Getting Started with VCarvePRO 4

Tutorial
Engraving Badges

Vectric

Disclaimer

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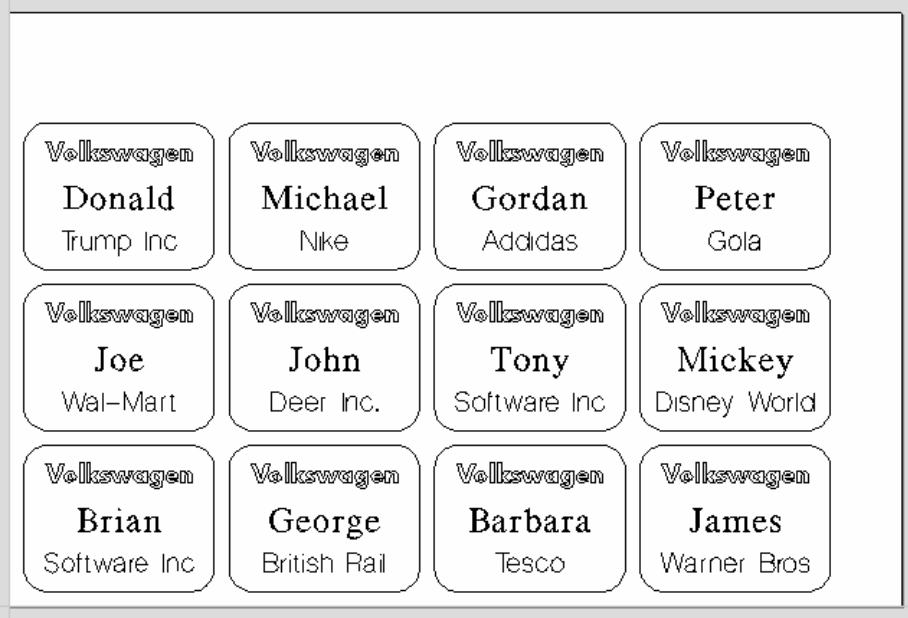
Table of Contents

This tutorial explains step-by-step how to use VCarve Pro to design and engrave a batch of badges / nameplates using a list of names and information imported from a text file.

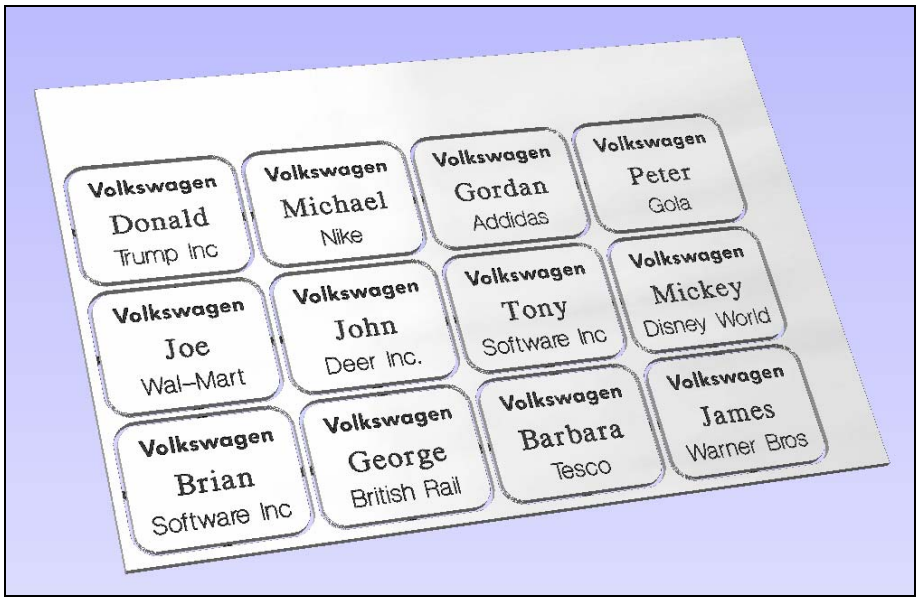
Summary of the Plate Production functionality

The Plate Production functionality is used when lots of identical badges or plates need to be engraved with different content such as people's / company names. The data needs to be available as a text / database file that contains all the names etc. required on each badge. By setting up a master template that represents the finished badge, all of the additional badges can then be engraved using this for the format and placement.

