesting for the example display to be shown at a 2 or 6 point width.



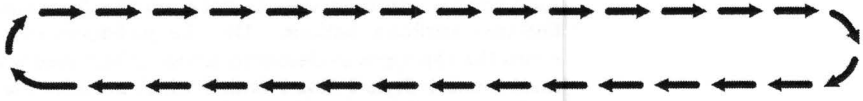
One final feature is the ability to define an offset value (again, to any unit). This value will ensure that the dash pattern will be offset from the start of a line.

To define or redefine a new or edited pattern, ensure the cursor is present in the **Name** writable area and press **Return**.

Dash patterns and line start/end caps

Line start and end caps are explained next but it may already be noted that these attributes apply to each segment of a dash pattern. By realising this, a number of effects are readily available.

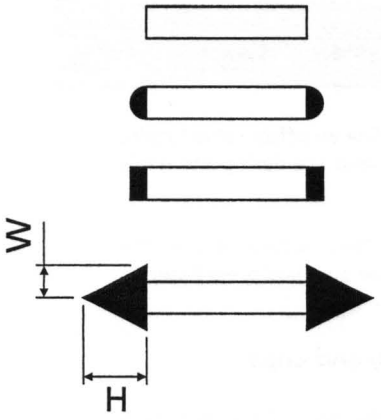
For example, if the pre-defined dash pattern of "5mm" was specified to a rounded rectangle of a 1.25mm line width, with a 1×2 triangular start cap and round end cap, the following effect is possible:



Another interesting instant effect applied to the same object is using the pre-defined dash pattern "Dots at 0.1in" and specifying a round start and end cap. The result being:

Start / End caps

Another common line attribute that is found system-wide are start and end caps. The four types are described as follows:



Flat (Butt): No cap (default)

Round: Circular cap.

Square: Square extension cap — 50% in length of line width.

Triangular: User definable arrow head width and height factor relative to line width. Factors may be decimal fraction. Note that width factor of arrow head applies to one face only (half of total arrow width).

Line end caps may be applied independently to both the start and end.

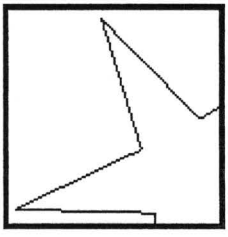
To change the cap of a selected path(s), **Adjust-click** on the **Join:** toolbar attribute well to bring up the **Start cap:** and **End cap:** attribute options. Use the pull-down menus to access the cap types as described above. Alternatively, follow **Main menu ▸ Style ▸ Line ▸ Ends ▸** which provides the same options as well as the ability to **Swap ends** which swaps the start and end cap styles.

!

Note that for end caps to become noticeable, the line width has to be greater than **Thin**. The greater the line width, the more obvious the end caps will become — especially triangular end caps.

Rendering Modes

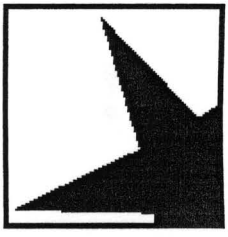
Cerilica Vantage is supplied with three distinct rendering modes. These modes are very important to note as they affect features which appear throughout this manual.



Outline

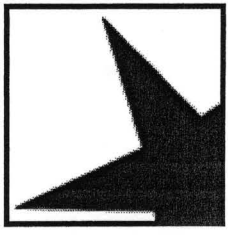
Vantage's highest level of screen rendering is the Everything mode which requires greater processing time but provides an excellent and accurate on-screen representation of the work. By supplying realtime on-screen anti-aliasing, details that otherwise become too course to recognise become clear and the overall appearance is much more pleasant to the eye.

In the Simple render mode, no realtime anti-aliasing (the smoothing of lines through the use of diffused edges as commonly demonstrated with the RISC OS font system) is performed. Neither are transparencies shown or other features not commonly found in lower-end packages such as special fills. A benefit of the Simple mode is that redrawing is quicker, especially where special fills are involved.



Simple

The third mode may be useful in specific conditions. Outlines mode only renders the object outlines (apart from sprites) thus giving the maximum possible redraw speed at the cost of a minimal display. This mode may be found to be useful with large complex layouts or when adjusting objects which are normally obscured from view by those placed in front.



Everything

Default rendering mode

Vantage's **Choices... Display** window allows Everything rendering mode to be set by default. Unticking this option reverts the default renderer to Simple mode.

Switching between modes

There are two main ways to switch between the three possible render modes. Firstly you can access the menu entries by following **Main menu ▸ View ▸** and selecting either **Outlines**, **Simple** or **Everything**. The quicker method is to use the key short cuts of **Ctrl-Shift-F8** for Outlines, **Ctrl-Shift-F7** for Simple and **Ctrl-Shift-F6** for Everything.

Transparencies and special fills

Please remember that when attempting to view these new fill types as described in later chapters (and other new fills are likely to apply in the future), you need to be switched into the Everything mode (by either **Main menu ▸ View ▸ Everything** or **Ctrl-Shift-F6**).

If you are in any other render mode, the objects will either be displayed in their flat colours or as outlines.

Desktop printing

Desktop printing (not PostScript) is directly dependant on the screen rendering mode you are currently in. If, for example, you wish to print an image which contains transparencies or special fills, first ensure you are viewing them on screen by having first entered the everything mode.

Saving as a sprite

This feature of Cerilica Vantage as described later is dependant on the rendering mode you have selected at the time of saving a sprite (the rendering mode does not affect any other save or export function). The sprite will be saved out in the quality determined by the rendering mode.

Vantage and web graphics

Many users will find Vantage an excellent application for creating web graphics. Along with relevant sections in this manual such as "RGB simulation" and "saving as a sprite", you will find that the best results are produced when using the Everything mode regardless if you are using transparencies or special fills due to the anti-aliasing. Anti-aliasing makes for the crispest screen graphics that may be found on the web and really does help giving the illusion of higher resolution graphics even though web images rarely are. Technically, Vantage produces over 200,000 levels of anti-aliasing as opposed to 16 commonly found in alternative software.

Colouring Objects

This chapter is not intended to explain the whole of Cerilica Vantage's colour system — that will be dealt with in the following chapter. However, if you wish to just get on with colouring in objects that you have already created, then this chapter is what you need.

The two aspects of the colour system (using the colours created and coverage of the whole system) have been split up for the following reasons.

The colour system, TRUISM 2, has been developed by Cerilica over a number of man-years. It represents one of the strongest aspects of this package and was developed with the design and publishing industry in mind. Due to this, Vantage's colour system has great capabilities and therefore requires a deeper understanding than many existing systems. The ability to simulate the use of inks is invaluable in everyday use.

Every time a new document is opened, Vantage will automatically default to a CMYK ink file. For many users, this will remain unchanged as the CMYK ink setup is the most common requirement. Colouring objects with any of the colours in the colour bar is a very simple process. This chapter covers that process.

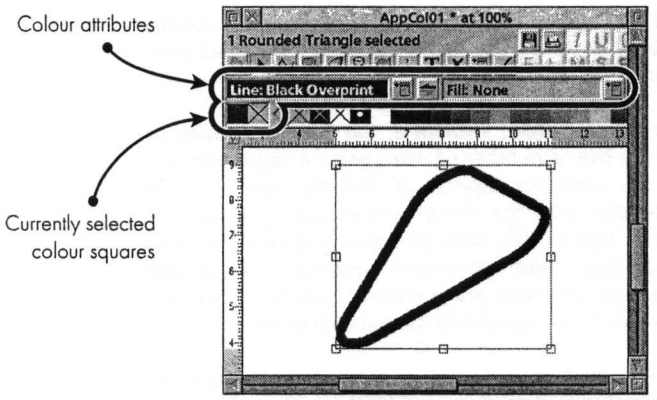
Applying a line and fill colour

"Flat" vector objects are made of two colours (excluding special fills, which will be dealt with in a separate chapter); the line and fill colour. So far, all objects created have been, by default, black in line colour and no colour for a fill.

No colour, or **None**, as Vantage states, implies that the area where a colour is normally applied (either a line or fill) will be left blank or transparent. By having a **None** fill colour, you will be able to see through the object and view any objects behind and ultimately, the paper if no objects stand in the way.

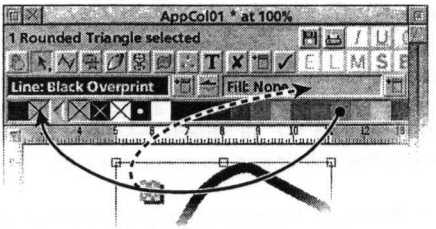
To colour an object, for the purposes of this explanation, first create one (such as a regular shape), then ensure that it is selected whilst using the **Select tool**.

Having selected a single object, you will notice that the two colour attribute wells activate in addition to the two new colour squares appearing in a new well to the left of the colourbar, as illustrated below.



In order to colour the selected object, just **Select** or **Adjust** drag a colour square from the colourbar to either one of the selected object colour squares or an appropriate colour attribute box. This process is shown below.

Select or Adjust dragging of the colour "60% Cyan" from the colourbar to either the selected colour squares or the colour attribute box. In both cases, the selected will have this colour as its fill.



To help you in your selection of a colour, when the mouse pointer is over any one of the colour squares in either the colourbar or the selected colours well, the help line at the top left of the Vantage window informs you of the colour name.

It may also be noticed that certain colour squares have one of two markings within. A cross represents a colour that Vantage will not print (which may be **None**, **Non-print black** or **Non-print white**). The non print colours may be useful for laying documents out with outlines or, for example, cut lines.

i

The other mark, a dot, occurs in the colour **Registration black**. This colour has a special purpose outlined in the next chapter dealing with the Cerilica Vantage colour system. This colour is best avoided if you do not know of its significance.

!

Having modified an object's colour, the attribute boxes and selected colour squares will automatically update along with the actual page view.

Swapping line and fill colours

There are three simple ways of conducting this operation. Either click on the small double-arrowed icon (shown, right) located inbetween the two colour attribute boxes or access this function by selecting **Main menu ▸ Style ▸ Line ▸ Invert** or press **Ctrl-Shift-R**.

Colour attribute wells

Apart from dragging colour squares, it is also possible to make colour selections by using either of the colour attribute wells. These boxes always show the currently used line and fill colours by filling it in the background of the box well in addition to stating the colour name. By clicking on the menu icon to the right of each attribute well, you will also be presented with the named colour list in a conventional RISC OS vertical scrollable menu. Just **Select-click** to specify a colour of your choice.

Scrolling

Scrolling of the colourbar

It is possible that the whole range of defined colours does not fit within the visible colourbar. If this is the case, just move

the mouse to the end of the colourbar and it will scroll automatically independently of the toolbar. The colourbar will jump back into its left-most position when you move the pointer over the page.

Scrolling of the colour menu

The colour attribute menu will automatically scroll to reveal remaining colours if the mouse pointer approaches the end of the menu. Both the line and fill colour attribute menus will remain in their last position.

Colour order

On the colourbar

To determine a new order in which the colour squares will be placed along the colourbar, **Select** or **Adjust** drag any colour square to any other position. This is very useful if you are working in a limited window space or you have defined many named colours, this allows your favourite or most used to be placed towards the left of the bar in easy access.

In the colour attribute menu

As it is not possible under standard RISC OS convention to be able to alter such a menu, !Vantage is able to offer the facility of altering the named colour order in these menus by either **Select** or **Adjust** dragging a named colour while **Shift** is held down. This is where automatic scrolling of these menus is likely to come in handy.

Lack of the colour "white"

If you have not been successful in finding a colour named "White" (other than **Non-print white**), you will have come across one of the consequences of the Cerilica Vantage ink-based colour system. As it is impossible to print white just using CMYK inks, no such colour is capable of existing within

Cerilica's colour model. It would be possible to specify a white ink, if available, but such matters will be dealt with in detail in the next chapter.

Instead of using white, it is possible to "colour" objects in what appears to be white within the default document by opting for the colour named **Paper**. As the default document has a white specified as the print medium's colour (typically paper), filling any object in with this colour will ensure that no inks will be printed in that region (unless one is overlaid), thereby giving the same result as specifying white.

Multiple selection and colours

Colour attribute boxes and multiple selections

The colour attribute box sets the same colour for the whole selection regardless of existing colour. It is therefore useful to use this tool if you wish to make a global colour change to the selection.

Selected colour squares and multiple selections

The greatest use of this selected colour well is with multiple selections of objects with a number of different colours; to check and alter the colours in use.

For example, you may find that after importing a complex vector clipart image, that it utilizes a set of RGB colours in various locations. Without needing to find and select each object with a particular colour in turn and then modify them to, say, utilize a true ink-based colour, all you have to do is select the whole clipart. Any colours which have been used are displayed with a single selected colour square. Therefore if you wish to globally alter that particular imported RGB colour to an ink-based one, just drag the defined colour over the imported colour and all occurances of that particular RGB colour will be replaced.

Another good use of altering a particular colour in all occurrences of a multiple selection, is to change, say, all black fills to an overprint black as overprint is a property of a colour in Cerilica Vantage.

Handling RGB colours

Cerilica Vantage does not directly allow for the creation of unnamed RGB colours using conventional **R**ed, **G**reen and **B**lue values as with simpler design packages such as !Draw. All of Vantage's newly-created colours have to be defined based on the inks available (see the following chapter).

However, Vantage does show unnamed RGB colour squares in the selected colour well often associated with object imported from !Draw, ArtWorks (via the Drawfile), etc. It is possible to drag-and-drop these unnamed colours onto other selected colour squares to replace them or even to drag the unnamed RGB colour to the right-hand part of the colourbar. By doing so, the unnamed RGB colour will be made available for general use even though this is not necessarily advised.

i

Note that editing unnamed RGB colours is possible by double-clicking on that particular colour square. Doing so when listed in the select colour well will change only the selection using that RGB definition. If the unnamed RGB colour square is edited from the right-hand portion of the colourbar, all RGB-defined objects with that exact RGB definition will be altered.

The Colour System

Whereas the previous chapter dealt with *using* pre-made colours, it was only the tip of the iceberg when it comes to Vantage's advanced ink-based colour system.

As the system was designed to be easy to use, yet be more than adequate for professional publishers, there is much background, technology, techniques and usability to be covered. It is for this reason that it would be impossible to cover every single aspect of printing on an ink-based system within this manual. Therefore this chapter is focused and written with the user in mind. If you have a burning question afterwards to ask *why* the systems operates the way it does, it is advised that you consult a professional publication on this matter. All that you have to know, superficially, is that it works and has been proven to work in real-life cases.

TRUISM 2

The **TRUISM** technology is at the heart of Vantage's ability to accurately display colours on the screen that you are about to receive in physical print, if used correctly. It is an ink-based system which means that it has been deigned to be used for simulating and displaying physical prints that may be produced by almost any commercial or desktop printing method used today, from offset presses through digital to deskjets. This does not mean that it is the *only* method of ensuring print reproduction that is true to the screen-based version, but Cerilica has felt that it is the one that is most certain of conducting its tasks consistently and well.

Monitor calibration

Before the colour system is discussed any further, it is essential to ensure that you have correctly calibrated your monitor as described at the start of this manual. Unless this task is done, the **TRUISM** system will not display the correct results.

If you only intend to use Cerilica Vantage with a desktop printer and just want to know how to define new colours from within the default document, please skip the following sections. These next sections provide a brief background into the processes TRUISM 2 undertakes and is only really necessary if you wish to print commercially or want to fine-tune the desktop print output you are able to achieve.

Colour models

If you have used any fairly recent design and publishing package, regardless of platform, you are bound to have covered various colour models. Colour models are methods of describing what a colour is. The most common and native one for computer systems is RGB (Red, Green and Blue). The reason for computers to operate in this colour model is that cathode ray tube monitors, and more recently, LCD screens function by emitting and combining red, green and blue light. For example, to create white, all three colours are shone in the same place which produces the effect of white. Likewise, a 100% red and 100% green gives the result of yellow.

If you own or have operated a colour printer, you will also be aware of the common colour model for colour printing devices — CMYK (Cyan, Magenta, Yellow and Key/Black). Again by combining various mixtures of each ink pigment, it is possible to achieve close to the whole colour spectrum that the RGB model is capable of producing.

The crunch comes when trying to convert between two such different models. Whereas RGB devices like monitors emit light, physically printed material relies on reflecting light. Add to this the realisation that no model is truly linear in function. Then there are issues of how inks actually mix and combine, not to mention the fact that no two sets of CMYK from different sources are ever identical. After you start to scratch this surface, you will start to understand why a fully-fledged colour system is required unlike most systems that have gone before.

In order to start to solve this large headache of how to present an image on a screen and then get it to reproduce as the designer intended, Cerilica Vantage does not operate in a fashion that many will have seen beforehand. Whereas TRUISM 2 is capable of handling RGB-defined colours, it does

not normally present you with the option of creating such a colour as it is relatively ambiguous as to what it means in relation to printing. Instead, !Vantage must have at least one defined ink in order to let the user create a colour. It is important to note that even though only CMYK models have quoted so far for printing purposes, Vantage has an arbitrary ink system, which means that the user is able to specify any ink that exists such as the more recent Hexachrome range.

Defining inks

Without a single ink present, it is logical to say that a user would be incapable of defining a colour. A colour may only be derived from the selection of inks available and how they mix together. Therefore, if (for argument's sake) you only had access to a black ink, as is common in laser printers, !Vantage would only allow a user to define a colour as a range from that solid ink through to the smallest amount the printing device is able to spread over an area (ie., a very light tint).

Leading on from this example of only having a black ink available, if a new ink such as cyan (a shade of blue) was added to the resources available, it would now be possible to specify a whole range of cyan tints from almost non-existent up to solid *as well* as the range of black. Coupled with this is the unusual ability to combine the sets of colours. So it is now possible to create a colour which is made up of any amount of cyan with any amount of black simultaneously.

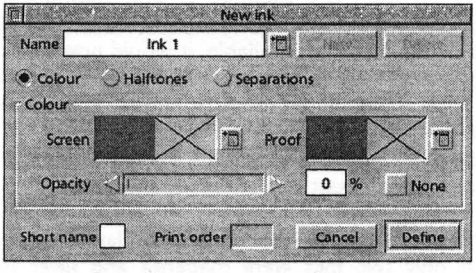
Another factor that has just come into play is the print order. If your only two inks were magenta and silver foil (rarer, admittedly, but serves to illustrate this point), it would matter in which order the inks were laid on paper. If the silver were printed first and a solid block of magenta were overlaid, the result would be a metallic magenta effect. On the other hand, if this print order were reversed, the result would be that the magenta covered by the solid silver would be obscured from view altogether. Whereas this example is quite an uncommon occurrence, the print order does still affect the result from combining more conventional inks. This affect is all automatically taken into account by Vantage.

New/Edit ink window

This window will *always* represent the first stage of creating a document which will use "special" inks — ie., not CMYK or where it is possible to "fine-tune" the CMYK inks. You may, for example, wish to supplement these four basic inks with a Pantone variety or a metallic foil. This gives the designer a much greater range of printable colours, and the ability to specify finishing inks like varnish. It has to be noted that as many printers are set up for standard CMYK work, the addition of a single extra ink may severely increase the cost of printing.

The following description of using the **New ink** window equally applies to its **Edit ink** version.

To define a new ink in !Vantage, either press **Ctrl-Shift-I** or follow **Main menu ▸ Edit ▸ Alter inks...**. Either way, the **Edit ink** window will appear with the option of pressing the **New** button. After doing so, the window will become entitled **New ink** as shown, below.



The New/Edit colour window has three distinctive modes; **Colour**, **Halftones** and **Separations**. By default the window opens in the **Colour** mode as shown above. The following sub-sections will describe the common components of the window and their operation. This is followed by a larger section describing the aspects unique to each mode.

Name

All inks have to be given a title for later reference. It is best to use a descriptive name. So, if you you are adding a Pantone

ink, use the same Pantone name so as to make the situation as clear as possible.

Whether you are editing an existing ink or creating a new one, the menu icon to the right of the name entry box brings up a menu which lets you choose an existing defined ink (**New ink...** ▸) as well as alter an existing one (**Alter ink...** ▸). These inks are fictional but may match stock inks that your printer may have available.

Short name

To supplement the full ink name that you may enter at the top of the window, a much smaller text entry box is available at the bottom to allow entry of a single character. For example, the default CMYK file's inks have short names associated with each ink such as "C" for Cyan, "M" for Magenta and so on. You may find the use of this shortened name useful at a later date but it is not essential to use.

Deleting inks

In order to delete an ink, you have to first select one which will be indicated by the window being entitled **Edit ink**. Just click on **Delete** which will remove all reference throughout the document to that ink.

Be careful when using this feature as once removed, in order to reinstate the inks and use of in all colours, you would have to modify each colour individually.

One of the major benefits of TRUISM 2 is that any imported RGB data such as clip art or sprites is not altered internally in order to be shown as it would print (real time ink simulation). Therefore if you add or delete an ink, Vantage will take a moment to calculate the new situation and re-render the RGB data in the new ink space presented to it. This allows for non-destructive experimentation.

Defining inks

You will notice a delay every time you redefine the given ink set. This is a one-off procedure and allows for fast use later.

Changing the ink order

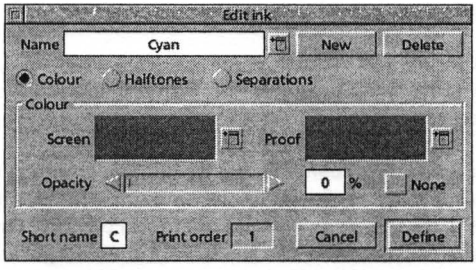
As previously explained, the opacity and order in which the given inks are laid onto the medium determines the result that will be achieved. Be sure to instruct your printer of the print order defined in your document in order to ensure a correct result, especially when utilizing non-standard inks or foils. (The print order is not an issue when dealing with standard CMYK inks as all four inks are translucent).

To change the ink order, click on the menu icon to the right of the name. Whilst holding down **Shift**, **Select** or **Adjust** drag a named ink up or down the menu to its new order location. The inks at the top of the menu are printed first.

Print order

The print order information well at the bottom of the window is for information purposes only and just shows what order the ink at hand is placed in the paper.

Colour section

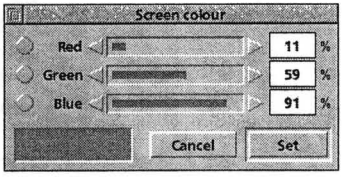


If in this mode, the window should look as illustrated above. If not, click on the **Colour** radio button.

There are two colour wells, one entitled **Screen** and the other **Proof** along with an **Opacity** slider and the option to specify **None**. The **Screen** colour is exactly for what its title implies — it is the exact on-screen colour of the solid ink. This is where, if you are redefining an existing ink or defining a new ink, it is

beneficial, if at all possible, to have a printed example of the ink to hold next to the calibrated monitor display.

By clicking on the menu icon to the right of the **Screen** colour well, you will be presented with the **Screen colour** RGB slider window as shown, right. Adjust the sliders until you obtain a good colour match with what is shown on-screen and what the actual ink looks like. When dealing with "special" inks such as fluorescent or metallic, it is out of the scope of a monitor to display these, so it is best to define the colours at their "flattest".



Click on **Set** to confirm your definition and to close the window. The new colour will then be placed in half of the **Screen** colour well, with the original RGB setting occupying the other half of the well.

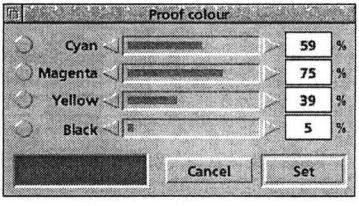
> *After all that has been written previously about an incompatibility between the RGB and ink models, you may be curious as to why an RGB system is used to define an ink. The reason is that this definition is only used on-screen.*

Proof

Note that it is essential to define a proof colour for each ink.

Designers and publishers may be familiar with proof prints which are often available from printers to enable customers to ensure the resultant goods are produced with the correct colours. Vantage's proof control found in the ink setup system has another purpose — it is used to base all standard CMYK prints from, including when printing through typical desktop inkjet colour printers.

As most ready-to-print systems such as desktop devices use the standard CMYK ink setup, the **Proof colour** window requests the user to define an equivalent CMYK-based match for all inks defined. When dealing with the default CMYK Vantage document, there is naturally a direct correlation between each ink and the proof levels. But when alternative inks are defined such as a silver foil, an approximation of the previously-defined **Screen** colour level is required.



Opacity

This may be seen as the most subjective of all the entries in the ink definition window. Rather than stating exactly how each commercial ink is best calculated, what follows may be seen as a rough guide. If you seek greater accuracy then it is best to experiment through trial and error as the value depends on many external influences.

For "normal" inks (such as CMYK), the opacity level is almost zero. To see this physically, if possible dip your finger into the print ink and dab in onto a white page printed with black text. Continue to dab onto differing areas of the page until you only get a very small coat of ink to apply to the page. As you are able to see with these "normal" inks, the black text still appears black yet the white paper is coloured. Because you are still able to see the black text without hardly a hint of colour, the ink has almost no opacity.

Certain special inks may have a much greater level of opacity. For example, it is possible to obtain (for commercial printers) an almost opaque white ink which serves as an undercoat when applied to coloured printable medium surfaces. By first applying this thicker white ink, you are able to print normal inks with very little opacity on top and allow them to show. Even though these inks may be much thicker, inks rarely are 100% opaque and a maximum level of, say, 80% may be more appropriate.

The only time inks should really be defined as 100% opaque is when dealing with metallic foils. The printing process for these are costly and not all printers can cope with such work.

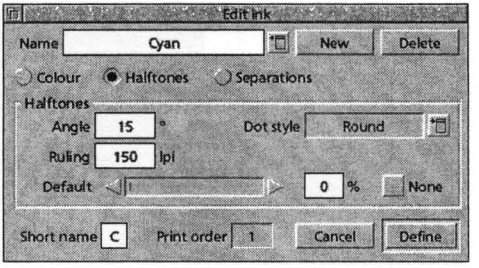
Remember that the print order becomes critical when dealing with semi opaque inks or foils!

None

By ticking this option, the ink being defined has no colour associated with it; for example, a lacquer.

Note that with lacquers, it is often preferable to ensure that no halftones are allows by ticking **None** in the halftone section. However, this is not always the case and some interesting effects are possible with halftoned lacquers.

Halftones section



The first three entries of **Angle**, **Dot style** and **Ruling** are PostScript-specific commands and it is beyond the scope if this manual to cover these areas.

Note that if you are unaware of the result halftone settings can produce (such as Moiré effects), it is best to read up on the subject in suitable publications or possibly ask your publisher or printer as quite disastrous print runs can ensue.

Default

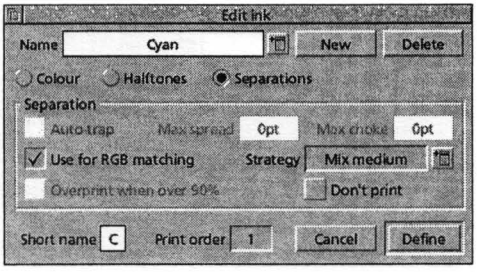
The percentage value determines the level a newly defined ink will be applied to all existing named colours when created.

None

Clicking this option in the halftones window will disallow halftones to be printed of the ink being defined or edited. This may be useful when dealing with, say, lacquers which you feel may not provide the finish you seek if printed in halftone.

If you have already defined colours based on percentage use of the ink in question and then opt for no tints, all colours will automatically show a use of 100% of the ink if a level of 1% or over has been specified. The actual level of ink use percentage stated in the colour will remain, so if you later allow tints of the ink once more, all colours will revert to their specified levels.

Separations section



This final ink mode deals with how each ink is handled by **TRUISM 2**. When you drop an RGB vector or bitmap image into a Vantage document window which has inks already defined, **TRUISM 2** will automatically and in realtime simulate the best possible results with the inks available. To control this simulation through the use of available inks, the following setting may be altered.

Use for RGB matching

By default inks are allowed to be used by **TRUISM 2** so that it may create the best possible match to the original. However, you may not want certain inks to be used for recreating RGB image colours. For example, metallic foils and lacquers are not suitable for RGB matching in which case this option box should be unticked.

TRUISM 2 is very good at using all available inks with the data it is given for matching RGB colours in realtime. One good example is attempting to print an RGB image onto a coloured (especially dark) medium. By specifying an almost opaque white ink first in the print order and ensuring this option is ticked, **TRUISM 2** will utilize the new ink as an undercoat and use it intelligently though the document.

Strategy

The pull-down menu icon to the right of this setting allows for a range of strategies TRUISM 2 should adopt when considering the use of an ink to match RGB colours. **Never** is effectively the same as unticking **Use for RGB matching** whilst **Always** ensures that the ink is applied at 100% in all RGB matching circumstances.

The default setting for Cyan, Magenta and Yellow is **Mix medium** which is good for general purpose work whilst Key (black) is set to **Mix low** so that TRUISM uses as little as possible. You may find that increasing or decreasing the levels will benefit examples of photographic work but rarely will you need to go to either extreme.

i

Viewing the separations (described later in this chapter) will allow you to see the consequences of each setting.

Don't print

This tick option is self-explanatory in that the ink defined is not output when printing separations, if set.

Note about Pantone inks

The range of Pantone inks are not available directly within Vantage. There are a number of reasons for this; namely the cost of licensing the data can not be justified for the RISC OS market, but more importantly that TRUISM 2 renders Pantone's CMYK data as unnecessary.

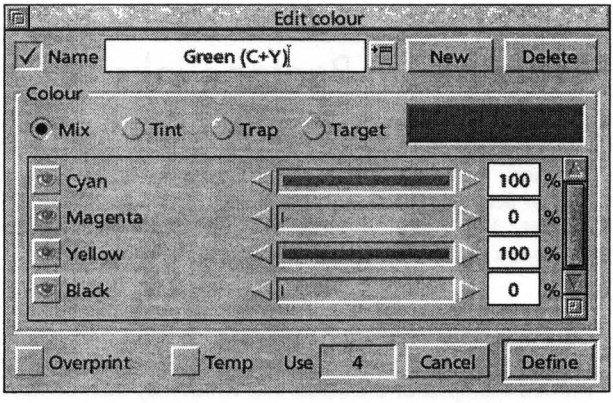
The best way to define a Pantone ink (and this applies to other packages which even have Pantone data) is to purchase one of Pantone's reference books. These books give true printed examples of the actual inks which may then be visually entered into the ink window. Cerilica Vantage will then proceed to correctly simulate the affect this ink has when combined with other defined inks.

