SignCut Pro 2 and Spooler User Manual

August 1, 2020

About this User Manual

- SignCut Pro Suite installs three separate programs.

    ◊ SignCut Draw (PC only) – an optional program you can use for designing

    ◊ SignCut Pro 2 - the program you will use for cutting

    ◊ SignCut Spooler – an optional program you can use for managing jobs

- This manual covers SignCut Pro 2 and SignCut Spooler. A separate user manual is available for SignCut Draw here.

Installing the Software

- SignCut Pro Suite can be downloaded from the following link:

    https://signcutpro.com/#download-section

- In some cases, a virus protection software may warn users that there are potentially dangerous files. It is perfectly safe to install this program so temporarily disabling your virus protection program may be required. After installing SignCut Pro Suite, you can reestablish your virus protection.

- The program can be used without purchase for three weeks, as long as SignCut has not been previously installed on that computer. To purchase a subscription to SignCut Pro, please go to **Account>My Account** and click on **Subscription**.

- Unlike prior versions of SignCut, license numbers are not used. For identification of your registration, an **Alias** name is used which appears in the **Title Bar** in SignCut Pro 2. To change your **Alias**:

    ◊ Go to **Account>My Account** and click on **My Signcut** (left side).

    ◊ You will then see an **Edit Alias** button which will open a window where you can enter a new **Alias**. Click on **Save**.

    ◊ Close and reopen SignCut Pro 2. Your new **Alias** name should now appear in the **Title Bar.**

- Other actions regarding the management of your SignCut Pro account are available in the **Account** menu. If you need additional assistance, please go to the **Help Desk Portal** at:

    https://signcut.freshdesk.com/support/home/

Feedback

- If you find any typos, incorrect information, or parts needing clarification, feel free to email me at: sandy.mccauley@gmail.com.
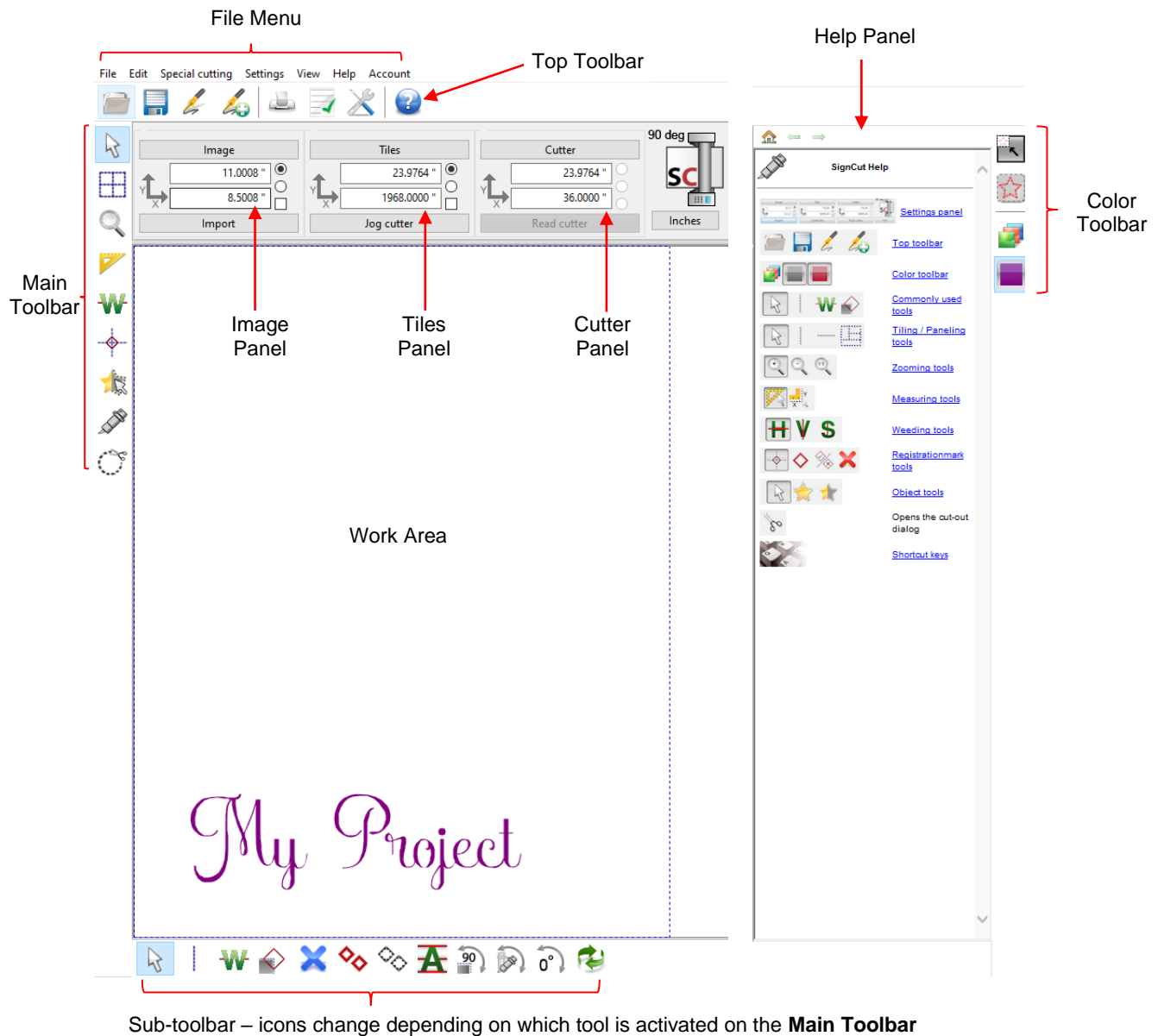
Table of Contents

1. Introduction and Cutter Setup

1.01 SignCut Pro 2 Screen

- The following screenshot of the main screen in SignCut Pro 2 identifies important elements. Note the names of the items shown as they will be referenced throughout this user manual:

Sub-toolbar – icons change depending on which tool is activated on the **Main Toolbar**

- Hovering your mouse over most of the screen icons will pop up the icon's name and available shortcut.

- On the **Main Toolbar**, the shortcut keys (top to bottom) are in the same order as the top row of alphanumeric keys on your keyboard (left to right: **Q, W, E, R, T, Y, U, I, O**). Refer to *Section 1.05* for information on each tool and where it is covered in this manual.

- On the **Sub-toolbars**, the shortcut keys are in the same order as the bottom row of alphanumeric keys (left to right: **Z, X, C, V**, etc.). The **Sub-toolbars** change depending on which tool is selected on the **Main Toolbar.**

- *Appendix A* contains a complete list of shortcuts and icons, plus the user manual reference section covering these functions.

1.02 Installing Your Cutter

- Click on the **Cutter** button near the top of the screen (or go to **Settings>Cutter** or use the shortcut **0)**:

Click on **Cutter**
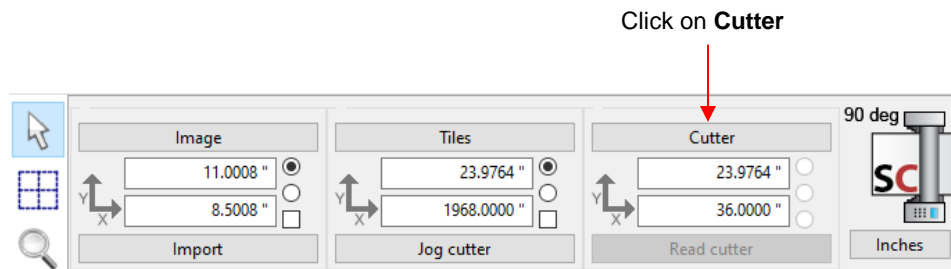
- The **Cutter** window will open. From the drop-down menus, select the **Manufacturer**, **Cutter** model, **Output Device/Port**, and **Baud** rate (when applicable) as follows:
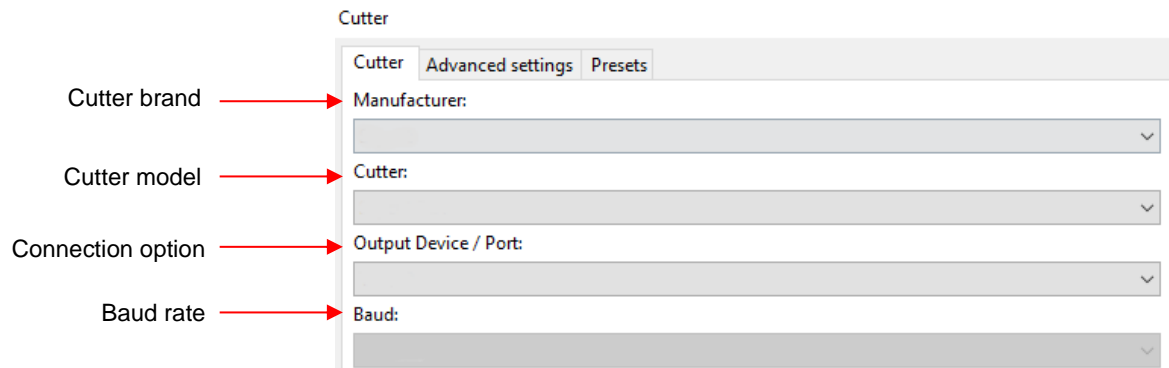
- Note the following regarding the options under **Output Device / Port**:

  ◊ **COMx:** Choose this option for a USB-to-serial connection in which your PC has assigned a COM port number to your cutter. On a Mac, look for something akin to **/dev/cu.usbserial**

  ◊ **USB00x:** Choose this option for true/direct USB connectivity. On a Mac, it may appear as **/dev/cu.xxxxxx**

  ◊ **TCP/IP:** Choose this option for wireless connectivity and a window will pop open in which you will then need to enter the **Host/IP Address** assigned to your cutter and the **Port** assignment.

  ◊ **SignCut Spooler:** Choose this option when you want jobs sent to the SignCut Spooler program and records of past completed jobs will *be* maintained and can easily be repeated.

  ◊ **Write to File:** Choose this option if you are always exporting the file as a PLT file. Otherwise, there is a shortcut for **Write to File** which is **Shift+I** and this can be used on an as-needed basis.

- After entering your connection information, click on **OK**. Note that you can return to this window at any time to change your connection preferences.

- There are two additional tabs in this same **Cutter** window:

  ◊ **Presets-** If you have more than one brand or model of cutter, the **Presets** tab can be used to save the connection options you choose for each cutter. This will make it much easier to switch between cutters, as needed, without reentering the connection settings:

Select **Presets** tab

Cutter

Cutter | Advanced settings | Presets

Store current cutter-setup and communication settings as a preset.

Enter the name of the preset or choose an existing item to overwrite it.

Name:

Open a **Preset**
you've saved

Delete the
Preset

Enter a name to
identify the cutter

Click on down arrow
to open **Preset** menu
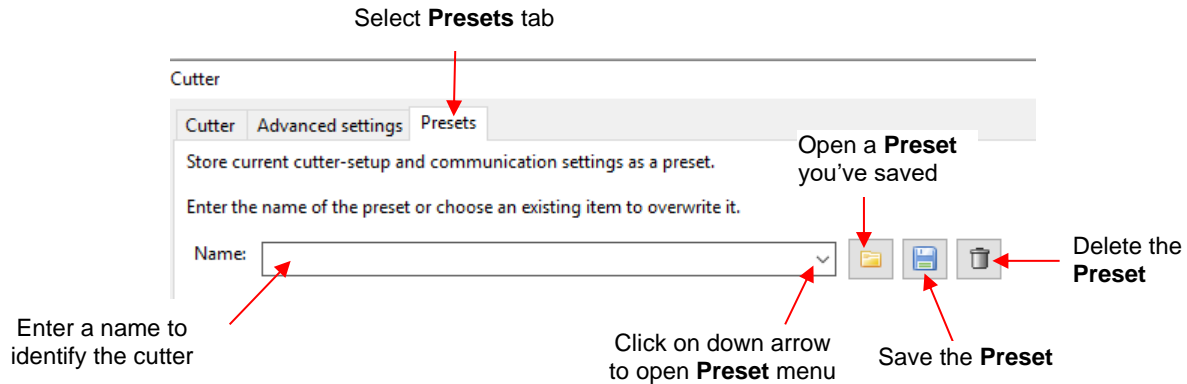
Save the **Preset**

o   Note that changes to settings on the **Advanced settings** tab (presented next) will also be saved in
the **Preset**.

◊   **Advanced settings-** This tab has the following settings:

Cutter

Cutter | Advanced settings | Presets

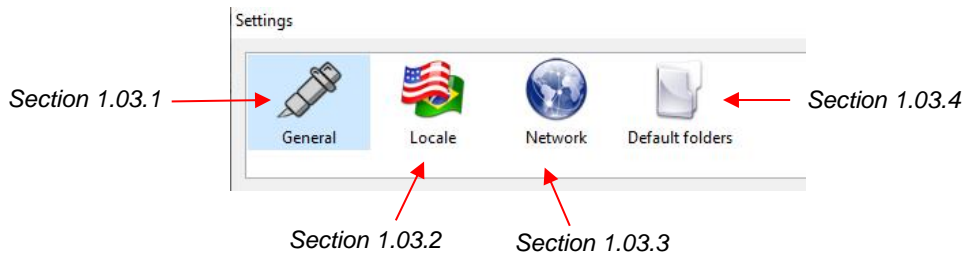Databits: Parity:

NON   8

Stopbits: Handshake:

1   Hardware (RTS/CTS)

Connection
settings (see
below)

☑ RTS   ☑ CTS   ☑ DTR   ☐ DSR

Use Windows serial setting

Use spooler: Refer to *Chapter 8*

Optimize datastream:

Wait until finished cutting:

Rotate: See below   90 deg ∨

Enable feed dialog after cutting: End-of-cut settings   ☑

Advance after cut: *Section 3.4.2*   1 "

Rewind after advance: 0.5 "

Size abbreviation calibration: Calibrate cutter size

Ok   Help   Cancel

Sizing calibration
Section 3.09

o   Connection settings: do not make changes without instruction from your cutter dealer or from a
SignCut representative).

o   **Rotate**: This should automatically be set correctly based on the cutter brand/model you selected.
Most cutters will have a setting of 90 deg because the cutter carriage's home position is on the right
side. Otherwise, if on the left side, the setting will be 0 deg.

o   End-of-cut settings: These settings affect what happens once a cutting job is complete. If you mark
the option **Enable feed dialog after cutting**, it will take precedence over any end-of-cut settings
available on your cutter's control panel. Leaving it disabled will still allow end-of-cut options to
appear on the **Cutting** tab in the **Cutout** window, as shown in *Section 3.4.2*.

1.03 Settings Window in SignCut Pro 2

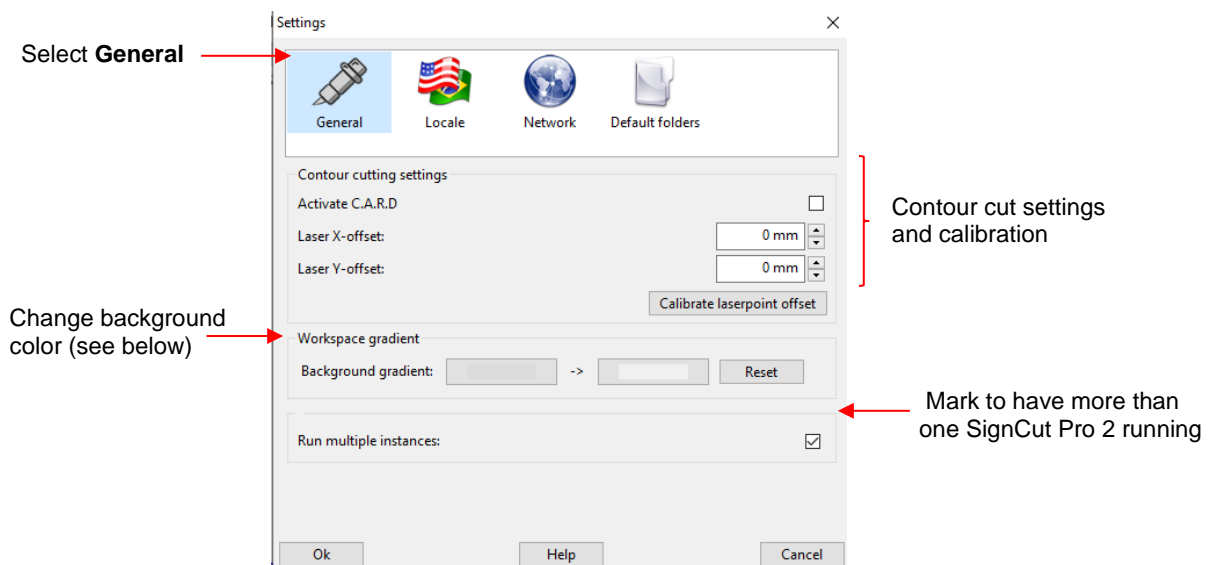•   To open the **Settings** window:

◊   Go to **Settings>Settings**

◊ Use the shortcut **F11**

◊ Click on the **Settings icon** ⚒ on the **Top Toolbar**.

- The **Settings** window opens with four icons for accessing various defaults of interest. The section numbers for each are shown as follows:
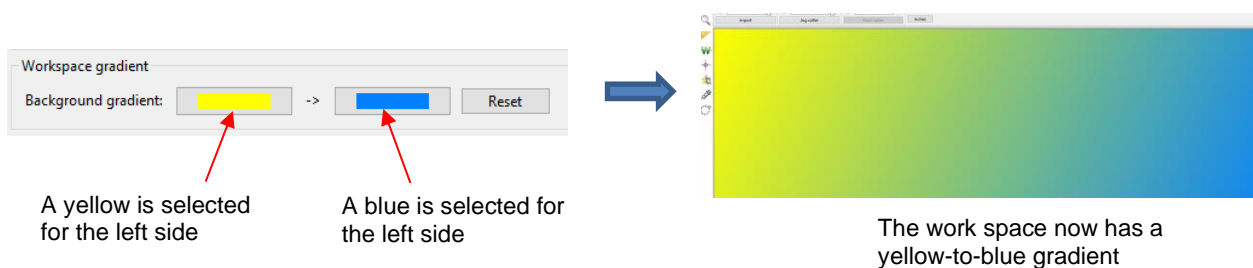

Section 1.03.1

Section 1.03.4

Section 1.03.2   Section 1.03.3

1.03.1 General

- The **General** tab has the following settings:

Select **General**

Change background color (see below)

Contour cut settings and calibration

Mark to have more than one SignCut Pro 2 running

- The **Contour cutting settings** are covered in *Chapter 7*.

- The **Workspace gradient** setting will change the **Work Area** color, if desired. Click on one box at a time and a color selection window will open. Either click on a new color or enter the color values. After selecting new colors, click on **OK** and the change will take effect:

A yellow is selected for the left side

A blue is selected for the left side

The work space now has a yellow-to-blue gradient

◊ Clicking on **Reset** will restore the original gray colors.

- **Run multiple instances** allows you to have more than one SignCut Pro 2 project open. After marking the box, you'll need to close and reopen the program for it to take effect.

1.03.2 Locale

- The **Locale** tab has the following settings where you can select the **Language** you prefer for SignCut Pro 2 and preferred units:

Select **Locale**

Select **Language** preference

Mark preferred **Units**
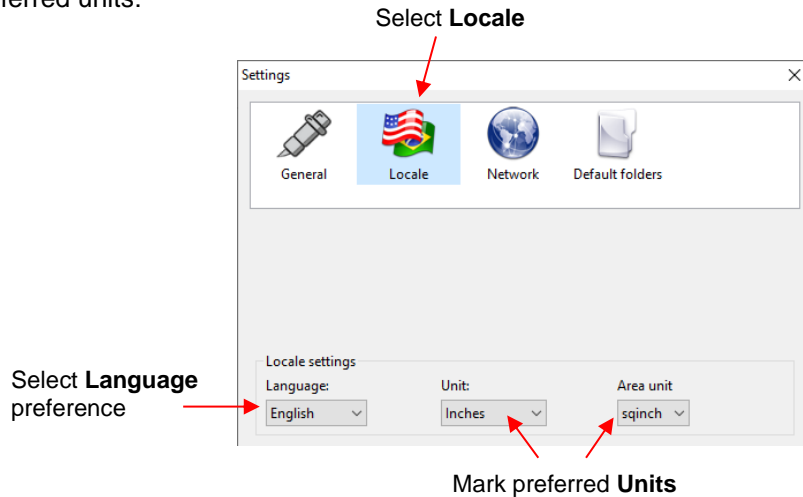
◊ Note that the **Unit** setting can also be changed, as needed, on the **Cutter Panel**:

Click here to switch to another **Unit**
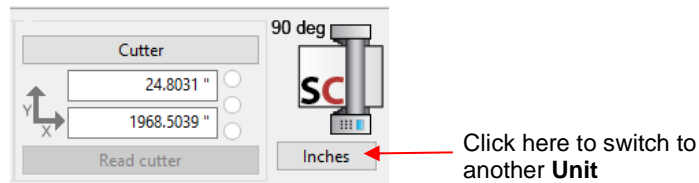
1.03.3 Network

- The **Network** tab has the following settings which can be used if you need access to the Internet from an Intranet environment. Please contact your company's network administrator for assistance in completing the required information:
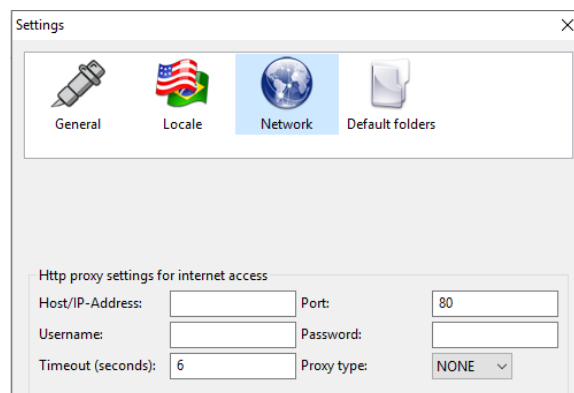
1.03.4 Default Folders

- The **Default folders** tab has several import default settings, as well as the ability to set up default folders for both opening and saving files:

Select **Default folders**
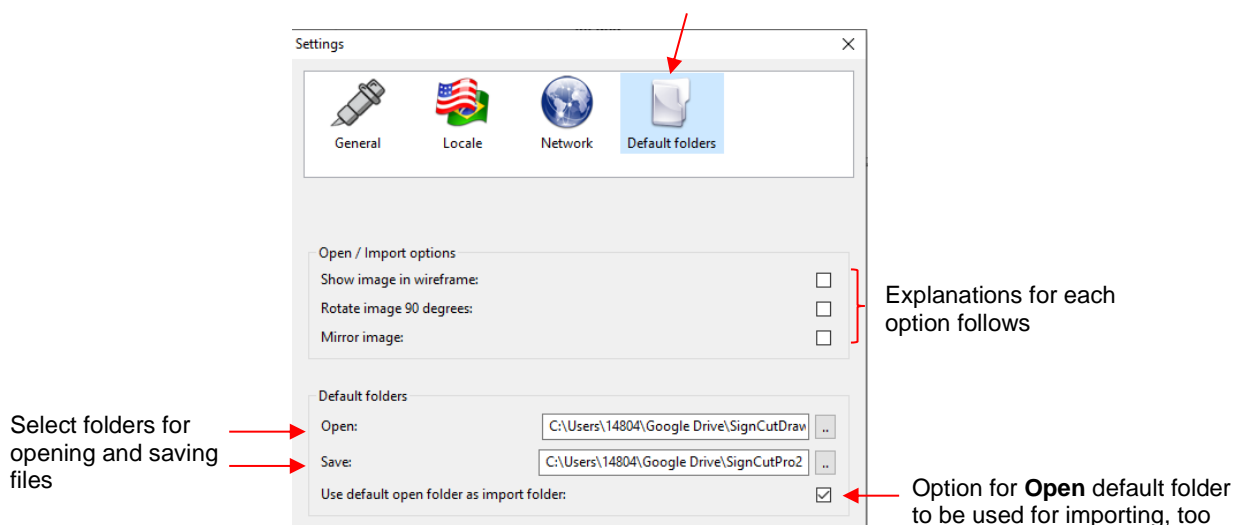
Show image in wireframe: mark this option if you want the fill color turned off so that only an outline of your imported shapes is displayed. Note that you can later turn on the fill color by clicking an icon on the **Color Toolbar**:

Filled view   ⟶   versus   ⟵   Wireframe view

◊   **Rotate image 90 degrees:** You may have a personal preference regarding how shapes appear when imported into SignCut Pro 2. Mark this option if you find that your projects almost always need to be rotated before cutting. Of course, you still have the option to rotate a project without using this import option. Refer to *Section 2.04.*

◊   **Mirror image**: This option is useful for anyone cutting HTV or performing vinyl applications for the inside of windows and needing their designs mirrored before every cut. Marking this option will always mirror your imported designs. On the other hand, you can always mirror later on. Refer to *Section 2.05*.

