ArtLine™

GETTING STARTED.

This Read Me file will allow you to quickly start working with ArtLine and see how powerfull it is.

Print this document and carefully follow its instrucions.

ArtLine is a powerfull vectorization and edition tool.

It allows the vectorization and correction of colour or black and white artworks. An artwork or template (bitmap) is an image that has been scanned and therefore acquired as black and white points: the pixels. A template can't be properly edited (scaled, skewed, etc.) without being first vectorized. By vectorizing a template, you convert it into **paths, defining borders between colours and/or gray levels**. The vectorization algorithms used in ArtLine are of such a good quality that the converted files are ready for use. However some dust or other flaws due to either a bat original or bat scanner will be even bigger after scaling up the converted file. Therefore powerfull editing tools allow you to quickly and easily fix these.

ARTLINE'S KEY FEATURES.

- Colour and black/white vectorization.
- Alignment of a logo with an axis.
- Sharpening rounded or truncated corners.
- Rectifying point alignment.
- Suppressing unnecessary points.
- Converting flat curves into straight lines.
- Smoothing curves.
- Path editing.
- Scaling, turning, slanting, applying symmetry, perspective, envelope…
- ImportingTIFF, Pict and MacPaint formats.
- Driving scanners via Twain.
- Exporting to Illustrator compatible formats and DXF.
- Printing on colour and black/white printers, either PostScript or QuickDraw.
- …

GENERAL TIPS:

It might be necessary to allocate more RAM to the application to allow for the opening of large size or/and high resolution files. Note that a A4 size document scanned at 300 dpi is about 1 MB.

To increase the allocated memory, quit the application, select the application's icon in the Finder and choose Info from the File pull-down menu. Type in the required amount of memory. Close the window.

The templates usually use a lot of hard disk space, so don't forget to regulary trash them.
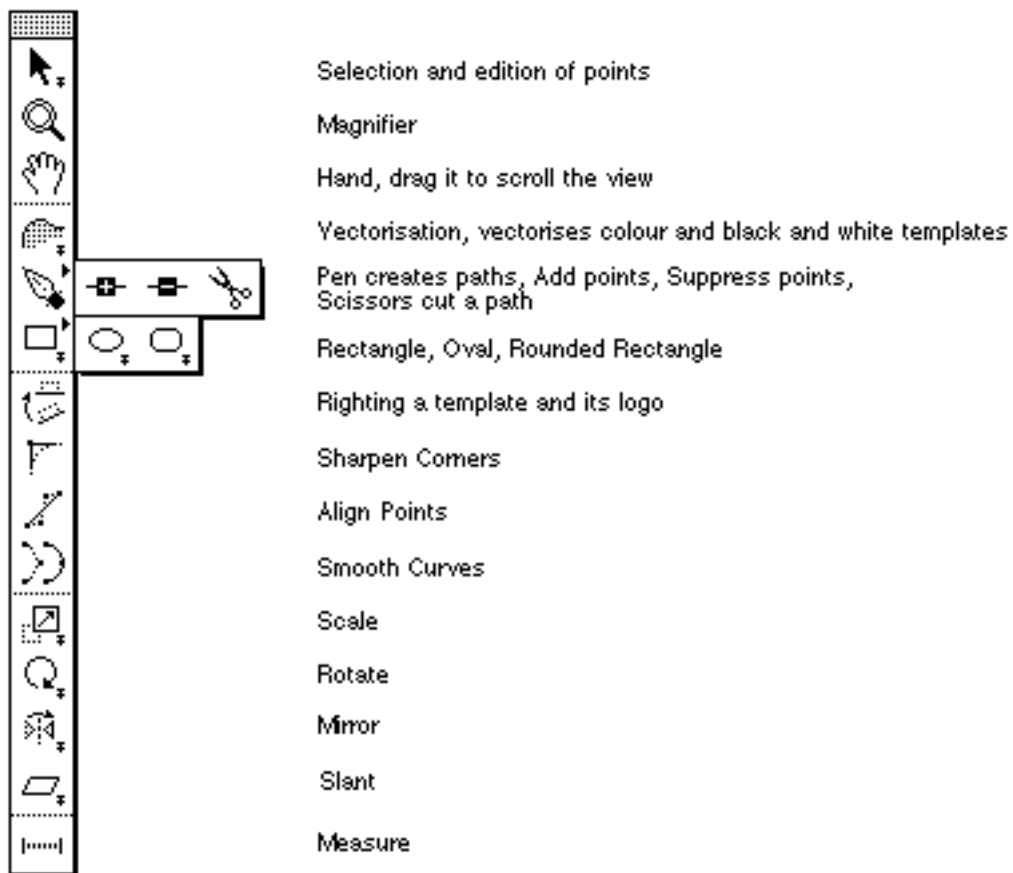

SCANNING TIPS:

Some scanner drivers allow you to save the scanned files in a compressed format. If this is your case, please select this option as you will save disk space.