Defining colours

Once your selection of inks have been specified, it is possible to create colours. Colours are brought about by mixing levels of each ink. The result is simulated by Vantage and not based on a naive inversion of RGB in order to calculate CMYK. It is best to illustrate the affect inks have on each other as opposed to many system's simple inverting of RGB by example.

For this example, load !Draw, open a new Draw window and create a rectangle. After selecting that rectangle, follow **Draw main menu ▸ Style ▸ Fill colour**. Having opened the standard RISC OS colour window, opt for CMYK and set the sliders to 100% Cyan, 0% Magenta, 100% Yellow and 0% Black. Click on **OK** and the rectangle in Draw will fill with what is known as video green. This green has been chosen because it best illustrates the need for ink simulation and is already defined as a default colour in Vantage. As you will notice, the green is particularly vibrant.

Keep this !Draw window open so that you may compare later.



Now to do the same in Vantage, please follow these instructions (there will be a full explanation of the **Edit Colour** window, later). Create a rectangle in Vantage using the regular shape tool. Next, **Select-double-click** on the **Green (C+Y)** colour square to be found on the standard colourbar to bring up the **Edit Colour** window for this colour. This window is shown, above.

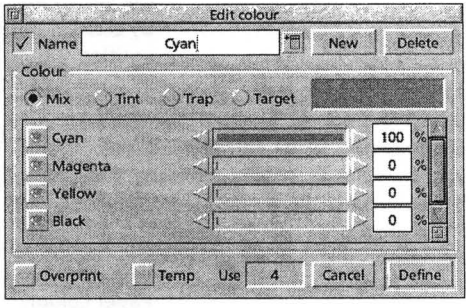
As may be seen, the colour is made up of the same levels of inks as specified in the !Draw fill colour. Apply the colour to the rectangle in Vantage by dragging the **Green (C+Y)** colour square into the **Fill:** colour attribute box.

With both the Draw and Vantage window side-by-side, the difference in display is vast. As the standard RISC OS colour window has inverted the CMYK value in order to display an RGB colour, no account has been taken into the fact that the ink Cyan is *very* different to what was used in Draw which may be referred to as "Video Cyan" (in simplistic terms). Vantage's colour representation is very accurate and can much better guarantee an identical printed result as to what is shown on the screen. It is with this understanding that the definition of colours may take place.

New/Edit Colour window

As the default ink table in !Vantage is CMYK, the explanation of the **New Colour** and its identical **Edit Colour** sibling window will be based upon this setup.

To bring up the **Edit Colour** window, either press **Ctrl-F6** or access the window by opening **Main menu ▸ Edit ▸ Alter colours....** Alternatively, double-click on any colour square or the entry **Edit Colour** to be found at the top of the colour attribute menu. The **New Colour** window is also available on this colour attribute menu.



Just as with the **Edit ink** window, to alter the **Edit Colour** window into the **New Colour** window, just click on **New**.

Name

The upper format of this window is very similar to the **Edit ink** window with an input box for a name. However, in addition to the name and the menu icon which brings up the list of defined colours, there is also a tick box to the left.

The reason for this tick box is to determine whether the named colour is to appear in both the colourbar *and* the RISC OS-style colour pull-down menu as brought up when working with the colour attribute boxes. Without a tick, the colour will not normally be listed on the pull-down colour menu. See the later section entitled "Colourbar and menu".

Colour (Mix)

To begin to illustrate the **Colour (Mix)** section of this window, **Select-double-click** on the colour **Cyan** to be found in the colourbar.

It is within this area that all the primary colour selections are made. As can be seen with the standard setup of CMYK, the four inks are listed in print order (first laid at top) along with percentage sliders, nudge arrows and value entry boxes. By adjusting each value, the colour preview well alters accordingly with the right-hand part of the well maintaining a copy of the original for comparison purposes.

You may not find using the slider bars alone to find a colour very intuitive, which is why the following was introduced. To the left of each colour is a greyed-out eye icon as shown, left. By clicking on the **Cyan** icon, a small shaded window pops up entitled **Colour**. Click on the enlarge RISC OS window button to double its size.

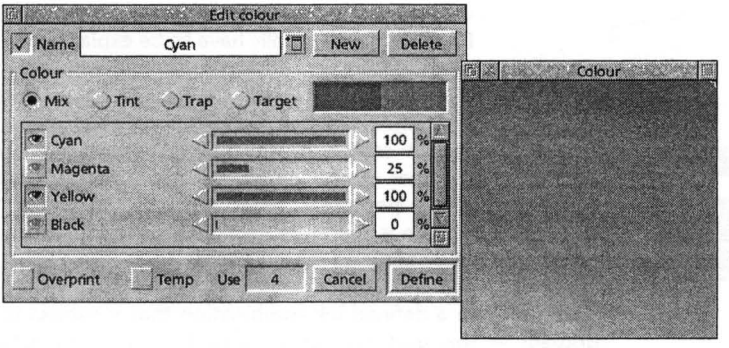
In the case of this example, the **Colour** window is graduated from Paper (on the left) to Cyan (on the right). This is therefore only a single-axis range of colours. To introduce another range of colour, click on the **Magenta** eye icon. Now the **Colour** window shows all the available shades given the two inks, Cyan and Magenta having been printed on the Paper colour.

To use this window, either **Select** or **Adjust** drag the small target around the window. By doing this, the **Edit Colour** window will animate showing you the choice you are making. Next, click on the eye icon to the right of the **Yellow** ink slider, ensuring that the **Magenta** value is brought back to 0%. The window now shows the available shades with a mix of Cyan and Yellow on the colour Paper. Without altering anything else, drag the **Magenta** slider to a value of approximately 25%. Having done this, the **Colour** window shows another range of colours available with the possibility of any value of

Cyan and Yellow being printed along with the given amount of Magenta.

This becomes a very intuitive system and it is therefore recommended that you take some time to try it out.

If you have defined more inks, you have the option to scroll the ink listing with the **Edit Window**'s internal scroll bar or enlarging the window by dragging the internal resize icon.



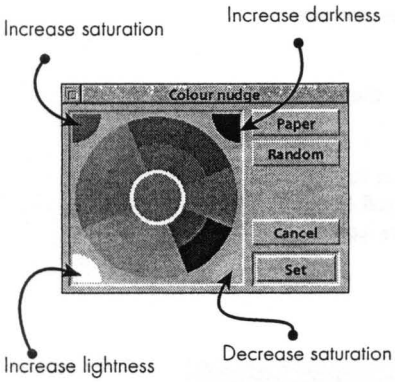
The Colour window with the range of shades available using any amount of Cyan and Yellow along with 25% Magenta.

Colour (Mix) menu

By clicking **Menu** over any part of the **Colour (Mix)** window, a small menu will appear giving you two new options; **Nudge...** and **Show dotgain....**

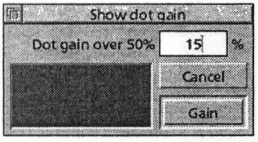
Clicking on the **Nudge...** option will bring up the **Colour nudge** window.

The colour nudge window is another method of creating colours from the available range. In a manner, it is the closest equivalent to the standard HSV wheel by allowing increase and decrease of light and saturation.



As is indicated in the diagram, the four corner colours each serve a purpose of altering the wheel as a whole with the centre circle colour as the target. However, it is also possible to adjust the nudge window by clicking on any of the colours in the wheel in order to "drag" all colours towards the selected one.

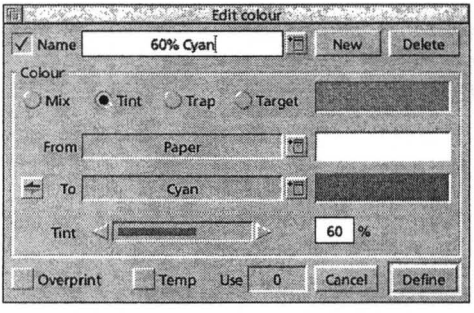
There are two other options to be found in the **Colour nudge** window — **Paper** and **Random**. **Paper** sets the wheel to show all available solid ink colours as well as tints of each, whilst **Random** doesn't really have to be explained...



The other item on the menu was **Show dotgain....** Dotgain is the apparent increase in coverage of a tint caused by the ink spreading out. For example, newspaper quality paper will allow ink to spread more than glossy photoreal inkjet paper. The ability to control the dotgain is therefore invaluable when it comes to printing to ensure accurate reproduction.

You may have a defined ink combination that is subject to a dotgain — this gain can be simulated so later correction doesn't change the colour. By opening the **Show dot gain** window for any particular colour, a percentage dotgain value may be entered. The **Show dotgain** window will then immediately update its colour well to show the affect this value has on the colour. Only by clicking on **Gain** will the original colour be modified to show this gain.

Colour (Tint)



In the default document, there are many tints defined. These are all entitled **X% <colour>** and are in steps of 20%. Before proceeding, just **Select-double-click** on the colour **60% Cyan** to bring up the **Edit Colour** window.

A tint is a colour defined as a percentage between two other defined named colours. In the case of **60% Cyan**, the tint constitutes a 60% shift from the colour Paper to the colour Cyan. The **From** and

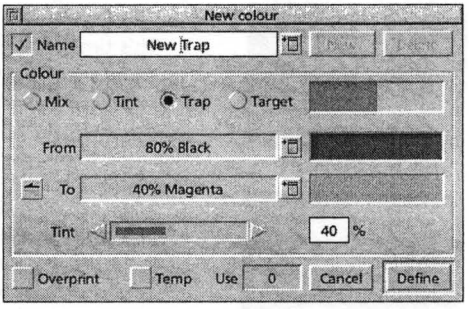
To colours may be anything, including other already created tints. This does mean that the named colours remain relative so if, for example, you wished to create a shadow colour, you could define it as a tint between the "floor" colour and black. Then afterwards, if you were to alter the colour "floor", the shadow would reflect this change and remain realistic.

The **From** and **To** order may be reversed at any stage by clicking in the double arrow icon, right.

Colour (Trap)

Colour trapping only really applies to colour offset printing. Therefore if you only use Vantage on inkjet, digital or colour laser printers, you may skip this section.

Colour trapping is not just about defining a colour but about a whole issue of print misalignment.

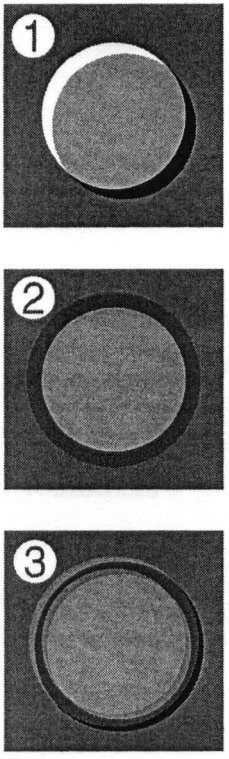


To understand the reasoning behind this colour definition window, you first have to look at the whole issue of why trapping is necessary in certain cases. Cerilica Vantage will be endowed with automatic trapping in the future (hence the greyed-out options in the separations section of the ink definition window), likely to appear as an upgrade due to its complexity and specialist nature. But for now a manual version is supplied which is more than adequate for most situations.

When printing on an offset printer (large commercial ones, not desktop devices where the multiple colours are placed on the paper in a single pass), there can sometimes be visible misregistration between the ink plates (separations). This can be very noticeable when dark surrounding colour has a hole in to allow for a lighter colour.

A bad scenario may be a block of yellow text printed on a blue background. Without manual colour trapping, any misregistration which results in an overlap produces an almost black shadow (blue being made of 100% Cyan and 100% Magenta, combined with 100% Yellow in the overlap area).

The misregistration problem is best illustrated by example. The diagram, left, has three example scenarios. (Each one is exaggerated and is not intended to be perfect but shows the principle.)



1 As with all three figures, figure one replicates a blue square with a yellow circle and in this example, printed with copious amounts of unintentional misregistration. As can be seen, the result would be a light halo top left of the circle where no inks have landed on the paper and an almost black shadow lower right where 100% of Cyan and Magenta (making up the blue square) and 100% Yellow (of the circle) have overlapped. This is not a very good result to obtain due to it being so obvious to the eye. With this applying to, say, a block of text, it would render the print almost unreadable at small text sizes.

2 [No misregistration is given for this figure as it represents a good print.]
This time the yellow circle is given a trap colour in the form of a ring beyond the shape's boundary. A properly set-up trap colour would not be this obvious or anywhere near this example's thickness — ie. not normally noticeable.

3 Figure two has been taken as a basis (yellow circle on a blue square with a trap area applied) but misregistration has been simulated. Remembering that the various shades have been over-emphasised for clarity and that the trap and misregistration band are exaggerated, the result is not nearly as bad as the untrapped figure one. In reality using a trap such as this will allow for any occasional print deficiencies and could mean the difference between a readable item and a very poor one.

To set up the trap colour for the yellow circle/blue square example, open up the default CMYK document. First draw a square with no line colour and Blue (C+M) fill and a circle with no line colour and a 100% Yellow fill as per example. Ensure the circle is *on top* of the blue square.

Next, open the colour window by either **Select double-clicking** on an existing colour square or pressing **Ctrl-F6**. Click in **New** in the colour window and enter the colour name of "Trap". Click on the **Trap** radio button to show the trap **From** and **To** colours.

The darker colour should always be placed in the lower (**To**) well by clicking on the associated menu which lets you select any of the existing colours. In this exercise Blue (C+M) is darker so it is selected.

The top named colour is therefore the lighter one and in this case Yellow is to be selected. A quick way to change the **From** and **To** order is to click on the double arrow icon, right.

With both **From** and **To** colours selected you may move the **Tint** slider up and down. Note that traps do not operate in the same manner as tints. If it were a tint, a value 0% would result in the colour being yellow whereas the trap percentage of 0% shows blue. Equally, 100% does not translate into blue as per a named tint colour, but with a trapping shows black.

Normally a value of 40% is generally suited to most cases. If both colours were darker or more similar, higher percentages may be assigned. If only a 5% variation in ink levels is present, trapping is not required at all.

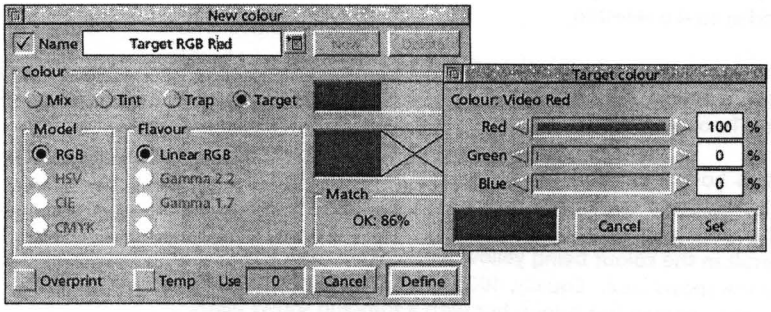
Completing the example, enter 40% in the trap colour window and click on **Define**. Select the yellow circle and drag the new "Trap" colour that now appears on the Vantage colourbar onto the line colour well above the colourbar.

Because this is a trap colour, we do not want it to encroach into the area of the actual object. To make the yellow fill of the circle render *after* the line width, assign a line width of **−1mm**. The negative will ensure the line is drawn first thereby not obscuring any of the fill (see Line attributes chapter) to be obscured. By giving a value of 1mm, the actual trap band will only be 0.5mm wide all around as the other half is hidden under the yellow fill of the circle.

Having followed this, the trapping will be set for the given example. You may choose any line width (and therefore trap width) and the choice may depend on the given accuracy of the printer but always try to keep it as small as possible.

Always ensure the lightest colour is defined in the top named colour well and the darker one beneath.

Colour (Target)



Due to **TRUISM**'s ability to simulate RGB colours in realtime into the current ink-space, a colour definition type of Target has been established. At this stage a target colour may only be defined by RGB values but future versions of Vantage are to feature other common systems such as HSV (Hue, Saturation, Value), CIE (an industry standard colour-space definition) and CMYK.

One of the advantages of using an RGB target colour is if you change ink definitions; normally after doing so, each named colour wholly or partly based on a altered ink will follow in the change. A target colour will just automatically re-adjust to give the closest match in the new ink-space.

To illustrate an RGB target colour, bring up the **Edit colour** window and click on **New** followed by selecting **Target**. In the example shown above, the target is video red. To specify this value of 100% Red, 0% Green and 0% Blue, click on the large colour well in the window (above **Match**) to open the **Target colour** window. In this window, set the appropriate value and click on **Set**.

The **New colour** window now shows the closest match to the RGB definition in the current ink space in the main colour well. Note that the shade of red displayed is not as vibrant as video red and that this is confirmed by the **Match** statement of **OK: 86%**. This indicator is a guide to how close the target colour can be matched in the current ink-space.

If you wish to find the ink levels Vantage has matched the target colour to, simply select the **Mix** radio button.

Overprint

Vantage's colour system allows a colour-based overprint facility. Instead of overprint being an attribute of an object, any colour may be forced to overprint, thereby affecting all objects with this colour specified as its fill.

The whole issue of overprinting is advised extra reading through appropriate publications. However, overprinting is virtually always attributed to black text, especially when placed over coloured areas. By overprinting, underlying colours are not "knocked out" to make way for the overprinting ink. This ensures that printing registration errors are not highlighted with a halo effect.

i

Note that overprinting is the only attribute **TRUISM II** does not simulate on-screen due to the great processing power overhead necessary to do so, so caution must be observed in applying overprinting. But as there are *very* few cases where Key (black) ink overprinting is not optimum in a CMYK setup, it is advised that the default file is maintained as is.

!

Temp

Please refer to the pre-release supplemental notes on the subject.

Use

This non-editable box shows the number of colours based (ie. tints and traps) on the one being edited.

Paper colour

Many references so far have been linked to the paper colour. It is possible to alter the paper colour (which is by default, white), but there are implications to this.

It is possible to define paper colour in a number of other design and publishing applications. By doing so, in these programs the background colour changes but does not affect any of the design printed on top. This is not realistic because

if, say, you defined the colour white and filled a rectangle with it, then carried on to state that your paper was black, unless you had a special 100% opaque white ink, it would be quite impossible to achieve the given display by just using CMYK.

This is the reason (as briefly explained earlier) why !Vantage does not have the concept of a colour white unless an opaque white ink were defined. Instead, if the paper colour is white, the only way to obtain a white area would be to not place any ink on that paper.

On certain occasions, there will be a need to print on different coloured paper. One common example of this is duplicate carbon copy sheets that come with many invoices. These sheets can come in colours such as light yellow, blue and red. !Vantage through the TRUISM technology is capable of instantly displaying what affect a paper colour like these would have on all inks and colours defined.

So, if you were to define the paper as a light shade of red (or pink), all the default CMYK colours on the page and the colour squares in the colourbar would alter accordingly giving an accurate simulation as to what would happen.

To alter the paper colour, follow **Main menu ▸ Edit ▸ Alter paper...** or press **Ctrl-Shift-A**. The **Paper** window that appears will be explained in detail later as it allows you to not only alter paper colour, but size as well. For the sake of this section, click on **Colour...** to reveal the standard ink setup window, but in this case entitled **Edit paper colour**. Click on the menu icon next to the **Screen** colour well and adjust to suit. To confirm the new colour, click on **(Screen colour) Set**, **(Edit paper colour) Define** and finally **(Paper) OK**.

As with defining inks, a proof colour should be established.

Viewing separations

Separations may be seen on screen. Vantage renders these accurately as grey-scale versions of each colour as would be seen on separation films, including halftones and overprint areas.

To see any ink separation (as with the whole of the Vantage colour system, this is not just limited to CMYK), follow **Main menu ▸ View ▸ Separations ▸** and select the ink you wish to see. By clicking with **Adjust**, the menu will remain open so that you may select another separation.

Once you are satisfied or wish to revert back to the normal full colour view, select **Full colour** from the same menu.

The extra menu entry of **Registration** is for viewing any colours which are filled using the predefined colour of **Registration black** (the black colour square with a white dot in the centre). Registration black ensures that it will appear on all separations and are used mainly for crop and registration marks.

Lighting conditions

A small but very neat feature to be found in the colour system is the ability to view a page under alternative lighting conditions.

By opening **Main menu ▸ View ▸ Lighting ▸**, you will be presented with a list of different conditions from **Tungsten** to **Red LED/Laser**. By clicking on any one of these entries, the whole view will dynamically alter to give you the effect of that particular surrounding light.

This may be of great use if you wish to produce artwork that is intended or may be expected to be used in non-daylight conditions like a film processing laboratory or an outdoor night worker. By trying these conditions, you will quickly learn if the printed result is discernible in those conditions. For example, the **Red LED/Laser** can indicate if a coloured barcode will be readable by a scanner.

To revert back to the standard view, click on **Main menu ▸ View ▸ Lighting ▸ Daylight**.

Remove ink table

If an ink table is present and you wish to remove it, click on **Main menu ▸ Utils ▸ Remove ink table**. Upon doing this, you will be presented with a choice (apart from cancellation); to **Change** or to keep the **Same**. Either way, all named colours will disappear (as there will be no inks for which to base them on) and they will all be turned into RGB.

i

If you select **Change**, the RGB colours will be slightly altered so that a naive RGB to CMYK separation process will be more successful. This is useful for applications such as !Draw, ArtWorks and Impression. By selecting **Same**, the RGB colours will be kept as they are displayed on screen. This is very useful if you want Vantage to perform realtime ink simulation of the RGB colour at a later date. Also, certain applications such as Photodesk are able to successfully convert this RGB data back into properly separated CMYK.

!

This process is only advised before exporting the document to destinations that can not normally understand !Vantage files. All colour data will be destroyed, so use with extreme caution!

Create ink table

There are two occasions where you may wish to create an ink table; (1) if you opened a Drawfile created by any other application such as !Draw as these do not contain ink data or (2) if you have previously deleted the ink table. To create an ink table, follow **Main menu ▸ Utils ▸ Create ink table.**

Upon creating a new ink table, any RGB colours used in the document will be automatically simulated in the ink colour space available. However, the colour will not be automatically converted into named ink-defined colours as you need to do this manually.

Remove unused colours

This entry in the **Main menu ▸ Utils ▸** menu allows a user to tidy the colourbar and menus of colours that have not been used in the document. This should only really be used upon completion of a page layout as there is no other real need to perform this task.

Realtime RGB ink simulation

One of Cerilica Vantage's greatest technical achievements to date is the realtime RGB ink simulation capability which has been mentioned throughout this chapter.

This technology (at the time of writing) is only available on other platforms in the form of highly specialist and costly packages. The ability to drop any RGB bitmap into a Vantage window with defined inks and let Vantage show how it would be best matched to the inks used in realtime is therefore special. However, with Vantage taking this one step further and allowing even RGB vector work (such as clip art) to be simulated in realtime is unique.

A major benefit of this built-in facility is to not only see what the printed result would look like but to also allow you to optimise the ink use without damaging the original data. As all original RGB values are stored and never altered by Vantage until the time the user re-defines the colour with one based on the inks available (a named colour), you are free to alter and adjust inks without ever having to throw the document away in order to back step.

If you often prepare work for commercial printing you may well find that Vantage is able to save you money by optimising the inks used for both vector and bitmap images or a combination of. For example, if you wish to print an image of a classic British post box which is just painted red and black, instead of using a full CMYK setup, let Vantage show you how using just a red and black ink is equally suitable.

The best way to explore the new-found power of TRUISM 2 within this software is to experiment.

Not to be confused with the following chapter entitled "RGB Simulation" which covers the use of Vantage for RGB screen work such as web images, this section describes one of TRUISM II's unique features that is of great use for commercial printing.

Colourbar and menu

There are typically two methods of selecting colours using Vantage; through the pull-down colour menu and the colourbar. Even though in the default files both show the same information, they can be independently arranged in terms of presence and order.

Removing a colour from the colour menu

It is possible to remove a named colour from the colour menu without deleting it from the document or colourbar. Simply untick the **Name** option found in the **Edit colour** and **New colour** windows.

To make the colour re-appear on the colour menu, open the **Edit colour** window and pull down the colour menu associated with the editable name entry box. (This is the only colour menu which always lists all colours regardless of the **Name** tick option.) Select the colour your wish to make present on all colour menus once more and tick the **Name** option followed by **Define.**

Changing the order of the colour menu is covered in the "Colouring objects" chapter.

Removing a colour from the colourbar

To remove a colour square from the colourbar simply drag it from the colourbar to the toolbar dustbin icon shown left. This does not delete the colour from the document or colour menu.

To re-introduce the colour square to the colourbar, select an object which uses the colour and drag the colour square from the left-hand colour selection to the right-hand portion. If no suitable object is present on the page, one may be created using the attribute pull-down colour menu to define the colour necessary.

RGB Simulation

After the previous chapter explaining why you can't obtain a full RGB colour range as it could not possibly be printed in the real world under normal circumstances, it might seem strange to devote a chapter to explain how to get around this.

Not to be confused with "Realtime RGB Ink Simulation" as described at the end of the previous chapter, this chapter describes how to use Vantage for RGB screen work such as web images.

Many customers will have bought Cerilica Vantage to not only create illustrations and layouts ready to print, but also to generate screen-based graphics that are never destined to hot paper. The most common use of screen graphics now is the use of images on web sites. The internet has grown massively since the beginning on the 90's and the graphics on international display have grown up with it.

Therefore the reason to devote this chapter to "cheating TRUISM 2" is to give those who design for the screen the full range of RGB colours that they would come to expect. As there are none of the classic printing limitations on the internet, there is no point in letting Vantage's system exclude certain screen colours.

Default RGB simulation file

Cerilica Vantage can be used with great success to create stunning web graphics in part due to its sophisticated anti-aliasing (see the Rendering Modes chapter). To do so, it is advised that you start designing using the **RGB** template file that is located in !Vantage's Setup directory. The quickest way to access this file is to follow **Iconbar Vantage icon ▸ Choices... ▸ Setup... ▸**. Double clicking on the "RGB" file within this filer window will bring up the default RGB simulation set of inks and pre-defined colours. As can be seen with or without a calibrated monitor, many of the colours that appear as standard on the colourbar are very vibrant (and therefore not reproducable on paper without special inks).

Creating new RGB-esque colours

The template file may be used like any other Vantage file as it's a file based on a specific pseudo-ink setup. Editing and choosing new colours may be done in a fashion very similar to

the standard Hue, Separation, Value (HSV) method that may be found in many RISC OS 3.5 and higher applications (and ArtWorks beforehand).

The chapter entitled "The Colour System" explains the principles of creating and editing colours. By using the colour square which is brought up by clicking on one or two of the eye icons to be found in the New/Edit colour window, a HSV representation may be found.

For example, if you open the New colour window (either double-click on a colour square on the Vantage toolbar and select **New** or follow **Main menu ▸ Edit ▸ Alter colours...** and select **New** or press **Ctrl-F6** and select **New**) click on the **Video Cyan** and **Video Magenta** eye icons to bring up the colour square. Now by sliding the **Video Yellow** slider up and down, the range of colours available in the colour square alters.

Selecting the **Video Yellow** eye icon and sliding the now greyed-out eye icon's colour percentage bar will give you another set of RGB colours. Repeating this process will enable you to access the third and final set of RGB colours.

Printing RGB-esque designs

You may find that at a later date you wish to print a design based upon the RGB simulation file. Bearing in mind that under common print conditions, ie. the use of a CMYK ink setup, some of the RGB range is excluded, you can make Vantage show you the best possible result.

To do so, open the default CMYK — or whatever ink setup you wish to base your print on — document by **Select-clicking** on the Vantage iconbar icon (if you haven't already redefined your default document) and just drag and drop the RGB simulation drawfile into the new document window. Vantage will show using **TRUISM 2** the best possible print result using the inks given.

It is always possible to redefine any colour on the page using any of the standard colouring methods.

It is *not* advised that you attempt to print directly using the RGB simulation file, especially with PostScript.

Tints and other colours

Normally only mixes will be used for defining RGB-esque colours as tints and trapping colours were not designed for on-screen use. However, there is no reason as to why you shouldn't use any colour type. You may find tints useful for creating dynamic colours that change relative to the ones they are based on.

Defining the RGB file as default

If you are uncertain about the following procedure, please do not attempt it as altering the wrong part of the contents of !Vantage can result in the necessity to re-install.

If you design mainly for screen-based work and you find that very few files are ever destined to be printed, you may wish to make the **RGB** file the default one. Upon doing this, every time you click **Select** on the Vantage iconbar icon, the RGB simulation file will be brought up as opposed to the more limiting (in terms of on-screen colour range) CMYK file.

To do you, find the !Vantage application on your hard disc and **Shift-double-click** to open it. Now open the **Setup** directory and rename the file **Default** to something else like **OldDeflt**. Now rename **RGB** to **Default**.

It is possible to revert the names back to their original in order to make the CMYK document your default one.

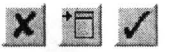
How the RGB simulation works

For those who wish to know, the RGB simulation was constructed by defining three inks; **Video Cyan**, **Video Magenta** and **Video Yellow** as they are the naive inverse of RGB. As each ink has an opacity of 0% and screen colours that reflect their names, **TRUISM 2** is tricked into allowing you to select the full range of RGB colours.

The default CMYK file's colours do not allow a full RGB range as the screen CMYK colours are defined correct for print use.

Chapter 13

Undo and Redo



The concept of undo and redo can be found on many packages from !Edit to !Draw. Undo allows users to freely explore effects and techniques safe in the knowledge that the previous stages can be retrieved.

Vantage's undo/redo system is very advanced and provides the following features:

- Multi-stage capable with ability to "zoom" to any desired undo/redo stage in single operation.
- Near instant stepping, including undo/redo "zoom" regardless of complexity of stage.
- History depth dependant on either memory available or memory in addition to storage device — typically the hard disc — space available (user option).
- Level of history depth user-defined in application-wide choices.
- Save undo/redo buffer with document option — save buffer held in memory, memory and disc or neither.
- Ability to undo any changes applied to embedded images through bitmap software using the OLE system.