◊   **Defaults folders**: Set up default **Open** and **Save** folders based on where you want SignCut Pro 2 to initially go to when performing these functions. Note there's an option to set the default import folder to the same folder as **Open**, if you like.

1.04 Default Settings in the View Menu

1.04.1 Rotate view 90 degrees

- On the **Cutter Panel** is a small diagram of a cutter. This diagram indicates that the project you see in the **Work Area** will cut in the same orientation, relative to the cutter, as you view the cutter sideways:

The project as shown in the **Work Area**

Left side of the cutter

Right side of the cutter

Note direction of the cutting relative to the cutter itself
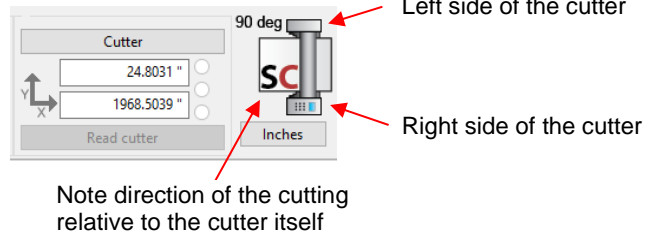
- If you want the cutting to be rotated relative to this orientation, go to **View** on the **File Menu** and enable **Rotate view 90 degrees.** The small diagram of the cutter will change indicating the new orientation for the cutting:

Left side of the cutter

The project as shown in the **Work Area**

Right side of the cutter

Note direction of the cutting relative to the cutter itself
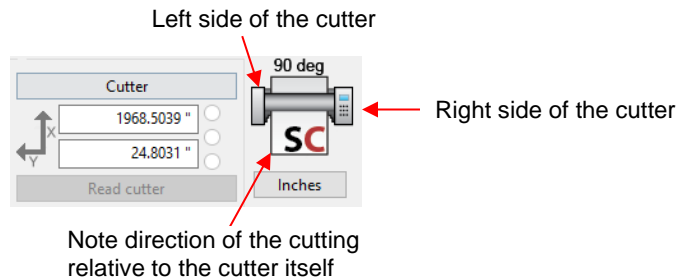
- The orientation you choose should be based on which one makes the most sense to you. The first (default) setting above is also referred to as *landscape orientation* whereas the second setting (**Rotate view 90 degrees)** is referred to as *portrait orientation*.

- More information about these two options is covered in *Section 3.02.3.*

1.04.2 Show Wireframe

- Also present in the **View** menu is an option called **Show wireframe**. This was first mentioned in *Section 1.03.4.* Enabling this option displays shapes without the fill color and is the same as the toggle icon on the **Color Toolbar:**

Show wireframe NOT enabled

Show wireframe enabled

1.04.3 Show Inner Paths

- A third option of interest in the **View** menu is **Show inner paths.** Enabling this option will highlight any interior shapes with a thick blue line:


Show inner paths NOT enabled

Show inner paths enabled

1.05 SignCut Pro 2 Toolbars

- There are three toolbars in SignCut Pro 2:

  - ◊ **Top Toolbar** with an assortment of commonly accessed functions: refer to *Section 1.05.1*.

  - ◊ **Main Toolbar** with the functions that are used to prepare a file for cutting and the cutting itself: refer to *Section 1.05.2*.

  - ◊ **Color Toolbar** with several functions related to placement, display, color selection and assignment of settings: refer to Section *1.05.3*.
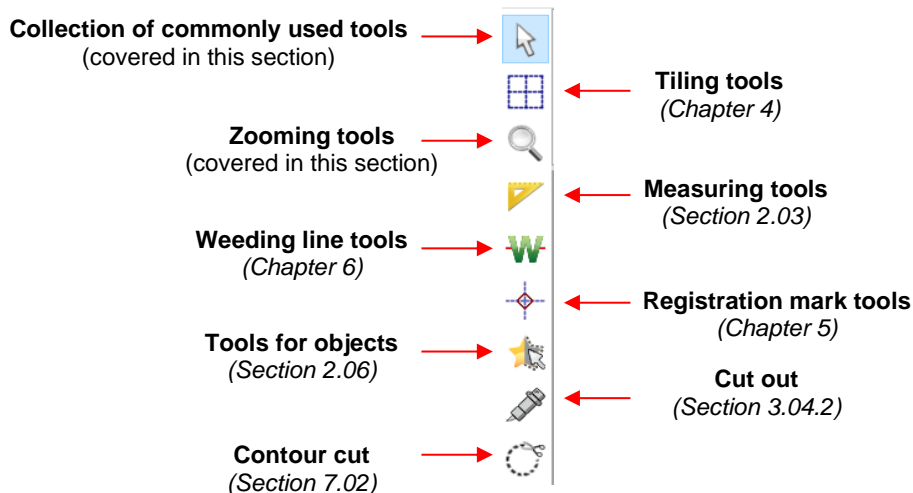
1.05.1 Top Toolbar

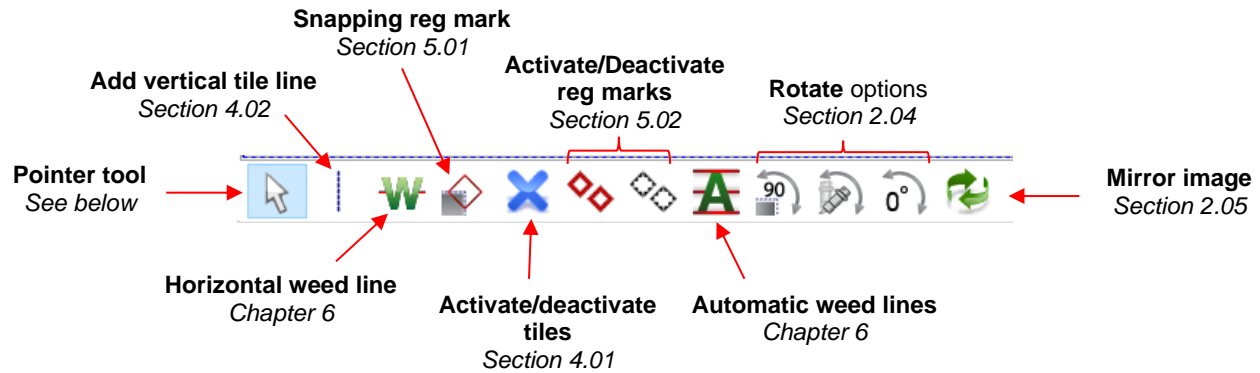- The **Top Toolbar's** icons and references for more information (if needed) are:
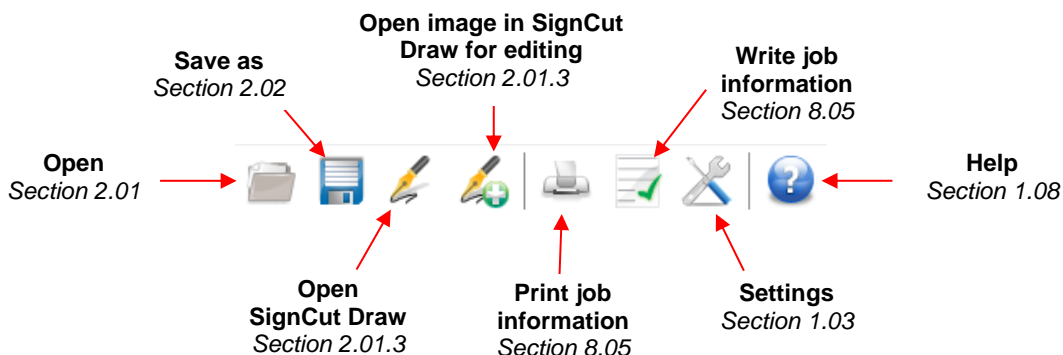
1.05.2 Main Toolbar and Collection of Commonly Used Tools

- The **Main Toolbar's** icons and references for more information are:

- **Collection of commonly used tools (**shortcut **Q):** This is so named because, in its **Sub-toolbar,** are 12 icons that are considered the most commonly accessed functions by users. Below is a screenshot of these icons and where they are covered in this user manual:
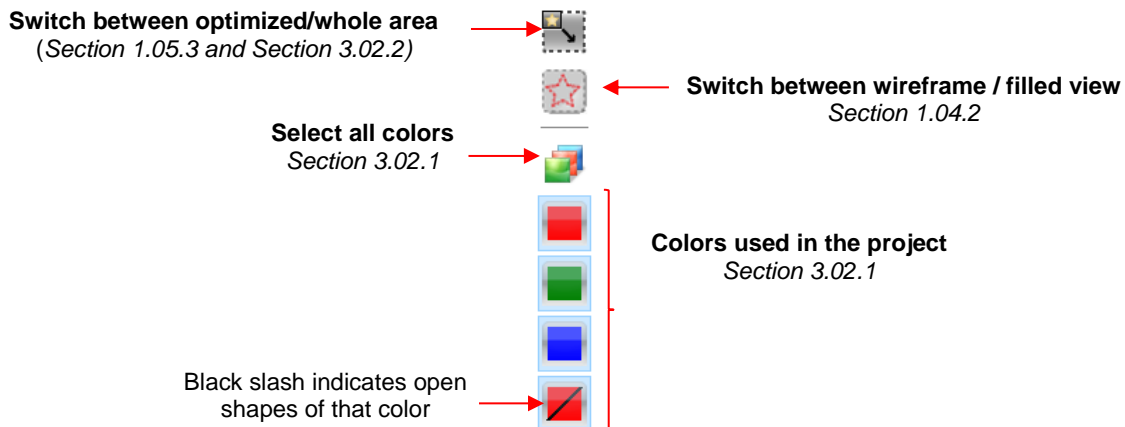
Snapping reg mark
Section 5.01

Add vertical tile line
Section 4.02

Activate/Deactivate
reg marks
Section 5.02

Rotate options
Section 2.04

Pointer tool
See below

Mirror image
Section 2.05

Horizontal weed line
Chapter 6

Activate/deactivate
tiles
Section 4.01

Automatic weed lines
Chapter 6

◊ **Pointer tool**: While in this mode, tile lines and weed lines can be moved and deleted. This will be covered in *Chapters 4* and *6*, respectively.

- As mentioned before, when choosing any of the tools on the **Main Toolbar**, the **Sub-toolbar** will change with functions associated with that particular tool.

1.05.3 Color Toolbar

- The **Color Toolbar** has 3 icons at the top, followed by an icon for each color present in the project. Again, for more information, refer to the section numbers indicated:
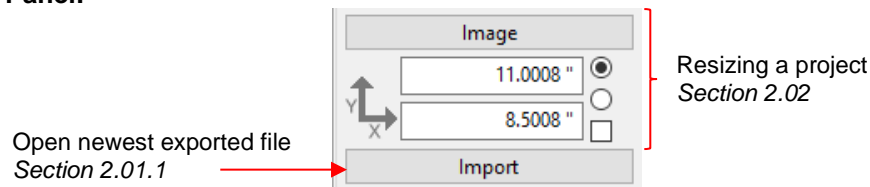

Switch between optimized/whole area
(*Section 1.05.3 and Section 3.02.2)*

Switch between wireframe / filled view
Section 1.04.2

Select all colors
Section 3.02.1

Colors used in the project
Section 3.02.1

Black slash indicates open
shapes of that color

◊ To display all shapes of one color, click on that color's thumbnail on the **Color Panel**. This makes that color the active layer and all shapes of another color are inactive (will not be sent to the cutter).

◊ The shortcut **Ctrl+Spacebar** will cycle through each color, returning to all colors.

◊ Note that when a color has a black diagonal line through it, the shape is not closed, such as a line or an arc. This can be handy for foldup projects where fold lines need to be perforated or creased using an appropriate tool and specific settings.
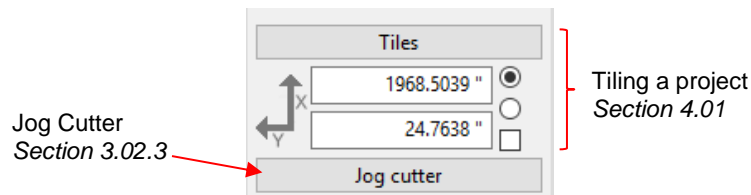
1.06 SignCut Pro 2 Panels

- There are three panels on the main screen of SignCut Pro 2. The following screenshots refer you to sections of the user manual to find additional information and details on each:
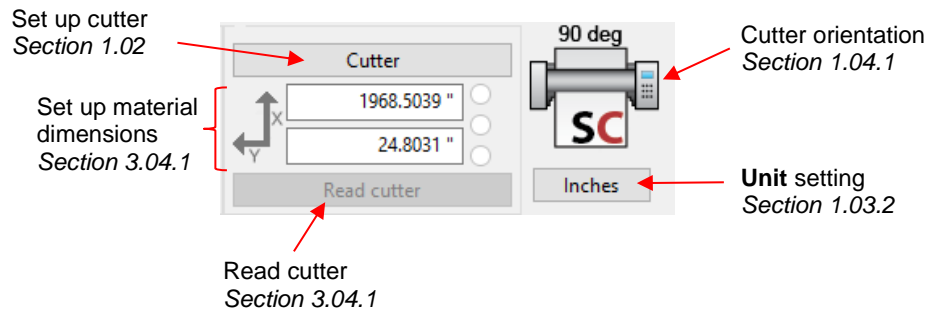
◊ **Image Panel:**

Resizing a project
Section 2.02

Open newest exported file
Section 2.01.1

◊ **Tiles Panel:**

Tiling a project
Section 4.01

Jog Cutter
Section 3.02.3

◊ **Cutter Panel:**

Set up cutter
Section 1.02

Cutter orientation
Section 1.04.1

Set up material
dimensions
Section 3.04.1

Unit setting
Section 1.03.2

Read cutter
Section 3.04.1

1.07 Zooming Tools

- To access the zooming tools, click the **Zooming tools** icon on the **Main Toolbar** or use the shortcut **E**. The **Sub-toolbar** will display the following options:
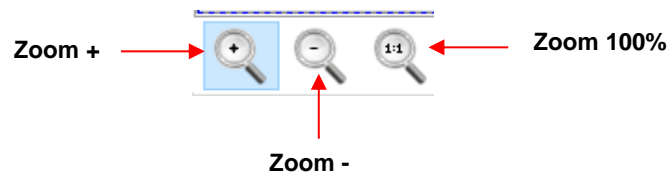
Zoom +

Zoom 100%

Zoom -

◊ **Zoom +:** Drag your mouse to marquee-select an area of the screen to zoom in on that location.

◊ **Zoom -:** Click the screen to zoom out

◊ **Zoom 100%:** Click to reset the zoom level to default

1.08 Help

- On the right side of the screen is the **Help Panel**:

Scroll back or forward
on pages viewed

Go to default **Help** panel
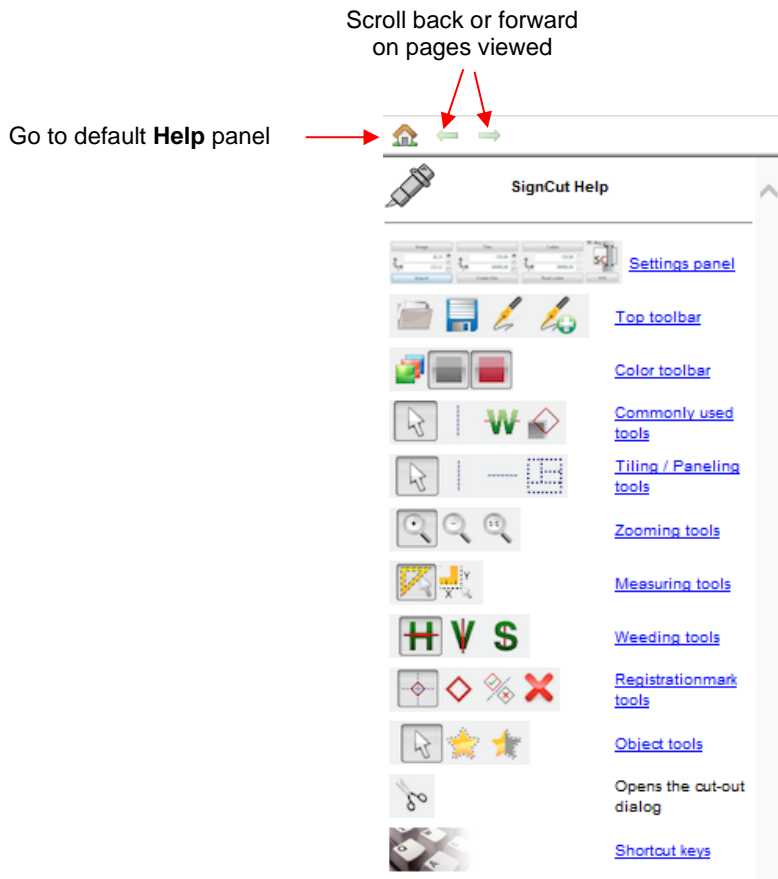
- o The information will change as you select different functions or tools. Click on underlined blue links to open new pages for details. Scroll arrows at the top to navigate back and forth between pages.

- o The **Home** icon will always take you back to the original **Help** page.

- o If you want to hide the **Help Panel**, go to **View** and uncheck **Show Help Panel.**

- A detailed **Help guide** is available under **Special Cutting>Help**. This same guide can also be accessed in the **Cut out** window shown in *Section 3.04.2.*

- On the **File Menu** are the following:

   - ◊ **Help>Help** (shortcut **F1** or the **Help** icon) provides a *Setup Guide* for those on a Mac.

   - ◊ **Help>Open Signcut-website:** takes you to SignCut's home page with access to current and prior downloads, as well as help resources.

   - ◊ **Help>Open support-website:** takes you to the online **SignCut Pro Helpdesk Portal** where you can search on specific terms or start a support ticket.

   - ◊ **Help>Reinstall Export-plugins:** installs Corel Draw, Adobe Illustrator, and Inkscape plugins so that files you design in any of those programs can be directly transferred to SignCut Pro 2. Refer to *Section 2.01.1.*

- SignCut Pro Facebook Page

- SignCut Academy on YouTube

2. Preparing a File for Cutting

2.01 File Handling (Opening/Saving/Closing)

2.01.1 Opening Files

- There are a number of different ways to get a cutting file into SignCut Pro 2. Before covering each option, you may want to designate a default **Open** folder which was first mentioned in *Section 1.03.4.*

Select a default **Open** folder here

Optional: set the same folder for default importing
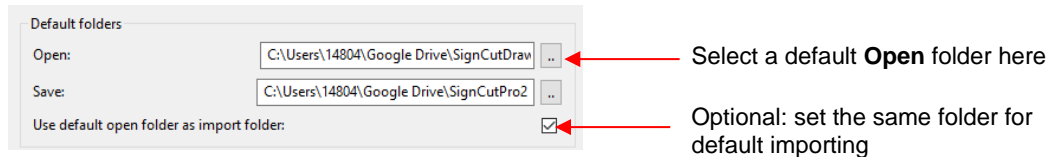
- Option 1: Import a project from SignCut Draw by clicking the **Move image to SignCut** icon on the **Tools Panel** in SignCut Draw. Refer to *Section 8.05* of the *SignCut Draw User Manual.*

- Option 2: Open other vector formats not saved in SignCut Draw's format

  ◊ Import vector files using any of the following:

  o Click on the **Open** icon on the **Top Toolbar**

  o Press **Ctrl+O**)

  o Go to **File>Open**

  o Drag and drop any of the acceptable vector files onto the **Work Area** in SignCut Pro 2.

  ◊ Note the following file formats that can be imported into SignCut Pro 2:

  ```
  SignCut (.sc)
  SignCut Pro 2(.scpro2)
  AI - Adobe Illustrator (.ai)
  EPS - Encapsulated postscript (.eps)
  PS - Postscript (.ps)
  CDR - CorelDraw (.cdr)
  PDF - Portable document format (.pdf)
  SVG - Scalable Vector Graphics (.svg)
  EMF - Enhanced Windows metafile (.emf)
  WMF - Windows metafile (.wmf)
  DXF - Autocad Drawing Exchange Format (.dxf)
  HPGL - Hewlett Packard Graphics Language (.plt)
  RTF - Rich Text Format (.rtf)
  ```

- Option 3: Drag and drop any of the acceptable vector files onto the **Work Area** in SignCut Pro 2.

- Option 4: Use the **Import** button on the **Image Panel:**

Click on **Import**
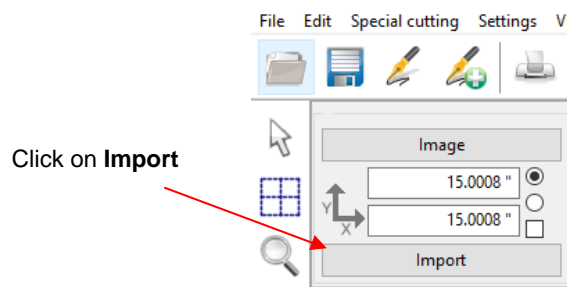
◊ Click the **Import** button (shortcut **1**) and it will automatically import your most recently saved file provided:

  o The file was saved in one of the formats shown in the previous screenshot

  o The file was saved in the default folder you designated on the **Settings>Settings>Default folders** tab

◊ If your vector files are saved elsewhere, hold the **Shift** key when clicking on the **Import** button (or **Shift+1)** to navigate to a different folder and select any vector file to import.

- Option 5: Send to SignCut Pro 2 from another program using an export plugin

  ◊ When you install SignCut Pro 2, there is an option to also install **Export plug-ins.** If enabled, the following plugins are installed into any of the following programs that you have on the same computer. The following list also shows you how to automatically transfer your file from that program into SignCut Pro 2:

  o Adobe Illustrator: Go to **File>Send to SignCut Pro**

  o Corel Draw: Click on the **Launch** icon and select **Send to SignCut Pro**

  o Inkscape: Go to **Extensions>Export>Send to SignCut Pro**

  ◊ If you need to later reinstall any of these plugins, go to **Help>Reinstall Export-plugins.**

2.01.2 Saving a File

- To save a file, use one of the following methods. Note that the file will be saved in scpro2 format:

  ◊ Click on the **Save As** icon 💾 on the upper **Toolbar**

  ◊ Press **Ctrl+S**

  ◊ Go to **File>Save As**

- As mentioned in *Section 1.03.4*, you can specify a default **Save** folder by going to **Settings>Settings>Defaults Folders**:
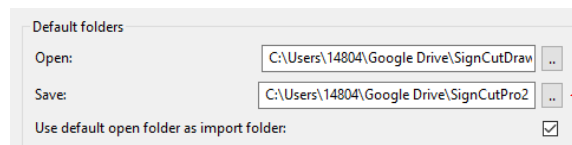
Select a default **Save** folder here

## 2.01.3 Opening or Exporting to SignCut Draw

- The **Toolbar** contains two icons related to SignCut Draw.

  ◊ Click the **Open SignCut Draw** icon ✏️ to launch SignCut Draw or switch to SignCut Draw if it's already open.

  ◊ Click the **Open image in SignCut Draw for editing** icon ✏️ to launch SignCut Draw and copy your project over. If SignCut Draw is already open with a project present, then the project in SignCut Pro 2 will be copied onto a new tab in SignCut Draw.
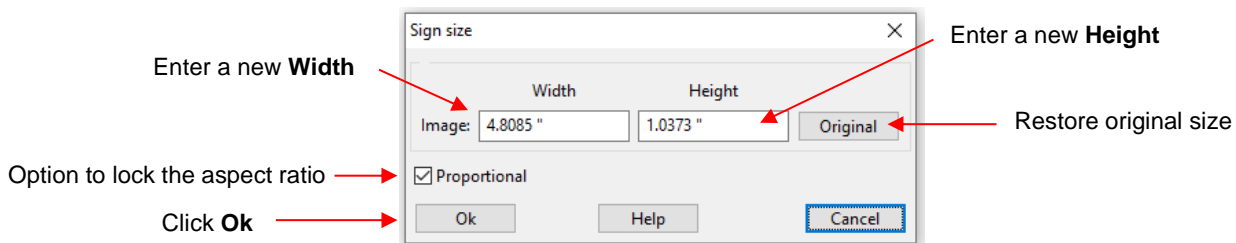
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2.01.4 Closing and Exiting SignCut Pro 2

- *IMPORTANT:* Before closing SignCut Pro 2, you will need to save your file if you plan to use it again. The option will <u>not</u> automatically be provided when exiting the program.

- To close a current project, go to **File>Close.** If you have enabled **Run multiple instances** (refer to *Section 1.03.1*), only the current SignCut Pro 2 window will be closed. Otherwise, SignCut Pro 2 will completely close down.

- There are three other ways to exit SignCut Pro 2:

  ◊ Click the closing **X** in the SignCut Pro 2 window

  ◊ Go to **File>Exit**

 ◊ Press **Alt+F4**

2.02 Image Panel – Resizing the Project

- The **Image Panel** is used to resize your project, when needed.