This functionality is typically used by engravers making badges from a database file supplied by a customer, but could also be useful for making nameplates for hotel rooms with consecutive numbering.



Multiple Badges automatically designed ready for engraving



3D Preview of toolpaths for engraving the badges

The general procedure for using the Production Plate functionality is described below.

1. Draw and Setup the Master Template

Create a New job and specify the **Material Size = the Sheet size** the badges will be engraved from.

For example you may have 12" x 8" (300mm x 200mm) sheet of plastic laminate.

Draw and layout the badge / plate at the required size and using the Vector drawing and Text Tools add variables where imported data / text is required.

Variables are defined using **double exclamation marks !!** at the start and end of the variable name.

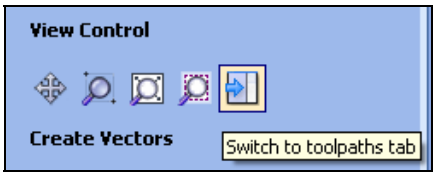
Master Template for the plate / badge

Note Logos, borders and graphics etc. can also be imported and added to the template.

2. Calculate Toolpaths

When the Master Template has been drawn open the **Toolpath Tab** on the right side of the interface.

From the **View Control** section click on the icon to **Switch to the Toolpaths Tab**  that closes the left hand interface and opens the toolpath options on the Right Side of the screen.



This automatically **closes** the **Drawing Tab** and **opens** the **Toolpath Tab** on the **Right** side of the screen as shown below.

Select the different elements in the template design and calculate the required engraving toolpaths for each part of the badge design.

For example, calculate a **Quick Engraving** toolpath for the text and logos and a separate **Profile cut-out toolpath** around the outer edge to cut out the design.

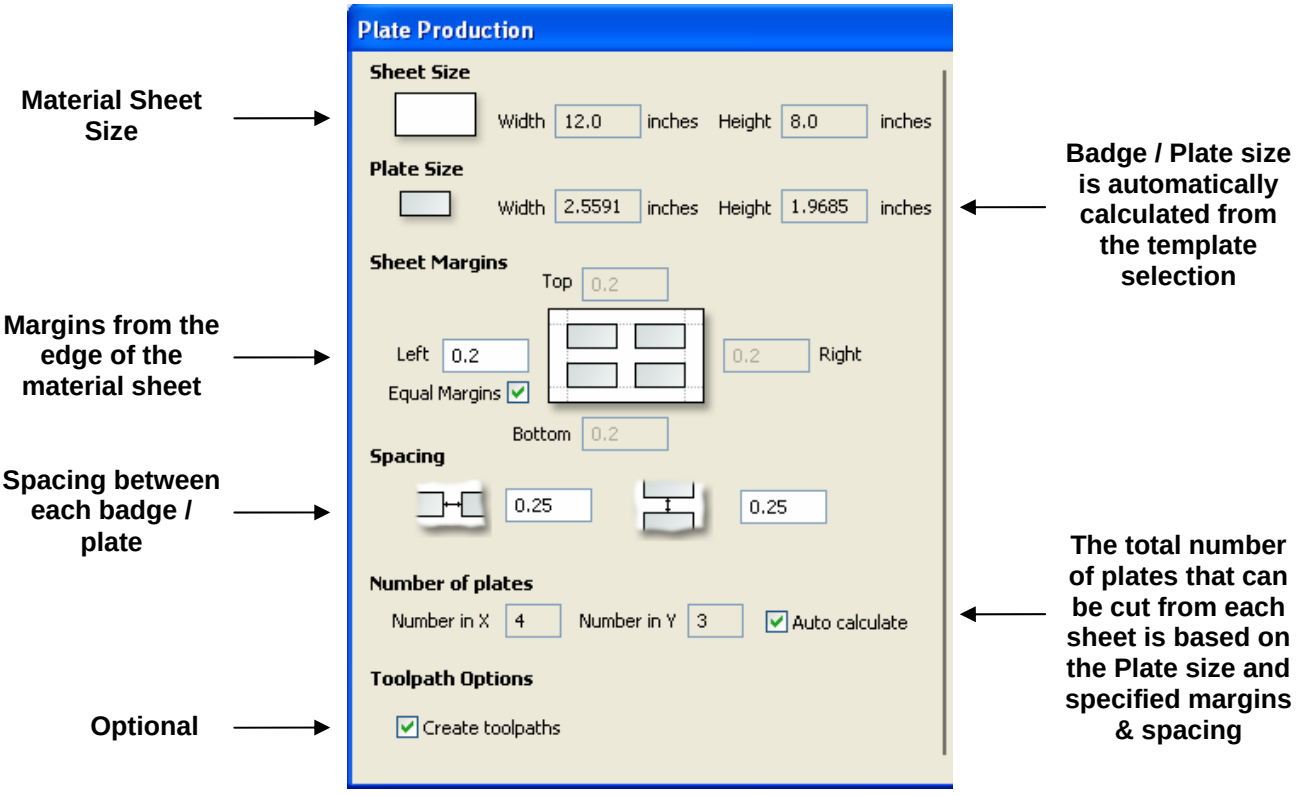
Notes The Profile cut out toolpath can also include Tabs and these will be added to each of the badges holding them in place if required.