Operating undo/redo

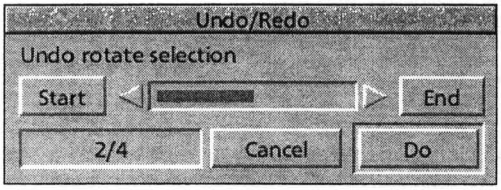
There are three ways to undo the single previous stage:

- **F8**
- **Main menu ▸ Edit ▸ Undo**
- Toolbar undo icon shown right

Equally, there are three ways to redo the next stage:

- **F9**
- **Main menu ▸ Edit ▸ Redo**
- Toolbar redo icon shown right

To "zoom" through the undo/redo buffer to any stage, click on the toolbar's undo/redo menu button found between the undo/redo buttons as shown left.



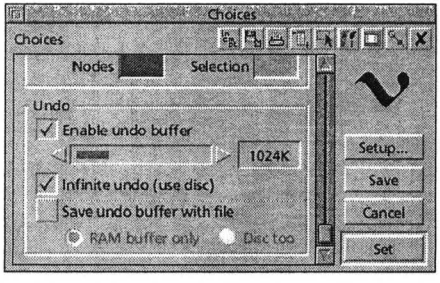
By doing this, the function's sub-window opens to reveal a slider representing all stages available. Simply drag the slider or move using the end arrows and when the desired stage is reached confirm by clicking **Do**. Clicking on **Do** with **Adjust** will keep the window open allowing further undo/redo operations without the need to reopen the window.

It is equally possible to redo stages you have undone but only until the point the document is edited whereupon the redo buffer will be discarded.

The undo/redo window provides instant information of the stage being zoomed to (a reflection of the information provided by the menu entries). However, if the stage is to be spooled from the disc (see later), the stage information line will simply state **From disc** to avoid timely disc access.

Undo/redo choices

Vantage's undo/redo choices are set for the application as a whole rather than for individual documents. To alter the choices for this system, open the Vantage **Choices** window by either selecting **Iconbar menu ▸ Choices...** or **Adjust-clicking** on the Vantage iconbar icon. Scroll to the relevant section manually or by clicking on the undo/redo icon shown left found at the top right of the window.



Enable undo buffer

Ensure this option is ticked if you wish to enable the undo/redo system. Unticking this option will reduce Vantage's memory consumption.

Memory value (slider bar)

Drag or nudge this bar to indicate the amount of memory you wish Vantage's undo/redo system to occupy. If the following option is ticked, this slider value does not dictate the amount of total undo/redo memory buffer available, only the amount of machine memory to be taken up.

Infinite undo (use disc)

By allowing Vantage to spool excess undo/redo buffer data to the disc, a virtually limitless amount of stages can be stored for retrieval.

Note that if large documents are being edited, especially if high resolution bitmaps are incorporated, the system may consume huge amounts of available storage space.

Save undo buffer with file

By ticking the choice two further options are presented; **RAM buffer only** and **Disc too**. This allows the user to save the undo buffer within Vantage which may be used in later sessions. If **Disc too** is opted for, any undo stages spooled to the disc will also be copied into the document.

Note as with the above option, potentially very large amounts of storage space may be consumed if **Disc too** is opted for.

Chapter 14

Transparencies

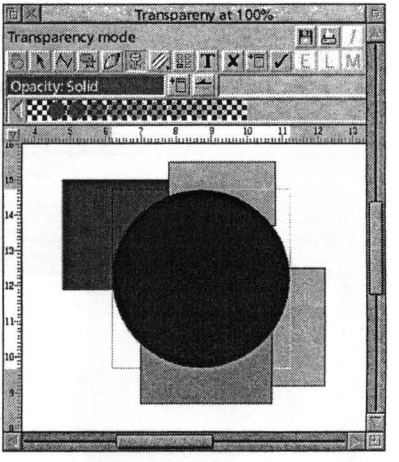
Before describing transparencies, it first has to be pointed out that you have to be in the Everything renderer mode in order to view them. See the chapter entitled Rendering Modes.

Transparencies may be seen as a "special effect". The ability to make an object translucent in appearance is of great use in many circumstances such as creating glass effects. Cerilica Vantage does not restrict transparency effects to just vector objects, but also allows bitmaps and text to appear transparent.

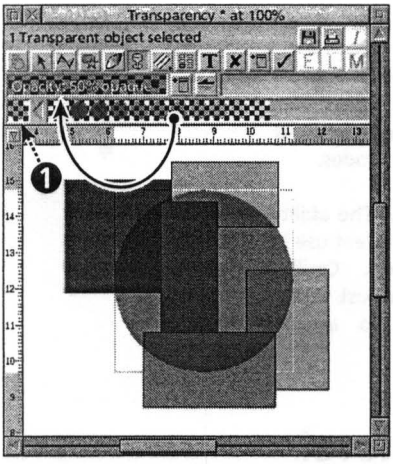
Applying a transparency level

1 Using the Select tool, select the object you wish to apply a transparency level to.

2 With the object selected, change to the Transparency tool. This tool behaves very much like the colour system with a row of available levels of opacity (by default in steps of 10% from 100% to 0%) on the right, an attribute well (before anything is applied it will state **Opacity: Solid**) and in the next stage you will see the row of levels being accompanied by a currently selected range.



Vantage's transparency tool does not provide named transparency levels and only refers to each by its level of opacity. Therefore just as with basic RGB colours, you can not create a new level directly (even though it is possible - see later).

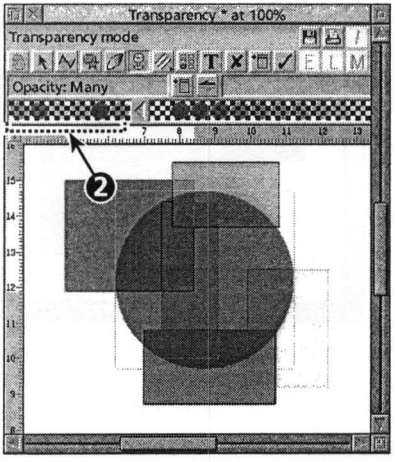


3 To apply a transparency level to an object, drag an appropriate opacity level onto the attribute well as shown left. Once this is completed you will note that a currently selected level is appended to the row of level (❶).

The level of transparency may be altered to another pre-determined level by either dragging an opacity square onto the atribute well of the newly appeared current selection.

Multiple selections and levels

It is possible to apply a single level of opacity to a selection of objects in one go. If some objects in the selection already have a defined transparency, this value will be replaced with the new common value.

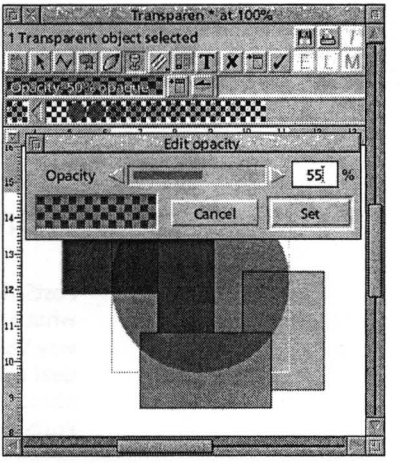


Note that it is possible to select new object(s) by temporarily entering the **Select tool** by holding down the left **Alt** key.

If a number of transparent objects are selected with varing levels of opacity, the current selection of levels will be displayed in the current selection row as illustrated left (❷). It is possible to drag and drop opacity levels within the current selection or to and from the predefined levels on the right. This way it would be easy to ensure all transparency levels are the same. By moving the pointer over each level, Vantage's information line (top left of the toolbar) will state the value of the square under the pointer.

Editing opacity values

Even though a range of opacity levels are supplied by default it may be necessary to fine-tune levels (this may occur when overlaying or tweening between a number of transparent objects).



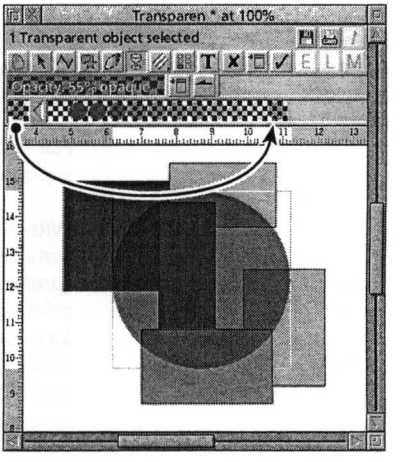
To edit any level of opacity currently defined, double-click on any of the squares (not the attribute well) to bring up the **Edit opacity** window as shown right. Either drag the slider or enter a precise amount and select **Set** to apply. If you have edited an opacity level of a current selection then the variation will immediately apply to the object(s) associated to that level. If you edited one of the predefined levels, that particular opacity level will be changed for that drawing session.

Note that if you edit any of the predefined levels (100%, 90%, 80%... etc) that value will only remain until that document is closed and these levels will not be stored for later sessions. However, Vantage will naturally maintain any custom level of opacity applied to any object but this level will not be added to the predefined row.

i

Adding levels

It is possible to append the predefined row of opacity levels with a custom value for that particular document's session. This may be of use if you wish to refer to that level at later stages for commonly-defined transparent objects.



To do this, select or create an object with a custom level of transparency (such as 55%) and drag the level square from the current selection left-hand portion of the row to the right-hand predefined levels as shown right.

Removing transparencies

Once an object is applied with a level of opacity it will be referred to a transparent object from that point on regardless of the level (including 100% opaque [solid] and 0%). To remove any reference to transparency, with the **Select tool** select the object and opt for **Main menu ▸ Object ▸ Untag**.

Transparencies and PostScript

PostScript (level 1, 2) and EPS do not have any concept of what a transparent object is or how it should deal with it. The way Vantage and similar applications on all platforms tend to deal with this is to export or print the transparent object as a bitmap and place this within the output file, be it an EPS or PostScript one.

A number of issues arise from this solution; mainly that you can not edit any original vector transparent object data if you import such a file as it is a bitmap. Also, the file size of documents printed or exported as PostScript or EPS quickly become very large when creating internal bitmaps suitable for high resolution printers.

If you wish to export an image and retain the original vector data, select all transparent vector objects and untag them all in one go.

Bitmap export

Full details of Vantage's advanced bitmap export facilities are explained in the relevant chapter.

With Vantage's advanced bitmap export options it may be suitable to export the page as a high resolution bitmap (preferably as a TIFF if the destination of a commercial printer). An **Alpha** (transparency) option is provided on the **Save as TIFF/Sprite/PNG** window to maintain all transparency levels. If the bitmap is intended to be printed without further modification, ensure the **Alpha** option is unticked when saving the image.

Fancy Fills

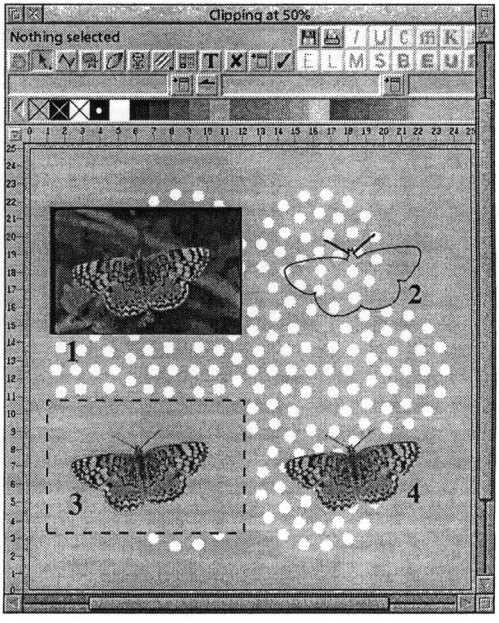
Before describing fancy fills, it first has to be pointed out that you have to be in the Everything renderer mode in order to view them. See the chapter entitled Rendering Modes

Fancy fills refer to a group of non-flat fill types that may be applied to vector objects and include sprite fills (sometimes referred to as "sprite clipping"), radial and linear fills.

Sprite fills

Sprite fills is very self-explanatory; it refers to a vector profile (such as a rectangle) being filled with a sprite (bitmap). For information on how to load a sprite, please refer to the Bitmaps chapter.

To best describe sprite fills further the following refers to the screenshot below, right and the figures within. It illustrates the difference between sprite fills and a form of sprite clipping that was possible using !Draw and ArtWorks.



1 The original sprite to be clipped (taken from the 100 JPEG images supplied with Acorn machines depicting a butterfly).

2 A vector profile is drawn using Vantage's **Path tool** by tracing over the butterfly sprite outline (and for the sake of the example and clarity, moved away from the sprite and given a line colour).

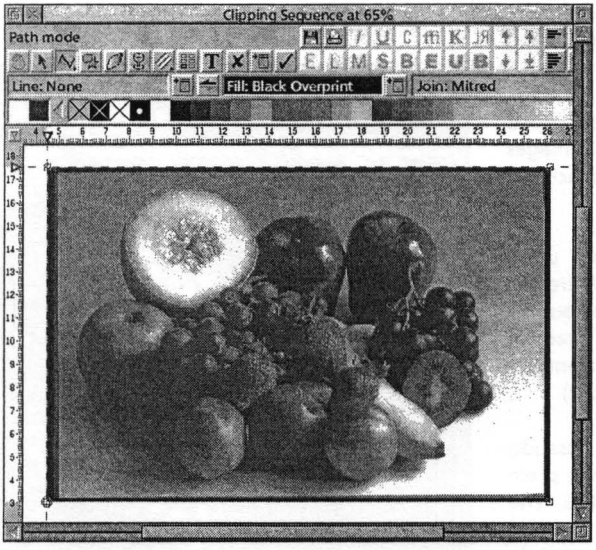
3 This illustrates how pseudo clipping used to always take place when using !Draw or the like. The vector profile path was merged with a larger vector rectangle (depicted by the dashed line) and coloured the same as the background to provide a suitable

hole in which the sprite behind could partially be seen. The drawback of this method is that the blanking rectangle obscures the view of everything else beneath – in this example the light dots.

4 Vantage's true sprite fill allowed the vector profile in (2) to be filled with the sprite (1). This allows all areas of the sprite that are not wanted to be removed from view without actually altering the sprite itself. As can be seen, the light dots directly bordering the clipping path are all visible as opposed to the old method (3).

Note that JPEGs can not be used to fill objects. To use an original JPEG image as a sprite fill, first convert to a sprite before loading into Vantage. PNG imported into Vantage may be used as sprite fills as they are automatically converted into this format upon entering the Vantage document.

How to clip a sprite: Method 1



Drop a sprite into a Vantage window. This example uses the classic bowl of fruit image as supplied with Acorn machines (image "sa09" to be found in the !Slideshow demo application which should be converted to a sprite prior to use).

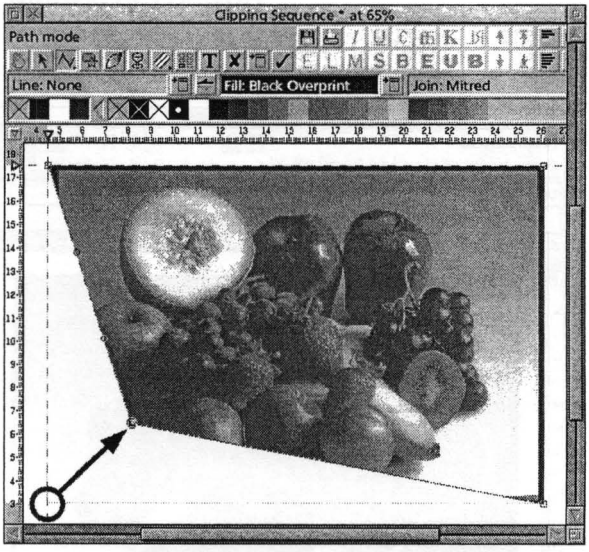
Ensure the full renderer mode is selected (**Ctrl-Shift-F6**),

With the **Select tool**, select the sprite by clicking on it. Next change to the **Path tool** mode.

In the **Path tool** mode, any selected unclipped sprite will present the four corner nodes as if it were a vector rectangle profile.

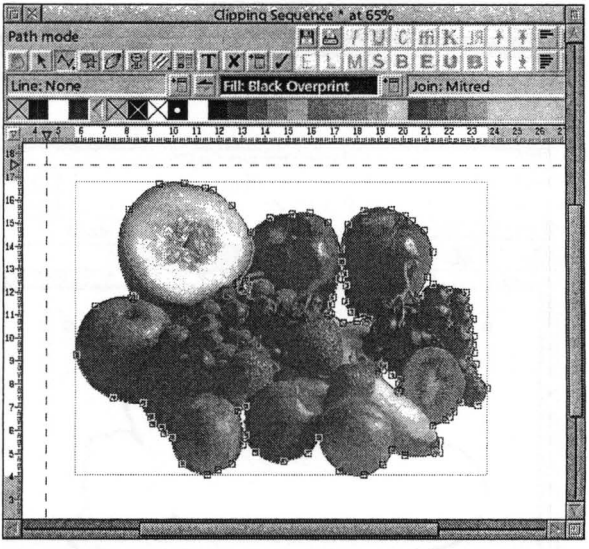
The vector outline profile of the sprite may be altered in any way the **Path tool** normally allows for any other vector object. Lines may be altered to curves, nodes moved and added, etc.

In the example shown right, the lower left node was dragged inwards to meet the edge of cluster of grapes to start the clipping process for this particular image.

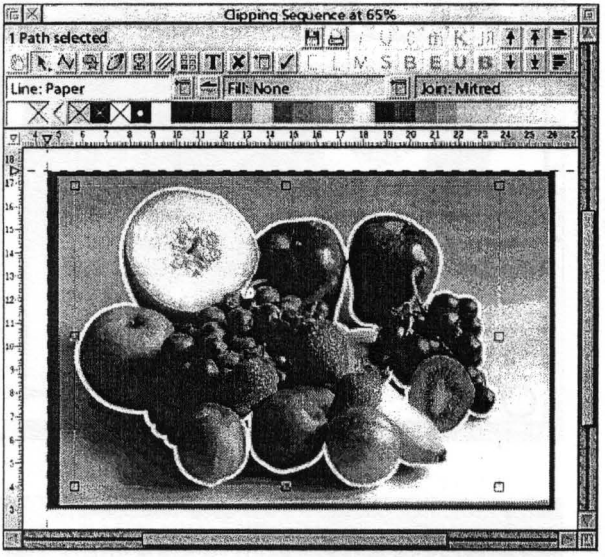


The clipping process for this image was completed by adding many nodes whilst in the **Path tool**. For such an image, the Freehand tool can be an advantage when tracing irregular shapes, combined with single key-press smoothing operations (pressing **S**).

The holes are separate closed paths that are merged with the main outlines.



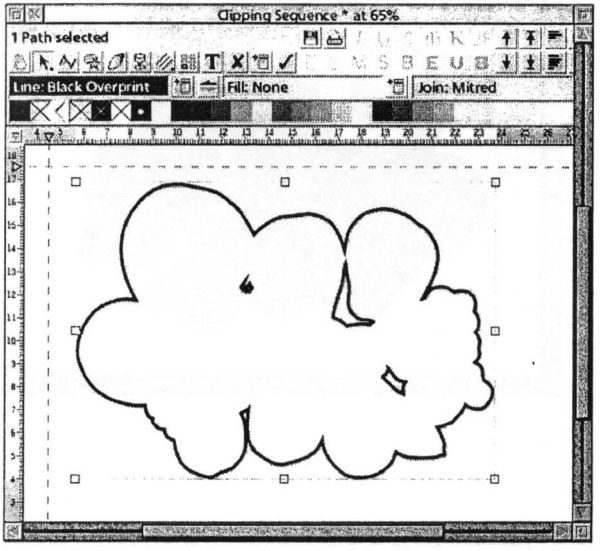
How to clip a sprite: Method 2



The second method typically allows more control for complex profiles as shown with these examples even though the end result is the same type of object (sprite filled vector profile).

Instead of modifying the four corner nodes of a sprite, a new vector profile is created in a standard fashion and then a sprite fill is applied once complete. This allows for the easy inclusion of sub paths (holes) which the sprite will not fill.

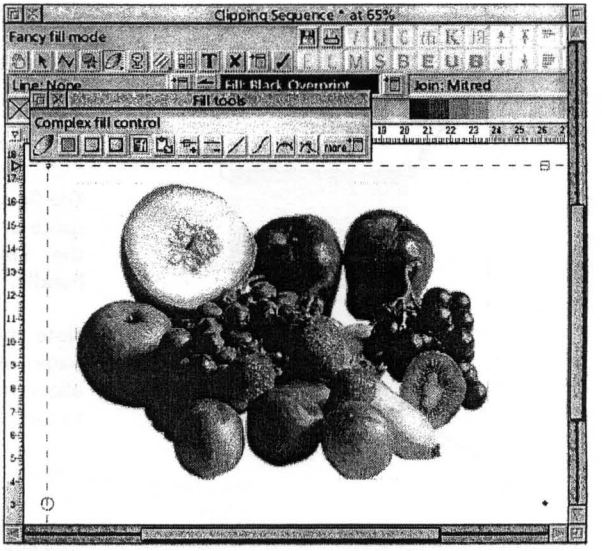
As can be seen from the screenshot left, the white line profile was traced over the top of the sprite, including four holes. The original sprite was left in tact at this stage.



Without moving either the traced vector profile or the sprite, cut the sprite to the clipboard (**Ctrl-X**). Alternatively, the sprite could be copied to the pasteboard (**Ctrl-C**) if you wished to maintain the original sprite for later use.

Note that when the sprite is copied to the clipboard, its location relative to the page is remembered. Therefore if the traced vector profile was moved relative to the sprite before copying it to the clipboard the result will be mismatched. This can be

rectified at a later stage using the sprite fill handles (see later).

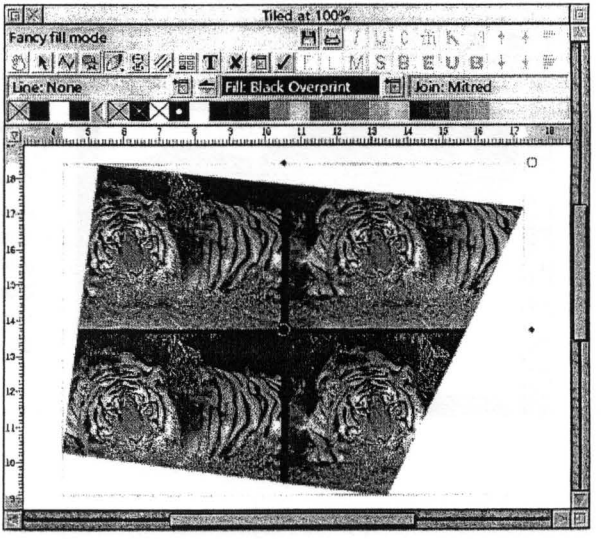


With the profile selected and the sprite held in the clipboard, choose the **Fancy fill tool** and open the tool's function sub window by clicking on the toolbar's tool icon for a second time.

Select from the **Get fill... from clipboard** icon as shown above to fill the vector profile with the sprite.

Note: For a sprite fill to be displayed, it is necessary to give the vector profile a fill colour – ie. ensure that the **Fill:** toolbar attribute well does not declare **None.**

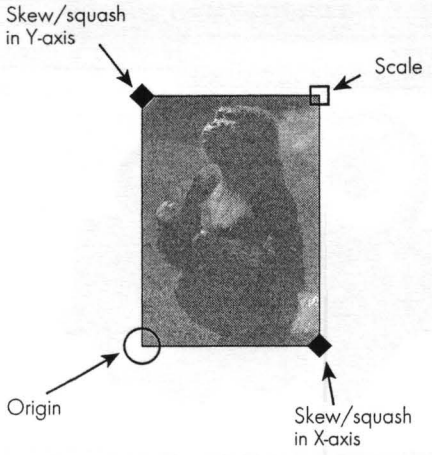
Hint: To trace the outline of an image, it is possible to select and modify the image by mistake. To avoid this, create a new family unselectable member and drag the image into that family whilst tracing. See chapter Grouping and Families for more information.



Auto tiling

If a clipping profile extends beyond the normal bounds of the sprite (right), it is auto tiled to ensure the shape is filled. This does not affect the amount of memory normally taken by the sprite so may prove very useful for continuous texture mapping.

Sprite fill control handles



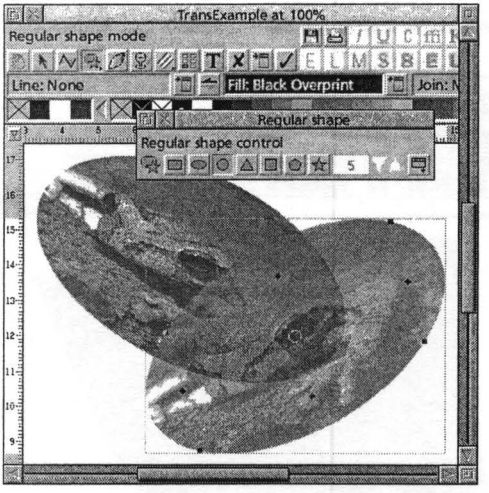
Upon selecting a sprite filled object and entering the **Fancy fill tool**, four corner handles appear controlling the origin, skew, aspect ratio and scale of the sprite.

The figure left shows a rectangle filled with a sprite and the associated handles. To adjust the image, **Select-drag** the appropriate handle.

Note that **Select-dragging** anywhere in the page other than over these handles will allow you to move the sprite origin relative to the profile being filled.

Another way to move the path being filled relative to the sprite is to select the object, enter the **Path tool**, select all nodes (**Ctrl-A**) and **Select-drag** one of the nodes.

Transformations and transparencies



All clipped sprites may be transformed with the select tool by using the object's bounding box grab handles as per normal. In addition to this, a transparency level may be specified. In combination with autotiling you have the possibility to create some great texturing.

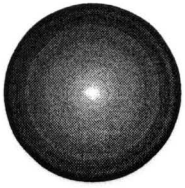
The example left shows a sprite filled circle, transformed (squashed and skewed) then copied, made transparent and overlaid. Note that the transformed and fancy filled circle remains editable as a shape in the **Shape tool**.

Removing sprite fills

To remove a sprite fill from a vector object (ie. revert to flat colour fill), select the sprite filled object, enter the **Fancy fills tool** and click on the **Flat fill** button, shown right.

Radial fills

Radial fills are a form of graduated colour fill type commonly found on many design systems. The example shown right is a classic radial fill. The fill radiates outwards from an origin to a destination point from a start colour to an end colour.



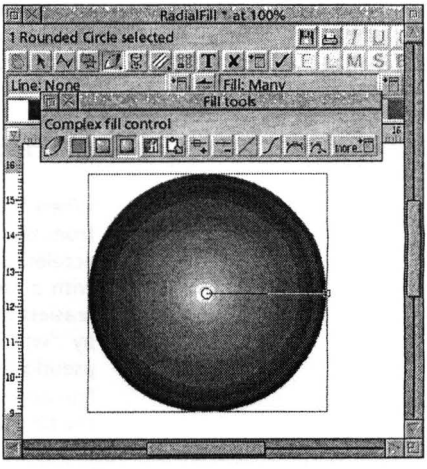
Vantage takes this style of fill much further to allow for some highly effective results that can bring realism to any design. The key advantage of Vantage's radial fills is that the contour of the radiating form is not restricted to being purely circular (and thereby allowing distortions be be applied). In addition to this, the trajectory defining the start and end nodes and the path can be non-linear providing a facility to "twist" the radiating form.

How to create a fancy fill

1 Create an object to fill. For this example, a circle was created using the shape tool and filled with black and no line colour.

Hint: to invert the line/fill colour click on the **Swap colours** button inbetween the line and fill colour attribute well directly under the toolbar.

2 With the circle selected, enter the **Fancy Fill** mode by clicking on the appropriate icon on the toolbar and then open the tool's function sub window by clicking once more on the icon (if not already open). Next click on the **Radial Shape fill** function window icon. This will make the object fill with a classic radial fill starting at the centre with **Paper** (typically white) and finish with **Black overprint**.



You will notice the trajectory line with start and end nodes are identical in form to those found in the **Path tool**. The reason for this is that any fill trajectory can be modified in an identical fashion to the path tool operations.

Note that it is highly advised at this stage not to add or delete nodes along the trajectory path even though this is possible. If you do add a node by mistake (by clicking anywhere along the line and not on a node), press **Delete** to remove it.

Changing colours

To alter the start/end colours of a selected radially filled object simply drag and drop colours on the currently selected left-hand portion of the colourbar as normal.

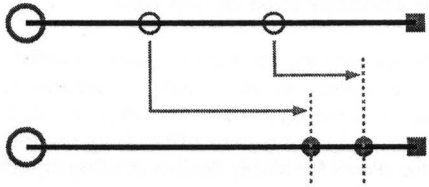
If the line colour is the same as either the start or end colours, only two colour squares will be shown as currently selected. Therefore if this "dual-use" colour square is altered, the line colour will change with the start or end colour. To change the line colour independently, drag and drop a colour from the colourbar to the **Line:** colour attribute well.

Moving the start and end trajectory points

To move the start and end trajectory points, simply drag-move either start or end nodes. To "pan" the whole fill around relative to the object's profile, simply select all trajectory nodes (**Ctrl-A**) and drag-move any selected node.

Altering the acceleration

When first created, a fill is linear — ie. the change in colour from the source to the extreme is uniform. To make the fill accelerate in varying levels, whilst in the **Fancy fill tool** and with a radially-filled object selected, select the trajectory line (easiest method being to **Adjust-Click** on the line), indicated by "walking ants" along the line. If you drag one of the pseudo Bezier handles towards either end node keeping the line approximately straight as illustrated next, you will notice the fill changes in appearence.



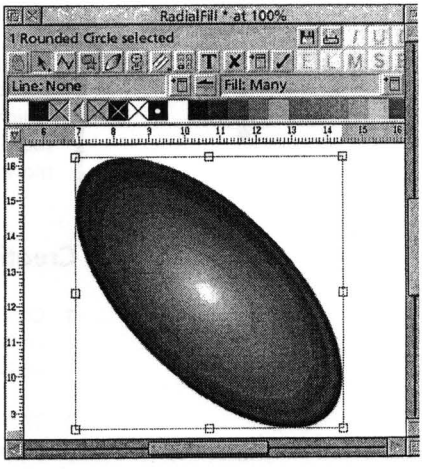
Note that Vantage currently imposes no limit on the modification possible of the trajectory line. It is therefore possible to ask too much mathematically of the fill system if the trajectory is defined as an "extreme" curve; especially if the curve loops back towards the start point.