If the original document has inaccurate or faded borders, it might be usefull to scan it at a lower resolution. The higher the resolution the bigger the flaws and dust will be. Keep in mind that you'll also reduce the quality of the details!

We do not recommend scaling up originals on a copy machine since their resolution is far from being good enough. Dust and flaws will be added and some details will be lost.

When working on full colour documents you must accurately set contrast and luminosity levels in order to obtain a high quality template. If the colours have about the same luminosity, increase the contrast. If luminosity shift is high, reduce the contrast, but never use a low contrast. The darker the colours are, the higher you must set the luminosity. The lighter they are the lower you must set the luminosity.

The tool palette:

	Selection and edition of points
	Magnifier
	Hand, drag it to scroll the view
	Vectorisation, vectorises colour and black and white templates
	Pen creates paths, Add points, Suppress points, Scissors cut a path
	Rectangle, Oval, Rounded Rectangle
	Righting a template and its logo
	Sharpen Corners
	Align Points
	Smooth Curves
	Scale
	Rotate
	Mirror
	Slant
	Measure

Tools available from the Object and Path pull-down menus:

- Align elements
- Join Path
- Hide and Show Template

When launching ArtLine, an empty document appears on the screen: this is your working window.

You may:

Open Illustrator compatible EPS in order to retouch them.

Open TIFF-PICT-MacPaint templates, in order to vectorize them and possibly retouch them.

Acquire images directly from a scanner.

Open the template Pad.TIFF located on your demo floppy.

It'll appear as a background image.

YOUR FIRST VECTORIZATION.

Select the vectorization tool ▦ from the tool palette.

Vectorize part of the template by rectangle select the zone to be converted. This allows you to check your convertion parameters before converting the whole template.

Click on the template to entirely vectorize it.

Set your vectorization parameters:

Double click on the vectorization tool ▦ from the tool palette.

The Vectorization Settings dialog box appears. It allows you to specify:

Tolerance: This setup determines the number of obtained points and has to be chosen in the light of the resolution, quality and complexity of the template.

Increasing the tolerance reduces the number of points produced. If some details are missing or if the paths fail to provide a sufficiently accurate representation of the template, the tolerance needs to be reduced.

Reducing the tolerance increases the number of points produced. Unwanted details or templates defects are reduced by increasing the tolerance.

The tolerance needs to be set as accurately as possible in order to achieve the best results, so it's best to make a few trials first on a representative part of the template.

Ignore Dust: This makes it possible to ignore small unwanted areas of the template such as specks of dust. Adjust the value to the maximum size of unwanted areas of the template.

Make a few trials using different settings on a representative part of the template.

Original template

Tolerance = 0,5

Tolerance = 1,8

Tolerance = 5

The convertion of colour templates works the same way than for black and white. In such cases, set the number of colours used in the template (including black and white), click OK and then vectorize.

You can use two different colour convertion methods, Drawing or Photo. Choose Drawing to suppress parasites and/or intermediary colours in the planes of the scanned template. Choose Photo to respect all the colours and gradations.

When vectorizing a template coming from a scanner, the user may encounter some problems depending of the quality of the original. These problems are more apparent when scaling up the logo.

These problems are:

- The template is not properly positioned in scanner.
- Corners are rounded or truncated.
- Unwanted details (dust,...)
- Points are not properly aligned.
- surplus points.
- Flat curves instead of straight lines.
- Curves are not smooth.

In order to simplify the users work, curves are standard lines while straight lines are dashed lines.

Thanks to ArtLine tools the user will be able to retouch your logos easily.

ALIGNING THE LOGO.

Use the arrow tool to select at least two points determining a reference axis.

Click on the righting icon ⌖ to open the dialog box.

The Rotate Logo dialog box appears and allows you to align the axis made up by the selected points either verticaly, horizantaly or following any angle.

Original   After rightening
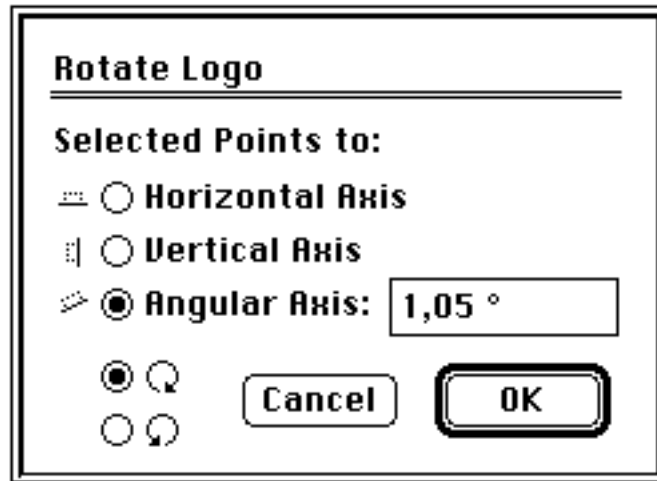
SHARPENING CORNERS.