Toolpaths are optional and Production Plate functionality can be used to simply create the necessary vectors and text etc. for a batch of plates.

3. Open the Plate Production window

Select all the vectors that make up the Master Template by clicking and dragging to select the vectors.

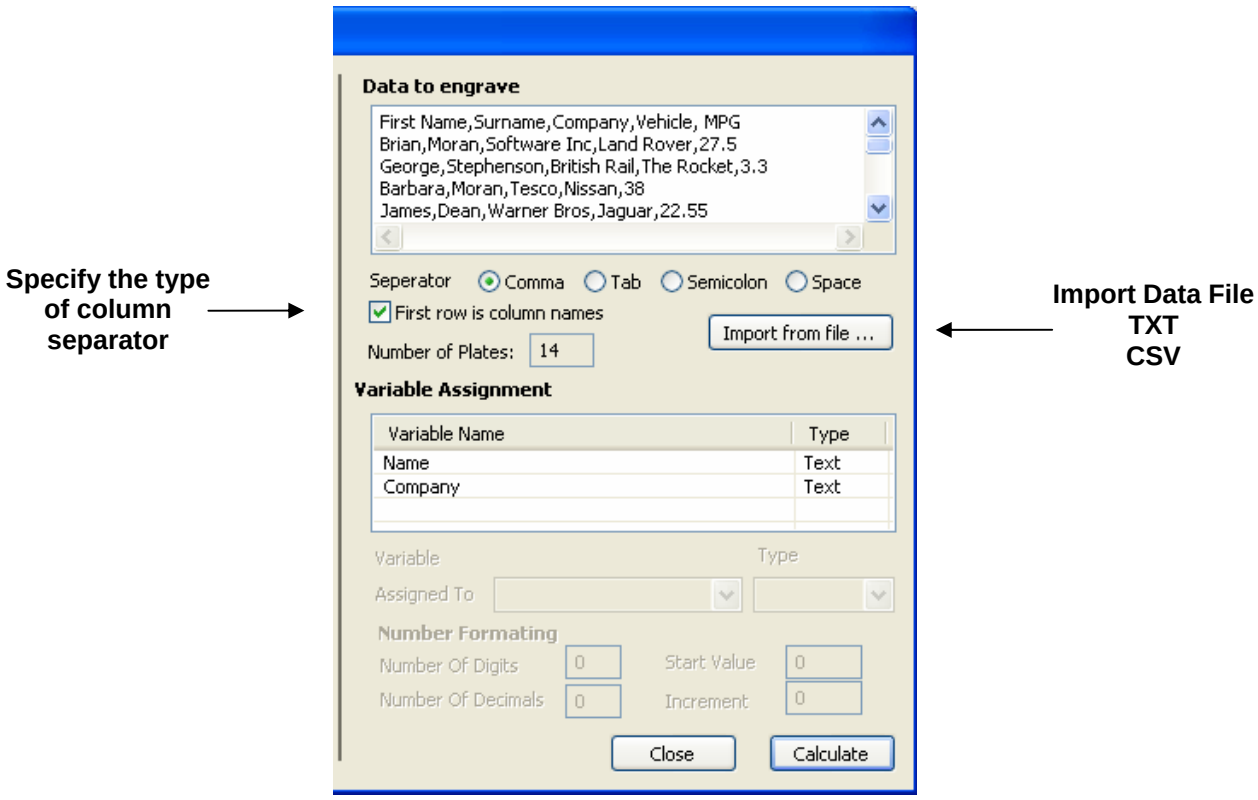
Click on the **Plate Production** icon  to open the form and specify the settings required to lay the badges / plates onto the for the Template