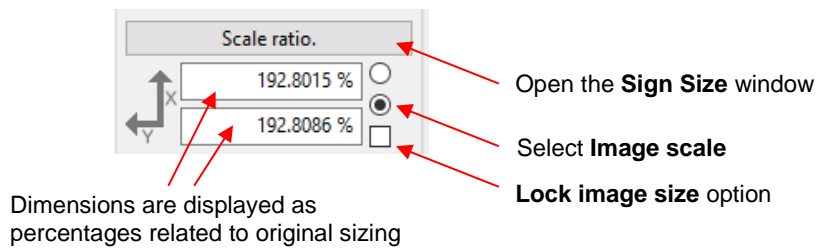Open the **Sign Size** window

Image size

Image scale

Lock image size
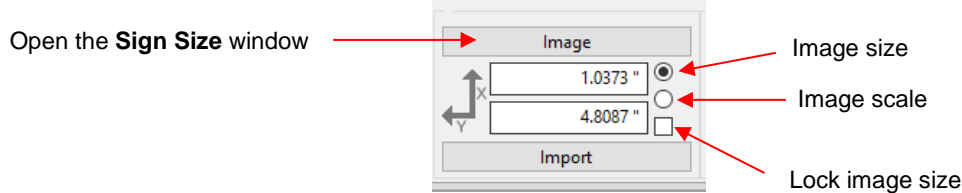
  ◊ Click the **Image** button to open the **Sign size** window (or shortcut **7**). The current size of the project is shown and can be changed, either proportionately or not:
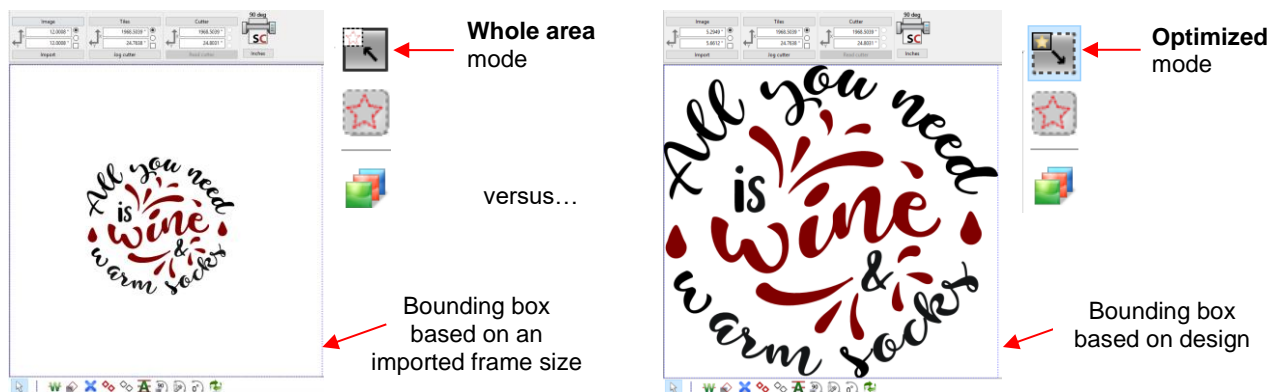

Enter a new **Width**

Enter a new **Height**

Restore original size

Option to lock the aspect ratio

Click **Ok**

  o Make any desired changes to the size. Note that with the **Proportion** option marked, the **Width** or **Height** will automatically update when the other is changed, to maintain the same aspect ratio.

  o Click on the **Original** button to restore the sizing of the original file when it was first imported into SignCut Pro 2.

  ◊ It's not necessary to open the **Sign size** window in order to make changes or restore the image size. You can make changes to the **Width** or **Height** by entering new values in the **Width** or **Height** fields and pressing the **Enter** key:
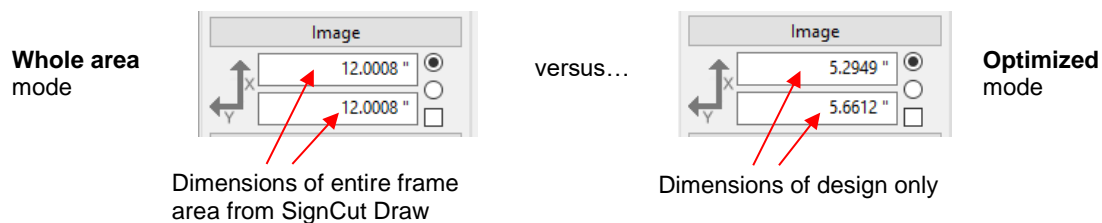

A new dimension can also be directly entered
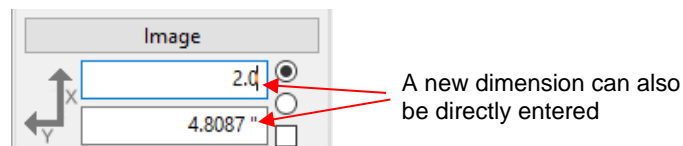
  o Note that if you want the other dimension to not update proportionately, then you must disable the **Proportional** option in the **Sign size** window.

  ◊ The **Image scale** displays the percentage adjustment that has been made to either dimension:

Open the **Sign Size** window

Select **Image scale**

Lock image size option

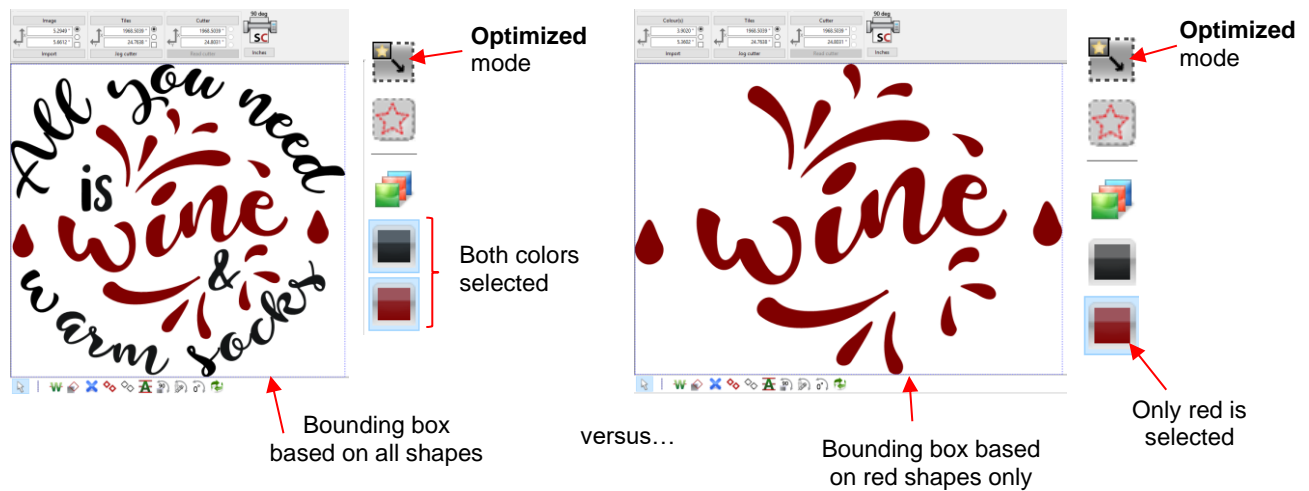Dimensions are displayed as percentages related to original sizing

- o Note that you can restore original sizing here by changing both to 100%. Also, the **Scale ratio** button will open the same **Sign size** window again as previously covered.

- o You can also lock the current size settings by marking the **Lock image size** option.

- It's important to note if the bounding box in the **Work Area** is aligned with the actual design or part of a larger document area. For example, if the **Sign frame** has been exported along with the project from SignCut Draw, then the project can be displayed in two ways in SignCut Pro 2 by toggling the **Switch between optimized / whole** area icon (shortcut **F8**) at the top of the **Color Toolbar**:

Whole area mode

Bounding box based on an imported frame size

versus…

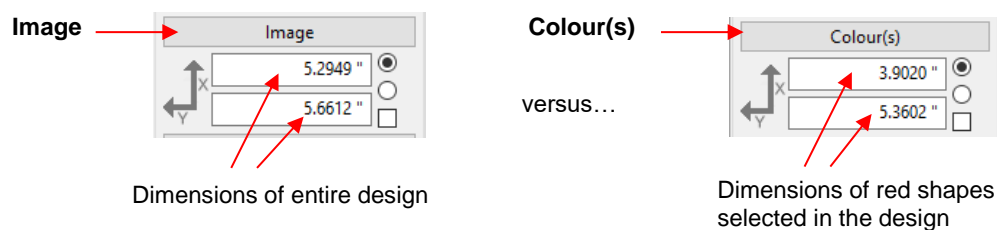**Optimized** mode

Bounding box based on design

- The mode selected will affect the **Image size** dimensions, accordingly. Thus, if making changes to the **Image size**, make sure you are in the correct mode. For example, in the prior case, this would be the difference in the displayed dimensions:

Whole area mode

Dimensions of entire frame area from SignCut Draw

versus…

**Optimized** mode

Dimensions of design only

- Similarly, if you are in **Optimized** mode and select one of the colors in the project (but not all of them) then, again, the bounding box can change dimensions. In this same example, if the red color is clicked on the **Color Panel**, the following happens:

Optimized mode

Both colors selected

Bounding box based on all shapes

versus…

Optimized mode

Only red is selected

Bounding box based on red shapes only

◊ Not only do the dimensions change based on only selecting the red shapes of the design, but the **Image** button is now labeled differently:

Image ──────▶

Dimensions of entire design

Colour(s) ──────▶

versus…

Dimensions of red shapes selected in the design

o Clicking on the **Colour(s)** button opens a slightly different **Sign size** window but allows you to proportionately adjust the dimensions:

Dimensions based on only those shapes of selected colors. In this example, red.
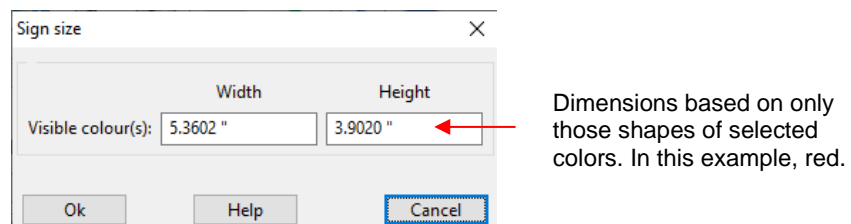
o For example, let's say you only have a 4" x 4" scrap piece of vinyl for cutting this color of red and you need to make sure the size of that red part of the design isn't larger than your scrap.

Width is changed to 4" ──────
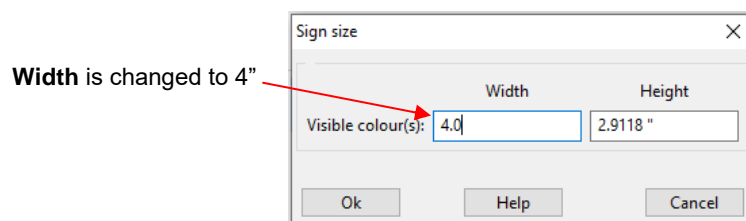
o What about the rest of the design? Not to worry! Even though you've only resized the red selection, the entire design will resize proportionately.

2.03 Measuring Tools

- The **Measuring** tools function allows you to determine the measurements of any shape within a project. To activate this function, click on the **Measuring tools** icon 🔻 on the **Main Toolbar** (or use either shortcut **R** or shortcut **8**). The **Sub-toolbar** will display two icons:

Snapping measuring frame ⟶ [icons] ⟵ Non-snapping measuring frame

- ◊ **Snapping measuring frame** option allows you to select any shape in the design by either:
    - o Clicking directly on a shape
    - o Dragging your mouse to marquee-select a shape or combination of shapes

- ◊ Once a selection is made, the **Image** button on the **Image Panel** changes to **Measuring Frame** and the dimensions of the selection are now displayed:

Measuring frame ⟶

Dimensions of selection ⟶

The word "is" has been selected ⟶
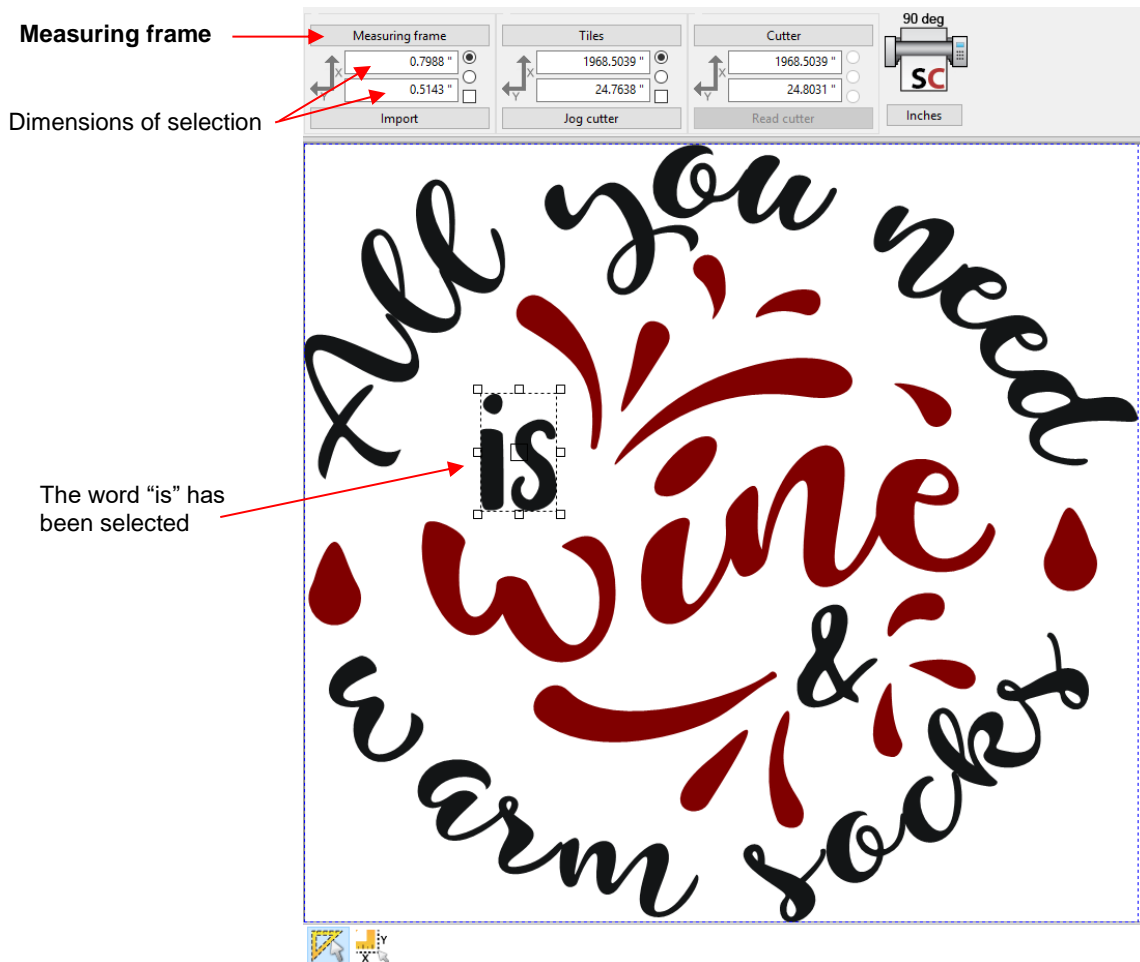
- ◊ Clicking the **Measuring frame** button opens **The Measuring Tool** window with the following settings:

Dimensions of current selection

Enter a **Scale percentage**

Enter **New height** or **New width**
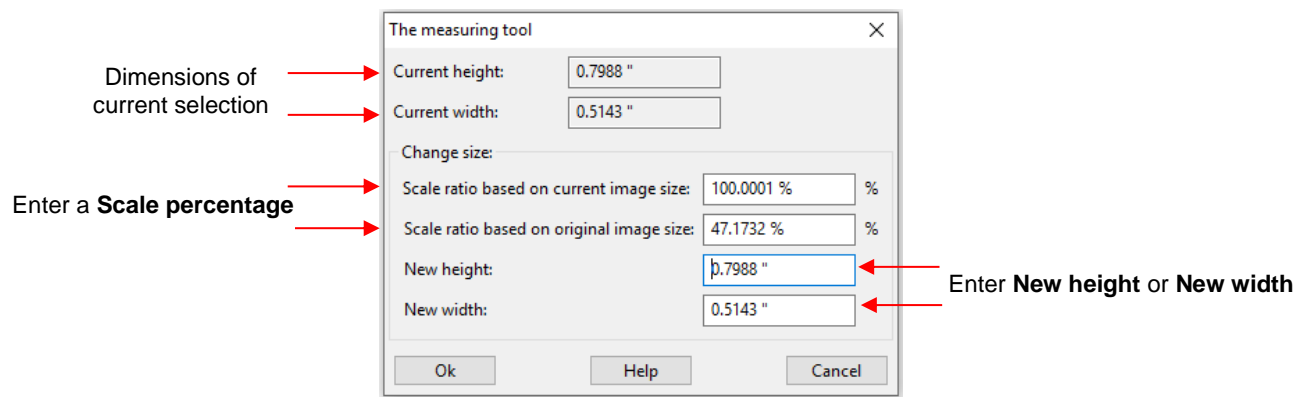
o   The current dimensions are based on the selection - in this case, the word "is."

o   The **Scale ratio based on current image size** refers to the current design within the project and excludes the frame (if one was imported).

o   The **Scale ratio based on original image size** refers to the design plus the frame. It also would be adjusted if other changes had been made to the image size since being imported into SignCut Pro 2.

o   As in the case of resizing just one color with a design, when a **New height** or a **New width** is entered, the entire project is resized proportionately.

2.04 Rotating

- In *Section 1.03.4*, an option for a default rotation of 90° on all imported files was shown. However, you may find that rotating other imported projects before cutting will either be needed based on the orientation relative to the cutter or in an effort to more economically utilize your material.

- In the **Collection of most commonly used tools** mode   , there are three rotate functions on the **Sub-toolbar**:


Rotate image in 90 degree steps   **Reset the rotation**

Rotation for minimum vinyl consumption
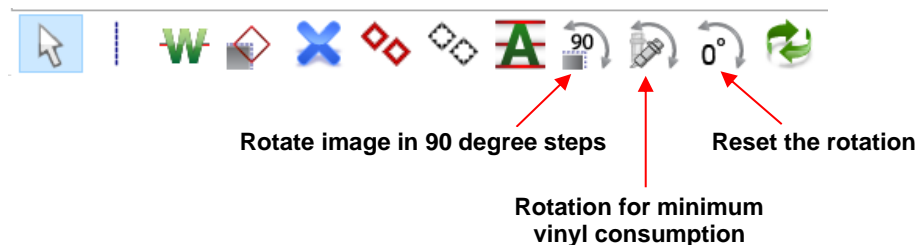
◊   **Rotate image in 90 degree steps** (shortcut **Tab**): Each click on this icon (or each press of the **Tab** key) will rotate the image 90º clockwise, resulting in four possible orientations for cutting:
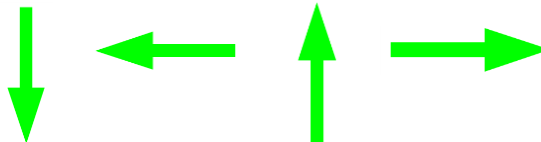
◊   **Rotation for minimum vinyl consumption** (shortcut **Shift+Tab**): This function determines the best of the 4 possible rotations that will use the least amount of material.

o   For example, if the following project is imported and sent to cut, the arrows would cut lengthwise along the material:
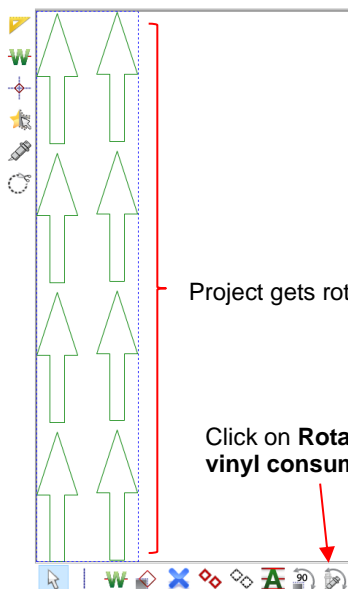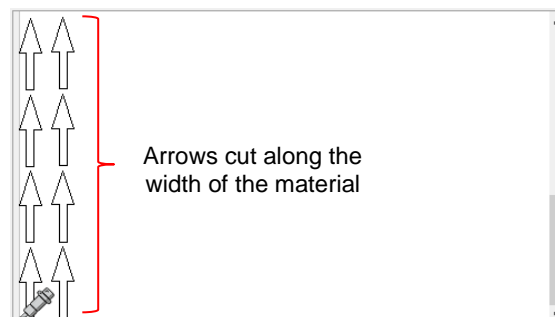
21
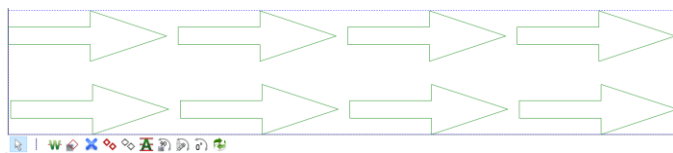
The project as imported into SignCut Pro 2
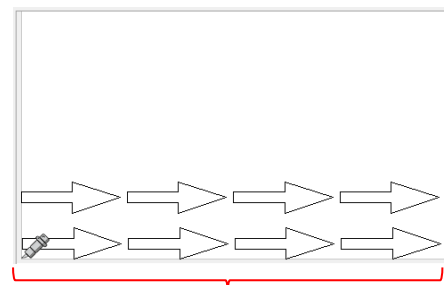
Arrows cut along the length
of the material

- o Clicking the **Rotation for minimum vinyl consumption** icon rotates the project so that it will cross across the material, which is a more efficient use of the material:

Project gets rotated

Click on **Rotation for minimum vinyl consumption**

Arrows cut along the
width of the material

- ◊ **Reset the Rotation**: This function returns the shapes to the original rotation. Note, however, that if you have elected to have files rotated upon being imported (under **Settings>Settings>Default Folder**), this setting will return it to how the shapes were positioned in the original file versus after that default rotation was applied.
- In multi-color applications, you can select just one color at a time to rotate and cut. When you select all colors again, the rotation will be reset.

2.05 Mirroring

- In *Section 1.03.4*, an option for automatically mirroring all imported files was shown. However, you may find that you only need to mirror occasionally.

- In the **Collection of most commonly used tools** mode , the **Mirror** function is at the end of the **Sub-toolbar**:

Mirror image

- To apply the **Mirror** function, click on the **Mirror image** icon or use the shortcut **Ctrl+Tab**:
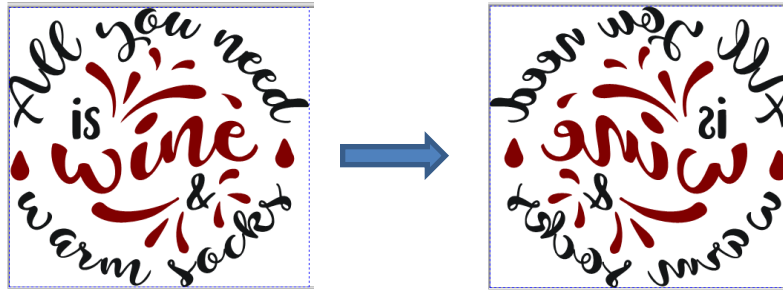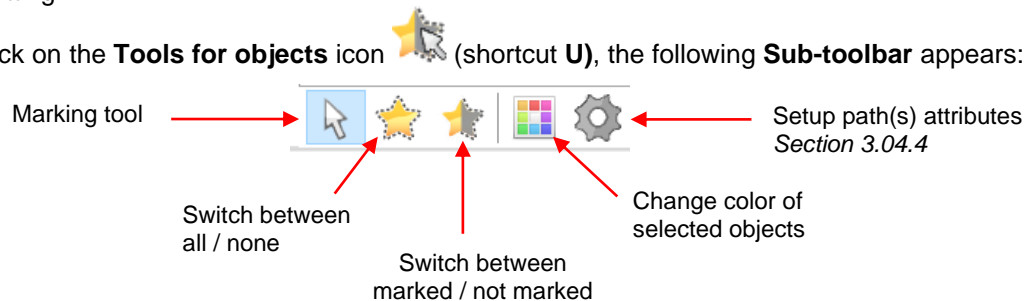

- In multi-color applications, you can select just one color at a time to mirror and cut. When you select all colors again, the mirroring will be reset.
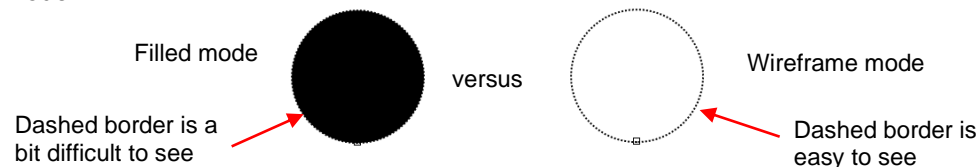
2.06 Tools for Objects

- On the **Main Toolbar** is a function called **Tools for objects** with several different purposes when preparing shapes for cutting.