Therefore caution is advised when adjusting the trajectory. However, some unique effects are possible when arching the trajectory and the the contour is non-circular (see later).

If the fill system has been pushed too far, the view window will scroll up to leave only the toolbar in view. It is possible to save the work at this stage but also to undo the last stage (**F8**) or turn the renderer off (**Ctrl-Shift-F7**) — the latter two options allowing the view of the document to be seen once more by enlarging the window.

Distorting the fills

As with all other Vantage objects a radial fill may be transformed (squashed, skewed, rotated, etc.), yet remain fully dynamic. Just return to the **Select tool** (remember that holding down the left **Alt** key provides a temporary **Select tool**) and use the object's grab handles as shown right

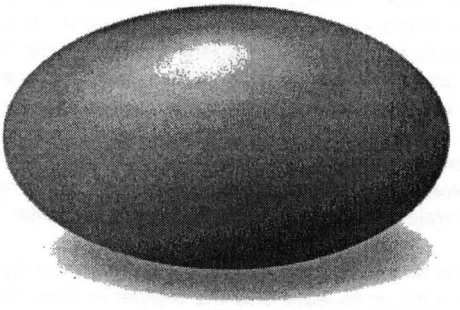


By returning to **Fancy fill tool** with the transformed object still selected, the trajectory line with re-appear and remain editable as before.

If, as in this example, the radial fill was applied to a shape, it is possible to edit the shape using the **Shape tool** even if its radially filled and transformed.

Custom contour and offset fills

Radial fills are typically uniform in how they radiate from their origin in a purely circular form. Vantage extends this convention in allowing the user to design any convex contour (or "profile") to be centred or offset from the trajectory start node. This allows for highly flexible shading and the example, below, shows this in a basic form.



As may be seen, the semi-elliptical fill graduates quicker towards the top as opposed to the bottom

Traditionally these forms of fill could only be accompliashed using blending/tweening techniques. However, these are typically harder to edit and control successfully as well as being defined by X distinct steps rather than being smoothly graduated.

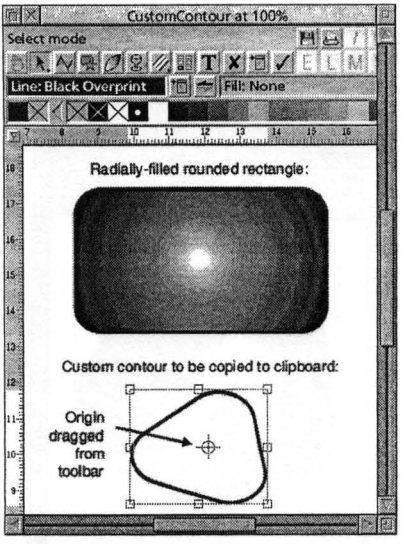
Note that as with trajectory advanced adjustment, it is possible to exceed the current limits of the **Fancy fill tool** which may cause the view to scroll up leaving only the toolbar. Please refer to the previous trajectory warning for more details of how to revert such a situation.

Creating a non-circular contour

1 Create an object you wish to have filled with a special contour offset fill. In the case of this example, a rounded rectagle was created, but it could be any vector profile.

2 The contour that is to be specified (by default, circular) can be any *convex* shape. Currently concave shapes, such as stars, can produce variable results so if you are uncertain,

let the contour be any regular shape (even transformed) apart from a star. Alternatively, create a single path contour using the **Path tool** or modify a shape with the **Path tool**.



The origin of the contour is typically the centre of the bounding box and this origin determines the "offset" of the contour. In the previous example (opposite page), the contour offset can clearly be seen through the way the radial fill radiates quicker up than down. To specify a new origin for the contour profile, drag one of the nine toolbar origin squares on to the path *within* the object as shown right.

It is important that if used, the origin marker is within the object as origins placed outside can create unpredictable results.

Note that the scale of the contour is not significant but the rotation does affect the results, especially if the contour is asymmetrical/irregular.

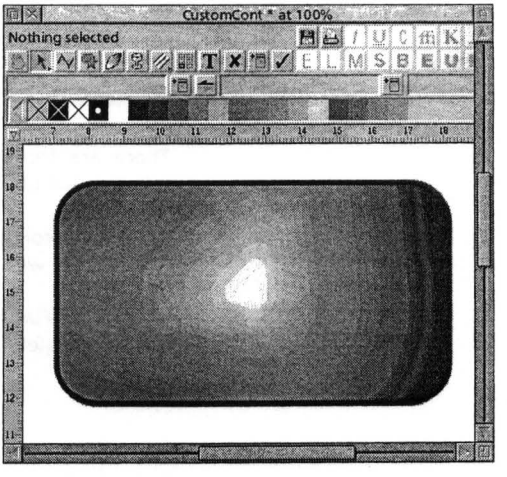
i

Lastly, in this stage, copy this profile to the clipboard (**Ctrl-C**).

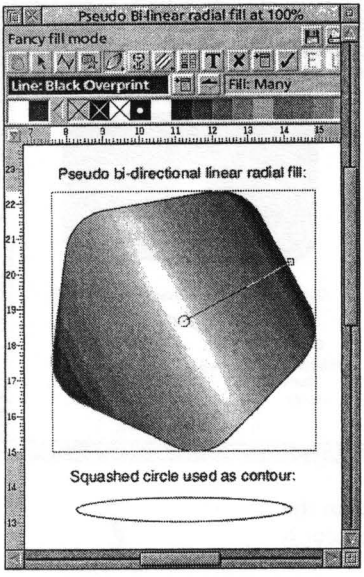
3 Select the original radially-filled shape once more — the one you wish to have the fancy fill applied to. Select the **Fancy fill tool** and ensure the function sub window is visible.

Adjust-click on the **Get fill...** button which will make the radial fill take on the contour of the profile currently held in the clipboard. The trajectory will become present and may be modified as previously.

The screenshot, right, shows the result of this particular example.



Pseudo bi-directional linear radial fills



Bi-directional linear style radial fills may be obtained by squashing a circular contour. This may be done by either squashing a radially filled object (and then adjusting the filled object's profile to suit) or specifying a custom contour following the previous section. If you wish to take the latter course, to create a suitable contour, simply use the **Shape tool** to create a circle then in the **Select tool** use the horizontal middle grab handles to squash the circle vertically. Copy this transformed circle to the clipboard without dragging an origin marker to the page and apply to the radial fill as a contour.

An example of this is shown left.

Applying transparencies to radial fills

As with all Vantage objects, a level of transparency may be specified to all radial fills.

Removing fancy fills

There are three methods to remove fancy fills after first selecting the object containing the fancy fill:

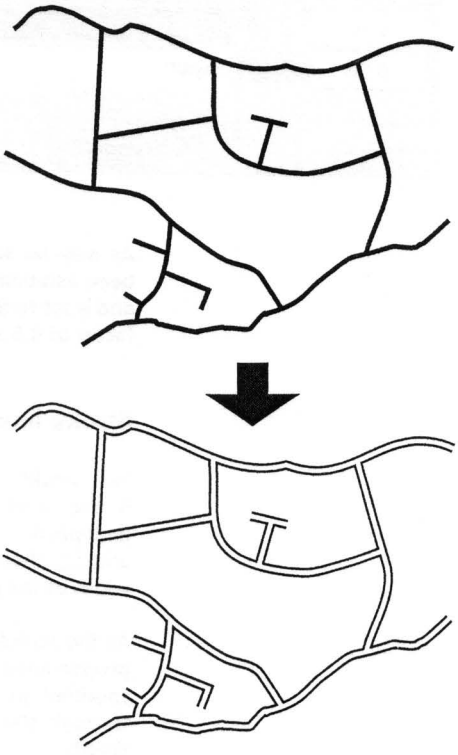
- Drag a colour from the colourbar into the **Fill:** colour attribute well

- Click on **Flat fill** button in the **Fancy fills tool** function sub window (left)

Multilines

The **Mutlipath tool** was introduced initially mainly to cater for a singular purpose; construction of map graphics. However, the tool has been expanded to provide a unique gateway to some instant effects and styles.

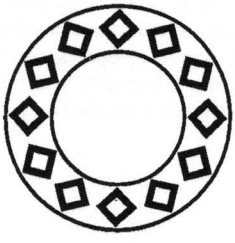
The principle of multilines is simple – using a path as a basis for a number of overlaid lines. In its simplest form, this allows for the creation of road map styles as illustrated right.



In this example, a number of path segments drawn using the **Path tool** were merged together (**Ctrl-I**). See top.

Whilst this single object (each "street" being a sub-path) is selected, the **Multipath tool** window is opened by clicking on the toolbar icon and the default setting is **Set**. The end result is shown below where the path is drawn in black as before, but with a duplicate of this path overlaid in white and made thinner, thereby exposing the edges of the original path.

This technique is common through the construction of maps. The benefit of using the **Multipath tool** is that if the lower map shown right is selected and the user switches to the **Path tool**, it would be possible to edit the paths as normal and the multiline effect would automatically follow.

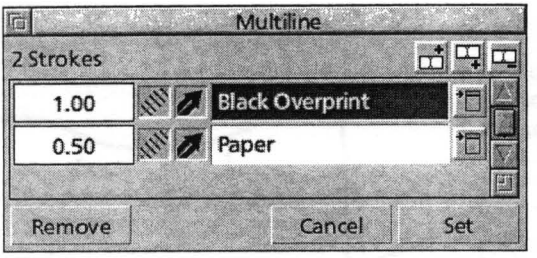


When combining multiline effects with dash patterns and line ends, it is possible to obtain effects as shown left. A single circle is the basis for the overlaid multiline effects. With two node-drags in the **Path tool** the result can be changed to that shown right.

Chapter 17

Using the Multipath tool

Click on the **Multipath tool** toobar button shown left to open the **Multiline** window as below. The window can be opened regardless of whether a path is selected and if used only affects the current selection.



By default when opened, the **Multiline** window can quickly be used to make simple road map-like effects. Try creating a path (or draw a regular shape), specify a line width of, say, **8pt**, ensure the object is selected and click on **Set** within the **Multiline** window.

As may be seen from the tool's window, two strokes have been established; the first one has a line width factor of **1.00** and is set to **Black overprint** whilst the second has a line width factor of **0.5** and its colour is set to **Paper**.

Stroke line width factors

Each stroke has a line width factor associated to it. This factor is the number by which the path's normal line width is multiplied. A multiline width factor may be between 0.001 and 1.0; therefore a multiline effect does not increase the line width of the path and simply overlays narrower strokes.

As the multiline width is a *factor*, all of the multilines remain proportional to the line width of the path which may be specified in the normal manner via the attribute well or through the menu system of **Main menu ▸ Style ▸ Line ▸ Width**.

Therefore in the above example of the default multiline being applied to a **8pt** path, the black stroke with a factor of **1.0** will result in a **8pt** line whereas the paper colour factor of **0.5** results in a **4pt** overlaid line. Halving the path's width to **4pt** would result in the resultant stroke widths also halving.

Stroke colour

Each stroke may have a specific colour associated with it. To alter a stroke's colour, either **Select-drag** a colour square from the colourbar to the multiline colour well or use the stroke's pull-down menu to select a colour from the list.

Stroke order

The order in which the strokes appear in the **Multiline** window dictates which stroke is applied first to path and which subsequent strokes are overlaid. The top entry in the tool's window is the first line to be drawn followed in sequence going down the window's entries.

To swap the order of two neighbouring stroke entries, ensure the cursor is in the intended stroke's line width entry box and press **Ctrl-Shift-Up/Down cursor key** to swap with the above or below stroke, respectively.

Adding and deleting strokes

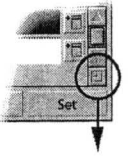
It is possible to add new strokes to the multiline or delete ones if there are more than two.

To add a stroke, ensure the cursor is in the stroke above or below where you wish to add the new one. By clicking on the button, shown right, and found in the **Interactive** window, a new stroke will be added *above* the current one. This action is duplicated by the **Shift-Insert** key press.

Alternatively, clicking on the associated button shown right, the new stroke will be added *below* the current one. The equivalent key-press for this is **Insert**.

To delete the current stroke, click on the "delete" button shown right or press **Ctrl-L**.

Note that if a number of strokes have been added, the complete list may be displayed by using the inner window resizing icon as shown right.



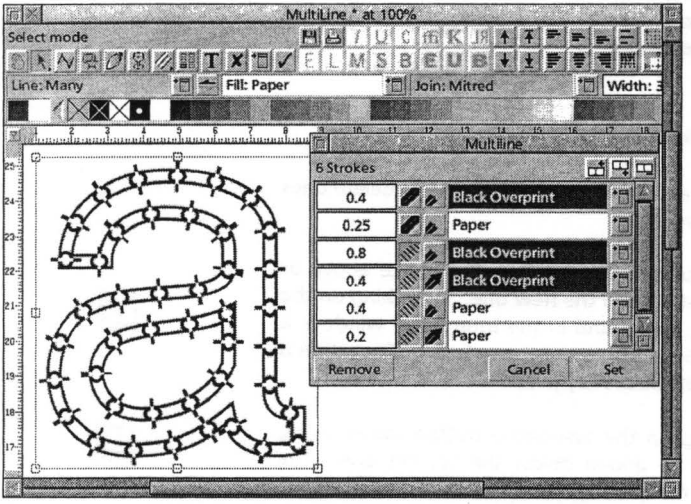
Multilines with dash patterns and line ends

Dash patterns and line ends are described in the Line Attributes chapter. The **Multipath tool** takes these attributes into account and provides the facility to apply or ignore them for each stroke on an individual basis.

By default dash patterns are applied to each multiline stroke. To make a particular stroke render as a solid line, click on the button shown left to deselect it.

Likewise for line ends, by default each stroke renders these attributes. To make a stroke's line end render as flat (butt), click on the button shown left to deselect it.

An example of what is possible is shown below along with the **Multiline** window settings employed:



The path (a simple letter "a" converted to a path) had a black line and no fill applied with a **30pt** line width. A new custom dash pattern of **1mm, 10mm** with rounded line ends.

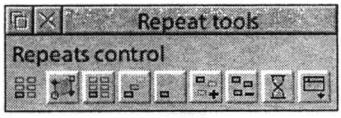
Removing multilines

To remove multiline attributes from a multiline object, select the object and select **Remove** from the **Multiline** window.

Repeat Tool

The **Repeat tool** covers a number of related object repeat types; matrices, tweening (blend) and clone. In addition to these forms of repeat, this tool provides direct control of transformation matrices that are employed when transforming objects in the **Select tool** as well as other tools.

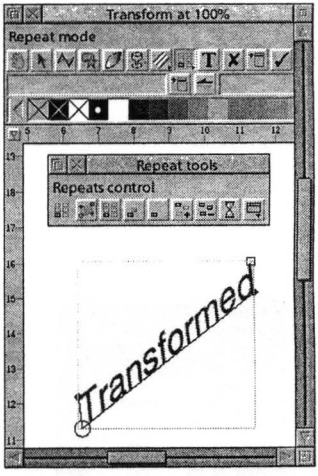
To use the functions available within this tool, click on the **Repeat tool** toolbar button, and again if the function sub-window (right) has not opened. A number of the buttons can be clicked on twice to expand the window or use the right-hand window expand button as with the **Regular shape** tool.

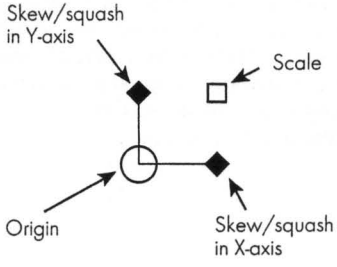


Transformation

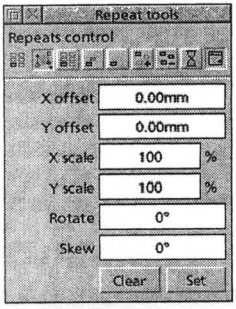
Any object, apart from groups or paths, can have a transformation matrix associated with it. This is typically in the form of a skew, shear, rotate or stretch operation via the **Select tool** using the object's grab handles.

Absolute transformation control is available via this component of the **Repeat tool**. The example shown right illustrates this; a text line was skewed and rotated via the **Select tool** using the object's bounding box grab handles. When the same object (which has remained selected) is used with the **Transformation** interface, four control handles are provided. The interface is the same as when controlling the transformation matrix of a sprite fill (see Fancy Fills chapter).





To alter the transformation directly, **Select-drag** the grab handles as described left.



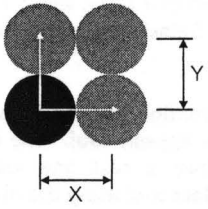
The expanded **Transformation** interface is shown left. It is possible via this window to enter precise co-ordinates and values for each aspect of a transformation.

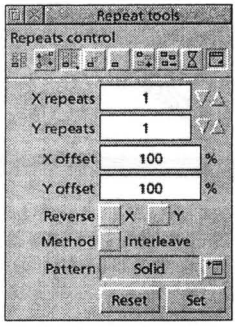
Note that the **X** and **Y offset** entries refer to the origin handle. All other values are associated equally to the equivalent transformation handles.

When editing the matrix via this window, click on **Set** to define and **Clear** to revert to the previous settings (ie. discard any changes made in the window).

Matrix repeat

A matrix repeat is a simple uniform and automatic duplication of an original object or group. The illustration below shows it in its most basic form; a circle (highlighted lower left object) is repeated in both the X and Y axis. The number of repeats can be defined independently in both axis.



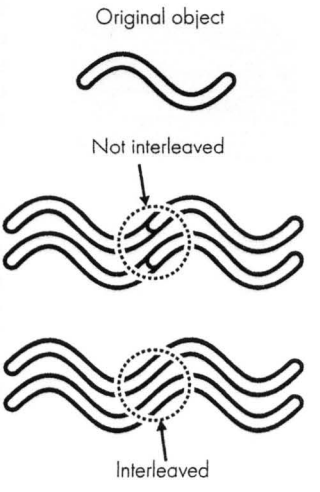


To matrix repeat an object, first ensure it is selected then enter the **Repeat tool** and opt for the **Matrix repeat** button. With this window expanded (left) the number of **X** and **Y** repeats may be determined. Click on **Set** to define this alone.

Options of the matrix repeat include **X** and **Y offset** percentages. These refer to the distance between the objects being repeated (**X** and **Y** dimensions as shown on the above illustration). A default value of **100%** implies that all objects are packed together without spacing. A greater percentage will produce gaps between repeated objects which a value less than 100% will make the objects overlap.

An option is also presented to **Reverse** [**X** and **Y**]. By ticking both boxes, the repeat will operate left and down from the original object as opposed to the default right and up.

The **Method** refers to when groups repeated are overlapping (ie. the **X** and/or **Y offset** are less than 100%). As may be seen from the illustration, right, the original object is constructed of two curves overlaid; a thinner white line on a thicker black line. If this group is repeated so that the ends of the line overlap, by default the middle figure is the result where the circular line ends obscure the white line of the previous object in the repeat. Ticking the **Interleave** option ensures the repeat is drawn in layers of the group rather than as individual groups. This effect is ideal for creating vector "textures" as this weave example illustrates.



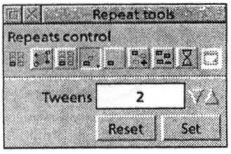
The **Pattern** pull-down menu describes various repeat patterns that are available as opposed to the default uniform matrix. Select an entry from this list to later apply to the object.

When editing the repeat via this window, click on **Set** to define and **Clear** to revert to the previous settings (ie. discard any changes made in the window).

The **X** and **Y Offset** and **Reverse X** and **Y** menu options on this expanded window are duplicated in terms of functionality by on-screen object handles. Simply **Select-drag** the handles to visually alter the repeat.

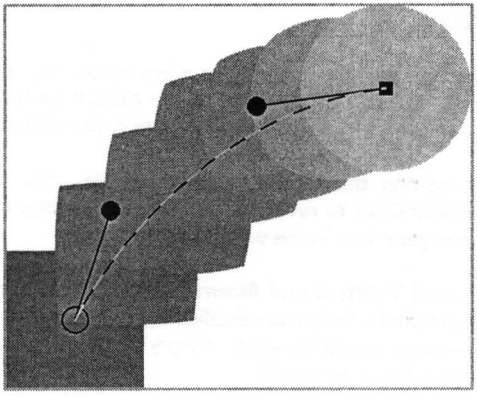
Tweens

Tweens, otherwise referred to as "blends" or "interpolation" is the ability to morph two or more objects. Vantage's **Tween** component of the **Repeat tool** is sophisticated and allows for tweening between dissimilar objects, including groups. Aspects of an object tweened include shape, colour, special fills, line style (line width, dash pattern, line end styles) and transformation.



To tween two or more objects, first select them prior to entering the **Repeat tool** and click on the **Tween** button and expand the window as shown left. Vantage will tween taking the object stack order into account; all tweens go from the object furthest back (**Ctrl-B**) to the one on top (**Ctrl-F**). If multiple objects are present in the selection, all intermediate object stack positions are taken into account in order to determine which object should be tweened to next.

Once tweened, the tween will present a path in the style of the **Path tool**. A single segment of the line represents the *relative* path the tween takes between objects. Whilst in **Tween** part of the **Repeat tool**, it is possible to edit such paths in the same manner as the **Path tool** thereby enabling tween trajectories to be curved as illustrated here:



With the **Repeat tool** window expanded in **Tween** component, the number of steps in the tween may be determined with the single value entry box entitled **Tweens**. Click on **Set** to define the entered number of steps and **Clear** to revert to the previous value (ie. discard any changes made in the window).

i

The **Tween** system handles colour interpolation fully. When tweening between two defined ink colours, the intermediate steps are simple interpolations between these values. If a tween is made between a named colour and an imported RGB value, the RGB is first auto-converted to the nearest ink match then the ink levels are interpolated.

Removing repeats

Both previous mentioned repeat types — repeats and tweens — can be removed by clicking on the **Repeat tool** button shown right.

Pausing repeat recalculations

It is possible to create complex and involving repeat, especially tweens, which consume large amounts of processing time to recalculate for every change. To pause such recalculatations whilst alterations are carried out on repeats, click on the **Repeat tool**'s hourglass icon (right).

Clones

Clones of objects are unique in that they take up virtually no further memory or disc space as they are based entirely on another object. Once an object is cloned, it is not possible to alter it in any way other than in terms of individual transformations.

A great use for clones is to have many copies of a bitmap or complex vector object without increasing memory requirements (which can become rather large with sprites). Clones may be moved around and rotated, stretched, skewed, etc. as normal.

To clone a selected object, either click on the **Repeat tool**'s **Clone** button or select **Main menu ▸ Object ▸ Clone ▸ Clone**. A clone will be produced directly over the original object (which will also become classed as a clone) and can be moved around in the **Select tool**.

To unclone (make real) a clone — ie. turn it into an editable object, either click on the **Unclone** button found on the **Repeat tool** function sub-window or select **Main menu ▸ Object ▸ Clone ▸ Unclone**.

Chapter 18

Saving and Loading

This chapter does not cover exporting of Cerilica Vantage files into various formats, but gives an overview of how to save work.

The native Cerilica Vantage file format

Acorn's !Draw application was conceived of and created at the end of the 1980s. Back then, the application was basic but quite powerful, albeit with a user interface that had some room for improvement in the user-friendly area.

However, The Drawfile format was quite good, being expandable and more importantly, accepted by all RISC OS software developers as *the* vector format of preference on this platform. Therefore all applications that could make use of the Drawfile format did, especially as the format was both open and the renderer readily available.

Instead of taking the ArtWorks approach at the beginning of the 1990s, Cerilica has decided to adopt this format and expand on it, but leaving the format in the same basic structure. The major advantage of this is that virtually all applications which may currently accept the standard Drawfile format may now load and display Cerilica's extended version without need for modification.

Further benefits are provided by Cerilica's extended Drawfile rendering module which may be used by other developers in order to take full advantage of Cerilica's power.

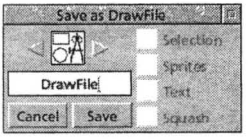
Compatibility with !Draw and Impression

This is probably the most important question as neither of these applications are being developed any more and yet are in daily use by the majority of RISC OS users. Thankfully, both are able to load and display Cerilica Vantage native files without modification. When loaded into !Draw, you will find that newer features such as special fills, regular shapes, etc. will not be visible or editable (may just be selected and not even moved).

Loading !Vantage files into Impression also works. However, consequences of the unmodified, now dating, software is that it will not handle these files as successfully as Vantage when it comes to printing, as Impression has no concept of dealing with inks in the same manner as Vantage.

Also, when multi-page Vantage documents are dropped into packages such as !Draw or Impression which rely on their own Drawfile renderer, depending on the program, either nothing will be displayed or all pages will be overlaid.

Saving files



In order to save a Cerilica Vantage document, either press the standard RISC OS save button of **F3** or click on the **Save** icon to be found on the toolbar. Alternatively, follow **Main menu ▸ File ▸ Save ▸** to bring up the **Save as** window as shown left.

To save the document, drag the file from the save box to the destination in a filer window or straight into another application that can import Drawfiles in the standard RISC OS fashion. If the document has already been saved into a filer and therefore Vantage knows where the destination is, you may just click **Save** unless you wish to save it under a different name or location.

If you first select at least one object before requesting the save window, it is possible to save just that selection as a Vantage Drawfile by ticking the un-greyed **Selection** option. If you have made a selection but wish to save the whole document and not just the selection, ensure the **Selection** option is unticked before proceeding.

i

A quick way of saving a selection is to drag it using the Select tool outside the Vantage window into a filer or application that may load Drawfiles. The ultimate in drag-and-drop!

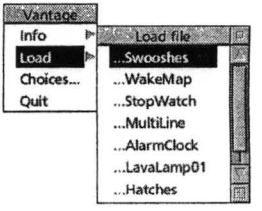
Loading files

To load a Drawfile from the filer (regardless of where it was created), either double-click on the file or (if the file tends to load into another application automatically) drag it into the Vantage iconbar icon.

You may find that if you have !Draw, !DrawPlus or !Vector loaded at the same time that they might claim the file instead of Vantage as their native format is also the Drawfile. There is an option in the **Choices** window to allow you to control this to a certain extent (**Choices... Load... Load Vantage for draw files**). To ensure that Vantage loads the file, first quit all other applications mentioned above.

This situation is both a consequence of Vantage adopting the Drawfile format for compatibility requirements but also the method RISC OS takes towards this situation.

Quick access to most recent files



Off the Vantage iconbar's icon, the entry **Load...** may be found which leads to a sub-menu listing up to ten of the most recently loaded files. It it possible to re-load any of the listed files by simply clicking on the name.

This list is retained for following Vantage sessions allowing quick and easy access to the latest documents. The full filing system path may be seen by expanding the window.

Vantage files and ArtWorks

At the time of writing, Cerilica Vantage Drawfiles are incompatible with ArtWorks. Cerilica has taken every possible effort to ensure the Vantage Drawfile keeps to the standard set down by Acorn — demonstrated by the fact that !Draw and even Impression load the files without complaint. Consequently it has been discovered that ArtWorks "disagrees" with one file format extension component which remains transparent to other applications as intended.

Until a third party updated ArtWorks Drawfile loader is made available, the only method to date to import Vantage designs into ArtWorks is to EPS export from Vantage and import this into ArtWorks. This method has proven to be successful.

Warning — attempting to load Vantage-created Drawfiles into ArtWorks may result in ArtWorks locking up the machine. On RISC OS 3.5 and higher operating systems, it is possible to break this lock by ***Alt-Break****ing.*

An advantage of exporting to ArtWorks via EPS is that ArtWorks maintains any CMYK data whereas it would have been lost if it were capable of importing a Vantage Drawfile. Note that ArtWorks will not render this CMYK data correctly on screen but *should* be successful when PostScript printing.

EPS Export

The EPS format is very well established and used extensively throughout the design and publishing industry. On the RISC OS platform, the first package capable of dealing with EPS was ArtWorks which could load and save the format.

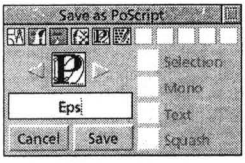
EPS stands for **E**ncapsulated **P**ost**S**cript and is a subset of the full PostScript graphically-orientated programming language. EPS files are much more structured and many design applications are capable of interpreting them with relative ease. On the RISC OS platform, the packages capable of saving such files out do not do so via the RISC OS PostScript printer driver but rather using internal code. Therefore this is a fairly fool-proof method for those who do not usually deal with PostScript.

Do not confuse EPS with PostScript (PS). EPS is designed for use as its name implies — to be *encapsulated* within other design and layout packages rather than being interpreted disclosing its contents. However, as many packages can successfully interpret EPS contents, it is often used for this purpose. The problem is that when doing so with Vantage-created EPS files, there can be no assurances that the file's contents will be printed in the way Vantage rendered it as control over contents and printing will then have been passed over to the new program.

The Vantage EPS export option is ideal when creating artwork that may be seen as self-contained ready for inclusion in other layout packages. On the RISC OS platform, Impression Publisher+ is capable of encapsulating EPS files properly as is Ovations Pro with the EPS applet. In both cases, the publishing programs will display the EPS file as a grey box with the EPS RISC OS logo but it does allow you to rotate, scale and position them to your requirement. Please refer to the application's documentation for greater details on their specific operation.

Saving the EPS file

To save a Vantage file as an EPS, open the standard Save window by either pressing the standard RISC OS save button of **F3** or click on the **Save** icon to be found on the toolbar. Alternatively, follow **Main menu** ▸ **File** ▸ **Save** ▸ to bring up the **Save as** window.



Now click on the left or right arrows or the EPS/PostScipt mini-icon when expanded until it shows the EPS save file as shown, left and the window title **Save as PoScript**. In the writable text area, enter the name you wish to save the file as and drag the icon to the filer window.