The size of the selected Template and the number of badges / plates that can engraved from each sheet is displayed on the left side of the Production Plate form.

4. Import the Data to be Merged into the Template

The right-hand side of the Plate Production form is used to specify the data that will be used to engrave onto each plate / badge.



Import the required text / data file and select the appropriate format separator. The separator is the method used in the data file for dividing each set of information into columns. The most commonly used options are,

Comma, Tab, Semicolon and a Space

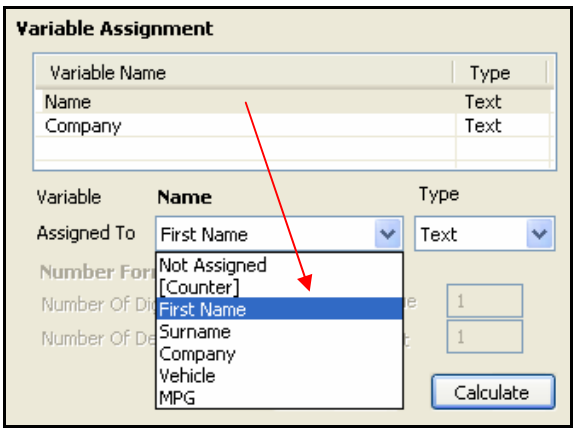
The data file is commonly created using a spread sheet such as Windows Excel. Use the option to Save As or Export to obtain the required file format that includes the correct Separator information.

Note It's very common for the first row of data in a file to simply show what each of the field names are, and this information is not used on the badge or plate. Checking the box **First row is column names** tells the software to start working with data from row 2.

5. Assign the Variables to the data in the text file

All of the variables specified on the template - text with double exclamation marks !! on ether side !! are automatically listed on the form. These variable names are each assigned to a data field (column of text) inside the data file.

Click to select a **Variable name** and select the data field from the imported file that is required on each badge / plate. ie the persons name

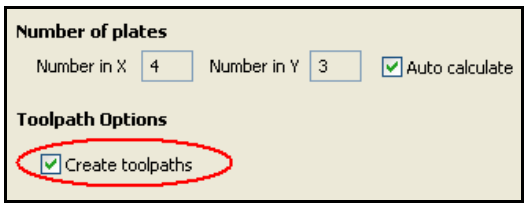


Repeat for each of the Variable Names listed on the form

Variables can be assigned to **Text** from a data file - Names, Dept etc. or to a **Counter number** that can be formatted and incremented using the Number Format options.

6. Calculate all Badges and associated Toolpaths

If toolpaths have previously been calculated for the vectors in the Master Template, the option to automatically **Create Toolpaths** for each badge / plate is switched on in the bottom left corner of the form.

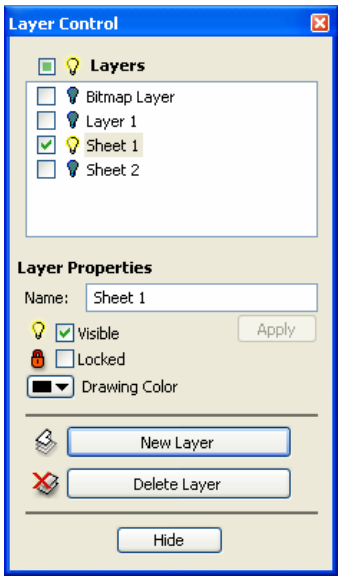


Un-checking this option creates the vectors for each badge with the specified spacing and sizing.