- When you click on the **Tools for objects** icon (shortcut **U)**, the following **Sub-toolbar** appears:

Marking tool

Switch between all / none

Switch between marked / not marked

Change color of selected objects

Setup path(s) attributes
Section 3.04.4

◊ **Marking tool** **:** with this icon selected, you can click on a shape to select it. If you need more than one shape selected, hold the **Shift** key while clicking on additional shapes. The border on a selected shape will become a thin black dashed line. If you have difficult discerning the dashed line, switch to wireframe mode:

Filled mode

versus

Wireframe mode

Dashed border is a bit difficult to see

Dashed border is easy to see

o When one or several shapes are selected, you can then do any of the following:

  ▪ Apply a different fill color to those selected shapes (presented later in this section)

  ▪ Send only those selected shapes to be cut (refer to *Section 3.02.1*)

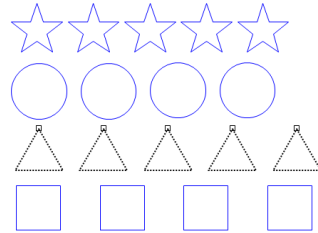 ▪ Change the cut settings assigned to those selected shapes (refer to *Section 3.04.4*)

◊ **Switch between all / none** - Toggle between having all shapes selected or none selected:

versus

No shapes are selected

All shapes are selected
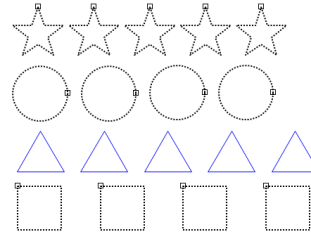
23
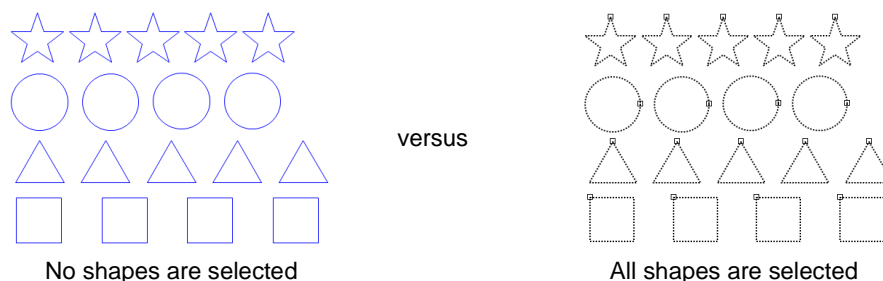
◊ **Switch between marked / not marked** - Invert the selection (any selected shapes will become unselected and vice-versa):
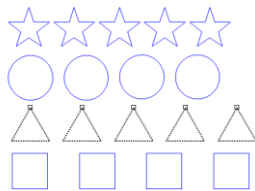
Only the triangles
are selected

versus

Everything is selected
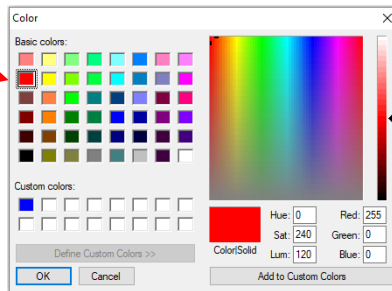except for the triangles

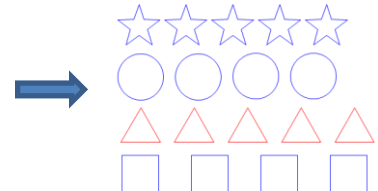◊ **Change color of selected objects** - Opens a color palette window where a different color can be selected:

Red is
selected

The triangles are selected

Color window is opened and a
new color is selected

Triangles are now red

◊ **Setup path(s) attributes** - Use this window to change various cut settings for the selected shapes. Because this refers to cut settings, it will be covered in *Section 3.04.4.*

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3. Cutting

3.01 What You Need to Understand About Cutting

3.01.1 You Have To Make Mistakes

- The key to becoming successful at cutting is to do a lot of it. Those who shy away from using their cutter will never get to the stage of mastering it. It's very normal for new owners to be intimidated by their cutter, so remember the following key things:

    ◊ You won't break your new cutter by cutting paper, vinyl, cardstock, and other easy-to-cut materials. The worst thing that might *possibly* happen is that you'll break a blade. That's it! And the likelihood of even that happening is low.

    ◊ You need to start cutting so that you'll begin making mistakes. It's in making these mistakes that you start to learn. You realize that these mistakes didn't result in a broken cutter. Plus, you'll stop making the same mistakes as you remember more of the things you need to check before every cut.

    ◊ As you make fewer mistakes you begin to build confidence and you begin to have more cutting success. From there, you begin to experiment more and produce more. Thus, your best course of action is to just start cutting… a lot! But first, read the rest of this chapter.

3.01.2 Begin with Easy Materials and Easy Shapes

- You didn't begin your first driving lesson out on the freeway. You probably started driving on a farm or in a parking lot. Then you progressed to the neighborhood and other low-traffic streets. Then you began driving on major streets. Think of your cutting in the same way and don't start your first cuts with thick difficult materials or large detailed cutting files. Instead, start cutting small basic shapes from inexpensive materials, such as cardstock from Wal-Mart or vinyl scraps you have on hand. Work your way up to larger or more difficult cuts after you master the easy ones.

3.01.3 Record Your Successes

- As you begin to have great results, take note of settings, such as cutting force/pressure, velocity/speed, blade offset, blade type, and brand of material. A cutter notebook is also handy for recording calibration settings, handy tips and tricks, resources for materials or tools, etc.

### 3.01.4 Use the Correct Blade for the Material You Are Cutting

- While you may only ever need one type of blade because you are cutting only or two types of material, it's worthwhile noting what other blades work with your blade holder and why you might need them at some point.

- Blades are designated based on the angle of the blade relative to the cutting surface.

    ◊ Regular vinyl and cardstock are usually cut with a 45° blade

    ◊ If a material is especially thick or if finer detailed cutting is required, a 60° blade is recommended.

    ◊ 30° blades work well for cutting fabric, felt, and tint.

3.01.5 Set the Blade Length/Exposure Correctly

- When setting the **blade length/exposure**, hold the blade holder up next to the material before pressing the material to the mat, so that you can more accurately set the length to match the thickness of the material.
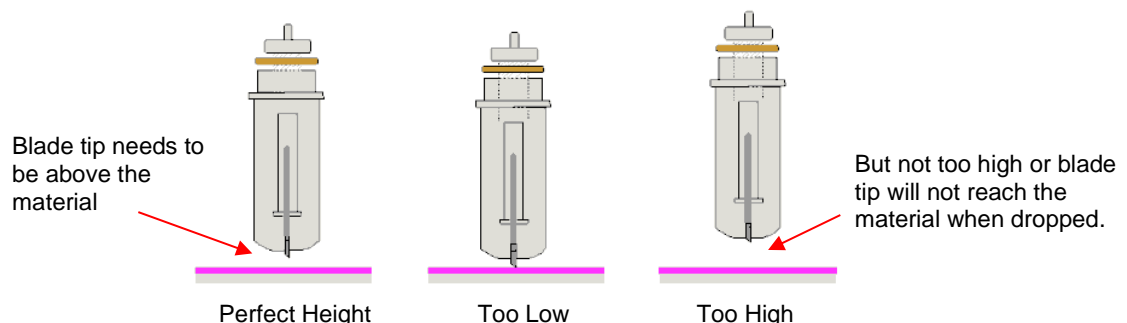
For really thin materials, like vinyl and paper, just the very tip of the blade will be protruding from the bottom of the blade holder. In fact, you should just barely be able to feel it with your finger and not be able to see it very well, if at all.

- A good way to test your blade length is to fold a piece of the material onto itself and then cut a line into the material by hand. If the blade cannot cut through the material, you will need to extend the blade. If the blade cuts through the material and cuts into the next layer, you need to retract the blade. If the blade cuts through the material but does not cut into the layer below, you have the perfect length.

- Having the blade fully extended will never result in better cutting. In fact, it can cause skewing, tearing of the material, damage to the blade, and damage to the mat or cutting strip (if no mat is being used).

- When conducting the test cut, be sure to check your mat (or backing sheet) for cut lines after the test. You should be able to set the length to get clean cuts but with no visible markings on the mat. If you do see cut lines in your mat, retract the blade length and repeat your test cut.

Material
Mat or carrier sheet

Perfect Length   Too Long   Too Short
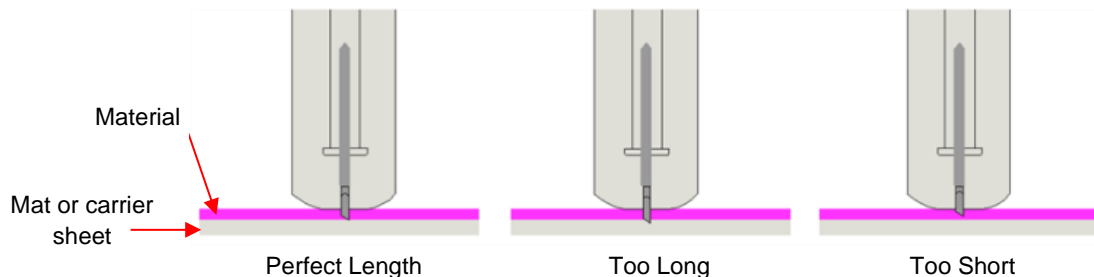
3.01.6 Set the Blade Tip Height above the Material

- The **blade height** is the distance from the tip of the blade to the top of the material you are about to cut.

- With some cutters, the blade holder is always mounted with the rim of the holder resting on the blade holder seat. But with other brands of cutters, it does not necessarily have to be positioned this way. You have control over that height and can raise the blade holder up a little higher before locking it into place when cutting thicker materials (e.g. craft foam) or denser materials (e.g. textured cardstock).

- When you do have control over the height, note the following:

  ◊ If the blade holder is too close to the material, it will drag across the material you are cutting when it should be in the up/non-cutting position (such as between shapes or moving to and from the origin).

  ◊ The dropping of the blade will invoke more downward force… to a point! Thinner, easy-to-cut materials (such as paper and vinyl) can have the blade tip fairly close to the material. Denser materials, such as cardstock, chipboard and craft plastic, need the blade tip a little higher, but not too high:

Blade tip needs to be above the material

But not too high or blade tip will not reach the material when dropped.

Perfect Height   Too Low   Too High

- There are several methods to use in making sure the blade tip is set at a consistent height from one cut to the next:

  ◊ One recommended method for getting the same height set for all of your cuts is to use a spacer of some kind. Place the spacer on top of the material you are cutting. Loosen the front screw and insert the blade holder so that the tip of the blade is touching the top of the spacer. Lock in the blade holder and remove the spacer. This distance will provide the blade some "punch room" to give the extra force and

more consistent cutting of your material. The spacers used are typically an old CD, a used credit card, or a stack of 25 Post It notes.

◊ An alternate method is to cut O Rings to slip over the bottom of the blade holder and then allow the blade holder and O Rings to sit on top of the blade holder seat. Use 1 ring for thin materials (paper and vinyl), 2 rings for cardstock, 3 rings for rhinestone template materials, 4 rings for thick chipboard, and so forth. O Rings can be cut from cereal boxes with two glued together to create one ring.

3.01.7 Keep the Cutting Mat Clean and Sticky

• When using a cutting mat for materials without a backing sheet, keep the mat clean and sticky. Most can be washed with soap and water when they have lost their tackiness. This removes invisible fibers, dust, etc. which interferes with the adhesive. The mat, when dry, will typically be quite sticky again,

• If needed, any repositionable adhesive can be applied to an existing cutting mat. Just be very conservative in how much you apply. You can always add more later.

• Press your materials evenly to the mat. Think about using a brayer both before AND after cutting. Repressing the material after cutting can greatly aid in weeding the cut shapes from the waste.

• When necessary, tape thicker materials to the mat to keep them from slipping during the cut.

• If you cut a range of materials, you might need more than one mat so that you can use stickier mats for certain materials.

3.01.8 Perform Test Cuts!

• Many cutters have a built-in test cut on their control panels. Alternatively, the **Cut out** window has a **Test cut** button (refer to *Section 3.04.2*) that will send three sets of squares to cut:
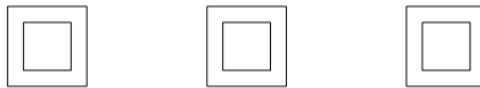
◊ Note that having an internal cut square allows you to more easily check the carrier sheet or cutting mat to make sure the blade didn't cut too deeply.

• When should a test cut be made?

◊ When cutting any new material

◊ When cutting a different color of the same material previously cut

◊ Any time the blade holder has been remounted into the cutter

◊ Any time the blade exposure has been changed

◊ Any time a blade has been changed out

• Thus, always perform a test cut unless you're cutting the exact same material and nothing has been changed on the cutter.

3.01.9 Know Where Your Images Will Cut

• If your cutter came with a test pen, practice drawing shapes until you know, with 100% confidence, where your images will be drawn. This is important since you do not want to be guessing when you begin actually cutting with a blade.

• If you do not have a test pen, experiment with small shapes from inexpensive materials to make sure you fully understanding how to control the location of a cut. Details are covered in *Section 3.02.2.*

3.01.10 Don't Get Frustrated, Get Help!

- Never waste time and material on cutting issues. Besides having your own cutter dealer as a first line of contact, use the resources from *Section 1.08*.   Again, the online **SignCut Pro Helpdesk Portal** is available here: https://signcut.freshdesk.com/support/home/
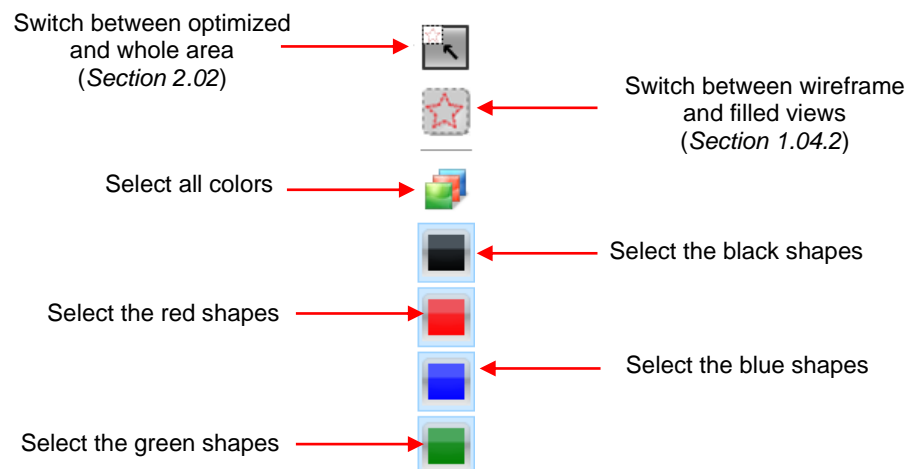
3.02 Choices Before Cutting

- There are a number of factors under your control for cutting and it's vitally important to understand each one. These are covered in detail in the following sections:

  ◊   What shapes to send to the cutter: *Section 3.02.1*

  ◊   Where the shapes will be cut from the material: *Section 3.02.2* and *Section 3.02.3*

  ◊   What cut settings will be used: *Section 3.03*

  ◊   Where the cut settings will be entered in SignCut Pro 2: *Section 3.04*

3.02.1 Controlling Which Shapes Will Be Cut

- For this tutorial, the following shapes were created and imported into SignCut Pro 2:

- As covered in *Section 1.05.3*, the **Color Toolbar** has the following options**:**

Switch between optimized and whole area (*Section 2.02*)

Switch between wireframe and filled views (*Section 1.04.2*)

Select all colors

Select the black shapes

Select the red shapes

Select the blue shapes

Select the green shapes

- It can be very handy toggling between **Fill** and **Wireframe** (shortcut **F9**) when selecting which shapes you want to cut. But it does not affect the outcome of the cutting. It is for display only:

Filled mode   versus   **Wireframe** mode
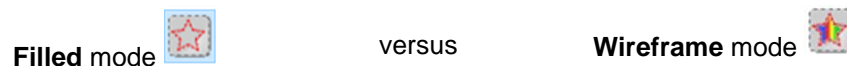
Filled mode   versus   **Wireframe** mode

- There are several methods for selecting which shapes to send to the cutter. In each of the following options, both the **Work Area** and the **Cut Preview** window are shown (the **Cut Preview** is available by clicking on the **Cut out** icon ✂ on the **Main Toolbar** or using the shortcut **4**.):

   ◊ Option 1: If all shapes are showing, then all shapes will be sent to cut:

   All shapes selected
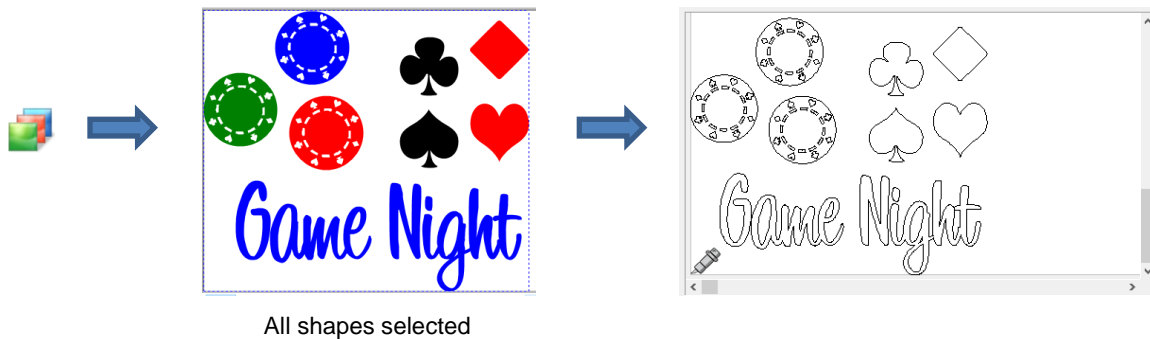
   ◊ Option 2: Click on any color thumbnail and only those shapes will be displayed; only those shapes will be sent to cut. In this example, the red thumbnail was selected:

   Only red shapes selected
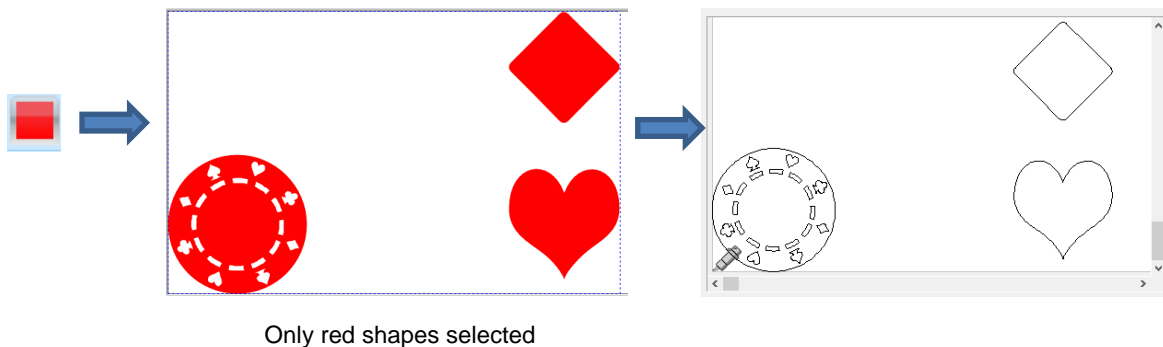
   Option 3: Click on any color thumbnail and, while holding the **Shift** key, click on one or more thumbnails of another color. The shapes in those colors will be displayed and they will be sent to the cutter. In this case the blue and the black thumbnails were selected:

Blue and black shapes selected
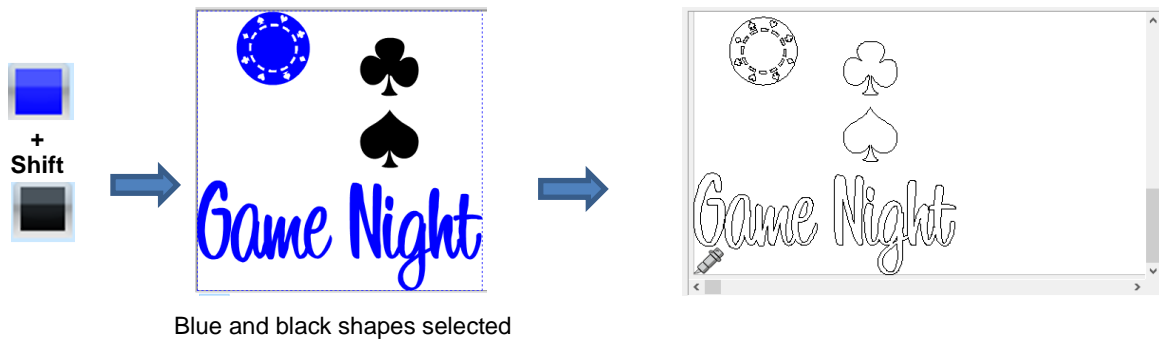
◊ Option 4: Hold the **Shift** key and click on any color thumbnail and it will be removed from the display. In this case, the **Shift** key was held and the blue thumbnail was clicked, leaving the other colors displayed:

Blue shapes not selected
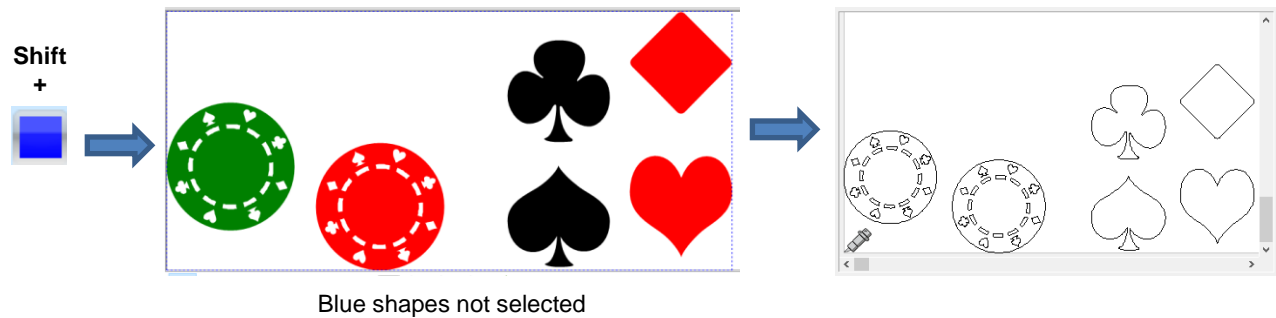
◊ Option 5: Instead of selecting by color, you can also mark individual shapes to be cut using the **Tools for objects** function on the **Main Toolbar** (refer to *Section 2.06):*

  o With the **Marking Tool** selected on the **Sub-toolbar,** hold the **Shift** key and click on those shapes you wish to cut. In this example, red shapes will selected:

The red shapes now have a dotted black outline, indicating they are selected

Marking tool
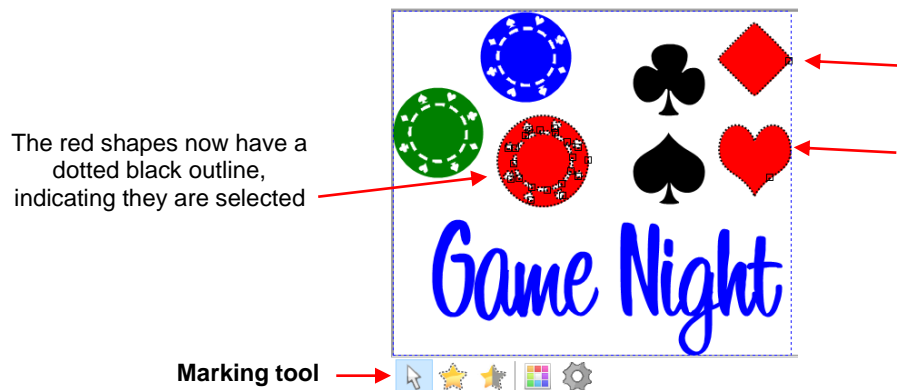
  o Note: In order to select the red poker chip, it was necessary to marquee-select it versus a single click. Otherwise only the outside circle would have been selected.