Transporting the file to an alternative system

i

Please note that it is necessary to name the file "<Name>/EPS" when saving to a RISC OS filer but is intended for transfer to a DOS formatted disc and use on a Windows or MacOS machine. On pre-RISC OS 4 machines, this limits you to six characters to replace the <Name> section as the file name limit is ten characters and "/EPS" takes up four already.

Bitmap Export

Bitmaps are commonly known under RISC OS as Sprites and are not only the type of file used to store photographic images but also general graphics such Vantage is capable of producing. Other platforms have adopted alternative formats, for which there are many, such as TIFFs and in recent years on the internet, PNGs.

Bitmaps can also be the ideal export file type to transport Vantage designs "as is" due to their ability to contain the resultant effects Vantage is able to generate such as transparencies. An advantage of the bitmap is that if the recipient of a bitmap exported from Vantage is able to view the file, that person will see everything as you intended.

An important factor, though, is that bitmaps will have lost *all* the vector information present in the original Vantage file. In certain circumstances this may be a benefit as the recipient is unable to alter the design with any ease.

CMYK ink data in bitmaps

Due to both the Sprite and TIFF formats, a bitmap can be exported with all the CMYK data in-tact such as overprinting. This is essential if the design is destined for publication and provides the easiest method to ensure output will be correct regardless of the many vector transportation issues that exist. Note that PNGs can not contain CMYK data.

To demonstrate just how good CMYK bitmap export can be when destined for printing, not only was the cover of this manual delivered to the printers as a TIFF, but all of Cerilica's magazine adverts (including double page spreads) followed this path.

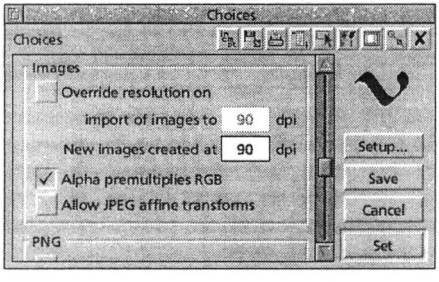
To specify the CMYK option, ensure the **CMYK** tick option is ticked on the save window (see later specific format save details).

Technically, Vantage exports the first four inks as the four ink channels which are normally CMYK. Therefore it has to be noted that a specific ink setup is defined, the resultant "CMYK" bitmap actually contains the first four separations.

Bitmap export resolution

In many circumstances it may be of use to export bitmaps (such as RISC OS sprites) independent of screen resolutions – ie. to capture a larger area than a screengrab allows. By saving an image at twice the size (four times the area and memory requirement), you have doubled your resolution of the image which may be essential if the bitmap is intended for professional use.

Controlling the bitmap export resolution is done via the choices window. To open Vantage's **Choices...** window, click **Adjust** on the Vantage icon found on the iconbar. Once open, click on the small RISC OS sprite button found at the top, as shown left. By doing this, you immediately jump to the **Images** section of the **Choices** window. The window should appear as shown left.



In this section of the window, you may enter a new resolution (in dpi) where it states **New images created at**. The default screen resolution is 90dpi (ie. if exported at this level would be the same as screen grabbing), so doubling this to 180dpi would double the saved bitmap resolution.

As the resolution is relative to the page view zoom factor used at the time of the export, this could mean that a resolution of 180dpi dictated in the **Choices** window would result in an export at 90dpi if the window zoom was 50%. Because of this, each bitmap save window has a **100%** tick box (see later specific format save details). Ensure this is ticked (if you are at any scale factor other than 100%) if you want the resultant bitmap to have the resolution as stated in **Choices**.

Bitmap area exported

In order to specify the area of the page you wish to save as a bitmap, manipulate the RISC OS Vantage window until you can see the portion of the page you wish to save (regardless of whether page rulers are visible or not). What you see will be the area saved.

If you wish to save the full page as defined in the **Paper** window including the bleed, tick the **Page** option in the save

window (see later specific format save details). By opting for this, the page view no longer matters apart from the zoom factor (see previous section).

Bitmap colour depth and separations

Vantage always exports every bitmap format in 24-bit (16 million) colour regardless of the screen mode or rendering mode currently used.

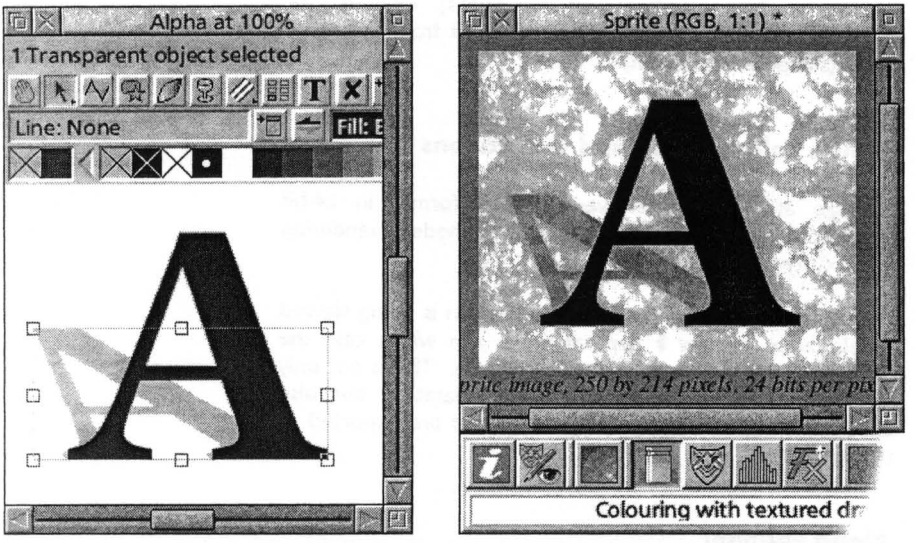
The only exception to this is if a separation is being viewed (**Main menu ▸ View ▸ Separations ▸**) in which case the bitmap will be exported as a 256 greyscale. This is not only ideal for creating bitmaps of each separation but also ensuring black ink-only (mono) documents are exported as true greyscales.

Alpha channel

The "mask" found in a sprite is known as an alpha channel when referring to the 256-levels of mask optionally available in Sprites, TIFFs and PNGs. Alpha channels are commonly used in photo-editing packages like Photodesk and Photoshop to help create smooth masks.

Due to Vantage's **Transparency tool** which effectively creates vector alpha data, the export option for Sprites, TIFFs and PNGs also allow this data to be saved with the file. Along with any transparent Vantage objects, a bitmap exported with an alpha channel will also specify any uncovered page at 100% masked. When such files are loaded into professional bitmap editors, the alpha data can continue to be used to great effect.

Alpha channel export use follows overleaf.



A simple Vantage drawing (above left) was created using the character "A" converted to a path then filled with 100% Black. A copy of this was then squashed and skewed and placed behind the original, also filled with 100% Black followed by 30% transparency.

The view was saved along with the alpha channel (noting the blank page is then fully masked off in the bitmap) into Photodesk (above right). Within Photodesk the alpha channel was inverted and a light grey texture was overlaid. Note that the alpha channel stopped the original letter "A" from being covered and that the drop shadow effect was semi-covered with the texture due to the alpha level protecting it.

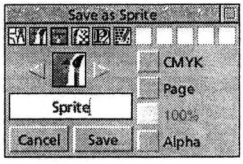
Vantage's advanced anti-aliasing is also incorporated into the alpha channel export where objects meet a blank page. This ensures that any subsequent "painting" in bitmap packages keeps a high quality anti-aliased edge if the alpha channel is used correctly.

i

One option that may help ensure a correct result when further editing takes place in a bitmap package is the **Alpha premultiplies RGB** tick box option found in the **Images** section of **Choices**. If you are editing in, say, Photodesk and the anti-aliased edges appear to become jagged, toggle this option and try again.

Note that the alpha channel is not available as an option if a separation is being viewed or if **CMYK** is selected in the save window.

Save as Sprite



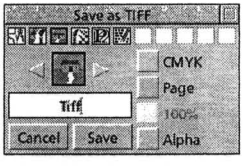
Open the standard Vantage save window by pressing **F3** or clicking on the toolbar **Save** icon to be found on the toolbar. When open, click on the left/right arrows or the Sprite mini-icon when expanded until you see the Sprite icon window shown right (noting that various OS versions have variations of this icon) and the window title **Save as Sprite**.

Rename the file and drag to the icon to the RISC OS filer to save.

Options available when saving as a sprite:

- **CMYK** *or* **Alpha**
- **Page**
- **100%** (if page is viewed at other zoom factor)

Save as TIFF



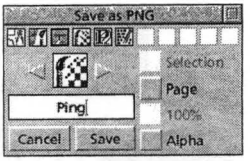
Open the standard Vantage save window by pressing **F3** or clicking on the toolbar **Save** icon to be found on the toolbar. When open, click on the left/right arrows or the TIFF mini-icon when expanded until you see the TIFF icon window shown right and the window title **Save as TIFF**.

Rename the file and drag to the icon to the RISC OS filer to save.

Options available when saving as a TIFF:

- **CMYK** *or* **Alpha**
- **Page**
- **100%** (if page is viewed at other zoom factor)

Please note that it is necessary to name the file "<Name>/TIF" when saving to a RISC OS filer but is intended for transfer to a DOS formatted disc and use on a Windows or MacOS machine. On pre-RISC OS 4 machines, this limits you to six characters to replace the <Name> section as the file name limit is ten characters and "/TIF" takes up four already.



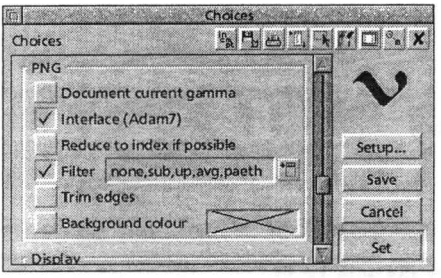
Save as PNG

Open the standard Vantage save window by pressing **F3** or clicking on the toolbar **Save** icon to be found on the toolbar. When open, click on the left/right arrows or the PNG mini-icon when expanded until you see the TIFF icon window shown left and the window title **Save as PNG.**

Rename the file and drag to the icon to the RISC OS filer to save.

Options available when saving as a PNG:

- **Page**
- **100%** (if page is viewed at other zoom factor)
- **Alpha**



Further PNG export options are provided in the **Choices** window (**Adjust-click** on the Vantage iconbar icon) following on from the **Images** section as shown left.

These options can be very useful when the PNG is destined for the internet as well as other purposes.

Document current gamma is a feature within the PNG format where the screen gamma levels may be documented within the file. The gamma levels are adjusted when !Monitor is used as supplied with Cerilica Vantage. However, if working on internet designs, it is advised that !Monitor is either not used or set to **None** — ie. no calibration takes place — and this option remains unticked.

Interlace (Adam 7) dictates that the PNG is loaded in an interlaced fashion as with many GIFs (another leading internet format). There are very few reasons to untick this.

Reduce index if possible typically has very little effect therefore can remain unticked.

The **Filter** options are used by the internal PNG converter to determine the best possible compression method to be used automatically. It is advised that this option is left as is.

Trim edges is a feature often used in internet design and allows excess image area to be trimmed off. This can help to reduce file size and therefore download time as well as aid the internet design process.

Background colour (and when ticked the associated RGB colour picker) allows the background page colour to be set which also affects the anti-aliased blend of the edges. Experimentation may be required to find the best result for any particular web page background.

Please note that it is necessary to name the file "<Name>/PNG" when saving to a RISC OS filer but is intended for transfer to a DOS formatted disc and use on a Windows or MacOS machine. This also applies if you wish to use the PNG on the internet. On pre-RISC OS 4 machines, this limits you to six characters to replace the <Name> section as the file name limit is ten characters and "/PNG" takes up four already.

Settings to use if destined for printing

If you intend to export a bitmap for printing purposes, the following is recommended for good results.

Format:	TIFF	(save option)
Resolution:	300dpi+	(in **Choices**)
Save window:	**CMYK**	(tick option in save window)
	Page	(tick option in save window)
	100%	(tick option in save window)
Bleed:	3mm	(option in **Paper** window)

Settings to use if destined for internet design

If you intend to export a bitmap for internet (web page) design purposes, the following is recommended for good results.

Format:	PNG	(save option)
Resolution:	90dpi+	(in **Choices**)
Save window:	**100%**	(tick option in save window)
PNG Choices:	**Trim edges**	(in **Choices**)

Optionally, and depending on the use of transparency effects and page usage as well as target browser:

Save window:	**Alpha**	(tick option in save window)

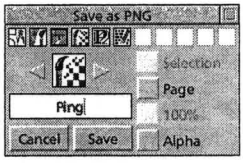
Chapter 21

Text Export

This export option was introduced to save all text lines and areas within the document out as a single text ASCii file.

One of the features of this export option is that it will merge all text lines. So if, for example, you imported many text lines that were saved as a Drawfile from something like RiScript and all text lines were individual, the export option will rejoin these lines to allow easy editing.

To export as text, open the standard Vantage save window by pressing **F3** or clicking on the toolbar **Save** icon to be found on the toolbar. When open, click on the left/right arrows or the Text mini-icon when expanded until you see the textfile icon window shown right and the window title **Save as Text**.



There is a further **Spaces** tick box option which inserts a space at the end of each individual text tine. This may be useful if you merge the individual line back into one unbroken text line within your chosen text editor.

Please note that it is necessary to name the file "<Name>/TXT" when saving to a RISC OS filer but is intended for transfer to a DOS formatted disc and use on a Windows or MacOS machine. On pre-RISC OS 4 machines, this limits you to six characters to replace the <Name> section as the file name limit is ten characters and "/TXT" takes up four already.

Chapter 22

EPS Import

If you are seeking full PostScript import facilities, you will require the Cerilica RiScript product available from your Cerilica supplier. Cerilica RiScript is a full PostScript interpretation system that allows Drawfile export of PostScript files as well as a checking facility for PostScript or EPS files created by Cerilica Vantage.

What is an EPS (overview)?

Encapsulated PostScript files are derivatives of the full PostScript graphics-orientated language commonly found throughout the design and publishing industry. Whereas PostScript can be programmed to accomodate a very wide range of graphics scenarios, EPS is intended to be embedded into a host document and passed on directly without interpretation to an output device such as a PostScript printer. A consequence of its encapsulating approach is that it is easier to translate without the need for a full and comprehensive interpreter such as Cerilica's RiScript.

It is the last part that is likely to be of greatest interest to the majority of Vantage users — allowing documents to be exchanged and become editable between vector design and publishing packages such as Vantage, ArtWorks, XARA, Illustrator, etc. But there are limitations, on all systems, to EPS document exchange (see later) which is the reason not to overlook the benefits EPS embedding facility provides.

Distinguishing between PostScript and EPS files under RISC OS

Under RISC OS, EPS files are settype as 'PoScript' (&ff5) which is the same as full PostScript. Care has to therefore be taken to ensure that true EPS files are directed at Vantage for either translation or encapsulation. Only full PostScript interpretation engines, such as that employed in RiScript can handle proper PostScript documents.

On systems such as Windows, an EPS file may be names "<file>.eps" whereas a PostScript file is typically entitled "<file>.ps". However if you are unsure, you may load

suspected EPS file into a text editor such as !Edit, Zap or StrongEd and look at the first lines:

Example of an EPS file header:

```
%!PS-Adobe-3.0 EPSF-3.0
%%Creator: Cerilica Vantage 1.00
%%For: (Cerilica Limited) (Joe Bloggs)
%%Title: (Example)
%%CreationDate: (12 Jun 2001) (15:28:51)
%%DocumentData: Binary
%%BoundingBox: 0 27...
```

As may be seen, the first line of the EPS file declares itself as such (underlined).

Various forms of EPS import

Before further explanation is made of how to import or encapsulate an EPS a brief overview of each process is necessary.

Process: Loading

Description: Loading an EPS is a process similar to loading a native Drawfile — Vantage will interpret (translate) and display the file as a new document.

Suggested use/benefit: Ideal for extracting as much vector information as possible, possibly including shapes, named colours and layers for editing. By loading the document, the intended page attributes of the EPS will be maintained.

Process: Importing

Description: Importing is the means by which an EPS file is added to the contents of an existing open document. Vantage will automatically interpret (translate) the EPS contents into the necessary vector data to allow editing alongside "native" objects.

Suggested use/benefit: When you wish to quickly add drawing components of another document from an alternative system into an existing Vantage document.

Process: Encapsulating

Description: Neither loading or importing of EPS files should be confused with an embedded EPS (the original intention of the file format). With an embedded EPS, the "host" application (Vantage) needs no knowledge of what is within the EPS as it is just passed onto the destination system — such as a PostScript printer or your publisher — embedded within the rest of the document.

Suggested use/benefit: This form of EPS handling is ideal for "ready made" graphic components that require no alteration or ones which Vantage is unable to fully interpret.

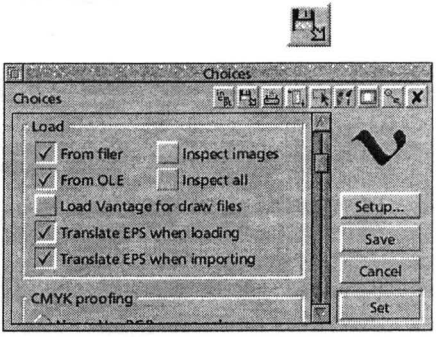
Process: Link-encapsulated

Description: Link-encapsulated EPS files are as per encapsulated files but are not loaded into memory, rather being referred to in the document as a link to a file on disc. The EPS is passed on to the destination system when required.

Suggested use/benefit: An obvious advantage of this is being able to layout a document with an EPS component which can not physically fit into the available memory.

EPS Choices

There are two tick options within **Choices** that determine how EPS files are handled by Vantage; **Translate EPS when loading** and **Translater EPS when importing**. To view the **Choices** window, **Adjust-click** on the Vantage iconbar icon. The two options are found in the **Load** section - click on the shortcut button shown right to scroll down.



The following table shows how an EPS may be imported or encapsulated and what settings are required for this:

Form	Operation	EPS Choices "...when loading"	EPS Choices "...when importing"
Loading	Drag the EPS file to the Vantage iconbar icon.	☑	N/A
Importing	Drag the EPS file to a Vantage document window.	N/A	☑
Encapsulated	Drag the EPS file to a Vantage document window.	N/A	☐
Link-Encapsulated	Drag the EPS file to a Vantage document window whilst holding down **Shift.**	N/A	☐

EPS interpretation (import)

Perhaps of most significance to many users with regard to import is the ability to natively interpret EPS files. It is recognised that many Vantage users are also owners of ArtWorks or alternative system software such as CorelXARA. The EPS format allows a user to transfer much of the vector data bewteen applications like Vantage.

It is possible to drag an EPS file to Vantage and manipulate its contents as if it was created in Vantage. Cerilica has specifically concentrated on the ArtWorks flavour of EPS but have also acknowledged object types found in Illustrator, Photoshop, Freehand, CorelDRAW as well as Quark XPress.

Importing from ArtWorks

It is advised that when attempting to transfer work from ArtWorks to Vantage, that the EPS import method is used.

When exporting from ArtWorks, use **Main menu ▸ File ▸ Export ▸ ArtWorks EPS ▸**. Note that there are various ArtWorks options in the **Choices ▸ EPS** window that affect how documents are exported.

When importing the EPS file from ArtWorks, ensure Vantage's **Translate EPS when loading** choice is ticked and **Set** and then drag the EPS file to Vantage's iconbar icon. The process of interpretation and automatic building of the colour table should result in a direct translation.

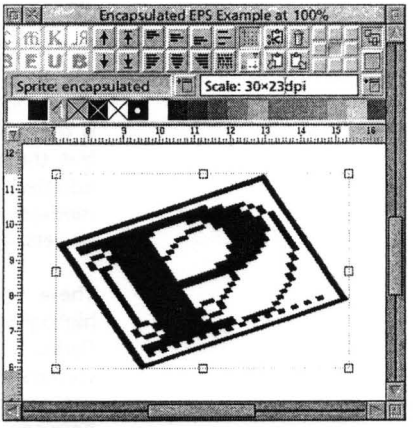
Contents that retain their original definition include:

- Shapes, including rounded rectangles and polygons
- Radial fills
- CMYK ink definitions (but rendered correctly in Vantage)
- Layers (translated to families)

It is possible to continue editing many objects as intended in the original ArtWorks file. For example, to modify an imported rounded rectangle in Vantage, simply select the object and enter the **Shape tool** which will show all handles as normal.

Handling encapsulated EPS'

When an EPS file is encapsulated within a page (see previous table for settings necessary), it is represented by an appropriately scaled RISC OS PostScript (EPS) icon. The area of the icon represents the bounding box of the EPS's contents at 100% of the original scale.



It is possible to transform and position an encapsulated EPS file by the normal methods (as illustrated, right). Resolution information is presented in the attribute well above the colourbar.

It is possible to remove transformations from an encapsulated EPS by selecting **Main menu ▸ Transform ▸ Straighten**.

Limitations of EPS

EPS should be thought of as a means to encapsulate a design component within a host document first and a method to transfer vector data second. Attempting to ensure every package's flavour of EPS on every platform is catered for is a goal but is never likely to be fully achieved.

Even embedding EPS files can have its problems. For example, how should Vantage or a PostScript device handle a CMYK embedded EPS file within a complex multi-ink document that doesn't contain any or all of the standard Cyan, Magenta, Yellow or Key inks?

Then there are all the variations of fill types found in alternative packages on a number of platforms. Thankfully Vantage's rendering system and fills engine are internally highly flexible and are likely to be able to cater for the common variations of fill in the future. But if an esoteric fill is conjured-up by program "X" that is based on different principles, there are only two methods of transporting the design; (1) convert to a suitable resolution bitmap or (2) recreate the fill method and add to the host application's system.

Finally, in terms of a quick glance at possible EPS issues, there is the matter of transparencies. Vantage understands these but the PostScript 1/2 language can not. Therefore EPS adopted this shortcoming and even though there are methods around the problem, they are not all necessarily universally accepted or adopted.

These warnings are just that — they are an attempt to highlight that EPS is not absolutely "safe". In certain cases Cerilica's RiScript may be of further use in document conversion, especially with the PDF facility. But EPS has its uses and can often be used successfully to transfer vector data between design and publishing packages such as Vantage. Cerilica will endeavour to add and improve on its EPS translation system and we would be grateful for any suggestions and examples users can provide.

Grouping and Families

If you go on to create a complex document, it is highly likely that you will wish to apply some form of grouping and ordering so that it is simple to edit at a later date.

There are two basic ways to ensure order throughout a document; object grouping and families (a form of advanced layer system). Object grouping is commonly found amongst all vector design and publishing packages and many of you will be aware of the concept as well as standard key short cuts. If so, you may just wish to skip onto the section describing families.

Grouping

Having selected more than one object (refer to the Select tool chapter for advanced selection of objects), it is possible to group them into, effectively, one object. That group may then be treated as a single object, with transformations, colour filling and the like being applied to all objects within that group. In addition to this, groups may be grouped together indefinitely.

To group a selection of objects, press the conventional combination of **Ctrl-G** or use **Main menu ▸ Object ▸ Group**.

Once grouped and selected, it is possible to allocate a group name. This name has no other use than for personal reference, but will be displayed on the toolbar when that particular group is selected on its own. To name a group, enter the name in the **Main menu ▸ Object ▸ Name** entry box and click **Set**.

Ungrouping

It is possible to ungroup grouped objects by either clicking on **Main menu ▸ Object ▸ Ungroup** or pressing **Ctrl-U**. All components of the group (be they individual objects or further groups) will become individual once more.

If you have ungrouped an object and further groups appear from that, it is possible to ungroup them without having to select them individually. By pressing **Ctrl-U** many times, you will be sure to remove all grouping from selected objects.

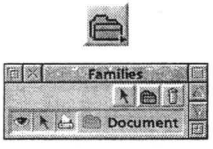
By ungrouping, you will remove any reference to group names. These names will be lost even if you group the identical unmodified objects back together.

Families

Families represent a much more advanced form of document structuring. Families (like layers) do not tend to be used for small or insignificant groups, but rather for large discernible sections such as, for example, a background illustration.

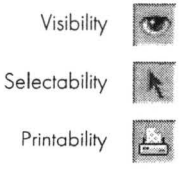
> *Layers originated on CAD (Computer Aided Design, or technical drawing) programs to aid with complex technical drawings. They were later used by design and publishing packages such as ArtWorks as the features and abilities grew more. Cerilica felt that as packages of this ilk were less rigid than their CAD counterparts, with a much greater use of drag-and-drop, that the layers system should have the same flexible feel. Hence the advancement of layers to families.*

The families window



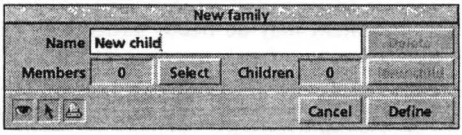
Click on the families toolbar button (left) or select **Main menu ▸ Utils ▸ Families....** The **Families** window, shown to the left, will then appear.

Upon creating or importing a new document, all objects are placed by default into the head of the family entitled **Document**. Each member of the family, including **Document** has four associated icons; an eye (visibility), pointer (selectability), printer (printability) and finally a small greyed-out directory. By clicking on any of the first three icons, it is possible to turn the effectiveness of each associated function, such as the ability to be printed, on and off.



There are also three icons at the top of the **Families** window. The small directory icon pops up the **New family** window. This function is duplicated by double-clicking on any of the

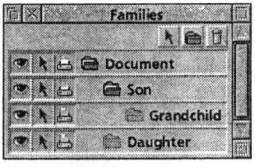
family member's names then selecting **New child** from the resultant window. The **New family** window is shown, below.



To create the new family member (which for the purposes of this example, shall be named **Son**), which will be a child of the head of the family (by default, **Document**), give the new member a name, then press **Define**. Having done this, you will notice that the father's (**Document**) small directory icon is ungreyed. By **Select** or **Adjust** clicking on this icon, the new child (**Son**) will be shown underneath. To close the child (**Son**), click once more on the parent's directory.

To create a grandchild, double-click on the existing **Son** name, then select **New child**. Having entered the name **Grandchild** and having pressed **Define**, it is possible to click on the newly ungreyed directory icon of **Son** to make **Grandchild** visible.

Finally, for the sake of this demonstration, **Document** will receive a new daughter. To do this, click on the directory icon at the top of the **Families** window. By creating a new offspring through this icon, it will automatically become a child of the head of the family (**Document**). Give this new child the name **Daughter** and click on **Define**. The new family member, **Daughter**, will automatically be displayed as all the children of **Document** are opened.



What the family tree should resemble, if the example family described, left, was defined.

Removing family members

There are two ways of removing family members. The first is to delete them by **Select-dragging** the name or directory icon of the member into the bin icon at the top of the **Families** window. The second is to double-click on the member's name or directory to bring up the **Edit family** window (which is the same in appearance as the **New family** variety). This window then gives the option to **Delete** the member.

Assigning objects to family members

The whole point of having a family system such as this is to assign objects or selections to particular family members so that the document may be neatly structured. To assign an existing selection to a family member, just drag the selection using the Select tool into the **Family** window and the member of your choice. The family member directory icon will animate to show that it will receive the objects.

When selecting objects, the **Family** window will indicate which member the object is in by highlighting the family member's name in red. Multiple selections may illuminate a number of member's names.

Using families to help selection

The major use for families is the ability to "mask" off the objects that you do not wish to select and hence modify. To do this, deselect all the family member's pointer icons (left) that you wish to mask off. You will now only be able to select objects from the selectable family members.

Using families to aid redraw speed

When you are creating complex documents containing advanced objects which require more time to render due to their sophistication, it may sometimes be best to place such objects in unique family members. This way, it is possible to hide the object from view by deselecting the member's eye icon (left).

Bitmaps

Bitmaps are sometimes referred to as raster images or, more commonly on the RISC OS platform, Sprites. A bitmap is an image constructed of a series of coloured squares, or pixels, and is a very natural image format for computer display.

The main difference to the user between vector and bitmap images is that vector image's memory requirements do not go up with paper size, are sharper, profiles may be easily edited, are resolution-independent and tend to look more artificial, to name but a few. Bitmaps, on the other hand, are *the* format for photo images, may have a more natural feel, can have stunning effects applied by programs such as Photodesk without increasing the redraw speed and may easily be larger in size than the memory fitted to your machine.

Whereas purely bitmap handling graphics applications are capable of rendering vector images, they can not retain their original information for later modifications. Vector-based applications such as Cerilica Vantage are often capable of loading, using and retaining the original bitmap images but are unable to modify the contents of the image itself (such as "airbrushing" it).

It is for these reasons that packages such as Cerilica Vantage and Photodesk compliment each other so well. By letting Photodesk create or capture and edit bitmaps such as scans or digital photos, the resultant file can be passed on to Vantage for layout and full ink control. Cerilica Vantage is also capable of seamlessly linking with external bitmap products such as Photodesk so that editing of a bitmap is as near to "in situ" as possible. This form of cooperation between two software packages is referred to as OLE (**O**bject **L**inking and **E**mbedding).

Bitmap formats

There are many different formats for bitmaps. Even these formats usually have sub-formats capable of storing differing colour depth bitmaps. As RISC OS's native format is Sprites and since RISC OS 3.5 has a in-built capability of handling JPEGs, Cerilica Vantage is capable of using these directly.

Vantage also being the ability to natively import PNGs — a format becoming more widely used on the internet due to legal issues over the GIF format. Other widely recognised formats such as TIFFs and BMPs are all supported through many third-party format converters, including Acorn's very own !ChangeFSI which is supplied free with every RISC OS machine.

For more advanced control over foreign file bitmap formats, Cerilica advises the use of dedicated software such as Photodesk, ImageFS (as supplied with RISC OS 4) or the excellent shareware Creator/Translator shareware programs by John Kortink.

Loading a Sprite, PNG or JPEG

To load a sprite, JPEG or PNG, either drop the file straight into an existing Vantage window to load it into that document.

Bitmap colour depths and masks

Cerilica Vantage is capable of dealing correctly with all types of sprites, including the CMYK varieties produced by the likes of Photodesk.

Greyscale images are also acceptable and may have contone colour data applied to them (see later).