Multiple Layers are automatically created if multiple sheets of material are required to engrave all of the badge data from the imported text file. Layer named **Sheet 1** is displayed in the 2D view showing the badges on this sheet.

Each of the Sheets is on a different layer and can be set visible or invisible using the Layer Manager.

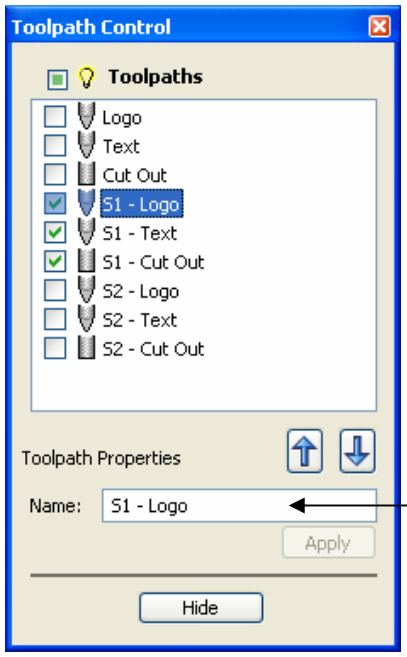
Use the Layer visibility options to display each sheet of badges →



If Toolpaths are automatically calculated a separate toolpath for each operation on each sheet of material is calculated and named using the convention **S1 - Name**. Where the Name is the name of the toolpath previously calculated for the template.

The example below shows 2 sets of toolpaths have been created to engrave onto 2 sheets of material.

Use the visibility options to display the toolpaths for each sheet of material.

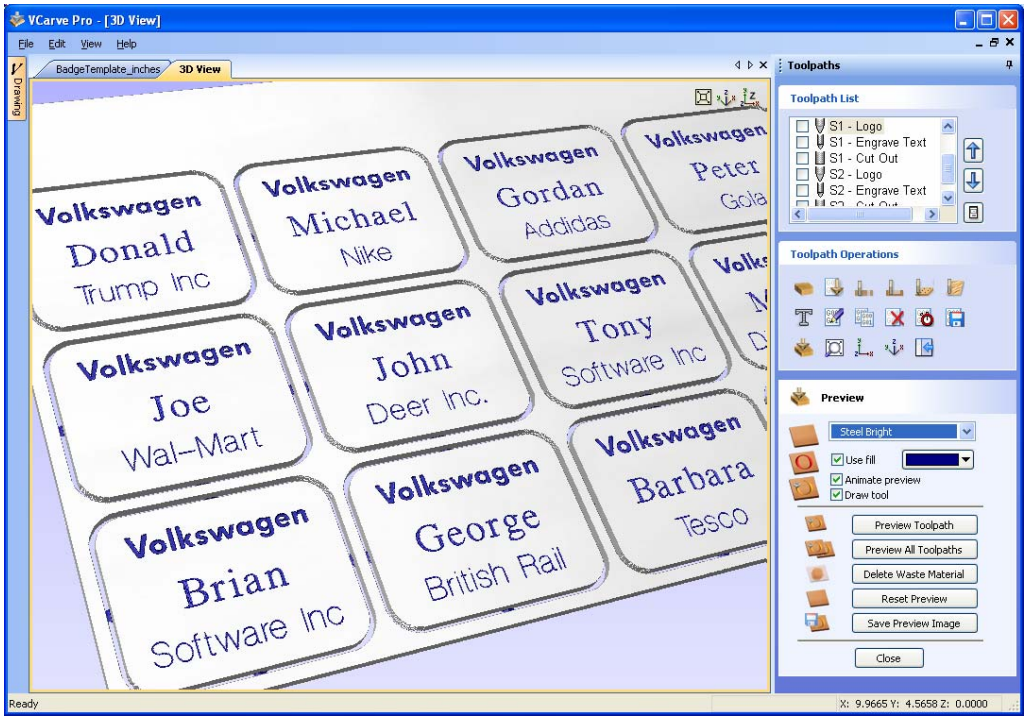


Toolpath names can be changed.