  o The **Cut Preview** window, when using this option to individually select shapes, shows a more optimized arrangement of the red shapes compared to using *Option 2*:
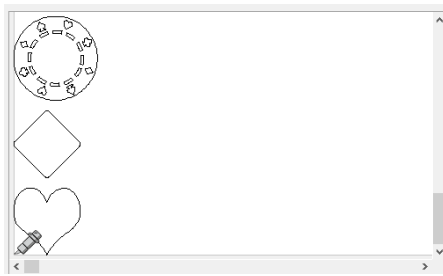
Option 5: shapes are moved to the origin for cutting

versus
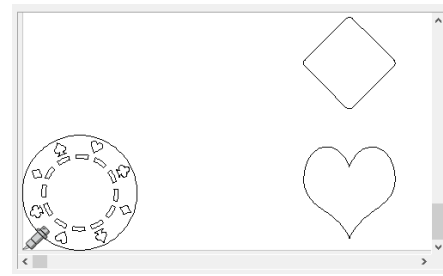
Option 2: shapes remain in the design location for cutting

◊ Option 6: This method allows you to disable any shapes you do not want to cut, regardless of color. Go to **View>Show Color / Object manager** and individual paths can be enabled/disabled from cutting:

Color folders

Enable / disable path(s) from cutting

Setup path(s) attributes *Section 3.04.5*
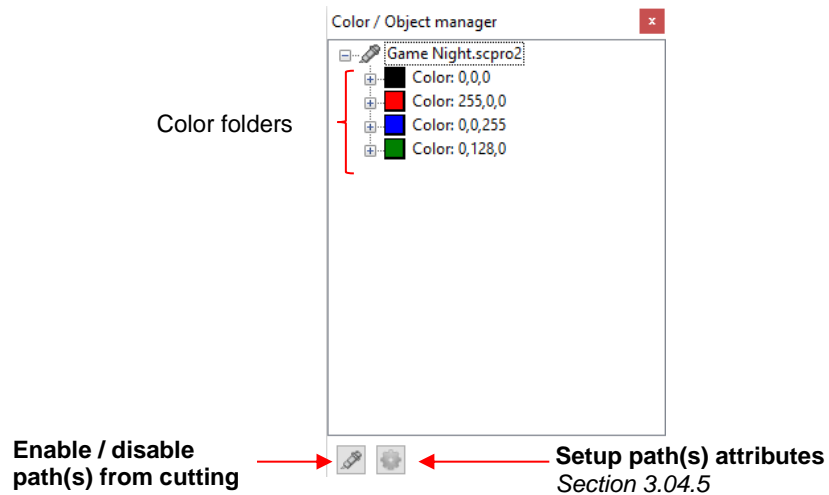
o Open one of the color folders and the paths which make up the shapes of that color will be listed. You can then select a path and that path will be highlighted. Also, on the **Color /Object manager**, the **Enable/disable** icon will then also be highlighted:

The **Path** (*Club* shape) is now disabled from cutting

1. Select a path

The *Club* shape now has a dotted outline

2. Click icon to disable

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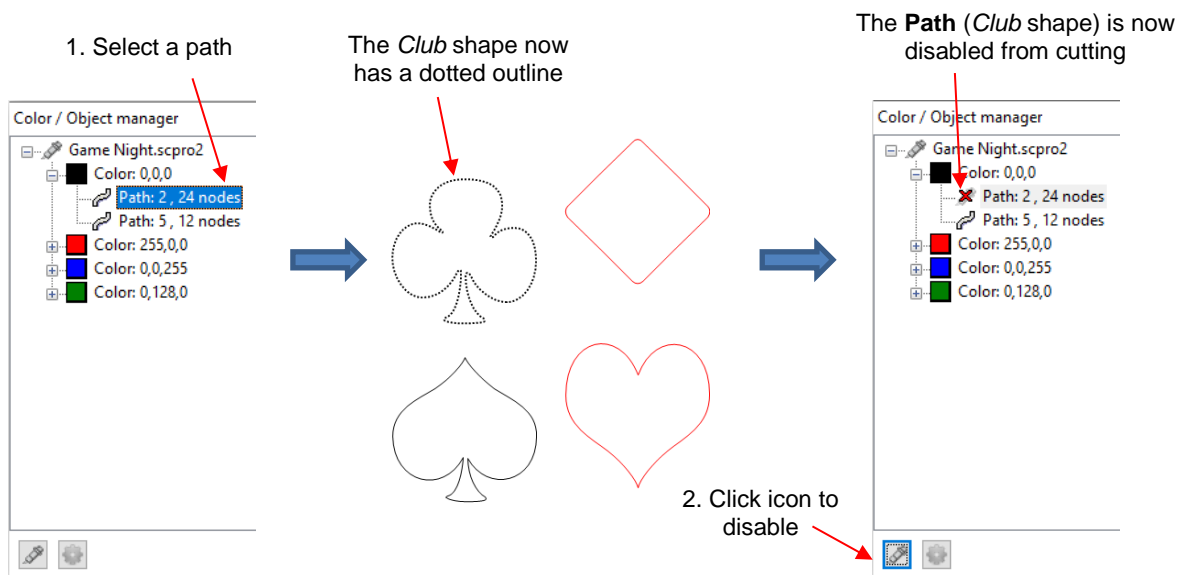
o The *Club* shape becomes faded and when the black thumbnail on the **Color Panel** is selected to send to the cutter (using *Option 2*), only the *Spade* shape appears in the preview:

The *Club* shape is now disabled from cutting

After selecting the black color box, only the *Spade* appears in the **Cut out** window
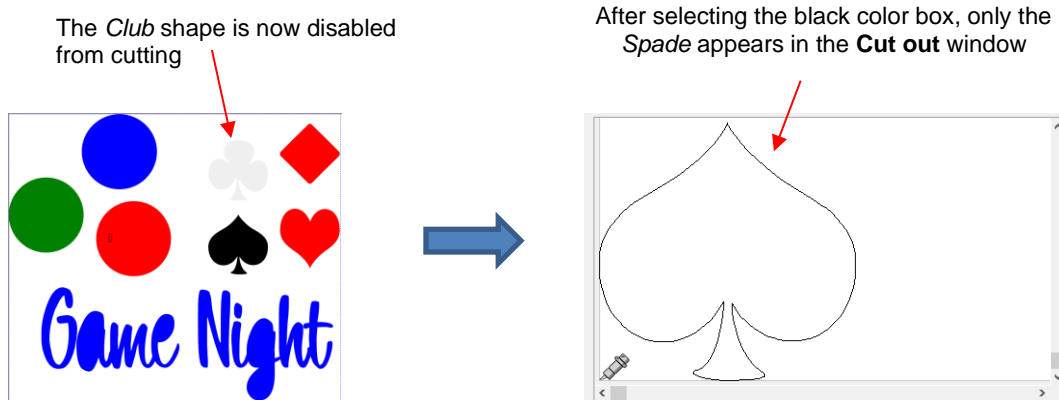
o Note that the *Club* shape was just one single path. Other shapes, like the poker chips, are made up of many paths. Let's assume you want to disable the internal suit shapes within the red poker chip. Open the red folder and, by clicking on the various paths, you will be able to identify which shapes to disable:

The red folder's individual paths

Select the paths for the suits (note you can use the **Shift** key to select more than one)

All of the suit shapes are now selected

o Click the **Enable/disable** icon and the suit shapes become faint, indicating they will not be sent to cut. When the color red is selected (again, using *Option 2*) to send to the **Cut out** window, the poker chip indicates the suits will not be cut out:

The suits are now disabled from cutting
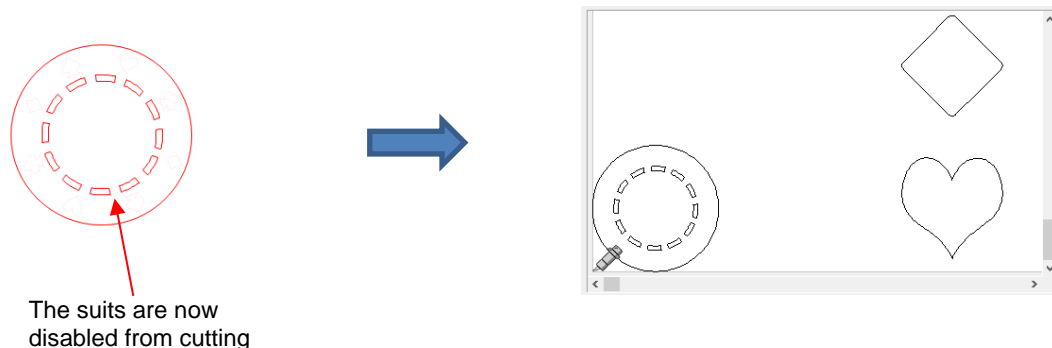
3.02.2 Controlling Where Shapes Will Cut

- In *Section 2.02*, it was shown that the top icon on the **Color toolbar** is a setting which switches between **Whole area** and **Optimized**. Using the same shapes from *Section 3.02.1*, assume that only the black shapes have been selected to cut:

  ◊ **Whole area** **:** shapes will be cut from the material as if the other shapes were still present:
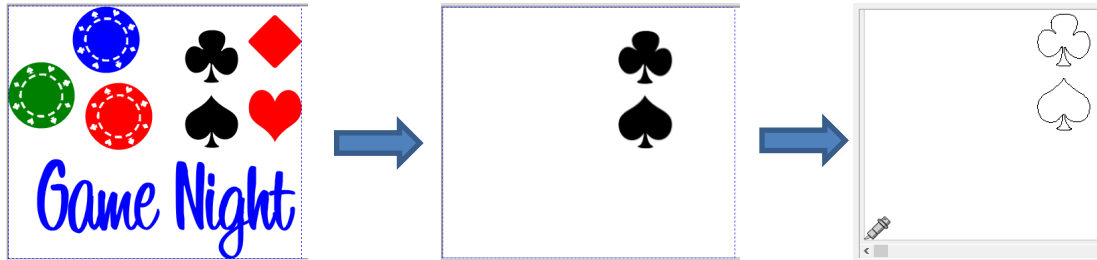
  ◊ **Optimized** **:** shapes will be moved and cut in alignment with the origin set on the cutter:
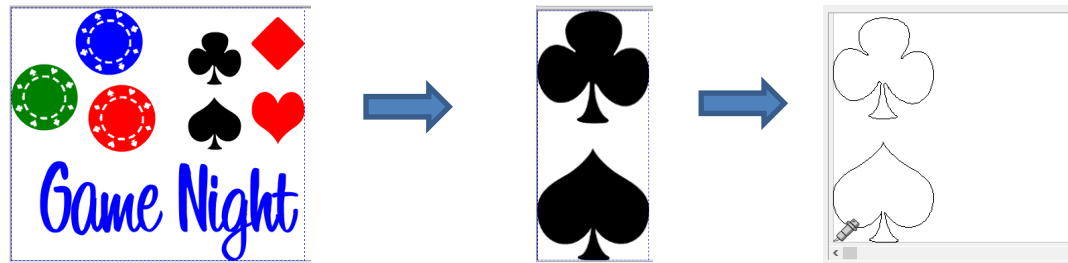
- In what applications is one mode preferable over another?

  ◊ Use **Whole area** mode when it matters where shapes are cut from the material. Some examples are:

    o Two tool applications, such as when scoring with a scoring tool, followed by cutting with the blade holder

    o When engraving on existing objects, such as trophy labels or charms

    o When cutting from a specific location, such as the center of a piece of material

  ◊ Use **Optimized** mode when it doesn't matter where shapes are cut. Since the shapes are moved to cut at the origin, it typically wastes less material.

- In *Section 2.04*, it was shown how to rotate shapes using the **Sub-toolbar Rotate** icons when in the **Collection of commonly used tools** mode. This can help you arrange a selection of shapes according to your material needs.

3.02.3 Setting the Origin for Cutting

- All cutters have a "home origin" which can vary depending on the brand and model of the cutter. This home origin is usually very close to the location for the blade to be positioned over the material, before beginning a cut. For many cutters, the origin is set in the front right corner of the material with most of the material behind the cutter.

- This origin corresponds to a location in the **Cut out** preview and helps you to visualize where your shapes are going to be cut relative to the cutter itself.

- *Section 1.04.1* showed the difference between having **View>Rotate view 90 degrees** disabled or enabled which affects the orientation for cutting and understanding where shapes will cut based on where the origin is set:

Left side of the cutter

Material moves in and out this way

Landscape

Origin is here

Right side of the cutter

Left side of the cutter

Right side of the cutter

Portrait

Material moves in and out this way

Origin is here
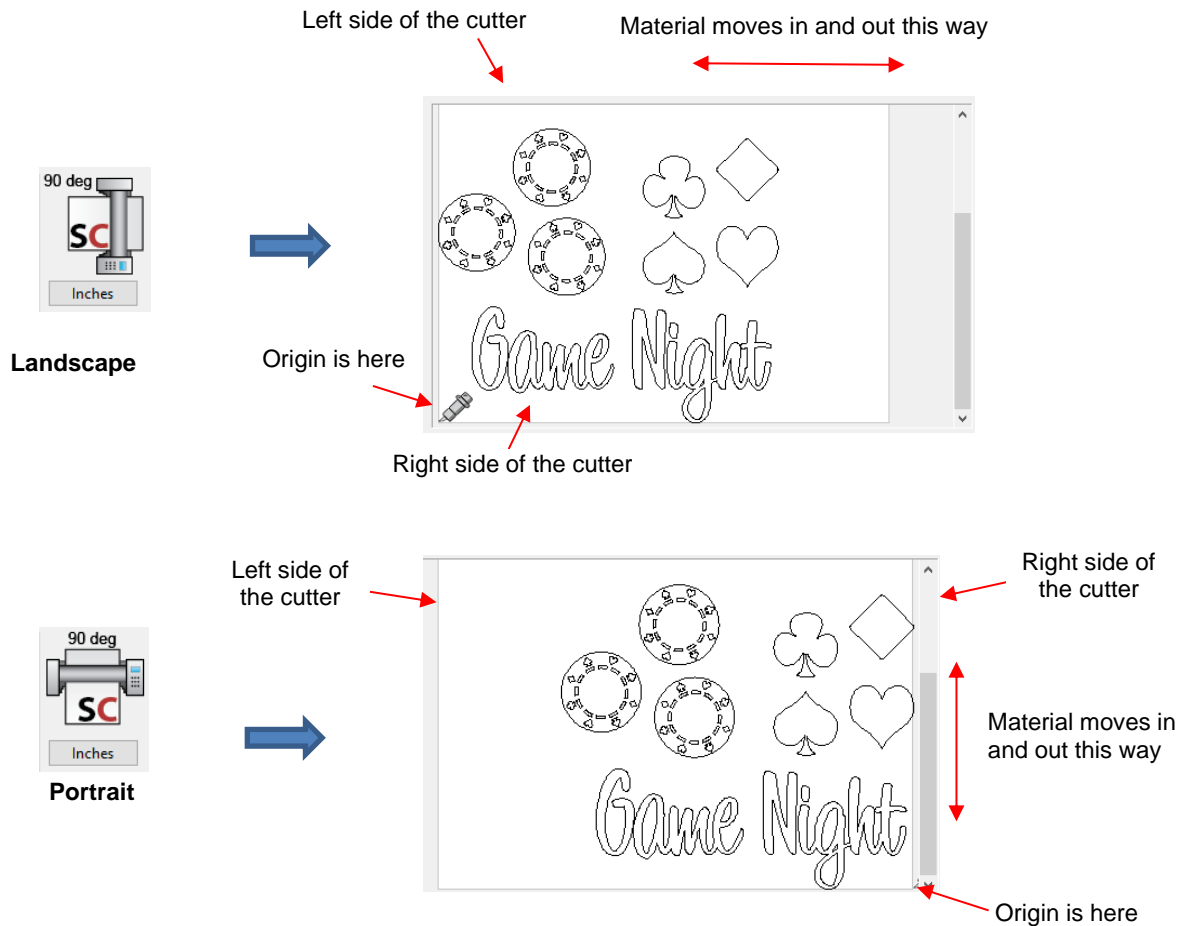
◊ Note that in both cases, the origin is being set at the same location relative to the cutter (front right corner as you face the cutter). But the direction the shapes will cut will not be the same.

- On most cutters, the origin can be set using the control panel on the cutter. SignCut Pro 2 offers the ability to set it from the software:

   ◊ On the **Tiles Panel**, click the **Jog cutter** button and the **Jog** window opens:

Click on arrow icons or use keyboard arrows to set the desired origin

Step Size control

Step size: 0.39 "

X position: 0.0000 "
Y position: 3.9405 "

Distance moved from initial origin

Open **Jog** window

Click **Ok** when done

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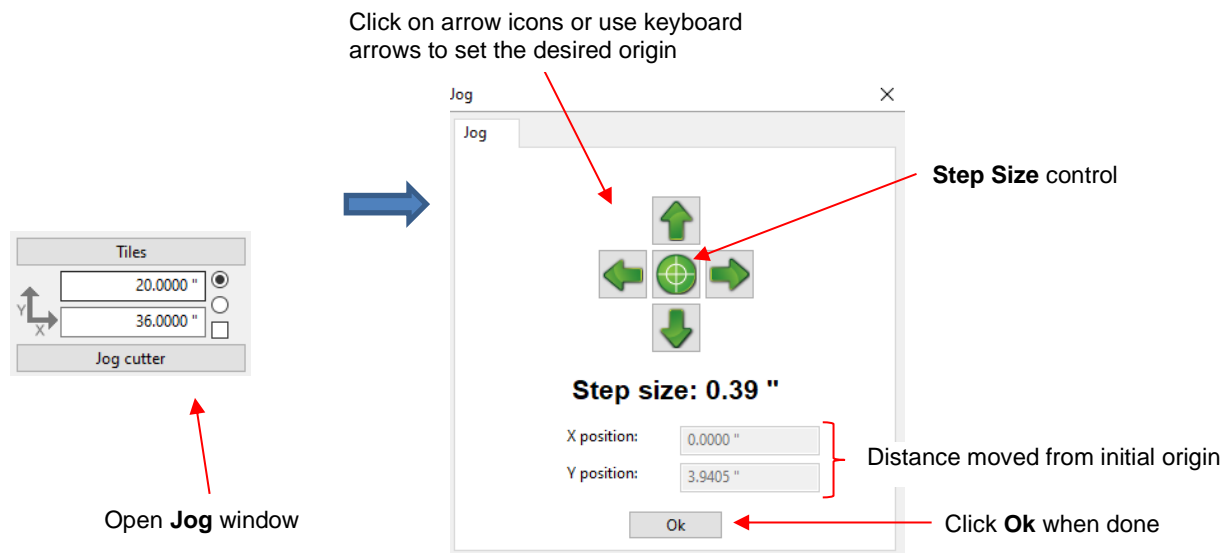
◊ In this **Jog** window, you can set a new origin. Either click the on-screen icons or use the arrow keys on your keyboard to move the head left/right and the material in/out. Note that it is assumed you are starting from the lower right corner of the material, thus you will only be able to move up or to the left from this initial location.

◊ **Step Size** controls the distance moved each time you click a direction icon or press an arrow key. There are three options:

  o 10 mm or 0.39"

  o 1 mm or 0.04"

  o 0.1 mm or 0.00" (a very tiny movement)

◊ Instead of changing the **Step Size** you can use the following shortcuts, with the keyboard arrows:

  o **Shift** + arrow key: larger **Step Size**

  o **Ctrl** + arrow key: smaller **Step Size**

◊ Below the **Step size** display, the **X position** and **Y position** indicate how far the cutting head has been moved, if needed, for subsequent cuts.

◊ Once the cutting head is in position, click on **Ok** to establish the origin and close the **Jog** window.

3.03 Cut Settings

3.03.1 Cutting Force

- **Cutting Force** is how much pressure is applied to a material during the cutting (or other) process. The minimum and maximum settings vary depending on the cutter brand and model. If it is set too low, the material cannot be cut. If it is set too high, you will get bad cutting (even incomplete cutting at times) and tearing of the material. Refer to your manufacturer's resources for recommended force settings for various materials. At the same time, always perform small test cuts before cutting your actual project and make adjustments in order to get a clean test cut before proceeding with a larger cut.

- Dull blades will need more force than new blades, thus anticipate increasing the force over the life of the blade.

- When cutting materials that can use varying blade angles, note that a 30° blade may need a little more force than a 45° blade which, in turn, may need a little more force than a 60° blade, because of the extra contact with the material being cut.

3.03.2 Cutting Speed

- **Cutting Speed** is how fast the blade travels while it is in the "down" or cutting position. As with **Cutting Force**, the minimum and maximum settings vary depending on the cutter brand and model.

- Selecting a speed should, again, be based on your manufacturer's recommendations. With regards to typical selections:

  ◊ Slow speeds are generally used when cutting dense difficult materials, such as chipboard, craft plastic, styrene, and balsa.

  ◊ Medium to fast speeds are generally used for easy-to-cut materials, such as cardstock, vinyl, iron-on transfer, and rhinestone template material. Very intricate designs will typically require a medium setting while more basic designs can be cut at fast speeds.

  ◊ Very fast speeds are useful for engraving, embossing, and drawing. You may, however, find that some materials, such as vinyl, will cut well at these very fast speeds.

3.03.3 Blade Offset

- **Blade Offset** is the horizontal distance from the center of the blade shaft to the tip of the blade. A pen or engraving tool has an offset of 0 because the tip is centered with the center of the pen/engraving tool shaft. But a blade is different:

Imagine a line passing through the center of the test pen or blade

There is no **Offset** on a pen.

The **Offset** is the distance between the center of the blade holder and the tip of the blade.

- If you set the **Blade Offset** to 0 when cutting with a blade, corners will be rounded. On the other hand, if it is set too high, bubbles will be cut on sharp corners. The perfect **Blade Offset** results in sharp 90° corners:

Offset is too low: corners are rounded
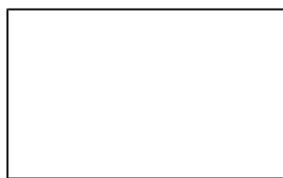
Offset is correct: corners are sharp

Offset is too high: divots appear at the corners

- The **Blade Offset** varies based on the angle of the blade. Thus, typically, a 30°, has a larger offset than a 45° blade, which has a higher offset than a 60° blade. However, besides the angle, some models of blades have a cutback to reduce the blade offset for more detailed cutting:

Cutback

Offset is much smaller on a cutback blade with the same cut angle

Normal blade

Cutback blade
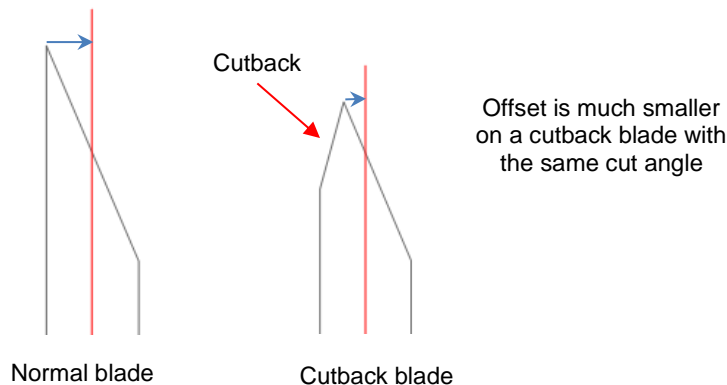
- Your cutter manufacturer should recommend the **Blade Offset** to use for any blade provided with your cutter. Usually **Blade Offset** is reported in mm units. Be sure to convert the setting if you're using inches or cm in SignCut Pro 2.

- Any time you order new blades, check for the recommended **Blade Offset** on the packaging and update inside SignCut Pro 2 when one of those new blades is used. Again, **Blade Offset** is typically reported in mm units. Because it's not unusual for blades to also be slightly off-spec, don't hesitate to tweak the setting up or down or use the calibration procedure which is covered in *Section 3.08.*

3.03.4 Overcut

- **Overcut** is related to **Blade Offset** in that it isn't needed when using a pen, embosser, engraver, and so forth, because the tips of those tools are aligned with the center of the tools themselves. However, leaving **Overcut** at 0 when using the blade holder will result in large shapes not quite closing:

Overcut is too low:
paths do not close

- In some cutting programs, **Overcut** is not a separate setting but rather automatically calculated and applied based on the **Blade Offset** entered. However, in SignCut Pro 2, you can enter a separate **Overcut** setting and should do so any time a blade is used.

- In general, the blade type doesn't greatly affect the **Overcut** required. Try using 1.00 mm. In the event you cut a large closed shape, like a 10" circle, you may find that you'll need to increase **Overcut** to 2.00 mm.

3.03.5 Passes

- The **Passes** setting causes each individual path to be cut the set number of passes before the blade moves to the next path to cut. This is better than just repeating the entire cut as each repeated pass is cut with the blade held down throughout the repeated passes, resulting in cleaner cutting.

- **Passes** is recommended in the following situations:

  ◊ Cutting thicker denser materials, such as chipboard, where multiple passes allow the blade to progressively "carve" through the material

  ◊ Cutting certain fibrous materials, such as fabric, where a second pass will ensure that all of the fibers have been cleanly cut

  ◊ Cutting intricate or detailed shapes (such as script titles) from certain materials, such as heavy or textured cardstock, where a single pass may leave certain spots not cleanly cut

  ◊ Cutting rhinestone template material where a second pass results in much cleaner weeding of the cut circles

3.03.6 Pounce Settings

- For projects with dashed-line (perforated) cuts, you will enable the **Pounce** settings:

  ◊ **Pounce down length**: the length of the dashed cut

  ◊ **Pounce up length**: the spacing between the dashed cut lines

- If you are unsure about what to use, try 3 mm (0.12") for **Pounce down length** and 6 mm (0.24") for **Pounce up length** as a test. In general, you want the spacing to be larger than the dash, especially if the dashed cut will be folded and unfolded repeatedly.