RGB sprites

The problems associated with RGB colour data has been outlined in the Colour System chapter. This still applies to RGB bitmaps. However, Vantage is capable of simulating the correct ink separations thanks to **TRUISM 2**, in realtime. By doing this and not altering the original RGB bitmap, the integrity of the original artwork is maintained. The advantage of this is highlighted when, for example, the defined inks are altered — Cerilica Vantage would then render the RGB bitmap using the new ink data as the basis of its optimum calculations.

Probably the best thing about using RGB bitmaps with Vantage is that all the simulation is transparent to the user.

All the user has to know is that what is displayed is as close as possible to what will be printed when viewing the document using the full renderer (**Ctrl-Shift-F6**).

CMYK sprites

Cerilica Vantage is capable of loading CMYK sprites.

As Photodesk and Studio 24 Pro (Pineapple Software) are the only "painting" packages under RISC OS capable of handling CMYK sprites correctly, these are the only source of such sprites from this platform. Obviously, any CMYK bitmaps acquired from other systems are also used in the right manner as long as they have been converted to sprites retaining the correct colour information (for which we advise Photodesk).

A utility capable of converting RGB deep sprites to CMYK isCerilica's !TrueSep as supplied with the Cerilica Publishing Pack. Resultant CMYK images from TrueSep can be loaded into a Vantage document. However, it is advised that the original RGB bitmap is loaded directly into the Vantage document as this retains flexibility in terms of ink usage.

JPEG images

The great benefit of JPEGs is that they do represent an amazing variable compression rate, which enables full colour files which are normally more than 60Mb to be reduced to under 5Mb. However, the downside of this is that there is a visible deterioration image quality the higher the compression rate. The classic JPEG "markings" (where an image becomes what appears to be lightly tiled) can come out in print depending on the print device, setup and medium.

JPEG images are nearly always defined in RGB. A current limitation of **TRUISM 2** is the inability of simulating and rendering such images within a given ink environment in realtime. Because of this, if the document is destined for printing and colour matching is critical, it is advised that the JPEG is first converted to a sprite before importing.

Transforming (skewing, squashing, etc.) JPEGs is only possible in Vantage when the tick option **Allow JPEG affine transforms** is set in the **Choices** (**Images** section). However, a transformed JPEG will not be rendered fully and only be

represented by a grey profile. To restore a transformed JPEG once more — and therefore make fully visible — select the JPEG and select **Main menu ▸ Transform ▸ Straighten**.

When downloading JPEG images from the internet, a variety of sub-formats may be encountered such as interpolated JPEGs. The RISC OS JPEG handler (and therefore !ChangeFSI, !Paint and !Draw) may disagree with certain variations leading to Vantage not allowing the JPEG to be loaded. If your web browser does not allow export as a sprite, try using one of a number of freeware JPEG "cleaners" such as the excellent !JClean by David Barrow.

Note that Vantage is currently unable to handle comparatively rare CMYK JPEG images. A dedicated CMYK JPEG handler may be developed in the future to reverse this. At the time of writing, there are no commercial or freeware RISC OS applications that fully handle CMYK JPEGs, although David Pilling's ImageMaster does have a limited amount of support for this format.

To overcome any of the apparent shortcomings that JPEG files may display, it is always possible to convert them to sprites before use. To do this, one method may be to use !ChangeFSI as supplied with RISC OS.

PNG images

Just drag-and-drop a PNG image directly on to a document window to load. Internally, all PNGs are automatically converted to an equivalent sprite and may be handled like all other sprites.

Using bitmap images

Once within a Vantage document, bitmaps (or more accurately sprites and automatically converted PNGs — see the previous notes about JPEGs) may be used in a similar manner to normal objects. It is possible to transform the bitmaps in any way you see fit, including rotation, shearing, magnification etc. Sprites may also be grouped and can even be warped (see later).

In order to move and transform bitmaps, please refer to the Transformation chapter.

Greyscale and contone sprites

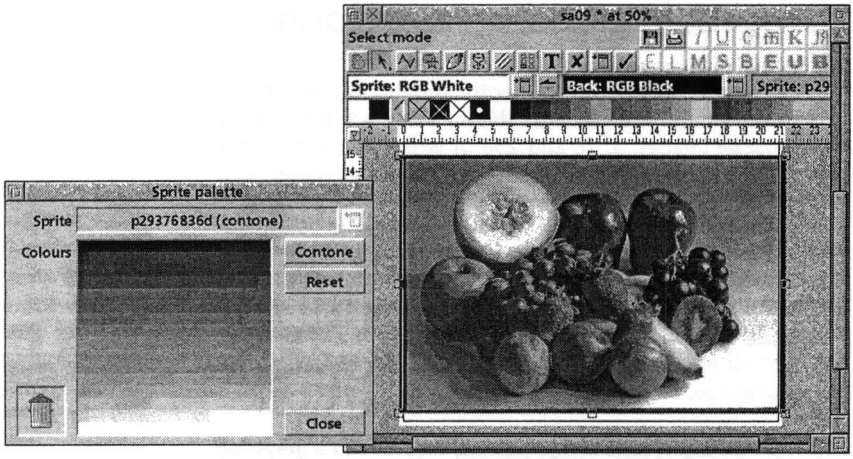
Amongst the many colour depth formats sprites have, greyscale versions are amongst them. There are three levels of greyscale images; 4, 16 and 256 of which 256 is the most commonly used and purposeful. Greyscale sprites are effectively sprites with one colour — black — degrading to white in 4, 16 or 256 steps. Their usefulness in !Vantage, however, extends far beyond just a monochrome image.

Cerilica Vantage is capable of applying a palette to any greyscale sprite. This palette may include the use of up to 4, 16 or 256 named colours depending on the depth of the original image.

To work on a greyscale image palette, first load in a greyscale 256 colour sprite. The simplest way of doing this is to convert one of the hundred JPEG files that are supplied with RISC OS 3.5 and beyond, or any other image source you have to hand (as long as it is originally 32,000 colours or more). To convert the JPEG file to a 256 greyscale sprite load, !ChangeFSI and open the **!ChangeFSI iconbar menu ▸ Sprite Output ▸** window. Within this window, select **Monochrome** and **256** colours in square pixel mode (the upper row of colour levels). Next, drag the JPEG file onto the !ChangeFSI iconbar icon and save the resulting greyscale image straight into Vantage.

If you dropped the greyscale image onto the iconbar, a new document will be created containing the sprite. Before commencing, create a new ink table by selecting **Main menu ▸ Utils ▸ Create ink table**. By doing this, the default CMYK inks will be defined as well as the standard named colours along the colourbar.

Select the greyscale image within the Vantage window by using the Select tool, then either press **Shift-F1** or click on **Main menu ▸ Utils ▸ Sprite palette...**. Either way, this brings up the **Sprite palette** window. Both the Vantage document page and the window should resemble the illustration, overleaf.



The **Sprite palette** window displays the sprite name and the levels of greys within what is now termed as a contone sprite. The contone refers to the fact that Cerilica Vantage has redefined the greyscale sprite as one with a colour at each end. On the dark end, RGB black is present by default, whilst RGB white is at the other.

To make use of the colour palette, the example shall start by dragging the named colour square **Black** or **Black overprint** from the colourbar to the **Sprite palette** window's top left RGB black square. Next, the named colour **Paper** is to be dragged over the sprite palette's end colour of RGB white.

By conducting these two simple operations, the original greyscale bitmap image has been properly defined with the use of named colours based on the inks available. Not only may the view of the bitmap alter slightly (to the defined colours) but the other possibilities now become apparent.

To add a bit more "life" to the image using the standard CMYK inks and the associated colours, drop, say, the named colour **60% Red** about midpoint in the palette. This has the affect of interpolating the palette from **Paper** to **60% Red** and on to **Black**.

It may be noticed that whereas the blend of colours between **Paper** and **60% Red** is fine, there is a certain inherent "muddiness" in the colour between **60% Red** and **Black**. For the reason behind this, one has to understand the constitution of the inks in this region.

i

As **60% Red** is defined from 60% magenta and 60% yellow (as the named colour on which it is based, **Red (M+Y)**, is made of 100% magenta and 100% yellow) and black from 100% key, !Vantage's automatic interpolation between the two colours crosses through the mid value of these two named colours. This mid value is 30% magenta, 30% yellow and 50% black, which results in muddy brown. (Try this by creating a new named colour based on this ink constitution.)

To overcome this truthful result, create a new ink entitled **Black + 60% Red**. Define this ink as having 60% magenta, 60% yellow and 100% key/black and then drag it into the **Sprite palette** window over the original end colour of **Black.** By doing this, the ambiguous muddy mid colours are replaced by something altogether more appealing.

Be careful when using this method as it is quite easy to saturate the paper with too much ink. A typically accepted maximum is 350% - 380%, so sometimes the visual effect will have to be slightly compromised by this factor.

!

You may, at this point, be wondering as to why other packages display a blend between such colours as OK, without any "muddying" effect. The reason is that **TRUISM 2** is providing continuous realistic ink simulations at all stages, including sprite palettes. With packages that perform naive ink conversions, what is displayed on the monitor might look like exactly what you are after, but the print result would resemble what was originally seen in the Vantage document window.

i

This all applies equally to colour blends of any nature throughout Cerilica Vantage.

Adding more named colours to the palette

It is possible to drag more colours into a greyscale sprite's palette window. Each colour will be interpolated automatically giving smooth colour blending between each.

As you may have realised, this can provide an easy way to liven any greyscale image up. It also has a more profitable rôle. If, for the sake of keeping print costs to a minimum, you wish to only use two inks like green and red, it is possible to obtain quite a range of colours (obviously not as many as using the four CMYK inks) if the paper colour is also taken into account. As an example, black can be approximated (and be shown to approximate within !Vantage) by applying 100% red and 100% green ink in a named colour with this ink constitution. This named colour can also be used in the greyscale palette along with any combination of these two inks. The result would be that even though the final effect will never be as colourful as any potential CMYK combination, it has taken (approximately) only half the print setup cost and a reduction in the actual printing cost itself.

Copying named colours within the sprite palette

To duplicate the use of a named colour within a sprite palette, just **Select-drag** the named colour square already placed within the palette to another destination.

Deleting named colours within a sprite palette

To remove the use of a named colour within the **Sprite palette** window, **Select-drag** the small palette colour square onto the bin icon.

Reset palette

Clicking on the **Reset** button will revert the greyscale sprite back to its original settings.

Resolution

When a sprite or PNG is dragged into a Vantage document window, the typical resolution to appear in the page is 90% (although this can depend on the sprite). The resolution may be overridden with the **Override resolution on import of images...** entry in the **Choices** window (**Images** section). **Adjust-click** on Vantage iconbar icon to open the window.

For example, if you wish all images to be imported at 300dpi (ideal for printed purposes), tick this choices option and enter **90** in the **dpi** entry box and **Set**.

The resolution of a single selected bitmap will always be stated in the toolbar's **Scale:** attribute well. Scaling the bitmap up or down using either the **Magnify** window or corner transform handles will alter the resolution. Scaling the object by a factor of 0.5 will double a bitmap's resolution. Scaling by a factor of 2 will halve the resolution.

Straightening a bitmap

It is possible to revert a bitmap back to its original state after having applied any variety of transformations by following **Main menu ▸ Transform ▸ Straighten**.

OLE of bitmaps

It is possible to OLE (**O**bject **L**ink and **E**mbedding) a bitmap (sprite — including an imported PNG — or JPEG) into a suitable bitmap package. To do so, select the image with the **Select tool**, then **Select-double-click** on the bitmap in the document window whilst holding shown **Ctrl**. Alternatively, ensure the bitmap is selected and select **Main menu ▸ Utils ▸ OLE edit**.

Having done this, the bitmap editor will automatically load the image for editing. When you are happy with the changes made in the bitmap program, just save it and it will automatically replace the original version in the Vantage document. Both sizes and dimensions of the bitmap will be maintained even if the pixel size of the bitmap has been altered outside Vantage.

If the appropriate undo/redo choices are set (see relevant chapter on undo/redo), OLE operations on bitmaps may be undone.

Chapter 25

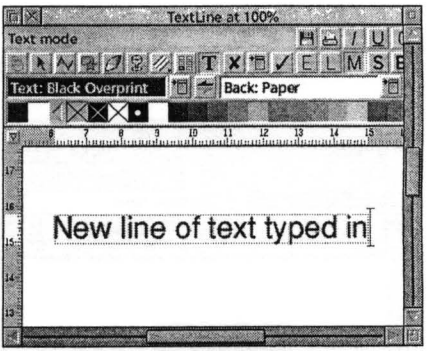
Text Lines

Cerilica Vantage currently exhibits text line control; allowing for the creation and editing of text lines and importing of such objects. Future versions of Vantage are destined to receive much greater text handling control, including native and editable text areas. As the RISC OS platform already exhibits many competent text handling packages, it was not deemed as a priority in Vantage.

Text lines can be handled much in the same way as other drawing objects; it is possible to stretch, skew, rotate, etc. text lines whilst remaining editable. Text lines can also be instantly converted to paths to allow special fills to be used.

Entering text

To enter a new line of text, simply select the **Text tool**, click the cursor anywhere in the document window and start typing.



Specific to Vantage the following applies to editing the text:

- **Return** starts a new separate text line
- **Select-clicking** anywhere along the line positions the cursor
- **Adjust-clicking** on a previously entered or imported line moves the cursor (and editing) to that line

Standard basic operations are available as in standard text processors such as the **Backspace** or **Delete** key to delete the character to the left of the cursor, arrow keys to step between characters, etc.

Vantage also contains a comprehensive text control system. This means it is possible to **Select-drag** areas, copy and paste from the clipbaord, etc. For full information on all the operations and key presses available, please refer to the following section.

Editing text lines

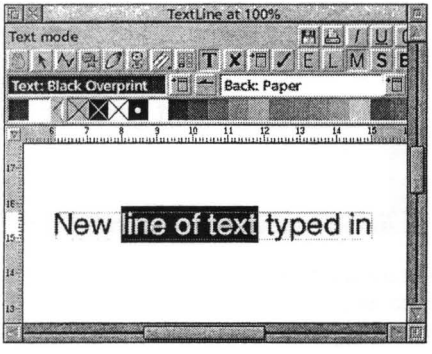
To edit previously entered text lines or imported text lines (such as those imported from ArtWorks using EPS transfer), first select the text line you wish to alter whilst in the **Select tool**, then switch to the **Text tool**. The cursor will re-appear and the line can be altered as normal.

To switch to another text line to edit whilst remaining in the **Text tool**, **Adjust-click** on the other text line and continue as normal. Using this method it is also possible to select a line to edit if you enter the **Text tool** without selecting an existing line first.

The same method may be used to edit transformed text lines such as ones previously rotated or skewed.

Cerilica Vantage's text control system allows for advanced text editing. The following sub-sections outline these operations and associated key presses:

Selecting an area of text



Many text editing operations may be applied to individual characters or a selection of text.

To select an area of a text line currently being edited (ie. the cursor appears along the line), simply **Select-drag** along the line. The dragged-out section will then become highlighted as shown left.

Other mouse-operated selection methods are: **Select-double-clicking** over a word selects that specific word, whilst **Select-triple-clicking** selects the whole line.

Other methods to select areas are as follows:

- **Ctrl-A** and **Ctrl-L** selects the whole line
- **Ctrl-Q** and **Ctrl-Shift-W** selects the word at the cursor
- **Ctrl-Shift-Left/Right cursor keys** extends the selection left and right of the current selection, respectively
- **Ctrl-Shift-Up/Down cursor keys** extends the selection to the extreme left or right of the text line, respectively

Deselecting an area of text

To deselect an area of text, either press **Ctrl-Z** or click the cursor anywhere along the line free of selection.

A selected text area will also be deselected when the cursor is moved along the line using the cursor keys or **Home**.

Moving the cursor around the text

The cursor keys may be used in addition to "point-and-clicking" to move the cursor to a specific location in the text:

- ✍ **Left/Right cursor** moves the caret left or right one character
- ✍ **Up/Down cursor** moves the caret to the extreme left or right of the line
- ✍ **Ctrl-Left/Right cursor** moves the caret to the start or end of the line, respectively
- ✍ **Shift-Left/Right cursor** moves the caret by one word left or right, respectively
- **Home** and **Shift-Home** moves the caret to the start or end of the line, respectively

Note about text orientation:

All operations marked with a ✍ character operates as stated irrespective of the text line's orientation.

Deleting text

If there is no selection, the following key-presses delete text:

- **Backspace** deletes the previous character
- ✍ **Delete** deletes the character to the left of the cursor
- ✍ **Copy (End)** deletes the character to the right of the cursor
- **Ctrl-D** cuts the word at the cursor
- **Shift-Copy (End)** deletes from cursor to end of line
- **Ctrl-Copy (End)** deletes the whole line

If there is a selection, the following key-presses delete as follows:

- **Any text** replaces the selection with the newly typed characters
- **Backspace**, **Delete** and **Copy (End)** cuts the selection
- **Ctrl-K** kills the selection but does not place on clipboard
- **Ctrl-X** cuts the selection

Copying and pasting text with clipboard

Vantage's text tool uses the clipboard which allows text to be copied or cut onto it for later pasting into text lines as per conventional packages.

- **Ctrl-C** copies the selection to the clipboard
- **Ctrl-V** pastes the selection from the clipboard

Note that deleting a selection using **Backspace, Delete, Copy (End)** or **Ctrl-X** as previously described also places the deleted section onto the clipboard which may be later retrieved by pasting.

Swapping case

It is possible to quickly and easily swap case of a selection or the character right of the cursor (if no selection) by pressing **Ctrl-S**. Applying this to a selection clears the selection after the operation.

Swapping character around cursor

When typing, a common error is to type two characters in the incorrect order. A simple correction process is to position the cursor inbetween the characters and press **Ctrl-Shift-Q**.

Spell checking

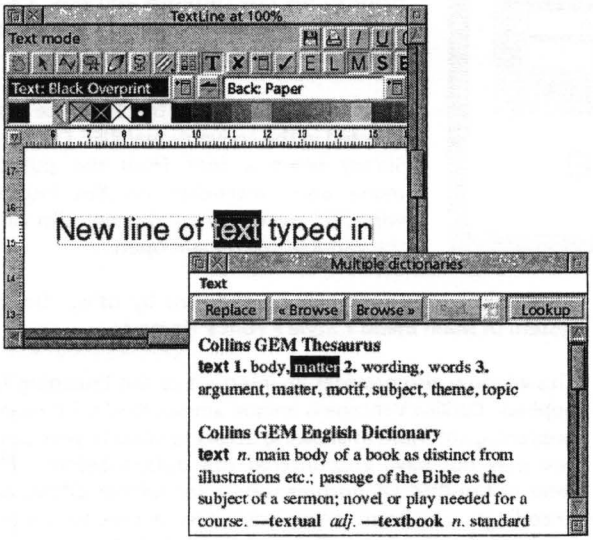
If you use Computer Concepts' Impression range of DTP software, you will be aware of the spell checker facility. Cerilica has ensured that Vantage is capable of using this commonly found dictionary in the **Text tool**.

To spell check you require a copy of Impression to be installed on your system with the dictionary present. If Impression has not been run prior to attempting to spell check in Vantage, this software will attempt to load the module after a request. If Vantage is not able to locate the module, run Impression and try again.

To spell check a word at the cursor, press **Ctrl-W**. If the spelling is incorrect, the machine will beep.

Linking with WordWorks

WordWorks is a product of Computer Concepts and was commonly supplied with Impression Style and Publisher as well as being available separately. This package provides a dictionary and thesaurus facility based on the Collins GEM series — © William Collins & Sons Co. Ltd.

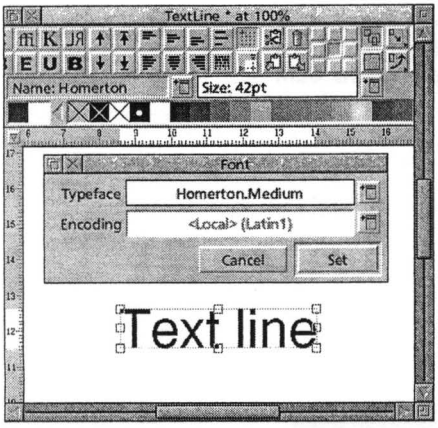


To pass a word to WordWorks for instant look up, first ensure the WordWorks window is opened. Then select the word in the Vantage text line you wish to look up (quick methods are to **Select-double-click** on the word or press **Ctrl-Q**). the highlighted word will then appear in the WorksWorks window as depicted above.

If a match to the word is available in WordWorks, it will be displayed in the application's window along with the dictionary and thesaurus text.

To replace the word with another presented in the WordWorks window, click on it to select it and the select WordWorks' **Replace** button. This will delete the word in Vantage to be replaced by the new word.

Changing font



The font used in a text line may be changed when in either the **Text** or the **Select tool**.

With a text line selected or being currently edited, the attribute well below the toolbar will state **Name: <font>** (where **<font>** is the name of the one currently applied). Click on the attribute well's pull down menu to bring up the **Font** window as shown left.

From the **Font** window, the **Typeface** may be selected in the conventional RISC OS manner. Simply select a font from the pull-down menu and **Select-click** on **Set** into **Font** window. Note that by clicking with **Adjust**, the window will remain open.

Alternatively, the font may be changed by using the menu system of **Main menu ▸ Style ▸ Font ▸ Name ▸**.

This window also provides an interface to the **Encoding** to be applied. Cerilica Vantage is unique among RISC OS design and publishing software in allowing access to various encodings so you may not have encountered this option before. Please refer to the RISC OS documentation for further details about encodings. In brief, encodings allow access to otherwise unobtainable characters in various language sets.

i The selection of encodings shown on the pull-down menu depends on your operating system and whether an extended list of encodings has been established upon booting your machine or later.

! Note that the encoding option of **None** (available on the pull-down menu) should be selected if the Vantage document is to be used in Impression as an error from Impression may occur otherwise.

If you are uncertain about font encodings, set it to be **None**.

! 

Please note that the font weight and control buttons shown above currently do not function.

Font size and aspect ratio

To alter the font size of a text line in either the **Select** or **Text tool**, either enter the new size in the **Size:** attribute well (remember that you may use any available unit such as **pt** or **mm**) or select a pre-defined size from the pull-down menu.

Following **Main menu ▸ Style ▸ Font ▸** provides options to specify not only font size but also height and aspect ratio.

Another method to change a font size is to simply scale the text line using the standard bounding box handles for the line(s) whilst operating in the **Select tool**.

Font colour

A text line may have any colour applied to it whilst in the **Text** of **Select tool** by using the standard attribute/colour bar system. As with previous text style functions, if the colour is applied whilst in the **Text tool**, the following text line will adopt the newly specified colour.

Text lines have two text colours; **Text** and **Back**. The former refers to the actual text body colour whilst **Back** refers to the RISC OS anti-aliasing target colour. This OS-specific aspect is only relevant when viewing documents in Simple mode as Vantage's full renderer ensures the text anti-alias target colour always matches the background, even if it varies. It also follows that the **Back** colour has no relevance to printed, PostScript or EPS output.

A text line's colours may also be defined through the menu system entries found in **Main menu ▸ Style ▸ Font ▸**.

The two colours attributed to a text line of **Text** and **Back** may easily be swapped over by clicking on the colour attribute well's icon shown right or by selecting **Main menu ▸ Style ▸ Font ▸ Swap colours**.

Style dropper and text lines

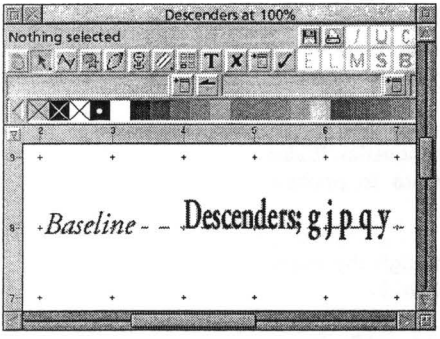
The style dropper is common throughout Vantage and may be accessed through the **Select tool**'s function sub-window. see the chapter entitled Select tool.

This tool is extremely useful for transfering a text line's style (which includes font, size, colour, etc.) to any other existing line or multiple selection of lines.

1 Enter the **Select tool**
2 Select the upper line from which the style is to be based on
3 Click on the **Select tool**'s function sub-window's picker (pipette) button
4 Select the text line to apply the style to
5 Click on the **Select tool**'s apply button

Note that the style adopted by the style picker will be used for any text lines created from thereon.

Snap baselines



Typically the lower left point of a bounding box for a text line is not the point that needs to be aligned with the grid. The baseline of a text line is the line on which all characters sit with descenders passing below. By aligning this baseline (left) to the grid it is possible to space lines out neatly regardless of the presence of descenders or not.

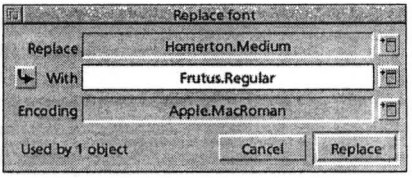
Therefore instead of snapping text lines to the grid using the conventional method of **Main Menu ▸ Arrange ▸ Snap to grid**, the option of **Main Menu ▸ Style ▸ Font ▸ Snap baselines** is provided. As may be seen in the left-hand screenshot, a text line with this option applied to it sits nicely on the document's grid.

This option may be applied to a selection of text lines simultaneously.

Also see the chapter entitled Object Justification for further alignment options using the toolbar justification buttons.

Replace fonts

Within the Vantage utilities menu a document-wide font replacement system is available. Clicking on **Main Menu ▸ Utils ▸ Replace fonts...** brings up the window shown right.



This text utility is present for a number of reasons:

- Replace font references to a document loaded without access to the fonts used in its creation
- Globally replace the use of a certain font which may enable a change in document character
- Specify or remove font encoding data

Upon opening a document with text or having created a text line(s), open the **Replace font** window and in the **Replace** attribute section use the right-hand pull-down menu to select the font you wish to globally replace. In the second line entitled **With** either manually enter or select a replacement font from the associated pull-down menu. (The button shown right enters the **Replace** font name automatically in the **With** entry box.) The font Encoding specification may be selected from the final pull-down menu.

Click on **Replace** to make the change affect the document.

Replace font notes

It is possible to manually enter a font name not available on the system. In this case the System font will be used to display the text line.

The lower left information line shows how many text objects use the font to be replaced.

A full description of Encoding is beyond the scope of the Vantage manual. However, if you wish to embed the Vantage Drawfile document directly within Computer Concepts' Impression DTP package, ensure that the encoding is set to **None**. If in doubt about this feature, set the encoding to **None**.

Converting to paths

You may wish to convert a text line to a path for editing of profiles (such as when designing logos) or readying the line to apply special fills such as gradients and sprite floods. To do this, in the **Select tool**, select the text line and either press **Ctrl-N** or click on **Main Menu ▸ Style ▸ Line ▸ Make Paths**. The text line will be converted to paths and automatically grouped. You may edit these paths as normal.

Another benefit of converting text to paths is that the Vantage renderer will display the character profiles as opposed to the RISC OS font manager. A clear and noticable improvement can be seen due to Vantage's 200,000+ levels of grey anti-aliasing as opposed to the font manager's 16. This is especially the case when text is angled.

Importing text areas

It is possible to import existing blocks of text from RISC OS and other packages. This is a quick guide to provide examples of which programs can export suitable text areas for direct placement in Vantage documents.

From RISC OS packages without RiScript

A number of existing RISC OS packages are capable of creating and suitably exporting text areas. This is not a comprehensive list of such applications but represent ones commonly available from various areas of package types.

TextEase (Softease)
The versatile and widely-used cross-platform package allows direct saving of documents as Drawfiles which may be imported directly into a Vantage page.

Fresco (ANT)
Fresco is capable of directly exporting a web page as a Drawfile including formatted text areas and bitmaps.

StrongHelp (freeware)
A relatively widely used interactive help system allows direct export of pages as Drawfiles.

ArtWorks (Computer Concepts) with MW's TextArea plugin
One of the latest additions to ArtWorks by Martin Würthner allows the creation of basic text areas. ArtWorks EPS export such an object (opting for **Selection** if you are only dealing with this component) which can be directly interpreted by Vantage. See Import chapter for more details.

From RISC OS, PC or Mac software using RiScript

RiScript, publishing and sold by Cerilica, available direct from Cerilica or your overseas Cerilica dealer, broadens the scope of being able to import text areas from virtually any RISC OS, PC or Mac packages using the universally-accepted PostScript and PDF file transfer formats.

Any text-handling package
Simply import a PostScript or PDF file into RiScript and export as a Drawfile which may be immediately loaded into Vantage.

If obtaining text areas from RISC OS packages, use the standard RISC OS PostScript printer driver to generate a suitable file direct from virtually any package.

Note that altering RiScript's text accuracy choice may affect how broken-apart the individual words or characters become. As a generalisation, the less accuracy used, the more editable the resultant text lines will remain in Vantage.

From PC or Mac packages without RiScript

Importing text areas from alternative platforms is possible using Vantage's built-in EPS interpreter on the condition that the other package is capable of exporting in this format.

Any PC or Mac text-handling package
Export the text area as an EPS file and load direct into Vantage. See Import chapter for more details.

Note that font translation becomes an issue with this method with Vantage only having the three basic fonts mapped; Trinity (Times), Homerton (Helvetica) and Corpus (Courier). Refer to Vantage's **Replace font** tool for an easy way to respecify any fonts referred to in a document.

An alternative method to incorporate text areas as EPS is to embed the EPS files within a Vantage page (once again, please refer to the relevant chapter for more details). This has the down-side of being non-visible or editable but may be of use if the text area is destined to be output without alteration to a PostScript device.

Notes about kerned and justified text import

Note that all forms of text area import will be affected by any text line justification used. Fully justified text lines will be imported as individual words or characters whilst left, centre or right aligned areas are likely to remain fully editable as complete lines in Vantage.

Kerned text areas (a feature introduced in RISC OS 3+ fonts) in packages such as Impression and Ovation are also likely to reduce text line editability in Vantage. If you wish to maintain the highest degree of editability in Vantage, turn off any kerning options in these DTP packages before PS printing and importing into Vantage via RiScript.

Text tables

Vantage is capable of directly embedding TableMate tables in a document without any prior need for conversion. This allows for easy table creation and layout whilst remaining fully editable using Vantage's OLE editing system. It is also possible to alter colours without converting the table to drawing objects by simply dragging and dropping colours on the colourbar.