This powerfull tool corrects and sharpens corners into perfect ones.

Select the Sharpening Corners option ⌐ in the tools palette.

You can work in two different ways:

1. Select the points of the corner to be adjusted. You may select multiple points by pressing the shift key while selecting them.

Click on "Sharpen Corners"

Repeat these steps until all required corners are sharpened.

2. Use the search and correction buttons.

Specify the search parameters:

Tolerance : The small lines of the corners being sought are at the maximum distance from the tolerance in relation to the extension of the lines surrounding the corner.

Min. Angle: Only the corners forming this minimum angle are found.

Each time you click "Find", ArtLine selects the next corner meeting the Tolerance and Min. Angle settings.

Repeat these steps until all required corners are sharpened.

The "Sharpen and Find" button rectiifies the selected corner or corners and finds the next one.

If you click "Find All" ArtLine will select all the corners to be rectified.

Then click "Sharpen Corners" to rectify them.

Before correction   Find a corner to sharpen   Sharpen selected corner   Find and sharpen all corners
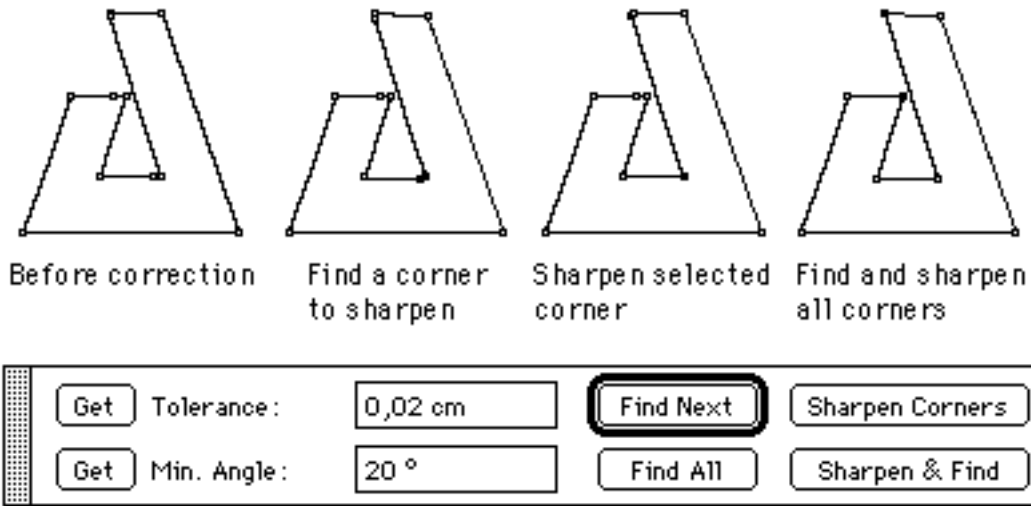
REMOVE SMALL IMPERFECTIONS.

The "Sharpen and Find" tool is also extremely useful for removing small imperfections or defects concerneing a path, even when the lines surrounding it are almost an extension of each other.
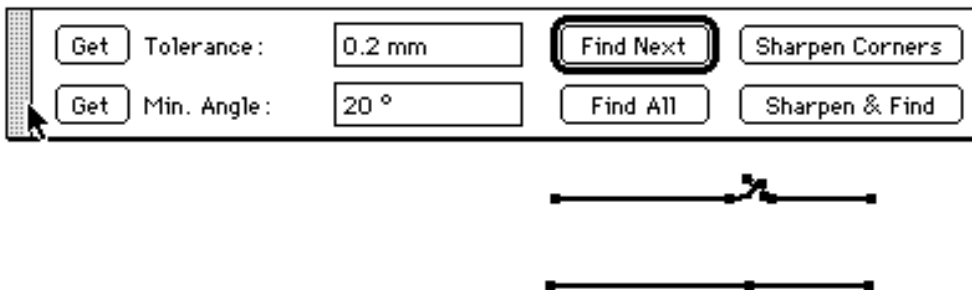
SMOOTHING CURVES.

This tool is used for finding and rectifying curves that are almost tangent to a straight line or another curve.

Select the smoothing curves tool ⟩⟩ in the tool palette.

You can work in two different ways:

1. Select the points of the curves to be smoothed. You may select multiple points by pressing the shift key while selecting them.

Click on "Smooth Points"

Repeat these steps until all required points are smoothed.

2. Use the search and correction buttons.

Specify the search parameters:

Tolerance : During a search only curves reaching the maximum tolerance are found.