- If you use SignCut Draw for designing, the ability to convert a solid-cut path to a pounced-cut path is also available under the **Effects** tools. Refer to *Section 7.11* of the *SignCut Draw User Manual* for instructions.

3.03.7 Creasing

- The **Creasing** function is used to make score lines for foldup projects such as boxes or greeting cards. While other programs allow you to do single score lines, SignCut Pro 2 has the ability to repeat the score lines, slightly offset from one another. For thicker materials, this enhances the width of the score, making for easier folding.

- There are three options:

  ◊ **Normal:** single score line, as if normal cutting were occurring

  ◊ **Only outer**: two score lines are place a specific distance from what would be the **Normal** line, but the **Normal** line is omitted

  ◊ **Complete**: all three lines will be creased

3.04 Where to Enter Cut Settings

- There are various locations where the **Cut Settings** can be entered in SignCut Pro 2 (although not all offer the same settings):

  ◊ Select the **Cut Out** icon   on the **Main Toolbar**, then the **Tool settings** tab (*Section 3.04.2*)

  ◊ Select the **Cut Out** icon   on the **Main Toolbar**, then the **Advanced settings** tab (*Section 3.04.2*)

  ◊ Right click on any of the color thumbnails on the **Color Toolbar** (*Section 3.04.3*)

  ◊ Select the **Tools for objects** icon   on the **Main Toolbar**, select any or all of the shapes, then select the **Setup path(s) attributes** icon   on the **Sub-toolbar** (*Section 3.04.4*)

  ◊ Open the **Color / Object Manager** and assign settings to individually-selected paths (*Section 3.04.5*)

- Before presenting these options, the material dimension settings should be checked, which is covered in the following section.

3.04.1 Material Dimensions on the Cutter Panel

- On the **Cutter Panel** you can enter the dimensions of the material you're cutting. This is especially important if you plan to increase the number of copies to fill the available dimensions of your material. Remember to verify the **View** option you're using (refer to *Section 1.04.1*):
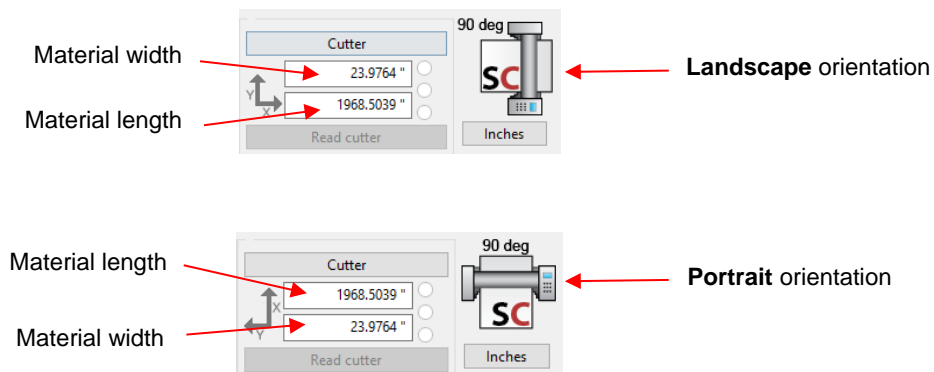
  - **Read cutter** is a special function on some brands/models of cutters in which the dimensions of the inserted material can be determined automatically.

3.04.2 Cut Out Window

- There are five ways to open the **Cut out** window:

  ◊ Click on the **Cut out** icon   on the **Main Toolbar**

  ◊ Go to **File>Cut out**

◊ Use the shortcut **Ctrl+P** or the shortcut **I** or the shortcut **4**

- **Cut out** > **Cutting** tab:
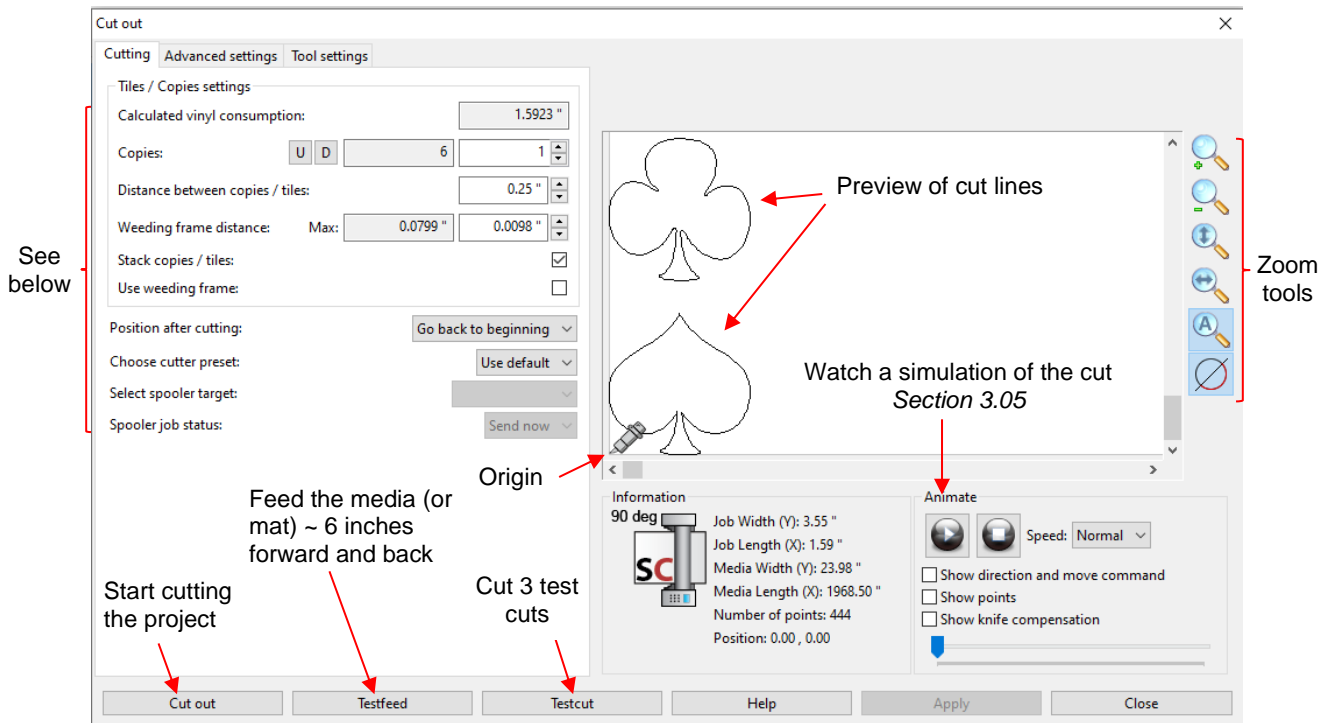
◊ Before presenting the various settings on the left side, note the other useful functions and tools labeled in the screenshot. Experiment with these to understand how much is offered in this one window!

◊ **Copies** provides an easy way to make duplicates of the shapes which have been sent to the **Cut out** window:
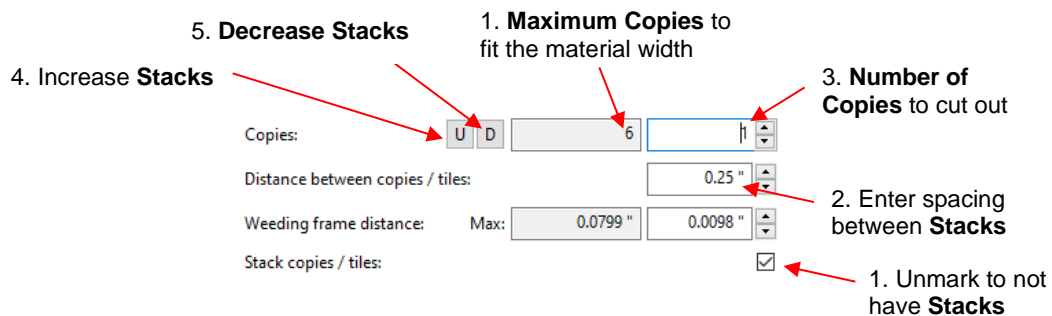
- ○ **Maximum Copies** indicates how many repeats can fit the width of the material that was entered on the **Cutter Panel** (refer to *Section 3.04.1*). In this example, 6 repeats (also called the **Stack**) will fit.

- ○ **Stack copies / tiles:** Unchecking this option will only allow repeats along the length of the material and not along the width:

Stack copies/tiles → … is enabled

Repeats fill up along the width of the material

Stack copies/tiles → … is NOT enabled

Repeats only fill up along the length of the material
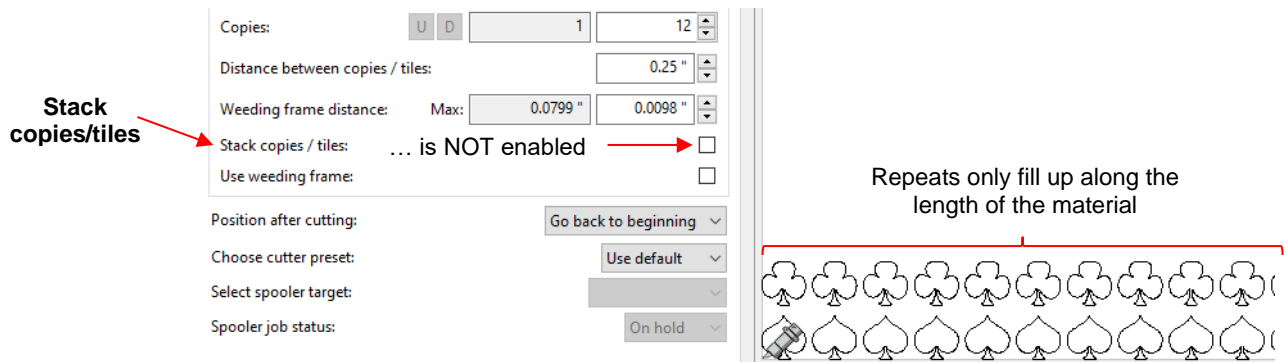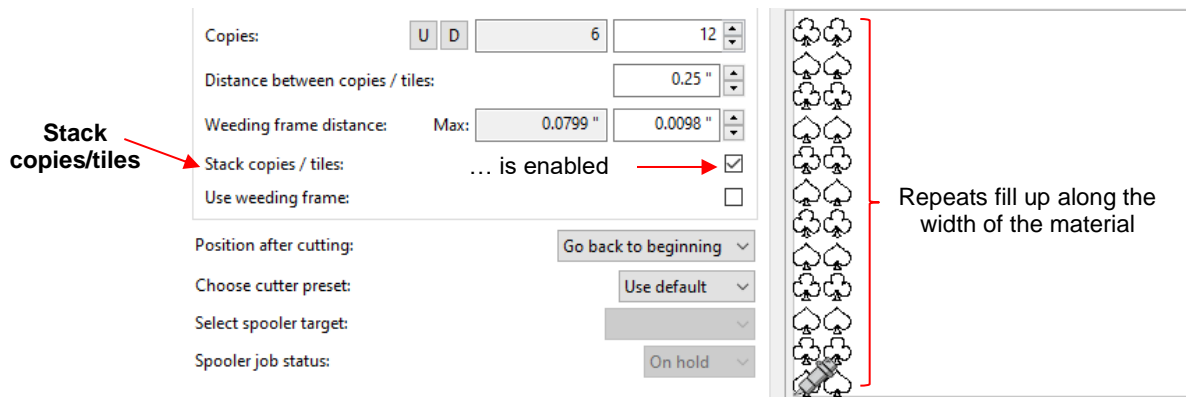
- o **Distance between copies / tiles**: Enter the spacing to use between all repeats (both along the width of the material and between the **Stacks**. Note that a new spacing may change the **Maximum Copies** setting:

Maximum Copies is 6…   When **Distance** is set to 0.25"

- o **Number of Copies** allows you to enter how many you need to be cut in total. In the example, it will be changed to 40 and the copies are immediately added to the preview:

Number of Copies is
set to 40

Preview updates to
show 40 copies

- o **U** and **D**: Allow you to increase or decrease the **Stacks**.
    - For example, let's say the material is only 36 inches long and this is changed on the **Cutter Panel**:

Media length set to 36"

    - If you want as many copies as will fit the entire material dimensions, then you can continually click on **U** until the material length is filled:

Number of Copies automatically updates

Number of Copies exceeds available material width

o As can be seen, the number of copies has exceeded the material width. In this case clicking the **D** icon can be used to set a more desirable number, allowing for some extra room at the end:

D is used to reduce **Stacks**

Number of Copies automatically updates

Number of Copies now fits available length

◊ **Use Weeding frame** allows you to add a rectangular cut line around each repeat:

2. Weeding frame distance settings

Adds a cut line around repeats

1. Enable this option

Every repeat now has a weeding frame

- o Change the **Weeding frame distance** settings to increase or decrease the space between the shape(s) in the repeat and the frame cut line.

- ◊ **Position after cutting** allows you to choose whether the cutting head returns to the origin (**Go back to beginning**) after cutting or advances to the end (**End after job**). If you need additional advancement at the end of the cut, use the **Feed forward after cut** setting on the **Advanced settings** tab.

- ◊ **Choose cutter preset:** Select a **cutter preset**, if you are using more than one cutter. Refer to *Section 1.02.*

- ◊ **Spooler** settings will be covered in *Section 8.03.*

- • **Cut out > Tool settings tab**

  - ◊ The settings entered in this window will be used for all shapes assuming:

    - o You check the box labeled **Use software force and speed parameters** (Otherwise, regardless of what force and speed settings are used in the other windows, the **Force** and **Speed** settings on cutter's control panel will be used.

    - o You haven't entered specific settings by color or by selected shapes (as will be covered in the subsequent options)

  - ◊ Selecting the **Tool settings** tab displays the following window of settings:

Option to have force and speed sent from SignCut Pro 2 versus on the cutter's control panel

Change cut direction option: see below

Blade offset
Section 3.03.3

Overcut
Section 3.03.4

Save settings:
Section 3.06

Force and **Speed:**
Sections 3.03.1 & 3.03.2

Tool selection menu
See below

Multi-cut settings:
Section 3.03.5

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- o **Tool**: On multi-head cutters, choose which cutting head to use with these settings
- o **Switch direction on open paths**: when enabled, the purpose of this setting is to not lift the blade or tool when cutting multiple open paths, making it useful for engraving projects.

◊ When all settings have been entered, you have three options at the bottom of the **Cut out** window:

Cut out	Testfeed	Testcut
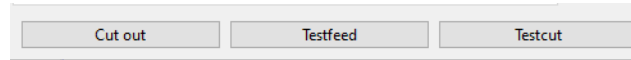
- o **Cut out**: will proceed to cut your project unless you have:

    - ▪ Elected to use **Write to File** (save the cut in PLT format) in *Section 1.02*

    - ▪ Used the shortcut **Shift+I** or **Shift** + click on **Cut out** icon ✎ on the **Main Toolbar** (which will then also activate the **Write to File** option instead of sending the data to the cutter).

- o **Testfeed**: will move your material in and out of the cutter about six inches. This can be useful when checking the alignment and smooth feeding of material. Note the distance can be increased on the **Advanced settings** tab.

- o **Testcut**: will cut 3 square frames which will allow you to make sure the cut is clean and not cutting too deeply.

- • **Cut out > Advanced settings tab**

    ◊ With this option, different cut settings can be assigned based on color. This works well in projects where some paths need to be cut as dashed lines (also called pouncing) or in multiple-tool projects, such as score and cut.
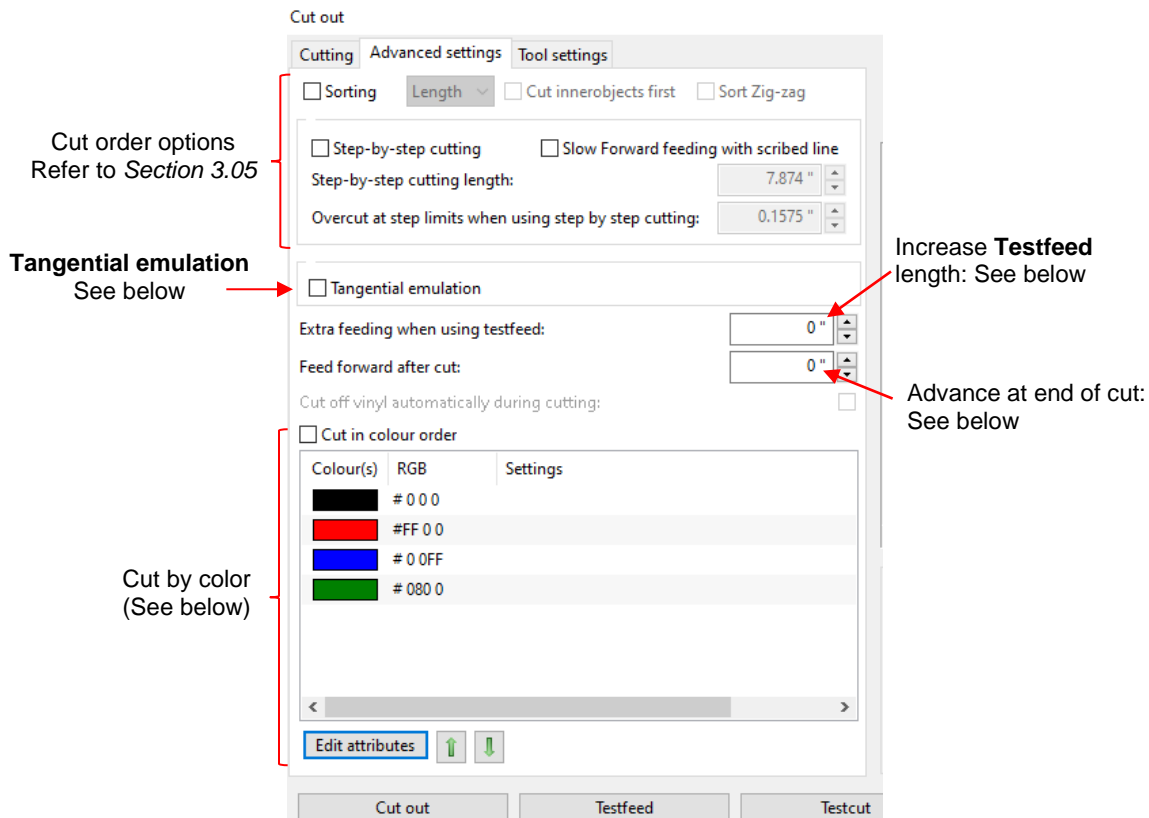
◊ **Tangential emulation**: when enabled, the blade will be rotated so that is aligned with the direction of the next path to be cut. This can prevent inadvertent nicks in the material at the start of a cutting path.

◊ **Extra feeding when using testfeed**: The default is ~ 6" (or 15 cm) which may be shorter than you prefer. Enter the <u>extra length</u> you wish to use.

◊ **Feed forward after cut:** If you have selected **End after job** from the **Position after cutting** drop-down menu (on the **Cutting** tab), this setting allows you to add an extra advance distance.

◊ At the bottom of the **Advanced settings** window is the option to change the order in which colors are cut, along with the ability to assign different cut settings to each color:

Mark this option to change cut order by color

Colors active in project

Initially, no **Settings** appear

Open **Edit attributes** window

Move a selected color up or down in the list
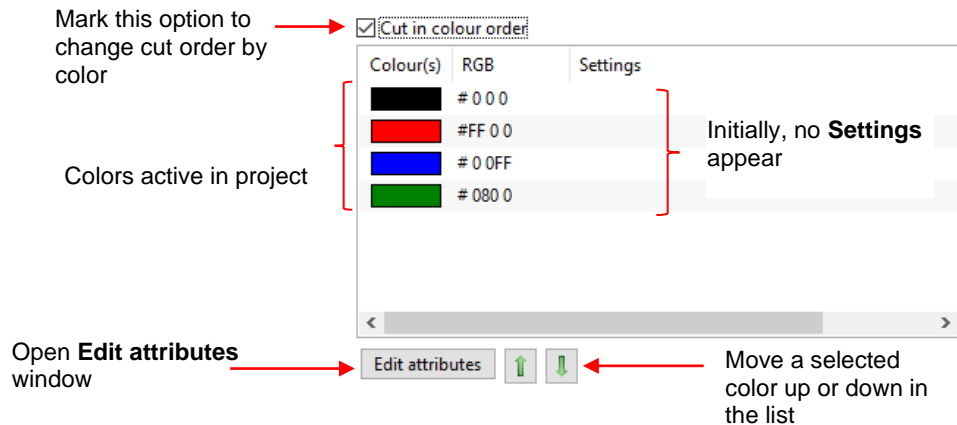
- o **Cut in colour order**: Marking this option will no longer cut shapes with respect to location in the project. Instead, all shapes of the top color in the menu will be cut before cutting shapes of the next color and so on down the list.

- o The order in which the colors are cut can be changed using the up and down arrows below the menu of colors. First, click on a color from the menu and then move its cut order as desired.

- o To enter the cut settings for each color, select a color and click on the **Edit attributes** button. The following window will open:

IMPORTANT: Mark this option if a tool or material change is needed before cutting this color

Select a **Preset,** if set up *Section 3.06*

Passes *Section 3.03.5*

Offset/Overcut *Sections 3.03.3 3.03.4*

Force and **Speed** *Sections 3.03.1 3.03.2*

Creasing options *Section 3.03.7*

Pouncing options *Section 3.03.6)*
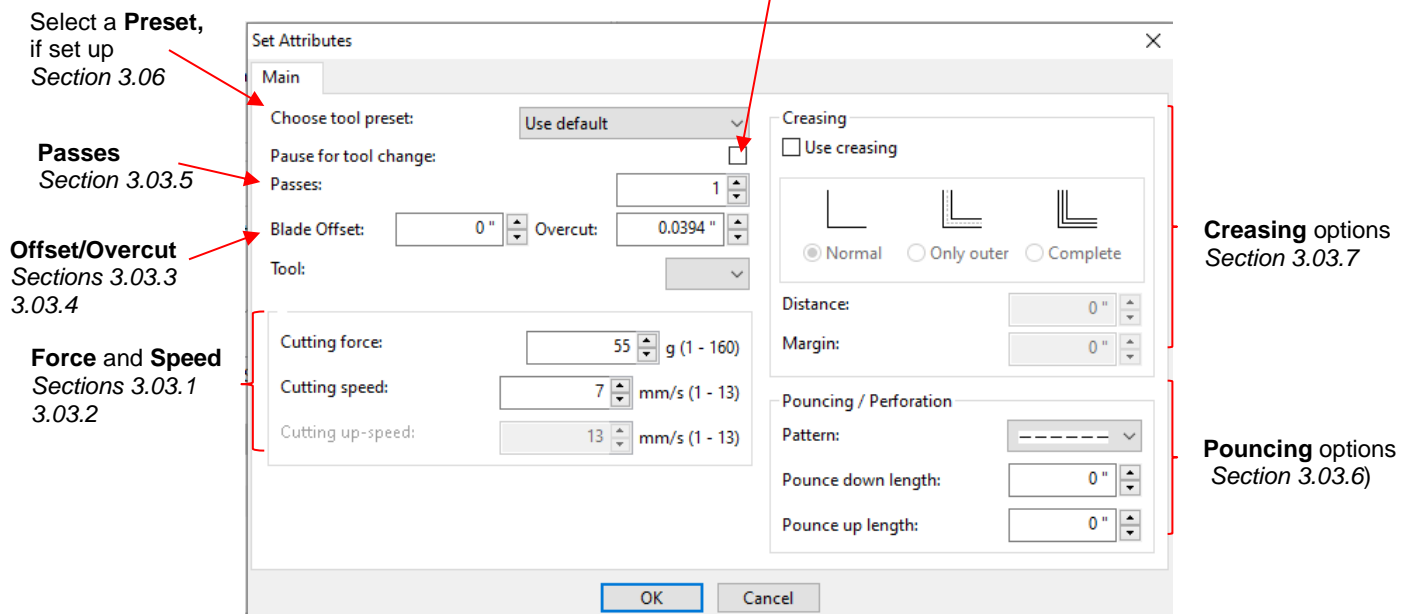
◊ Note the **Pause for tool change** option which can be used to pause the cutter before proceeding with this particular color. This will allow you to change out the tool mounted in the cutter and/or the material loaded in the cutter before the next cut is made.