Various versions of TableMate were bundled with Computer Concept's Impression. Later independantly commercial versions, sold direct from Dalriada are also compatible whilst providing much greater functionality.

Interactive Tool

The **Interactive tool** allows users of Vantage to both intuitively pan around a document as well as activate any interactive buttons. The process of creating interactive buttons is also detailed in this chapter even though this is not actually part of the **Interactive tool** found on the toolbar.

Panning around the document

By simply selecting the **Interactive tool**, it is possible to pan around the document by **Select-dragging** anywhere on the page view. When in this tool, the pointer changes to that shown right unless over an interactive button (next). This feature supplements the RISC OS scroll bars as page movement is a direct correlation to the mouse movement.

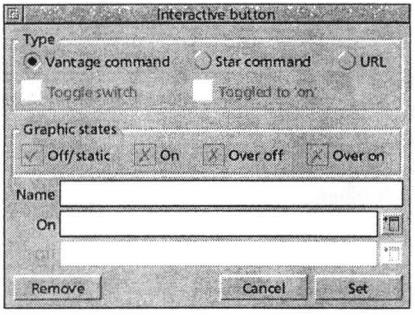
Activating interactive buttons

If in the **Interactive tool** mode and you move the pointer over an interactive button, it changes in appearance to the one shown right. It is then possible to **Select-click** on the button to active it. The result can range from moving page, un-hiding a family, opening a new document or even closing the existing one.

Caution when creating interactive buttons that close documents (later); the usual Vantage warning box does not appear if the document has not been saved. This could result in losing data.

Creating interactive buttons

An interactive button is a property that can be applied to a selection of one to four objects. In its simplest form, you can make a rectangle point to a web page. More complex derivatives of interactive buttons allow users to show/hide families (layers), jump to other pages, animate whilst mouse pointers are over the button, etc.



To create an interactive button, whilst in the **Select tool**, select one object and follow **Main menu ▸ Object ▸ Button ▸ Create...** to bring up the **Interactive button** window (left).

Once the form of button has been defined in this window (various types described next), click on **Set**.

Common throughout the creation of a button, the **Name** entry in the **Interactive button** window is optional but may assist or help remind the author of the button's function when later edited.

Altering interactive buttons

If you wish to alter an existing button, select it and follow **Main menu ▸ Object ▸ Button ▸ Alter...** to bring up the **Interactive button** window with the button's definition already declared within.

Removing interactive buttons

It is possible to remove any interactive reference to an existing button thereby reverting the button to individual object(s). To do so, select the button and opt for **Main menu ▸ Object ▸ Button ▸ Remove**. Optionally, if you are already editing the button via the **Interactive button** window, click on **Remove** from within this window.

Simple and toggle buttons

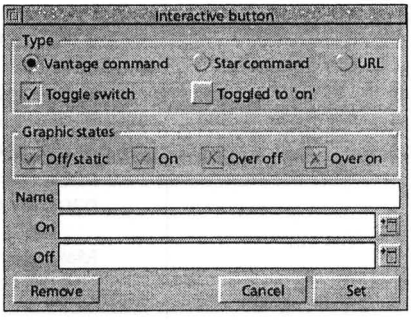
Simple buttons (non-toggle)

Simple buttons provide a single function when clicked on. If still available, the button will provide the same function if clicked on once more. The single button function (see *Button types*) may be entered in the **On** command entry box.

Toggle buttons

Vantage interactive buttons also allow for a toggle feature which provides one function when first clicked on a second when clicked on for a second time. The process then repeats (toggling).

In order to create a toggle button, there must be at least two button states — an **On** and an **Off** state. Therefore you need to have two objects (which may be single shapes or groups) selected before you bring up the **Interactive button** window.



Upon opening the **Interactive button** window with at least two objects first selected, the window will un-grey the **Toggle switch** tick box. By ticking this option (as shown right), two further options will un-grey; **Toggle to 'on'** and the **Off** command entry box.

The **On** and **Off** button functions may be entered in the respective command entry boxes.

The **Toggle to 'on'** tick box option determines whether the toggle button is in the "on" or "off" state by default.

Button types

The following sections describe the button functions that may be entered in the **On** and **Off** command entry boxes in the **Interactive button** window. These commands are quickly accessed from the pull-down menus to the right of the entry boxes.

Vantage commands: Page()

This allows the navigation of multi-page Vantage documents. See the Pages chapter for information on how to create multi-page Vantage documents. It is recommended that you create **Single pages** rather than **Facing pages** or **Spreads** for simplicity, although there are no such restrictions.

Moving to a specific page number:
Use the command **Page(n)** to make the button move to document page number **n**.

Moving a number of pages forwards or backwards:
Use the command **Page(+n)** to move n pages forwards.
Use the command **Page(-n)** to move n pages backwards.

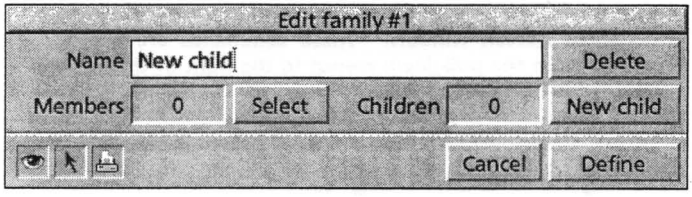
Vantage commands: Show() and Hide()

These related commands control the visibility of families. Please refer to the chapter Grouping and Families for how to create and edit families. These commands present numerous possibilities by allowing objects to "pop up" and disappear once more (when defined as toggle buttons).

Making a family visible:
Use the command **Show(n)** to make family number n visible.

Making a family invisible:
Use the command **Hide(n)** to make family number n invisible.

Family member numbers are used rather than their names to reduce the amount of text that needs to be entered. The family number is counted from 0 (default family member named **Document**) from top to bottom of the **Families** window. Alternatively, to find the family number of any member, double-click on the member in the **Families** window to bring up the **Edit family** window (below). The window title states the family number.



Note that families do not restrict the objects's position in the drawing stack; it is possible to have one object in family x in front of all other objects and another object in family x at the back of the stack. This can be of great use to create button effects.

Vantage commands: Open(" ")

This command allows the opening of another Vantage document. Within the brackets enter the document's full path within inverted commas, such as:

"ADFS::HardDisc4.$.Drawfile"

Vantage commands: Close

This command closes the document. Note there are no operators in brackets.

Vantage commands: URL("http://")

A URL is a web location address that is commonly used. An example of such an address is **http://www.cerilica.com** or **http://www.cerilica.com/vantage/index.htm**

The full web address must be placed within inverted commas, in turn within the brackets.

When a URL Vantage command button is clicked on, a loaded or suitably installed RISC OS web browser such as Oregano (available from Castle Technology) will be prompted to open the linked web page.

Vantage commands: CLI(" ")

The RISC OS Command Line Interface (commonly known as Star commands) is used widely to operate many aspects of the operating system from opening filer windows to starting applications and files.

This document can not attempt to list all possible star commands. However, one example is the opening of a filer window as follows:

"filer_open ADFS::HardDisc4.$"

It may be useful to use the converse of this command when creating a toggle button:

"filer_close ADFS::HardDisc4.$"

To run an application or file, use:

"filer_run ADFS::HardDisc4.$.!App"

Note the command must be placed within inverted commas but without preceding stars.

Vantage commands: Beep

This command simply causes a audio beep and has no attributes.

Star command

This tick box option in the **Interactive button** window is a duplicate of the CLI Vantage command in functionality but allows you to enter the star command directly into the **On** and **Off** sections without the need for the **CLI(" ")** attribute.

URL command

As with above, this tick box option in the **Interactive button** window is a duplicate of the URL Vantage command in functionality but allows you to enter the full URL web page address directly into the **On** and **Off** sections without the need for the **URL(" ")** attribute.

Multiple Vantage commands

When defining a Vantage command button, it is possible to specify a number of commands in sequence in the **On** and **Off** dialogue entry sections. This is achieved by placing a colon (:) between the commands.

For example the following text may be entered in the **On** and **Off** command entry boxes:

On **Hide(5):Show(6):Beep**
Off **Hide(6):Show(5):Beep**

Note that it is not possible to create time-delayed sequences like full animations as this is not a function Vantage was designed for.

"Mouse over" buttons

The term "mouse over" is derived from the internet JavaScript language where buttons can alter in appearance if a user moves the mouse pointer over the button.

As originally outlined, you can have up to four objects selected before applying an interactive attribute to the selection. The stack order at the point of selecting the 3 or 4 objects is important and described in the following section.

If 4 objects are turned into a single button, the four states are:

1 **Off/static**
2 **On**
3 **Over off** ("mouse over" when either non-toggle button or toggled off)
4 **Over on** ("mouse over" when toggled on — button needs to be toggle)

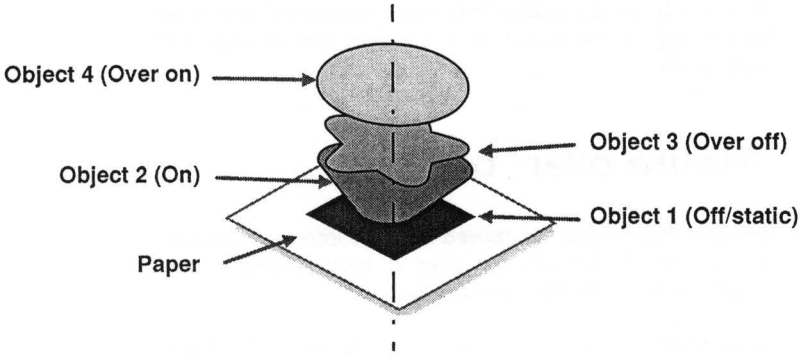
If only 3 objects are turned into a single button, the three states are:

1 **Off/static**
2 **On**
3 **Over off** ("mouse over" when either non-toggle button or toggled off)

Stack order

It is important to consider the object stack order before turning a selection of up to 4 objects into a button. This not only applies to full four object "mouse over" buttons but also simple toggle and "mouse over" static buttons.

The diagram below shows the stack order (move objects up and down the stack using **Ctrl-F**, **Ctrl-B**, **Ctrl-Shift-F** and **Ctrl-Shift-B** or the toolbar's arrow keys — see the **Select Tool** chapter for more information). The object set furthest back in the selection (object 1 - **Off/static**) is the lower square.



Importing URIs and URLs

An alternative method to create simple internet page link buttons is to drop a URI or URL file into the document. These files are typically exported from RISC OS web browsers when saving a web page's location.

URI files

These files were defined by Acorn and are settype as "HTML" (&faf) and contains only the following data structure:

<A HREF="http://www.website.com">Website name</A>

When imported into Vantage, a text line stating the website name will be created and when clicked on will direct a browser to the web address.

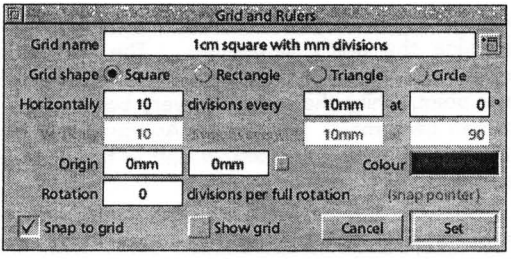
URL files

Similar to URIs, these files established by ANT and settype "URL" (&b28) only contain a single web address. Vantage will only create a button with a text line stating the page name.

Grid and Rulers

Cerilica Vantage has an in-built grid system that is highly versatile. Acorn's !Draw also has a grid which was not only capable of drawing rectangular but also triangular (isometric) versions. You may be familiar with this and consider Vantage's system to be of the same genre, but with further possibilities.

The easiest way to bring up the grid window is to **Select** or **Adjust** double-click on the ruler, if visible. Alternatively, select **Main menu ▸ View ▸ Grid...** or press **Ctrl-Shift-F1**.



The **Grid and Rulers** window controls both of these facilities. The ruler to the top and left of the page will reflect the settings of the grid. To toggle the ruler view on and off, either press **Ctrl-Shift-F11** or click on **Main menu ▸ View ▸ Rulers**.

The ruler's main task is to provide visual aid in positioning objects on the page. This is helped by the location lines that reflect the mouse pointer's horizontal and vertical position as well as highlighting the areas covered by any object currently selected.

What follows is an explanation of the **Grid and Rulers** window.

Grid name

Named grid setups are possible within Vantage. Type in a new **Grid name** and press **Return**.

To recall a stored grid setting, click on the menu icon to the right of the **Grid name** entry box, then select a named grid.

Grid shape

Square, Rectangle and **Triangle** grids are all available (**Circle** works but is not visually implemented at the time of writing). **Square** and **Rectangle** are self-explanatory, whilst **Triangle** gives the ability to define an isometric grid. Select the grid you want by clicking on the type's radio button.

Dimensions

There are a number of entries that may be made in order to determine the grid's dimensions. The **Horizontally** box confirms how many sub-divisions there are between each major point, whilst the **divisions every** box sets the distance between each major grid point. As usual, it is possible to define a grid using any available unit in the **divisions every** box.

It is also possible to set the grid to and angle by entering the degrees in the end entry box. A horizontal grid is set at 0°.

The second line of **Vertically...** is ungreyed when defining a rectangular grid.

Origin

These two boxes allow you to confirm where the grid "starts". The absolute page coordinates may be entered in any unit and is relative to the bottom, left of the page. This option will have a much greater use with circular grids.

Rotation

When rotating objects via the bounding box handles (see Transforming objects chapter), this entry allows a rotate angle-lock to be implemented. Enter a positive integer value into the entry box which determines the number of steps per rotation the lock will exhibit. For example, by entering **4**, the rotating will lock to four steps of 90° each.

An information line to the right of the entry box states the resultant angle in degrees of each step.

A value of **0** turns off the rotate lock feature.

Snap to grid

The whole point to having a grid system is to allow easy and precise drawing/placement of objects and profiles. Ensuring that this entry is ticked will make all mouse movements and selections snap to the nearest grid point.

Holding down **Ctrl** whilst creating or moving an object or node will temporarily toggle this setting to the opposite of what has been set to.

i

Show grid

It is possible to display the grid by confirming this option is ticked. By doing so, the grid will be rendered on screen (but not in print). The major grid divisions (determined by the value given in the **divisions every** box) will be shown as small crosses, whilst the sub-divisions will only be represented by single pixels.

Colour

The grid may be specified in any colour you wish. To alter the colour, click **Select** on the **Colour** well.

Creating isometric grids

As there is no specific isometric grid button (for good reason, as isometric itself is arbitrary in terms of angle), here is the way to set one up:

Use the triangle grid setting and specify a 90° angle. This grid then equates to the one that may be found in !Draw.

i

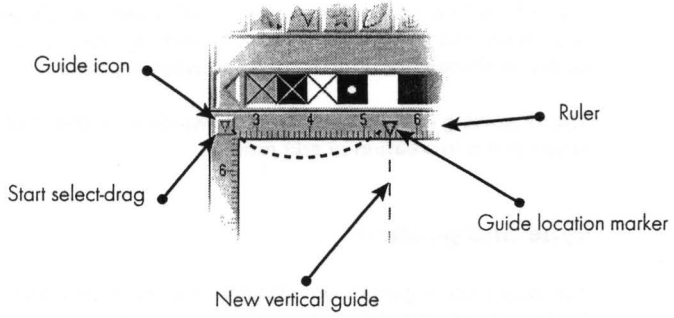
Chapter 28

Guides

Guides are another form of aid to help precision placement of objects as well as providing good visual help on positioning.

A guide is a continuous line that originates at a location along the rulers. If the rulers are not toggled into view, press **Ctrl-Shift-F11**. A guide, once created, does not get printed but is just used for on-screen work.

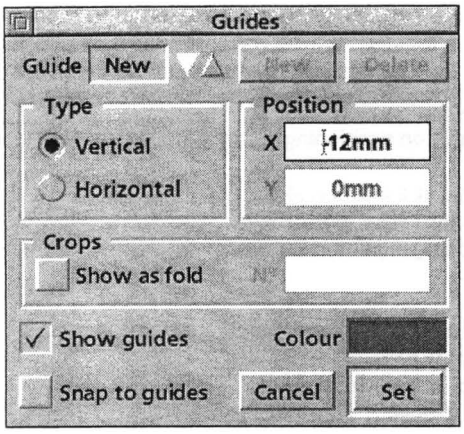
To create a guide, **Select-drag** the guide icon at the corner of the ruler and drop it along the horizontal ruler to create a vertical guide, or on the vertical ruler for a horizontal guide. This process (for a vertical guide) is show, below.



Once created, a guide may be dragged anywhere along the ruler, even to the other face to change its orientation. To do this, **Select** or **Adjust** drag the guide location marker. Note that if **Snap to grid** (see chapter on grids and rulers) is applied, the guide will also comply with this.

The Guides window

There are two ways to bring up this window; either **Select** or **Adjust** click on the guide icon at the corner of the ruler or double click on a guide location marker.



The **Guides** window, shown ;eft, allows you to both create and edit guides. If you opened the window through the guide icon at the corner of the ruler, the window will automatically default to creating a new guide. On the other hand, by accessing this window through double clicking on an existing guide marker, you will by default be editing that particular guide.

It is possible to change between guide edit and creation mode. If you are editing a guide, just click on **New**, and if you are already in the process of creating a new guide but wish to edit an existing one, you may click on the **Guide** up icon to the right of where it states **New** in a well. If there are multiple guides in existence, it is possible to move through editing each by clicking up and down on these icons until the one you want appears.

The following details the **Guides** window, regardless of whether it is in creation or edit mode.

Type and position

You may alter a guide's orientation by clicking on either the **Vertical** or **Horizontal** radio buttons. It is then possible to enter the appropriate **Position** in any unit available. The **Position** entry is always relative to the page origin.

Crops

By ticking **Show as fold**, the guide brings on a new significance. Folding operations are normally numbered in sequence. By stating a fold number, a mark will appear outside the page showing not only location but fold number also. This will only be present if the print device has access to enough print area outside the page boundaries. The only way this may be possible for standard desktop printers is to print at a reduced scale.

Show guides

By deselecting this, the dashed on-screen guide line will be hidden from view. The guide location marker will remain, so if you wish to reverse this decision, just double-click on the marker and reset this option.

Snap to guides

This option really enables precise alignment. Ticking this option applies globally to all guides and allows objects to be snapped to the nearest guide when re-positioning objects on the page.

Colour

A simple RGB colour may be assigned to each guide line by clicking **Select** in the **Colour** well.

Deleting guides

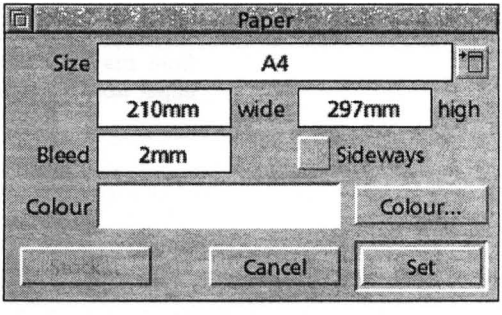
As will have become apparent by now, it is possible to delete a guide by selecting **Delete** from the **Guides** menu. It is also possible to remove a guide by dragging the marker anywhere off the ruler or back onto the guide icon at the corner of the ruler.

Chapter 29

Paper Settings

The setting of paper colour has already been dealt with in the Colour System chapter. It is also possible to specify a number of other critical paper settings such as size and orientation by accessing the **Paper** window. This window may be brought up by pressing **Ctrl-Shift-A** or following **Main menu ▸ Edit ▸ Alter paper....**

This window has just a small number of important specifications. The main one that is likely to be changed is the size of the paper. Cerilica Vantage is shipped with a large range of standard paper sizes. To select one, open the menu icon to the right of the **Size** box.



The selected page size will be shown in the dimension information boxes. These dimensions are also linked to page orientation.

By default, all pages are shown as portrait. To alter any predefined page to landscape, ensure that **Sideways** is ticked.

The **Bleed** extend is also definable in any unit available. This bleed dimension represents the visible "overrun" of the page, but does not alter the actual paper size when it comes to printing. Neither does **Bleed** alter a page's origin.

The paper **Colour** has been dealt with in the Colour System chapter.

Specifying a non-standard paper size

To assign a paper size that isn't present in the extensive list available simply enter the new width and height dimensions in the relevant entry boxes. Note that as throughout Vantage, the units may also be specified so it is possible to state a paper size of **5cm** (wide) by **10in** (high).

Before you **Set** the new custom paper size, you may optionally provide it with a suitable name in the **Size** entry box.

Storing custom paper sizes for later sessions

To add a new custom paper size (to enter, see the previous section) for use in later sessions of Vantage, ensure you name it as desired and with the cursor in the **Size** entry box, press **Return**. The new paper name will now appear in the **Size** pull-down menu towards the bottom of the list.

Removing a paper size

To remove a previously added custom paper size, select it from the **Size** pull-down menu then select **Remove ticked paper** from the same pull-down menu.

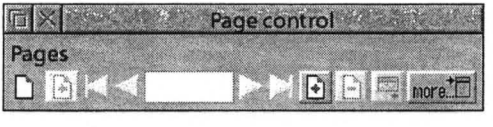
Pages

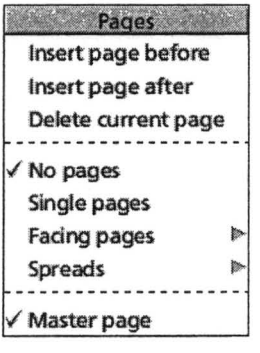
Cerilica Vantage is multipage capable just like a desk top publishing package or word processor. This means that a single file is capable of holding many pages which provides the ability to lay documents out sensibly. For example, a book or pamphlet has facing pages.

In addition to standard pages, Cerilica Vantage also offers a single master page for multi-page documents. All objects placed on a master page will be shown in the same location on all pages. Equally, any alterations to a master page will be reflected in all pages.

The Page control window

The **Page control** window may be opened by clicking on toolbar button (right) or by selecting **Main menu ▸ Utils ▸ Pages...**. The basic **Page control** window is shown below along with its **more...** menu to the right.





As by default, a Vantage document is a single sheet, it is referred to as a document with **No pages** in the **Page control** window. To create a multiple page document with an associated master page, there are three options; each being a different type of multipage document.

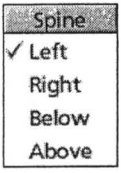
Single pages

Single page multipage documents are the simplest concept of the three. The equivalent of this type is in a classic word processor, that when reaching the end of a page, another page is provided in sequence. It is the same principle with Vantage except that new pages have to be created manually as it is not a word processor and therefore there is no automatic flow of text.

Facing pages

If you have ever used a desktop publisher like Computer Concepts' Impression, you will be aware of **Facing pages**. This is where "left and right" pages of a book-type publication are laid out on screen side-by-side. The two differences in Vantage is that only one of these pages may be seen at any one time, and that the spine can be placed on any edge of the page so not limiting the document to a left/right page setup.

By opting for **Facing pages**, you may only have pages in multiples of four on top of the single master page (which displays both a left and right page simultaneously to aid layout). This also applies to **Spreads**, which are explained next.



When following **Facing pages** ▸ from the pull-down menu, you are presented with the **Spine** sub-menu (left) with the options **Left**, **Right**, **Below** and **Above**. These orientations refer to where the spine will be placed in relation to page 1. For the majority of Western publications, this is typically the left edge (as with this manual). However, oriental publications may require right edge spines and alternative print jobs such as hanging calendars will be above or below.

The spine orientation may be altered at any stage.

Spreads

Whereas with **Facing pages**, it was only possible to see a single page at any one time, **Spreads** displays both pages as they would be printed. To imagine such pages, think of a simple folded A4 leaflet. The "front cover" and back cover are on the same side, whilst pages two and three are the inside spread. As with facing pages, following the spreads pull-down menu entry leads to the spine orientation option.

Difference between facing pages and spreads

You may be asking at this stage that apart from **Facing pages** displaying only one page, whilst **Spreads** displays two, what the actual *real* difference between the two are when it comes to designing and laying out multiple page documents.

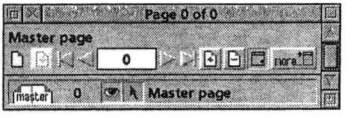
It is best to think of spreads as having a very raw control over how a physical sheet with two pages printed side-by-side appears. It is possible, for example, to have a single object which has been placed on the front cover to continue over to the rear cover under the **Spreads** system. On the screen, it will look like one large page with a simple non-printed dividing line down the middle where it would be folded.

Facing pages will not allow an object on the front cover to be printed on the rear one, when in reality this is possible as demonstrated by using **Spreads**, above. Therefore **Facing pages** leaves the individual pages much more segregated just like using facing pages in, say, Impression.

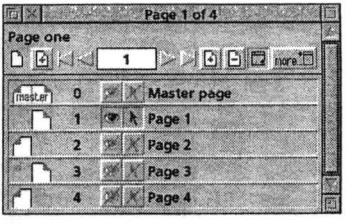
Creating a multipage document

To create a multipage document, click on (for the purposes of this explanation), **Facing pages** in the **Page control ▸ more...** menu. By doing this, Vantage places two pages side-by-side. This is because as soon as you modify a no pages file into a multipage one, the display automatically defaults to showing the **Master page.**

Expand the **Page control** window by clicking on the icon to the left of the **more...** button. The menu will then resemble the illustration, right.



As no extra pages have been created yet, select **Page control ▸ more... ▸ Insert page after** or simply click on the right "plus page" icon at the top of the window. This will result in the creation of four extra pages as shown, right (after maximising the window size). The title of the **Page control** window as well as the main Vantage document window also changes to something more appropriate.



The new **Page control** window has icons to help demonstrate what page is currently selected as well as an additional eye and pointer button per page which control view and selectability, respectively. It is possible to change page by either clicking on the page icons to the left, or the eye/pointer icon. Alternatively, pages may be changed through the use of the forward/back icons at the top of the **Page control** window or by pressing the **Page Up** and **Page Down** keys.

If there are many pages defined, you may find it simpler to just type in the page number you wish to edit (and press **Return**) or skip all the way to the first or last pages using the two outer-most arrows.

Creating objects on specific pages

To draw a new object on a given page, ensure that the page that you want has a highlighted eye icon present. Click on it if this is not the case.

Use Vantage as normal to create or edit work, except on this occasion it will appear on one particular page only. If the page were now changed, the object would vanish along with the page but may be brought back by selecting the original page once more.

Moving objects between pages

To move selections from one page to another, **Select-drag** the objects into the **Page control** window and drop them on the appropriate page icon at the far left of each page entry. The icon will animate to show that this operation is about to take place. Following this procedure, the view will automatically change to the new page.

Changing between page types

Whereas changing between **Facing pages** and **Spreads** is straightforward (just select the type of page you wish to change to from the menu), reverting back to no pages will destroy any page layout. Vantage asks, upon such a user request, what to do with any objects that have been drawn. One option when reverting back to no pages is to dump all objects on that single page. This could be a very dramatic choice if many pages have been created and extensively used. Therefore use with caution!

Deleting pages

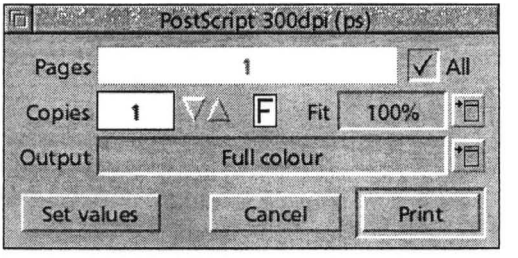
Pages may be deleted by clicking on the "negative" page icon (left) at the top of the **Page control** window.

Printing

The chapter simply covers the contents of the print dialogue box and its two associated sub-windows. Please note that other chapters in this manual cover further print issues such as inks and dotgain. Neither is it possible to explain within this chapter the intricacies of printing, image setting and the like; please refer to appropriate publications and equipment documentation.

Prior to opening the print window, first ensure that your printer driver is installed and loaded correctly. See your RISC OS documentation for further details.

To open the print dialogue window, either click on the print toolbar button (top, right), select **Main menu ▸ File ▸ Print...** or simply press the **Print** key. This will open the window as shown right. Note that the window title depends on the RISC OS printer driver currently selected.



Prior to explaining each aspect of this window, it may be useful to note the **Print margin** option found by following **Main menu ▸ View ▸** or by pressing **Ctrl-F11**. This changes physical page boundary rectangle to show the actual print margins. For more information on print margins, please refer to the RISC OS manual describing printer driver options.

Pages (including print order)

As Vantage is a multi-page capable package, it is possible to specify a page range when printing. This only applies if you have specified pages to be used in your document. In addition to this, this option also provides a way to determine the print order — ie. print up the page numbers, or down them.

To specify a range or order, untick **All** which will un-grey the **Pages** text entry box. This box can accept certain syntax to allow for a flexible range to be specified.

Ranges To specify a page range, place a hyphen between the page numbers. For example, to print pages 1 to 5, inclusive, enter **1-5**.

This may also be used to specify a reverse order by entering **5-1**.

Specific pages Individual page numbers may be entered by placing a comma between the numbers. For example: **1,6,8,11,12**

Even ranges Similar to basic ranges, it is possible to specify a range of pages (in any order) but only to print even page numbers. To do so, enter the letter **e** between the numbers like **1e32** which would print the even page numbers between 1 and 32.

Odd ranges As with even pages but determined by using the letter **o**. For example, **16o8**.

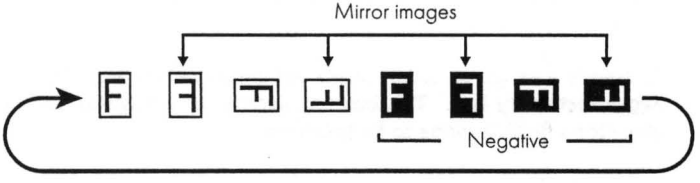
All forms of page range syntax may be used in combination, and example being **1-6,12,15,18o23,32e40** .

Copies

The **Copies** value, which may be types directly in or adjusted using the up/down arrows determines the number of copies to be printed.

Orientation

The page orientation icon allow for a quick and visual method to alter the printed page's orientation. By clicking on this icon shown left, you may cycle through the eight orientation states, every second being a mirror image and the last four being negative versions. See the sequence, below:



Set values

Clicking on this button ensures that the values entered in all print dialogue windows are maintained for when it is next opened.