Clicking on **Get** provides the angle value of the curve formed by selected points


Each time you click "Find", ArtLine selects the next curve point meeting the Tolerance.

Repeat these steps until all required curves are smoothed.

The "Smooth and Find" button rectiifies the selected point or points in aligning their tangent and finds the next one.

If you click "Find All" ArtLine will select all the points meeting the criterion.

Then click "Smooth Points" to rectify them.

Before smoothing   After smoothing
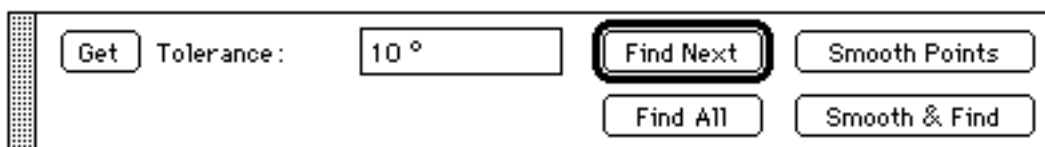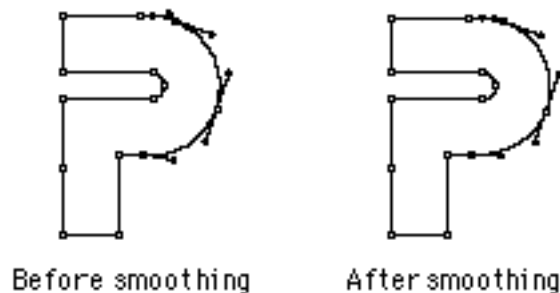
ALIGNING POINTS .

This poweful tool does different corrections simultaneously.

It will align points, delete unecessary points and convert flat curves into straight lines.

Select the "Aligning Points" tool ✎ in the tool palette.

You can work in two different ways:

1. Select the points to be aligned.

When Ref. Angle is not ticked off, and you click the "Align Points" button, ArtLine will align points located in the tolerance zone oriented according to an average angle. Moreover, it will convert the flat curves into straight lines while deleting unecessary points.

When Ref. Angle is ticked off, and you click the "Align Points" button, ArtLine will take this angle into account, will align the points on an axes following the reference angle while converting flat curves into straight lines and removing unecessary points.

Clicking on **Get** calculates the reference angle of the axis through the selected points. At least two points have to be selected in order to read their angle. If more points are selected, the average axis between them is calculated.

2. Use the search and correction buttons.

Specify the search parameters.

Tolerance : The lines being sought are the at a maximum distance from this tolerance in relation to the reference axis.

Ref. Angle: When this box is ticked off, the angle is taken into account, otherwise it is ignored and the reference axis will pass though the selected points If the box is ticked during a search the reference axis will always have the angle indicated.

Each time you click the "Find" button, ArtLine selects the points meeting the tolerance and which are unproperly aligned. These points may eventually follow the shape of a flat curves and therefor will include unecessary points.

Repeat these steps until all required points are smoothed.

When Ref. Angle is not ticked off, and you click the "Align Points" button, ArtLine will align points located in the tolerance zone oriented according to an average angle. Moreover, it will convert the flat curves into straight lines while deleting unecessary points.

When Ref. Angle is ticked off, and you click the "Align Points" button, ArtLine will take this angle into account, will align the points on an axes following the reference angle while converting flat curves into straight lines and removing unecessary points.

Clicking on **Get** calculates the reference angle of the axis through the selected points. At least two points have to be selected in order to read their angle. If more points are selected, the average axis between them is calculated.
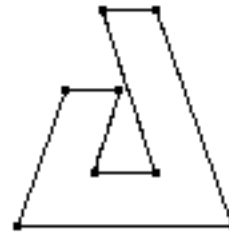

The "Align and Find" button aligns the selected points and search the next points to be aligned.
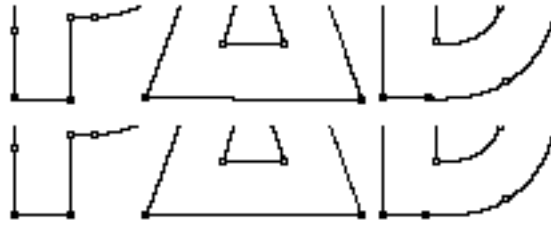
Find and align points to align them on an axis
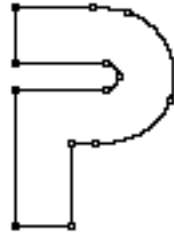
Find and suppress
unnecessary points

Find and convert flat
curves into straight lines

| Get | Tolerance: | 0,02 cm | Find Next | Align Points |
| Get | ☐ Ref. Angle: | 0 ° | | Align & Find |

If you have any questions, comments or suggestions, please do not hesitate to contact Free Soft at the numbers shown below.

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