◊ After assigning attributes to each color, the **Advanced settings** tab will indicate these settings, unless a **Preset** has been chosen in which the name of the **Preset** will appear instead:
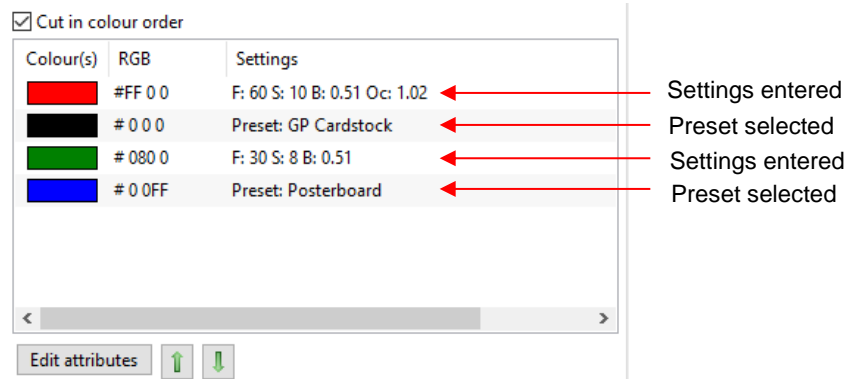
- Once each color has its cut settings assigned, proceed with selecting **Testfeed**, **Testcut,** or **Cut out**.

3.04.3 Entering Cut Settings from the Color Toolbar

- An alternative to using the **Advanced settings** tab to assign cut settings to each color (as presented in *Section 3.04.2*), the settings can be assigned on the **Color Toolbar:**

Right click on any color to open its **Set Attributes** window
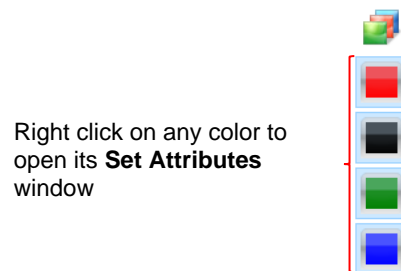
◊ Right click on any of the colored thumbnails and the same **Set Attributes** window shown in *Section 3.04.2* (**Advanced Settings** tab) will open where the settings can be entered.

◊ Use one of the *Options 1 – 4* in *Section 3.02.1* to select which shapes you wish to cut.

- Proceed to the **Cut out** window.

3.04.4 Entering Cut Settings in Tools for Objects Mode

◊ Use this option if you want to select particular shapes and temporarily override the current cut settings assigned to those shapes based on their color.

◊ Use the instructions in *Option 5* of *Section 3.02.1* to select the shapes you wish to cut. In this case, the three poker chips are selected:

Select **Tools for objects**

The three poker chips are selected

Select **Marking tool**

Select **Setup path(s) attributes**
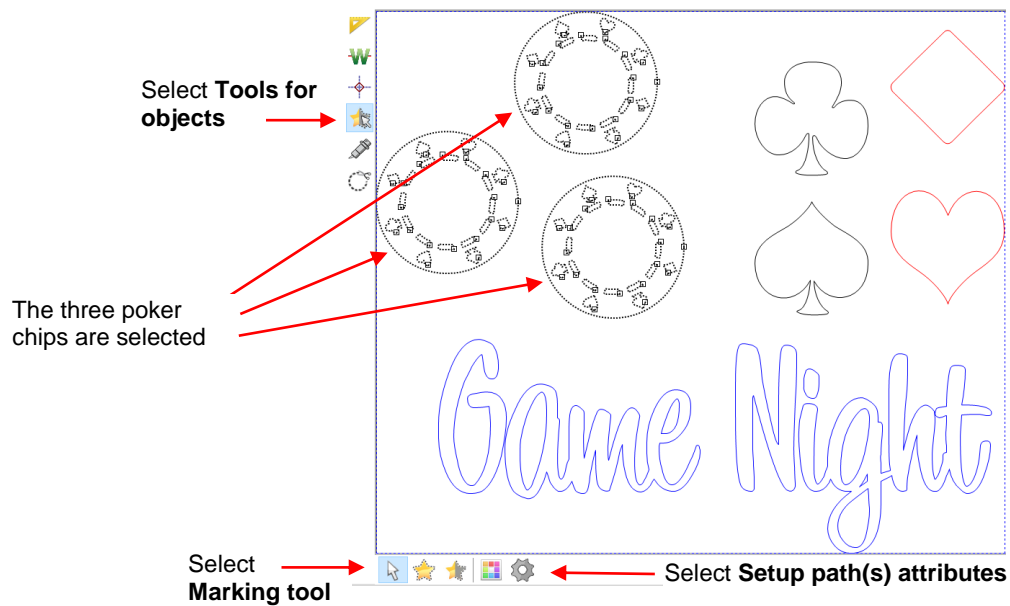
◊ After selecting the shapes, click on the **Setup path(s) attributes** icon ⚙ on that same **Sub-toolbar**. The **Set Attributes** window opens and new settings can be entered.

◊ Go to the **Cut out** window and, again as shown in *Option 5* of *Section 3.02.1*, the shapes are moved to the origin and nested.

Poker chips are selected

The three shapes are nested by the origin for cutting
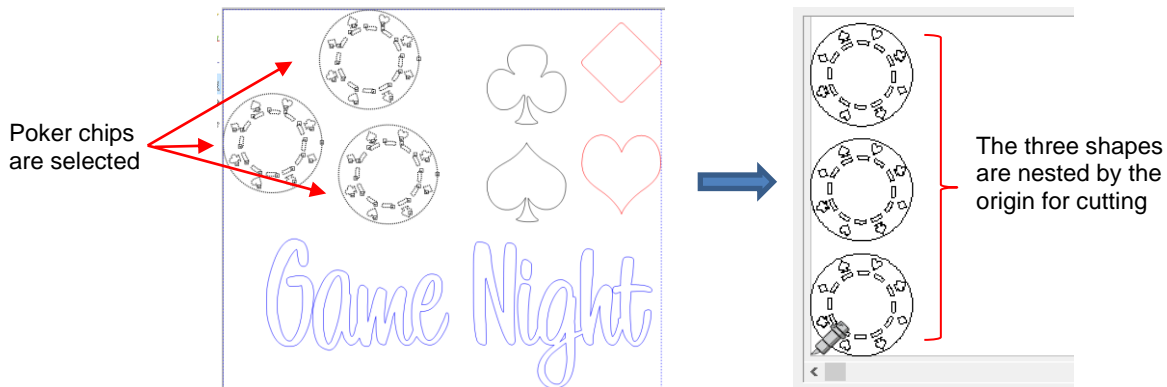
◊ Proceed with **Testfeed, Testcut** or **Cut out**.

◊ After cutting, the settings for these shapes will return to those assigned to their respective colors.

◊ Depending on the application, having the shapes automatically nested and cut at the origin may not be what you need. Thus, one solution would be to change their color to something not already used in the project. After selecting the shape(s), choose the **Change color of selected objects** icon 🎨 . Then use the **Color toolbar** option to change the cut settings for that color. Refer to *Section 2.06.*

3.04.5 Entering Cut Settings in Color / Object Manager Window

- *Option 6* in *Section 3.02.1* showed you how to use the **Color / Object manager** window to select specific paths to disable from cutting. This function can also be used to set different cut settings on specific paths.

- Go to **View>Show Color / Object manager** and select a particular path or paths to change. Let's say you don't want the curved rectangles inside the poker chip cut out, but rather cut pounced instead:

Color / Object manager

Select the paths for the internal shapes in the poker chip

Black dotted lines indicate the paths selected

Click the **Setup path(s) attributes** icon
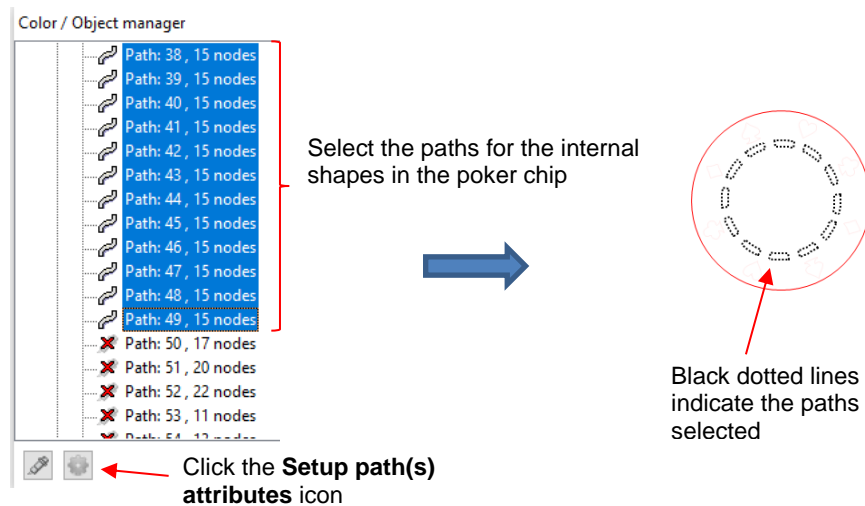
- After clicking on the **Set path(s) attributes** icon, the **Set Attributes** window opens and changes can be made to only apply to those particular paths:

Change to desired **Pouncing** settings

Click **OK** when done
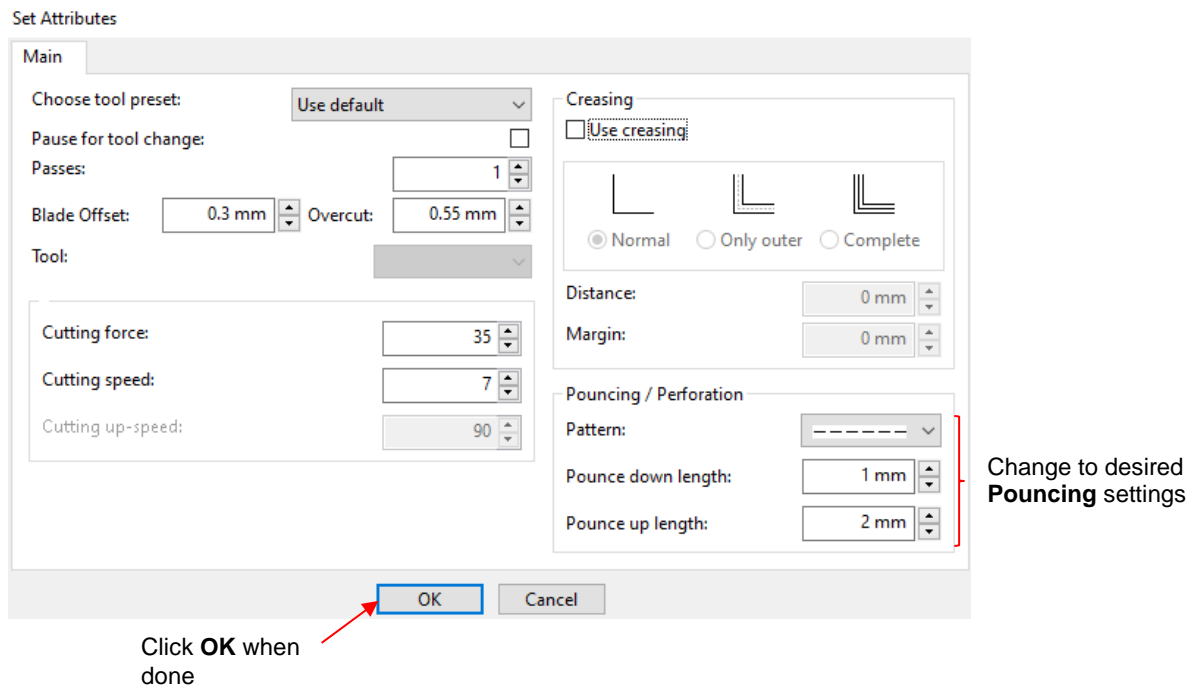
- When the red shapes are now sent to cut, the curved rectangles inside the poker chip will cut with a dashed pattern while the other shapes will still cut solid.

3.05 Controlling the Cut Order

- When performing long cuts, a certain amount of slippage or drift can occur for several reasons, such as friction, sticky grit shafts, or uneven pinch wheel pressure. SignCut Pro 2 offers some settings to reduce the amount of travel distance in and out of the cutter.

- Before covering the methods to control cut order, note that the cutting simulation video in the **Cut out** window is a useful aid for verifying cut order and will be used to illustrate the available options/settings.

- The following screenshot shows a portion of a simulation video, indicating the travel path that would be taken for this particular project:

Shapes turn green as they are cut in the animation

A red dashed line shows the path the blade will take

Pause the animation, if needed

Set the animation speed

Other animation options

Start the animation
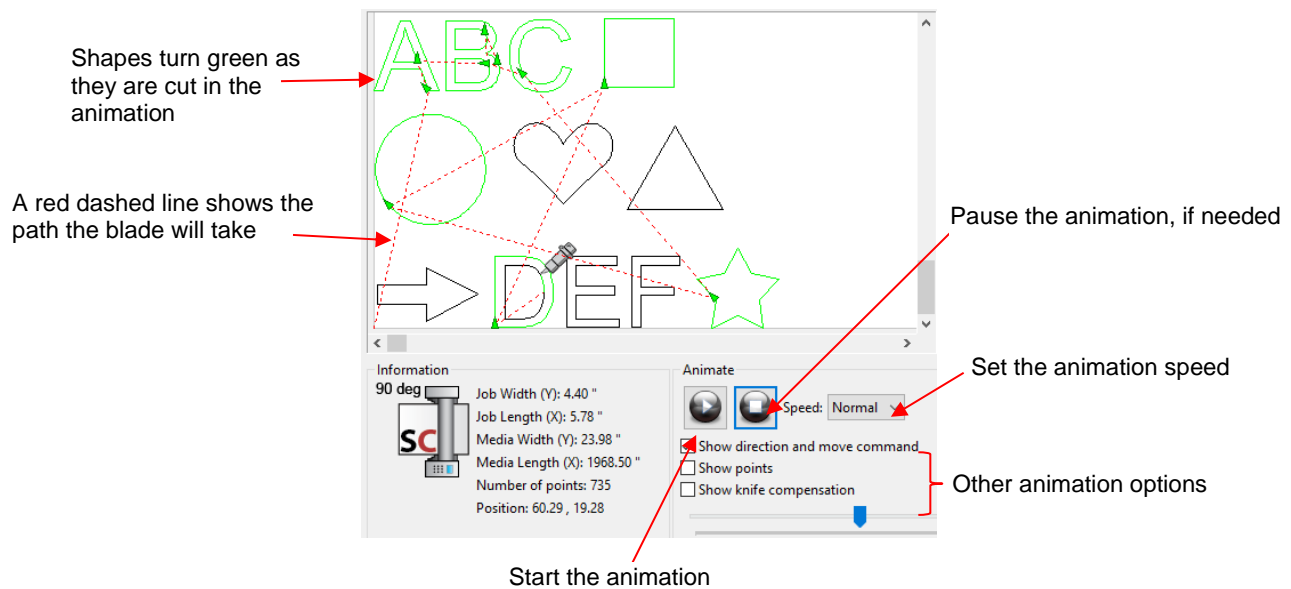
◊ Note: To see the red dashed path, enable the option called **Show direction and move command**.

- On the **Advanced settings** tab in the **Cut out** window, are the following settings in the upper left corner. Refer to the section numbers shown for details on these options:

Sorting
Section 3.05.1

Step-by-Step cutting
Section 3.05.2
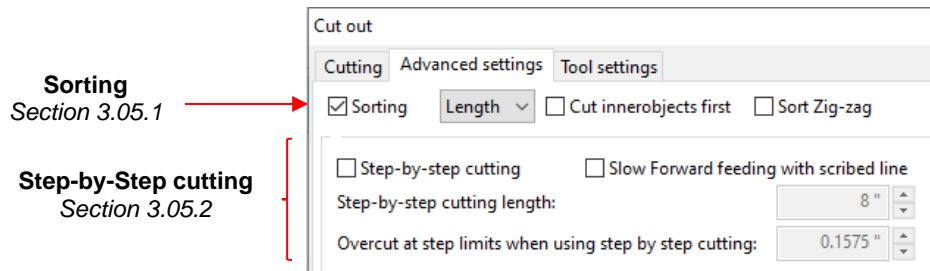
3.05.1 Sorting

- **Sorting**: when disabled, shapes are cut in the order they were originally created which may not be the most efficient path. For example, the complete animation shows a very random pattern of cutting as the blade moves from shape to shape:

Red dashed lines and green arrows indicate the path and direction taken by the blade

Travel path begins and ends at the origin of the cutter
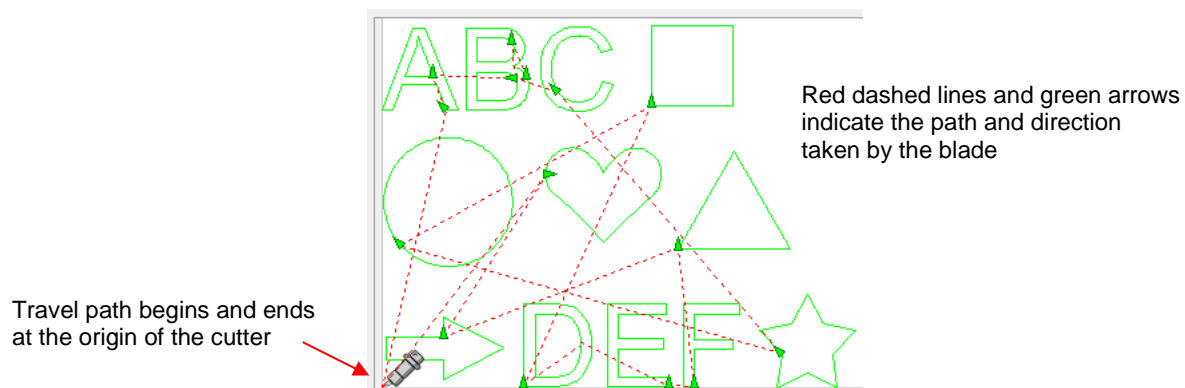
- When **Sorting** is enabled and **Length** is selected, the path is changed and, instead of cutting "here and there", all the shapes along the bottom row are cut before all of the shapes in the middle row and then before all of the shapes in the top row. Note that a "row" represents length (front-to-back) when facing the cutter:
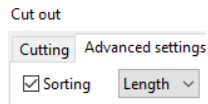
Sorting and **Length** selected
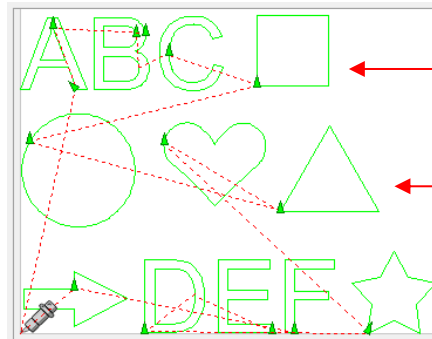
3. This row of shapes will cut last

2. This row of shapes will cut second

1. This row of shapes will cut first

- If, instead of **Length**, **Width** is selected, then a "column" order (left-to-right when facing the cutter) is used:
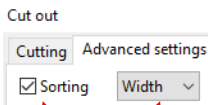
Sorting and **Width** selected
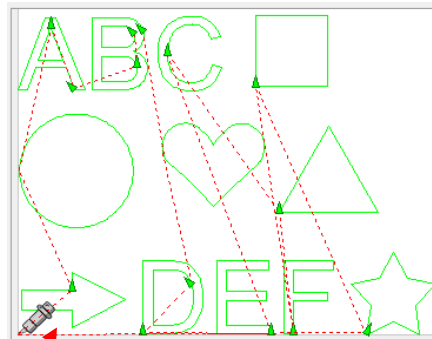
1. Shapes along the left cut first

2. Shapes in the middle cut next

3. Shapes along the right cut last

- In testing, it appears that as long as **Sorting** is enabled, SignCut Pro 2 will always cut inner (aka child) shapes before cutting the outer (aka parent) shapes. If, however, the animation indicates this isn't the case with your particular project, enable the **Cut innerobjects first** setting:
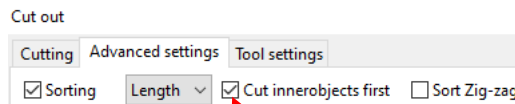
Cut innerobjects first

- The final setting in the **Sorting** options is **Sort Zig-zag**. With this option enabled, the cut order is based on moving the shortest distance from the end of one path to the start of the next path. Thus, the order can move from one row to the next or from one column to the next depending on the starting location for the next path.

3.05.2 Step-by-Step Cutting

- The **Step-by-step cutting** option allows you to set a maximum distance for the blade to travel, either lengthwise or widthwise, before ceasing to cut at that location and moving to cut other paths within that same maximum distance.

  ◊ For example, if the limit is set to 23 inches, then all paths within that first 23" range will be cut before the blade moves to cut anything in the next 23" range.

  ◊ A path that crosses the 23" boundary will stop cutting at the 23" mark and will resume after any of the other paths in that first 23" range are cut.

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- In order to efficiently utilize **Step-by-step** cutting, mark the option for **Sorting**, as well as the **Step-by-step cutting** option. Also enter the limit (**Step-by-step cutting length**):

Select **Sorting**

Select **Step-by-step cutting**

Enter the **Cutting Length**
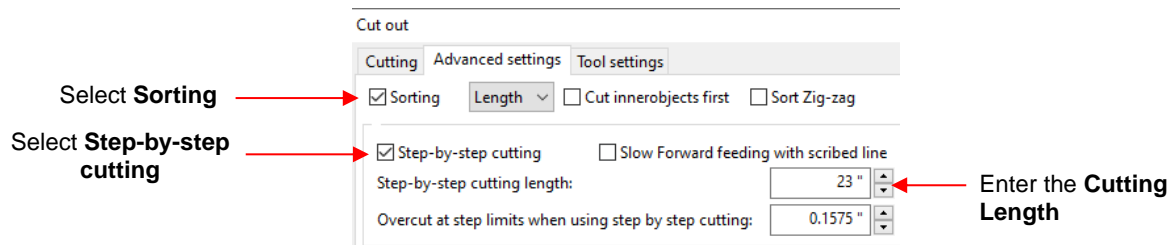
◊ **Overcut at step limits when using step by step cutting**: Because the blade can stop in the middle of cutting a particular path, it's important to make sure the blade will cleanly cut that path when it returns to the point at which it stopped. This particular **Overcut** setting represents a length, from the prior path, that will be cut again to make sure the cut is clean and no gaps exist in the path.

Initial cut stops here

Red section of the path represents the **Overcut at step limits when using step by step cutting**

Cut resumes here
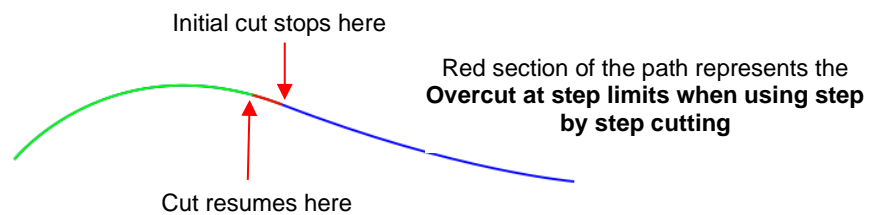
◊ Using these settings on the following cut indicates that the blade will stop when it reaches the 23" limit and will then begin cutting the other shape that's within the same limit:

… the blade moves to start cutting here and progresses to the left

Cutting stops on this shape at this point…
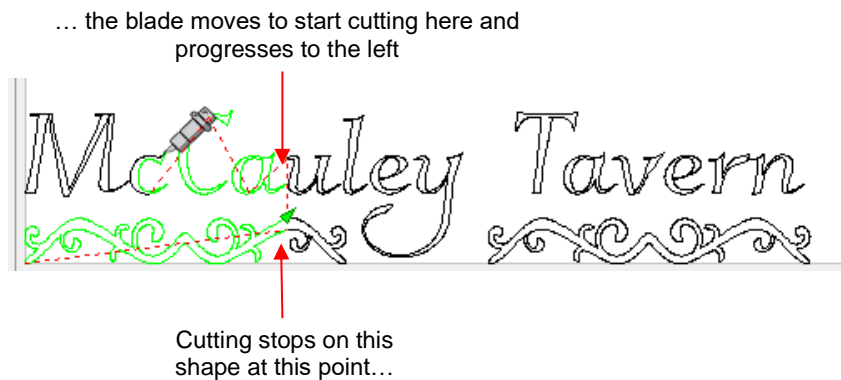
◊ After the remaining part within the first 23" is cut, the next 23" section will then be cut.