Cancel

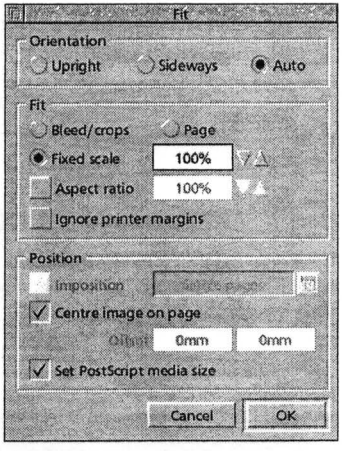
Closes the print window(s) without storing any changes or affecting a print.

Print

Print the document.

Fit

The **Fit** print sub-window, right, is opened by selecting the **Fit** pull-down menu from the main print window. This window allows for several page fit options for when printing.



Orientation

The default toggle option of **Auto** ensures that the print page orientation matches the orientation determined in the **Paper** setup window (see Paper Settings chapter).

The **Upright** and **Sideways** toggle options allow for the orientation to be determined manually. Note that these options follow the orientation icon found in the main print window.

Fit

The options found within this section allows Vantage to automatically determine the best scale to fit the printable area (taking note of the print margins). **Bleed/crops** will fit the page including these printer markings if set in print

Output window (see later), whilst **Page** will fit the page regardless of the **Output** window settings.

It is possible to set the print scale manually by highlighting the **Fixed scale** radio button and entering an appropriate value in the associated entry box.

The **Aspect ratio** option allows the page's printed aspect ratio to be entered.

By ticking **Ignore printer margins**, the automatic fit calculations will be based on the printer's page size rather than the printable area determined by the print margins.

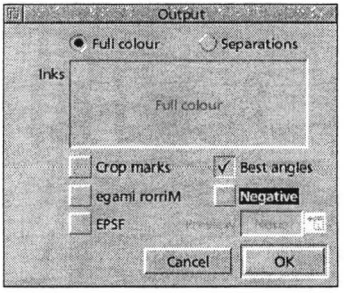
Position

By default the page will be printed centred on the page. Unticking **Centre image on page** allows an X and Y offset to be entered.

It is advised that **Set PostScript media size** remains ticked when printing to a PostScript device as this allows Vantage to specify the actual document page size. This size may differ from the page size determined in the printer driver and depending on the image setter, may be necessary to gain a correct output.

Output

This section is mainly intended for PostScript output — the only options of **Mirror image** and **Negative** being applicable to non PostScript devices and are duplicated on the main page's orientation icon.



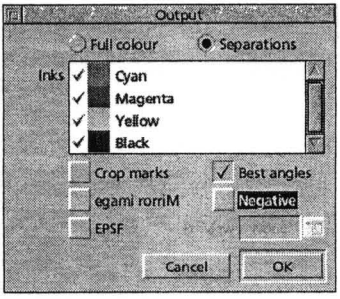
To open the **Output** print sub-window, left, click on the **Output** pull-down menu in the main print dialogue window.

Full colour and Separations

These toggle options determine whether each ink will be printed together as a full colour composite file (typically CMYK) or whether separate "plates" will be

produced. It is advised, due to the RISC OS printer drivers, that **Separations** are produced when commercially printing a document. This is especially the case if a non-CMYK ink setup is being employed.

Selecting the **Separations** toggle option, the window alters to that shown right. The previously black **Ink** well now lists all inks established in the document and allows each to be printed individually or not printed. To stop any particular ink from being printed, click on it to untick the separation.



Note that the option to print an ink or not is normally determined in the **New/Edit ink** ink setup window under **Separations... Don't print**. Please refer to the Colour System chapter for further details.

Crop marks

Crop marks are a printer's mark to enable alignment of multiple ink "plates". The Vantage tick option automatically creates such marks around the edge of the page. These marks are not displayed in the document window and only output when printing.

In order to view crop marks on a desktop print, select **Bleed/ crops** fit from within the **Fit** print sub-window. If, however, you are printing to an image setter for a commercial print, it is typical to maintain the 100% scale print as image setters are normally "over-size" and therefore capable of printing bleeds and crop marks without scaling down.

Best angles

It is very much advised that this option remains ticked. The possibility of Moire effects is very likely if unticked.

It is beyond the scope of this manual to explain screen angles fully. The angles determined in the ink setup window (see the Colour System chapter) are normally just approximations of what are really very finely tuned angles (up to four decimal place angular accuracy). Vantage documents are not capable of storing this level of accuracy (and it would be rather pointless) so refer to a best angles table found within !Vantage.

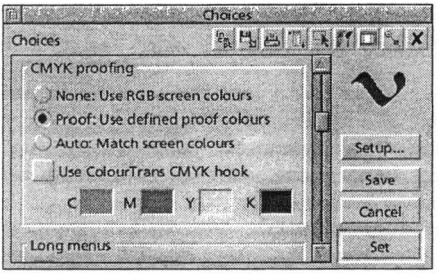
Mirror image and Negative

These two tick options, **egami rorriM** and **Negative** are duplications of the orientation icon found in the main print window (see earlier).

EPSF

This tick option allows the resultant PostScript file to be specified as an EPSF file. EPS files are designed to be embedded within documents, as described in relevant chapters of this manual. This option allows for a second form of EPS output (via the RISC OS printer drivers) but it is advised that if EPS output is required that such files are directly exported via the save window.

Print choices

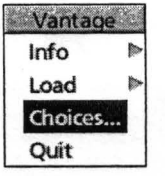


The Vantage **Choices** window, left, (open by **Adjust-clicking** on the Vantage iconbar icon) provides some extra colour control when printing through the RISC OS printer drivers (which are RGB-based and therefore typically destroy carefully selected ink values). This applies to composite colour printing, such as to desktop printers or PostScript with the **Full colour** option ticked. This is only a very brief overview as the technicalities can be rather daunting.

It is suggested that **Proof...** remains selected as this allows Vantage to best create a nearest-match output via the standard printer drivers. If you use Photodesk's advanced printer driver ink control software, you may find better results by selecting the **None...** option. The **Auto...** option is the least advised but depending on the printer, may provide some enhanced results, especially when the document contains RGB data such as vector clipart or bitmaps.

Finally, tick the **Use ColourTrans CMYK hook** when PostScript printing composite CMYK files. In order to take any affect, the !Boot enhancement supplied with Cerilica Vantage must have been copied over your !Boot structure.

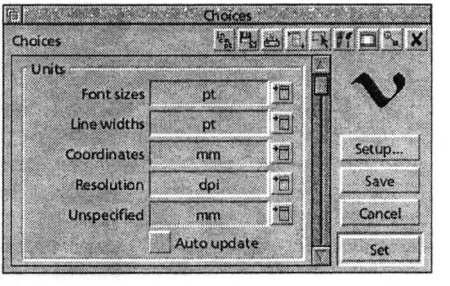
Choices and Settings



The Vantage **Choices** window provides a number of useful options to allow users to fine-tune many aspects of how the package functions. Some of the function-specific options have been covered in appropriate chapters whereas the ones detailed in this chapter tend to affect the package as a whole.

To open the **Choices** window, either opt for **Iconbar menu ▸ Choices...** or **Adjust-click** on the Vantage iconbar icon.

The **Choices** window, shown right, contains a scrollable internal window with various sections that may be accessed by either using the scrollbar or by clicking on the quick-jump button top right of the window. The help text line, top left of the window, states which section each button represents when the pointer is moved over them.

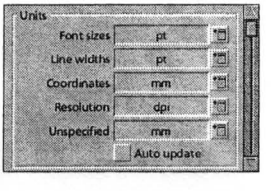


To apply any of the options, **Select-click** on **Set**. By **Adjust-clicking** on **Set**, the choice will be implemented but keeping the **Choices** window afterwards. Likewise, **Select-clicking** on **Cancel** closes the window without affecting any changes whilst **Adjust-clicking** on **Cancel** reverts to the previous setting and keeps the window open.

If you wish to save the changes for following sessions of Vantage, click on the **Save** button.

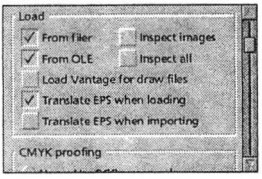
Units

The five unit options, selectable from the pull-down menus, allow each aspect of measurement in Vantage to be associated with a particular available unit. These affect information and entry boxes such as the attribute wells.



The **Auto update** tick option makes all changes (such as via the attribute wells) affect the objects being modified as the values are being typed.

Auto load



From filer, when ticked, will attempt to ensure Vantage will claim and load all Drawfiles run from the filer by double-clicking. Likewise, **From OLE** will load a file launched from within the !Scrap directory.

Inspect all and **Inspect images** typically remain unticked. Unticking these options allow all files, and images, double-clicking on in the filer to be inspected by Vantage to see whether their contents are of the Drawfile format/structure regardless of their settype. For example, !TableMate and !Vector both save natively as Drawfiles but set to their own particular type. If an inspected file is found to be of the Drawfile structure, it is loaded into Vantage.

Caution with this option as some applications that claim to adhere to the Drawfile format do not do so fully which may cause problems when Vantage attempts to load the file. This applies to !Vector.

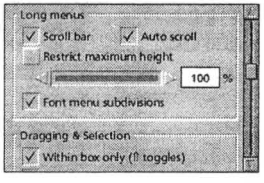
Load Vantage for draw files sets a RISC OS instruction to inform the filer that !Vantage is the application to load into when a Drawfile is run. Ticking this option can prevent !Draw, !Vector, or the like, from automatically loading Drawfiles in preference to !Vantage, but due to the RISC OS filing implementation, this can not be guaranteed.

Both **Translate EPS when...** options are covered in the chapter EPS Import (EPS Choices).

Colour proofing

These options are covered in the Printing (Print choices) chapter.

Long menus



Cerilica Vantage features a number of extensive pull-down menus, notably for colours. Cerilica has added some useful functionality to RISC OS when dealing with pull-down menus which don't normally fit in the height of the screen.

The **Scroll bar** tick option determines whether a scroll bar appears on large pull-down menus to enable the lower part of the list to be viewed. This is a standard method throughout RISC OS and is only an option here due to the following option.

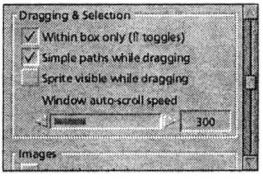
Auto scroll automatically scrolls the menu up or down when the pointer is at the visible ends of the pull-down window. This system eliminates the need to click-drag the optional scroll bars.

Be aware that unticking both previous options will mean that there is no way to access information "cut-off" by the screen size.

The tick option and associated slider of **Restrict maximum height** determines how much of the vertical screen size a pull-down menu should occupy.

Lastly, when selecting fonts from the standard RISC OS font pull-down menu system, Vantage subdivides the list into first letter alphabetical order with **Font menu subdivisions** ticked. This may be useful when dealing with a large list of fonts but some users may prefer to have the basic font menu as presented by the majority of RISC OS applications.

Dragging & selection



When in the **Select tool**, an area is dragged out to select objects, when the option of **Within box only...** is ticked, only objects fully enclosed in the drag will be selected. By holding down **Shift**, all objects fully or *partially* within the drag area will be selected. This tick option can reverse this characteristic.

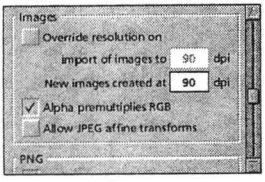
Simple paths while dragging is normally ticked and determines that only object outlines will be displayed for positioning when dragging an object(s) around the page. Unticking this option will ensure the object area will be displayed whilst being dragged.

Likewise, **Sprite visible while dragging** allows the sprite to be represented fully when drag-moved around the page.

When dragging objects and nearing the edges of the page view, Vantage automatically scrolls the view so that the object may continue in any particular direction. The value on the

Window auto-scroll speed provides a way to control the speed in which the window is automatically scrolled.

Images



All options in this section are covered in other chapters:

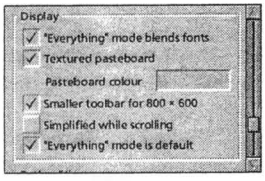
Override resolution on import... — see Bitmaps (Resolution)

New images created at... — see Bitmap Export (Bitmap resolution and area exported)

Alpha premultiplies RGB — see Bitmap Export (Alpha channel)

Allow JPEG affine transforms — see Bitmaps (JPEG images)

Display



"Everything" mode blends fonts is a tick option that allows RISC OS 3.5+ to perform full font anti-aliasing against the background if the document is viewed in "everything" mode. Normally the system-wide font manager blends text lines to a single colour background which can give "halo" effects, especially if the background is variable. This option therefore gives a better quality of image.

Note that when exporting bitmaps, Vantage automatically converts text to paths internally in order to allow Vantage's highly advanced rendering system to operate. Therefore this option doesn't affect bitmap export on any version of RISC OS.

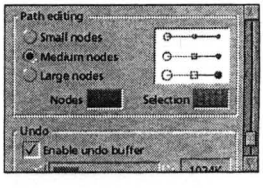
Both the **Textured pasteboard** and **Pasteboard colour** options control the appearance of the pasteboard area around the page. Unticking the **Textured pasteboard** option, the pasteboard will appear as a flat colour, whereas clicking on the **Pasteboard colour** colourwell will allow a new RGB colour to be defined.

By default **Smaller toolbar for 800 × 600** is ticked to ensure that the toolbar is fully visible at lower screen resolutions. If you normally operate at a resolution of 1200 × 1024 and above, you may wish to deselect this option which will make the toolbar narrower and therefore provide more design area.

When editing a document in "everything" rendering mode, panning around the page and dragging overlaying windows across the page can sometimes be delayed by redrawing of newly displayed sections. This is especially the case if the document's contents are complex objects such as special fills. To aid this situation, ticking the **Simplified while scrolling** option will temporarily redraw new sections in simple mode until no further activity is detected.

Due to the need to have the "everything" renderer selected in order to view special fills, etc., the **"Everything" mode is default** is set by default and recommended. Note that this choice is overridden if the view setting automatically saved with the document is either "simple" or "outlines".

Path editing



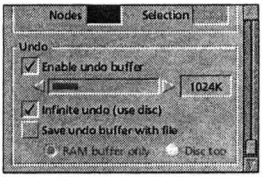
Editing a path can take place in a variety of situations from the **Path tool** to editing a radial fill trajectory. On each occasion, the size of the shapes used to represent the different sorts of nodes can be selected on this part of the **Choices** window.

In addition to this, it is possible to specify the colour of the nodes used for editing as well as the bounding box colour. The two RGB colour wells (**Nodes** and **Selection**) alter these respectively.

It may be useful to note that some user's preferences are to remove all view of the bounding box rectangles employed around all selected or edited objects. To do so, set the **Selection** RGB colour to white.

Undo

These options are covered in the Undo and Redo chapter.



Setup

The **Setup...** button found in the **Choices** window opens the "Setup" directory within !Vantage. This directory contains a number of useful resources including various pre-defined Vantage drawfiles with various ink setups. For example, the "RGB" file is used in the RGB Simulation chapter.

A useful pair of "ink files" may be found in the Hexachrome directory. Hexachrome is Pantone's ink system to introduce a greater colour gamut than conventional CMYK to the print industry. The two variations of this system found in this directory are setup intentionally for output to a hexachrome device. However, caution must be taken when using these files — it is recommended that a stecastic screening is employed to eliminate a moire effect that will ensue with "conventional" screening. Not all image setters are capable of producing stecastic screening, so please ask your publisher or printer.

Certain text files found within the Setup directory are also user-editable such as "Recent" (if you wish to wipe the history list found on the iconbar menu) and "OLE" which controls which application should be targeted for object types.

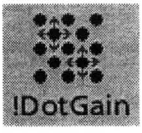
Settings

Vantage automatically saves the following user options with each document:

- Rendering mode
- Use of interactive tool
- Window location and scroll bar loaction
- Page zoom level and previous level
- Separations being viewed (if any)
- Lighting conditions
- Crosshair pointer option
- Print margin on/off

Note that if a document is displayed in multiple views, the settings apply to the view from where the save was applied.

!DotGain



This support application supplied with Cerilca RiScript is to be used in conjunction with PostScript printer drivers. Even though it is essential when ink control is paramount when outputting from Vantage, it can also be used in conjunction with any package printing through the PostScript printer drivers.

Dot gain overview

It is beyond the scope of this manual to fully describe the technicalities of dot gain and it is suggested that specialist publications are referred to.

However, in brief, the physical occurrence of dot gain is due to the variation of stock (typically paper) being printed onto. Newspaper is a course paper and therefore bleeds any ink applied to it. This bleeding gives the appearance of a greater application of that ink onto the paper.

Vice versa, printing on to high quality coated paper ensures that ink barely bleeds once applied (ie. it remains largely as intended).

To compensate for ink bleeding (which affects the resultant colour effect), !DotGain can specify a value by which to adjust the ink application by. The lower the dot gain value entered in the DotGain window, the lower the ink is set to bleed.

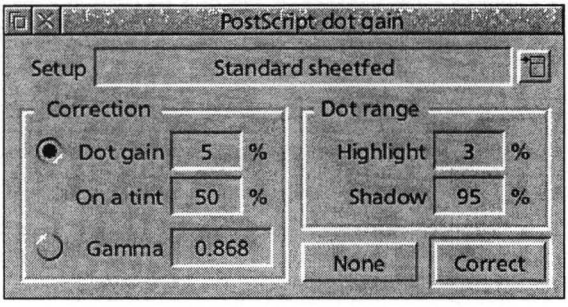
The definitive source of dot gain value for any particular stock is your commercial printer.

Using !DotGain

Prior to using !DotGain, ensure that an appropriate PostScript printer driver is installed. These drivers were supplied as standard with all RISC OS desktop machines. Please refer to your machine's documentation for how to install, configure and enable these drivers.

The latest drivers and definitions are available from RISC OS Ltd.

Having loaded and enabled the PS printer driver you wish to apply a dotgain to, load !DotGain. Clicking on the icon brings up the settings window as shown below.



As can be seen, the default setup is for a sheetfed printing process (typical) and the pull-down menu lists other pre-determined types. Note that the pre-described dotgains are generic and may require modification for specific setups.

To detail a new dotgain specification (the best source of this information is your commercial printer), click on the **Dot Gain** or **Gamma** radio buttons and in the newly editable text wells, enter a new value.

A dotgain correction may be specified in either percentages on a tint of X or (more unusually) with the decimal gamma value.

The **Dot range** on the right declares the smallest and largest discernible percentage ink printable before no or 100% ink is applied (respectively).

Once you have specified a new set of correction values, you may enter a name in the **Setup** text entry box and press **Return** to store for later use (at which point it is added to the pull-down menu list).

To apply the correction to the printer definition currently active, click on **Correct**. By selecting **None** you are removing all dotgain correction from that printer definition.

Resources

Cerilica recognises that Vantage is not designed to work in isolation under RISC OS. It was designed from the outset to co-operate with DTP and design packages, utilities and other commercial and "freeware" products. This chapter gives a list of resources users of Vantage may find useful. Many more RISC OS-aware companies exist world-wide and details may be found on both the internet and printed publications.

Design and publishing software

RiScript (Full PostScript interpreter and PDF reader/creator)
Available from Cerilica direct in UK or overseas dealers:
Cerilica Limited, PO Box 40, Ross-on-Wye, HR9 7WH
www.cerilica.com

Ovation Pro (DTP package)
Available from most RISC OS dealers or direct from:
David Pilling, PO Box 22, Thornton Cleveleys, Blackpool, FY5 1LR
www.pilling.demon.co.uk

Photodesk (Image editing, CMYK-capable)
PhotoReal (advanced colour-control printer drivers)
Photodesk Limited, 1 The Courtyard, Southwell Business Park, Portland, Dorset, DT5 2NQ
www.photodesk.ltd.uk

Studio24 Pro (Image editing, CMYK-capable)
Pineapple Software, Suite 1, 310 Green Lane, Ilford, IG1 1XT
www.pineaple.demon.co.uk

TextEase (Education and home-based DTP package)
Softease Limited, Market Place, Ashbourne, Derbyshire, DE6 1ES
www.textease.com

TechWriter (Scientific and technical word processor)
Icon Technology, Church House, Church Street, Carlby, Lincolnshire, PE9 4NB
www.icontechnology.net

Printed publications

Acorn User (On-the-shelf and subscription monthly)
www.acornuser.com

Acorn Publisher (Subscription bi-monthly design and publishing)
See opposite page and Akalat Publishing, below.
Telephone 01582 881614

Archive (Subscription monthly)

Vantage-aware publishers and printers

Akalat Publishing (Publishing)
"With our experience of producing Acorn Publisher over many years Akalat Publishing can advise on all your design and print needs. We can scan your images, generate your film and print to your requirements, including both litho and digital printing. We can accept your files in all standard RISC OS formats including Vantage, Impression, Ovation Pro and ArtWorks. We can also convert between RISC OS formats and standard PC/Mac formats where necessary."
PO Box 231, Barton, Bedford, MK45 4HQ

Micro Laser Designs (Image setting and printing)
105 Midford Road, Combe Down, Bath, BA2 5RX
www.mld.co.uk

Printmaker (Screen and wide format printing and vinyl cutting)
14-16 Eldon Terrace, Reading, Berkshire, RG1 4DX
www.printmaker.co.uk

T J Reproductions (Scanning, image setting and litho printing)
34 Linton Drive, Andover, Hampshire, SP10 3TT

Vantage-aware designers

Graphite Design and Presentation
"We specialise in graphic design work for all applications, whether you need original graphics or wish to update an old image. Our design service is perfectly complimented by our web site design and hosting facilities. With all your design requirements under one roof we can apply our knowledge of your business to all aspects of your marketing strategy, saving you both time and money."
10 Vallis Way, Frome, Somerset, BA11 3BD
www.graphitedesign.co.uk

Article Seven

"In addition to our mainstay of automated, robust, open-access Internet design, Article Seven offers a full graphic design and document production service, including the creation of visual identity packages for organisations of all kinds, or design and layout work for non-Internet multimedia presentations. We work together with you to achieve imagery and information presentation that works in both printed and screen forms, encapsulating the goals, history and vision of your organisation."

20 Hipley Street, Old Woking, Surrey, GU22 9LQ
www.article7.co.uk/visuals

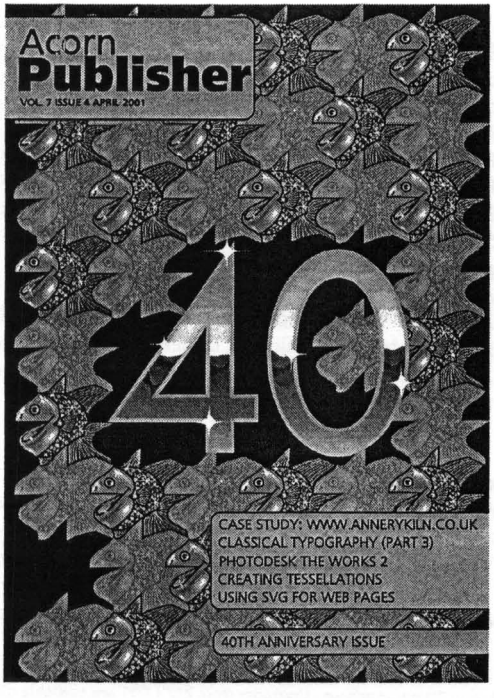
article seven

2komma18

"2komma18 is design and communication.
We communicate to design and design to communicate."

Kelvinstraat 32, 5223 GE 's-Hertogenbosch, The Netherlands
www.2komma18.nl

2komma18



Acorn Publisher - probably the best looking and most readable RISC OS magazine.

Acorn Publisher covers everything there is to know about dtp, graphics, image processing, and web page construction and design. Essential reading for all users of Acorn RISC OS systems. Major series cover Scanning and Image Processing, Cerilica Vantage, Ovation Pro, Photodesk and other appliactions.

Every issue of Acorn Publisher is full of informative practical advice on achieving the best results with your RISC OS system.

Acorn Publisher is published six times a year and is available only on subscription.

Current subscription rates: £29.95 (UK), £34.95 (rest of Europe), £39.95 (elsewhere). Please phone or email for details of special offers on new subscriptions.

See opposite page for contact details.

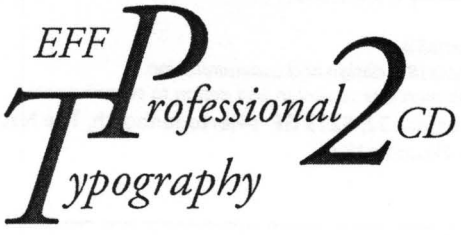
Fonts

Also available:

- Individual fonts from our type library of over 1,300 typefaces for over 60 languages for Risc OS, Windows or Mac
- Specialist and custom made fonts
- EFF TrueType Translator (Windows font converter)
- EFF Type 1 Translator (PostScript – Windows and Mac – font converter)
- EFF Font Table (an application for producing customised font tables)
- EFF 1 CD (best selling 500 professional Risc OS fonts)

If you would like further information on any of our products, or have any questions, please contact us:

The Electronic Font Foundry
11 Silwood Road, Ascot, SL5 0PY
www.eff.co.uk



EFF 2 Professional Typography CD

- 805 highest quality typefaces for Risc OS and Windows computers – the professional solution to cross-platform compatibility
- All fonts supplied in four formats: Risc OS 3, Risc OS Publisher, Windows TrueType and Windows PostScript
- Fonts grouped into traditional typographic categories: Old Style, Transitional, Modern, Slab Serif, Flare Serif, Sans Serif, Monospaced, Script, Blackletter, Display and Designer plus five bonus Pi fonts
- All fonts supplied in full Latin1 set including Euro
- All fonts fully hand-hinted, with complete links and skeletons to ensure highest quality results on all media
- A source of information about typography, type history, fonts, alphabets and languages

Special offer!

Cerilica Vantage customers can obtain the most professional RISC OS font CD at the discount price of £98.50, fully inclusive of VAT and package and postage — £20 off the normal price.

Contact Cerilica to obtain your impressive collection of fonts.

Only one CD per purchase. Upgrades from EFF's CD1 are available direct from EFF. Cerilica reserves the right to withdraw this promotion without prior notice.

Keyboard Short Cuts

Key (^ denotes Ctrl)	Action without Shift	Action with shift

Select mode

^A	Select all	
^C	Copy to clipboard	Copy in place
^G	Group	
^M		Open Magnify (scale) window
^R		Open Rotate window
^V	Paste from clipboard	Paste in place
^X	Cut to clipboard	
^Z	Clear selection	
F5	Left align	Top align
F6	Centre	Middle
F7	Right align	Bottom align
Delete	Cut to clipboard	
Tab	Next selected object	Previous selected object

Path editor mode

^A	Select all nodes	Select all subpath nodes
^H	Delete selected nodes	
^M	Close subpaths	
^R	Reverse selection	Reverse selected subpaths
^Z	Clear selected nodes	Clear selected object (stop editing)
-	Delete selected nodes	
+	Insert node into selected segments	
C	• Make selected segments curves • Curve creation mode	
D	Make selected nodes dynamically smooth	
E	Node selection mode	
F	Freehand mode	
H	Make selected segments horizontal	
L	• Make selected segments lines • Line creation mode	
S	Smooth selected nodes	
N	Insert node into selected segments	
O	Split path at selected node	
V	Make selected segments vertical	
W	Make selected nodes corners	
F5	Left align selected nodes	Top align selected nodes
F6	Centre selected nodes	Middle selected nodes
F7	Right align selected nodes	Bottom align selected nodes
F8		Distribute selected nodes vertically
^F8	Distribute selected nodes horizontally	
Delete	Delete selected nodes	
Insert	Insert node into selected segments	

Key (^ denotes Ctrl)	Action without Shift	Action with shift

Text mode

If selection:		
Any text	Replace selection with text	
Any delete key	Cut selection	
Any cursor key	Clear selection (except Ctrl-Shift-cursors)	
^C	Copy selection to clipboard	
^K	Kill selection (does not use clipboard)	
^S	Swap case of selection (clears selection)	
^V	Replace selection with clipboard text	
^X	Cut selection	
^Z	Clear selection	
If no selection:		
Backspace	Delete previous character	
Delete	Delete left regardless of orientation	
Copy (End)	Delete right regardless of orientation	
Left/Right cursor	Move cursor left/right regardless of orientation	Shift left/right word
^Left/Right cursor	Left/right end of text	Extend selection left/right
Up/Down cursor	Start/end of text	
^Up/Down cursor		Extend selection to far left/right
Home	Move cursor to start of line	Move cursor to end of text
^@	Select all text (will be paragraph)	
^A	Select all text	
^D	Cut word at cursor	
^L	Select whole line	
^Q	Select word at cursor	Swap characters around cursor
^R		Toggle encoding remapping
^S	Swap case	
^V	Paste text from clipboard	
^W	Spellcheck word at cursor (see documentation)	Select word at cursor
Insert	Paste text from clipboard	
Copy		Delete from cursor to end of line
^Copy	Delete whole line	

Common

^A		Alter paper
^B	Move to back	Move backwards
^D	View scale 100%	Edit dash patterns
^F	Move to front	Move forwards
^I	Merge selected paths	Edit inks
^K	Clone/Delete	
^N	Make shapes	
^O	Split paths	
^Q	Double view scale	
^R	Previous view scale	

Key (^ denotes Ctrl)	Action without Shift	Action with shift
^U	Ungroup (untag)	
^W	Halve view scale	
^X		Mirror X
^Y		Mirror Y
+	Increase (cog/polygon)	
	-Decrease (cog/polygon)	
Escape	Stop current operation	
F1		Sprite palette window
^F1	File info window	Grid window
F2	New view	New file
^F2	Close view	Goto master page
F3	Save window	Quick save
^F5	New colour window	
^F6	Edit colour window	View everything
^F7		View simple
F8	Undo	
^F8		View outlines
F9	Redo	
^F9	Zoom window	
^F11	Toggle print margins	Toggle rulers
Print	Print window	
PageUp	Previous page	
^PageUp	First page	
PageDn	Next page	
^PageDn	Last page	

Chapter 36

Index

E

F

G

H

I

J

K

L

M

N

T

U

V

W

Z