Sheet 1 3 toolpaths - Logo, Text and Cut Out

Sheet 2 3 toolpaths - Logo, Text and Cut Out

Note **Edit Undo** will delete all the layers and toolpaths calculated using the Production Plate operation.



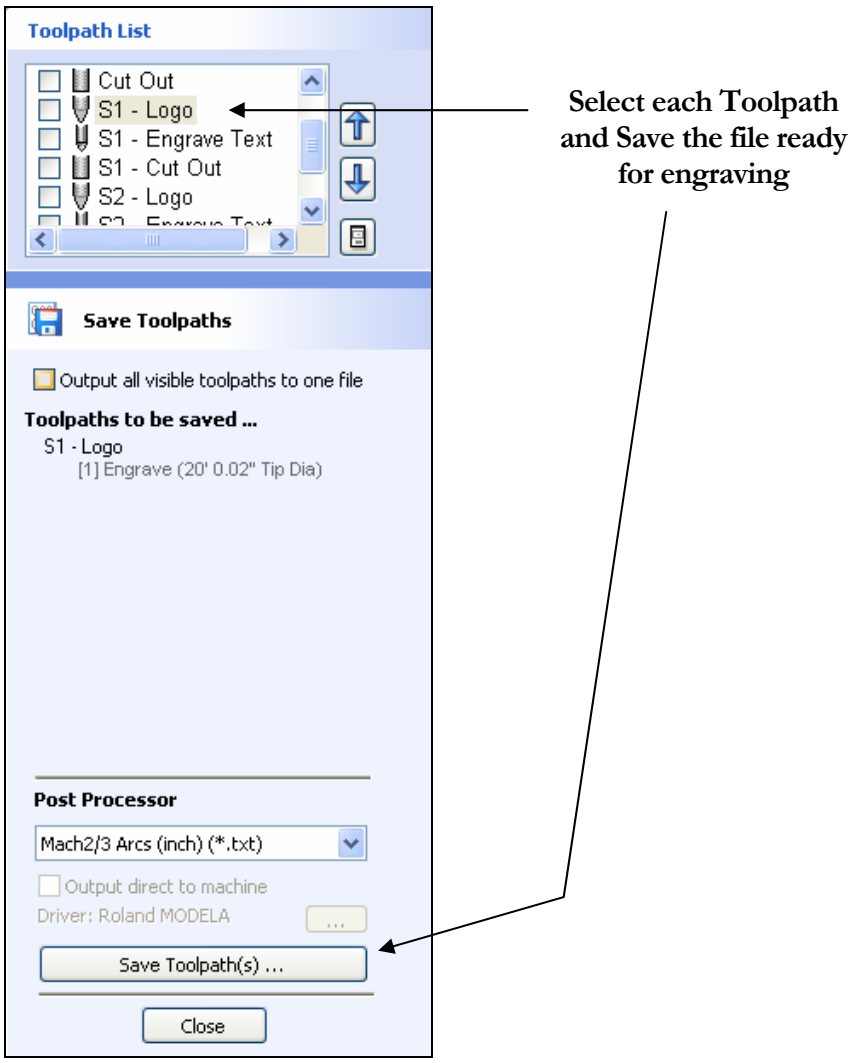
3D window showing the 3 toolpaths for sheet 1

7. Saving / Outputting Toolpaths

After calculating the engraving toolpaths the final stage is to output them to the engraving machine.

Before sending the toolpath to the machine make sure the PC is connected to the Engraving machine, the correct printer driver is installed and the cutter is setup correctly reading to start cutting.

Output the Toolpaths by clicking the **Save Toolpath**  icon.



Click the **Save Toolpaths** button to save the selected Toolpath.

Important Take extreme care to ensure the material and cutter are setup correctly before running the toolpaths on the engraving machine.

Notes Toolpaths that use the same cutter can be output to the machine together by making the toolpaths **Visible** and checking the option to **Output all visible toolpaths to one file.**

Calculated toolpaths can be edited by either,

Clicking the **Edit Toolpath** icon  or **Double clicking** on the name of the Toolpath name in the Toolpath List.