The first 23" is completed

The blade then moves to the next 23" range to cut
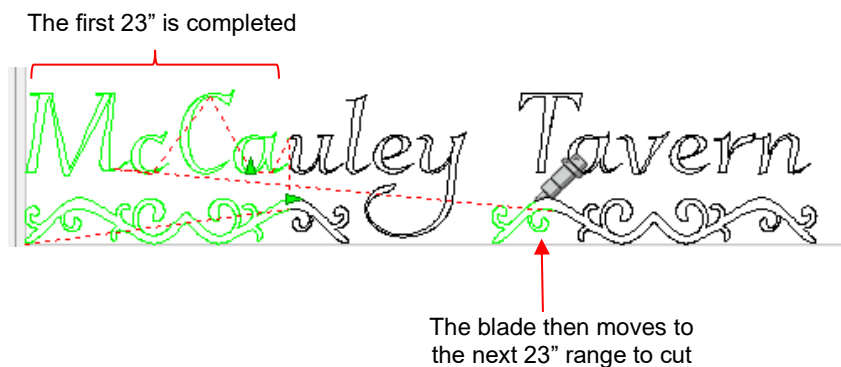
3.06 Presets

- Presets allow you to save your settings for a particular material or application, such as cutting poster board or scoring cardstock.

- Go to the **Cut out >Tool Settings** window and enter the settings for the material or application:

Enter all settings for the material or application

- At the top, enter the **Name** you wish to save the settings under. Then click on the **Save** icon:

Type in a **Name:**

Click here to save

- This preset will now be available in the dropdown menu, both in this same window or from any other **Set Attributes** window:

3.07 Special Cutting

- The **Special Cutting** menu offers some variations that could apply immediately to your cutting applications or only in special situations. The first three are covered in the following subsections. The next three are covered in *Chapter 7* as they all relate to contour cutting.

3.07.1 Cut by Colour

- **Cut by Colour** automatically tiles the shapes in a project by color. For example, if a multi-color collection of shapes is sent to the **Cut out** window normally, this is how the shapes are arranged for cutting:

Project as shown
in main window

Click **Cut out**
icon

In the **Cut Out** window, shapes are in
the same arrangement
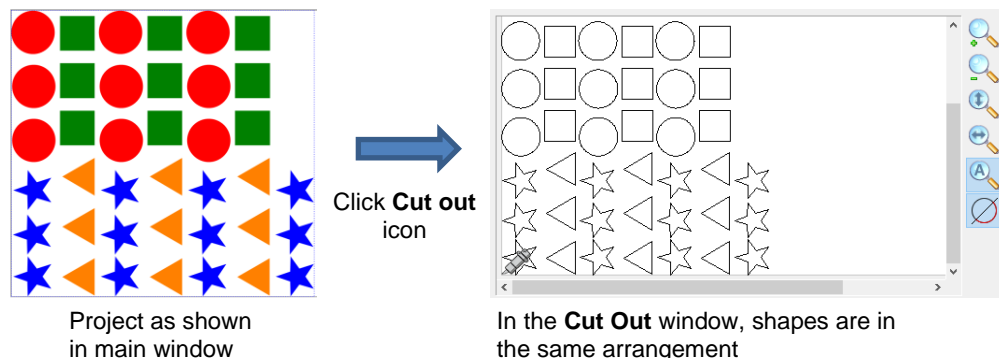
◊ If instead you go to **Special cutting>Cut by colour**, the shapes will be tiled so that shapes of one color follow another:

Project as shown
in main window

Go to
**Special cutting>
Cut by colour**

In **Cut Out** window, shapes are arranged by color
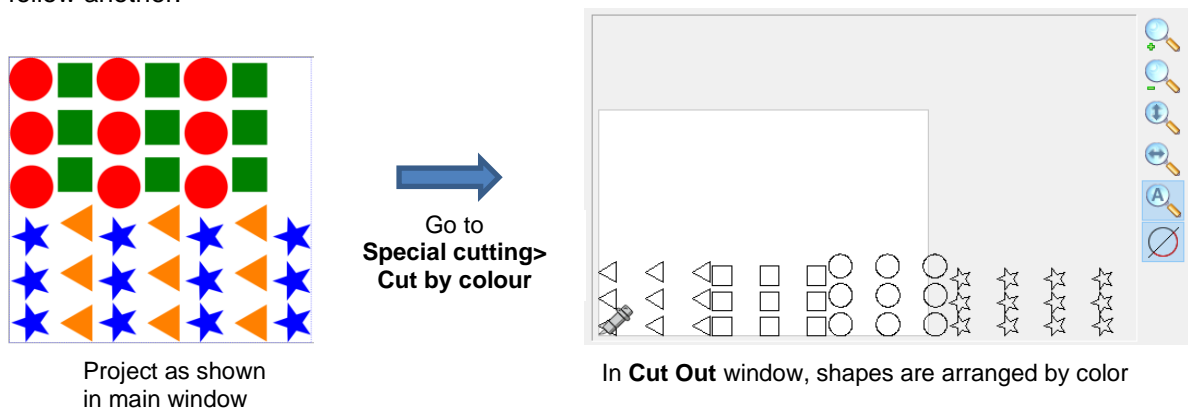
◊ Note that if you want the cutter to pause between colors in order to change out the material, you will need to mark the **Pause for tool change** option in each color's **Edit Attributes** window (refer to *Section 3.04.2*).

3.07.2 Cut Two Pass, Inner Objects First

- This option is useful when cutting vinyl projects with lots of small inner shapes such as lettering, which can be difficult to weed without inadvertently lifting the shapes away from the vinyl. The cut is carried out in two stages:

  ◊ All of the inner shapes (often called child shapes) are cut first and the material is advanced forward so that those shapes can be weeded

  ◊ All of the outer shapes (often called parent shapes) are then cut out

- When you go to **Special cutting>Cut two pass, innerobjects first,** the following window opens**:**

Cut two pass, innerobjects first.

abcdefghijklmnopqrstuvwxyz0123456789
ABCDEFGHIJKLMNOPQRSTUVWXYZ

When cutting small designs, weeding of inner-objects can be very difficult. By cutting the innerobjects separately this makes it much easier.

Set the feeding forward distance below, this is the length the material will feed forward between cutting the inner and outer objects, for removing the innerobjects.

Feed forward length:

Explanation

Feed forward between cuts

Cut out   Cancel

◊   The **Feed forward length** is how far you want the material to roll forward so that you can easily weed out these inner shapes.

◊   When you click on **Cut out**, the inner shapes are cut and the material moves forward and pauses. At this point, you weed out the shapes that have been cut. For example:

Project as shown in main window

These are the shapes cut in the first pass

After weeding those shapes
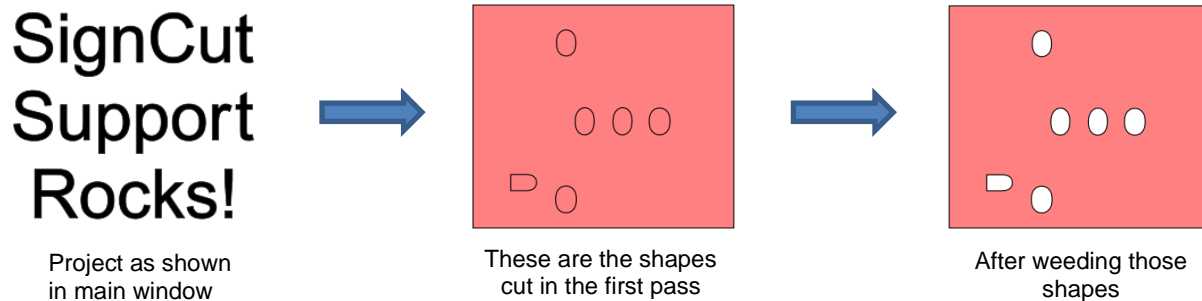
◊   On the screen, the following window opened when the cutting paused for weeding:

Message

ⓘ Now weed away the innerobjects. When finished, click Ok to cut the outer objects.

OK
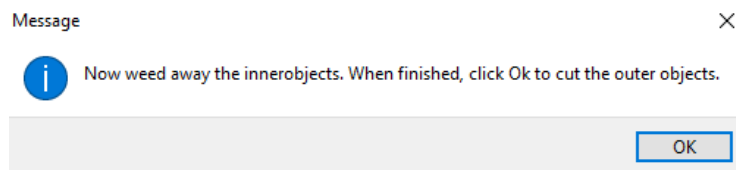
◊   After weeding, click on **OK** and the material is fed back into the cutter and the outer shapes cut:

These are the shapes cut in the second pass

After weeding the waste
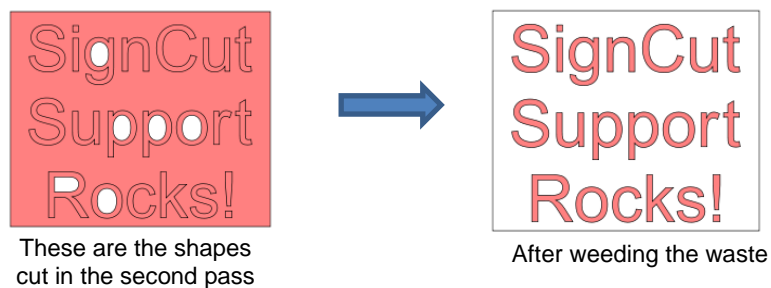
3.07.3 Centercut

•   Using **Centercut**, the project will cut so that it is centered around the <u>origin you set on the material</u>.

- In normal cutting, the origin is typically set just inside the lower right corner of the mat or material. With **Centercut**, however, you want to set the origin in some location on the material that you want to be the center of your project.

- When you go to **Special Cutter>Centercut**, the following window opens:
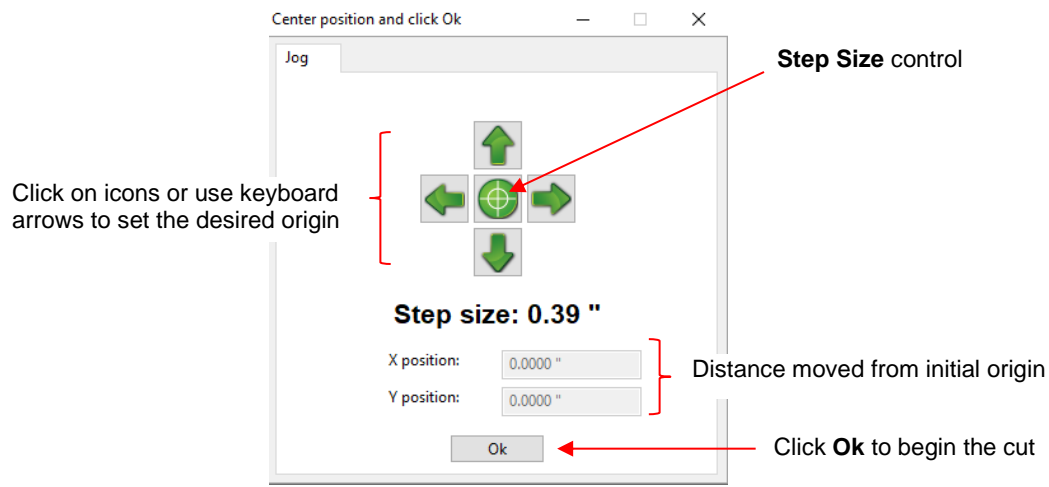
- ◊ This window is essentially the same as using the **Jog cutter** process presented in *Section 3.02.3.* You can click on the arrow icons on screen or use the arrow keys on your keyboard.

- ◊ Once the cutting head is in position, click on **Ok** to begin the cut.

3.08 Blade Offset Calibration

- **Blade Offset** was first presented in *Section 3.03.3.* It is a correction that is applied to compensate for the cut angle of a blade which offsets the tip of the blade relative to the center axis of the blade. SignCut Pro 2 offers a built-in test to help you in optimizing the **Blade Offset**.

- Before beginning this procedure, enter the cut settings for the material you plan to use in the testing. Vinyl, copy paper, or thin cardstock all work well. Also, because **Blade Offset** is typically report in mm, it is recommended that you switch to mm units for this calibration. This is easy to do on the **Cutter Panel**:
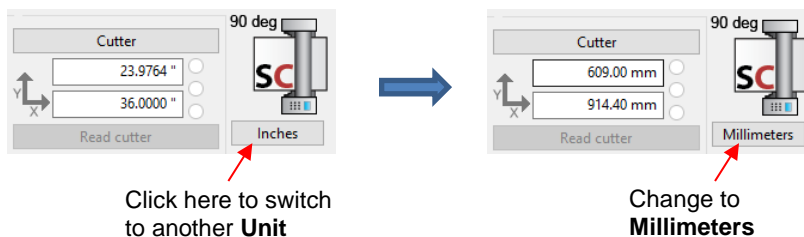
- Go to **Settings>Calibrate blade-offset**. The following window opens where you can first check the **Preset** menu to see if any of the options match the blade you plan to use. Otherwise, enter the recommended **Blade Offset** provided on the blade packaging. If you need a starting value, try 0.2 mm:

Choose from **Preset** menu or…

Enter a **Blade Offset** value to test

Then click on **Next**
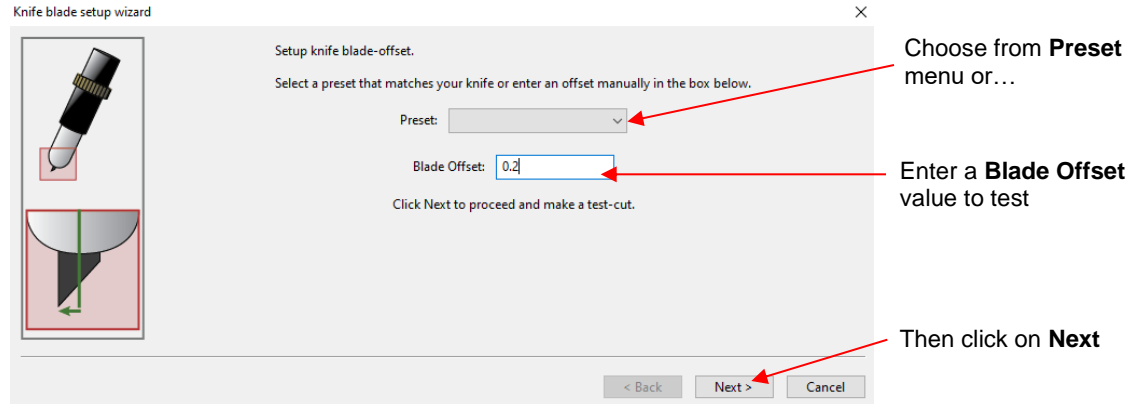
◊ After clicking on **Next,** a window opens with the option to do the test cut:

Click here to have the test shape cut
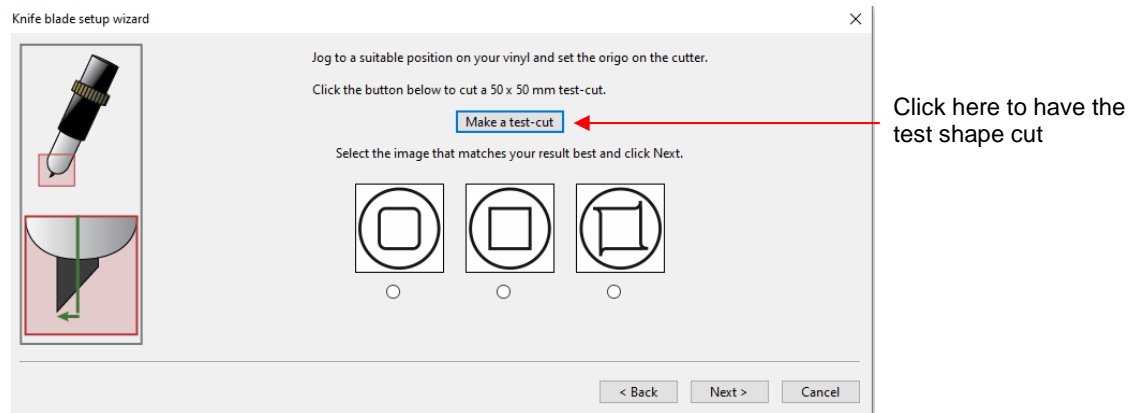
◊ After executing the test cut, weed the material so that you can clearly see the corners of the square. Select one of the options shown depending on how the corners were cut. Then click on **Next**. A popup window will then instruct you on the next step:
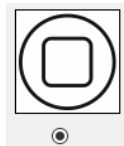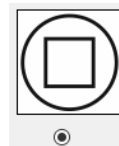
     versus   versus

You will be advised to increase the **Blade Offset** and repeat the test

The **Blade Offset** is correct and will be adjusted in the cut settings

You will be advised to decrease the **Blade Offset** and repeat the test

- o When selecting a new value for the **Blade Offset**, try increasing or decreasing the current value by 0.1 mm. Thus, if you need to increase and your testing **Blade Offset** was 0.2 mm, then try 0.3 mm next.

- o If you select the middle option, the **Blade Offset** used for the test cut will be substituted for the current **Blade Offset** settings throughout SignCut Pro 2.

3.09 Scale / Sizing Calibration

- If you were to cut out any particular shape, for example a 10" x 10" square, you might find that it actually measures 9-15/16" x 10-1/32". It will be <u>very close</u> to 10" x 10" but perhaps just slightly smaller or larger in either or both dimensions. Now this might be perfectly acceptable for the type of cutting you do. Therefore, it

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may not even be necessary to do this particular calibration. However, if you need shapes to be cut as close as possible to the dimensions in the design, the following procedure will allow you to calibrate your cutter.

- The calibration process involves creating a <u>large</u> square or rectangle in your design software and noting its width and height. After the shape is imported into SignCut Pro 2, it's either drawn or cut on your cutter and you will carefully measure its size with a ruler. The length and width measurements are then entered into SignCut Pro 2, along with the design dimensions.

- The calibration can be done in inches, cm, or mm. Both mm and inches will be presented here. In general, it is recommended that mm be used, however, if you do not have a metric ruler, then you can use inches instead.

- If you have a test pen that works in your cutter, then you can draw the shape on paper. If you do not have a test pen, then cut vinyl or some other light material that will be easy to measure.

- The following steps explain how to create a test square in SignCut Draw:

    ◊ On the **Properties & Functions Bar**, select the **Units** you wish to use:

or

Select **mm**   Select **in**
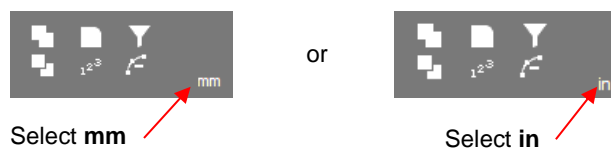
    ◊ Click on the **Shape** tool on the **Tools** panel and select the rectangle shape:

2. Select the **Rectangle**

1. Select the **Shape tool**
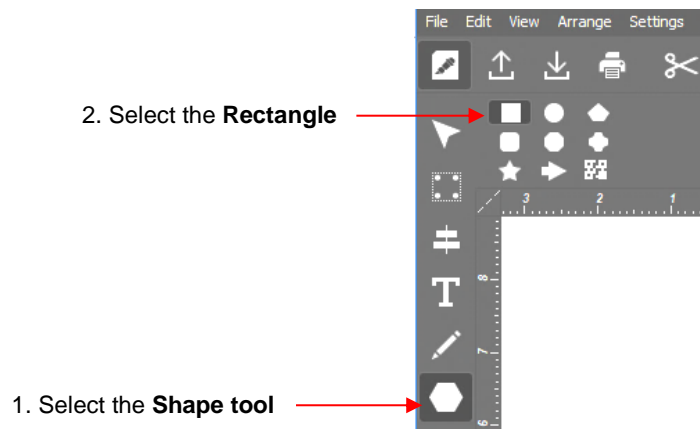
    ◊ Left click once in the **Sign Area**, press and hold the **Ctrl** key and move the cursor down and to the right. Click again to create a square.

    ◊ With the square selected, change the width and height to the largest size that will fit on the paper or vinyl you have available. It is recommended that the square be at least 250 mm x 250 mm (or 10 inches x 10 inches:

or

Size the square
in mm

Size the square
in inches
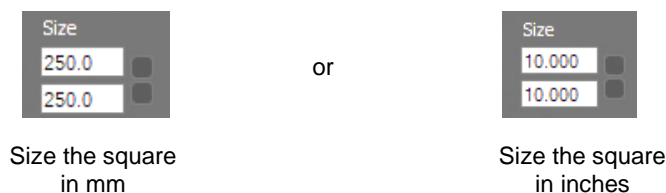
    ◊ Click on the **Move image to Signcut** icon to import the square into SignCut Pro 2.

- Pick one of the two following sections, based on the **Units** you chose, and follow the instructions.

3.09.1 Sizing Calibration Using Millimeters for Measurement

- Draw or cut the square. Before removing from the cutter, note which is the left-to-right side versus the up-and-down side.

- Using a mm ruler, carefully measure the **Width** (the left-to-right length that drew) and the **Height** (the top-to-bottom length that drew):

- Write those measurements onto your sheet:

- Verify that the units are set to **Millimeters** on the **Cutter Panel**. If not, click on the button until **Millimeters** is displayed:

- To open the **Calibrate cutter size** window, click on the **Cutter** button on the **Cutter Panel.** Select the **Advanced settings** tab and, in that same window, click on the **Calibrate cutter size** button (lower right corner):

Click on **Cutter** button

Click on **Advanced settings** tab

Click on **Calibrate cutter size** button

- The following window opens where you will enter the size of the square you sent to cut, along with the actual size the square drew:

Enter design's **Width**

Enter design's **Length**

Enter **Width** as drawn or cut

Enter **Length** as drawn or cut

- Draw the square again and measure to verify the square is now 250 mm x 250 mm.

- Make adjustments as needed. For example, with the **Width** example above:

  ◊ If the square is now drawing larger than 250 mm, then decrease the **Width** you entered as your measured value. Try entering 249.3 instead of 249.5.

  ◊ If the square is still drawing smaller than 250 mm, then increase the **Width** you entered. Try entering 249.7 instead of 249.5.

- Once you have your calibration set, please record these values in your "little black book" in case your computer crashes and you lose your calibration.

3.09.2 Sizing Calibration Using Inches for Measurement

- Draw or cut the square. Before removing from the cutter, note which is the left-to-right side versus the up-and-down side.

- Using a ruler, carefully measure the **Width** (the left-to-right length that drew) and the **Height** (the top-to-bottom length that drew:

Feed the mat or material this direction into the cutter

Width, X

Height, Y

- Write those measurements onto your sheet:

9 $^{15}/_{16}$ inches

10 $^{1}/_{32}$ inches
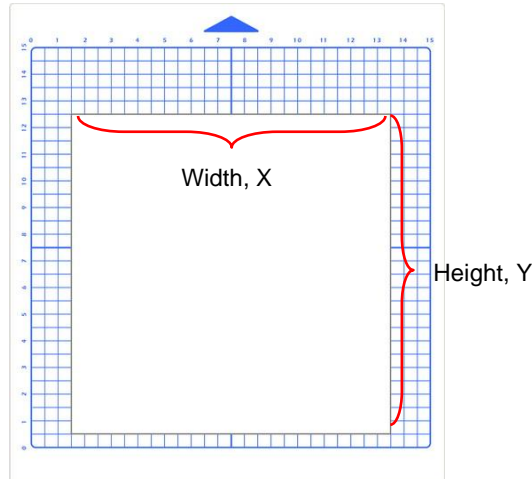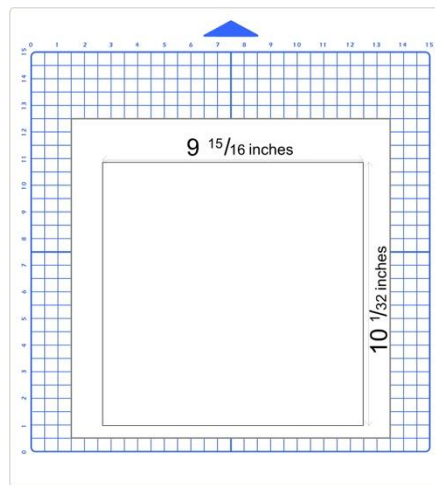
- Use a calculator to convert the fractions to decimals. In the example here, the **Width** would be 9.94 and the **Length** would be 10.03.

- Verify that the units are set to **Inches** on the **Cutter Panel**. If not, click on the button until **Inches** is displayed:

Cutter

90 deg

16.1417 "

1968.5039 "

Read cutter

Inches

Click here to change units to **Inches**

- To open the **Calibrate cutter size** window, click on the **Cutter** button on the **Cutter Panel.** Select the **Advanced settings** tab and, in that same window, click on the **Calibrate cutter size** button (lower right corner):

Click on **Cutter** button

Cutter

90 deg

16.1417 "

1968.5039 "

Read cutter

Inches

Click on **Advanced settings** tab

Cutter

Cutter | Advanced settings | Presets

Databits: Parity:

NON   8

Click on **Calibrate cutter size** button

Calibrate cutter size

Cancel

- The following window opens where you will enter the size of the square you sent to cut, along with the actual size the square drew:

Enter design **Width** →

Enter design **Length** ←

Enter **Width** as drawn or cut →

Enter **Length** as drawn or cut ←

- Click on **Ok**. Draw the square again and measure to verify the square is now 10 in x 10 in.

- Make adjustments as needed. For example, with the **Width** example above:

  ◊ If the square is now drawing larger than 10 in, then decrease the **Width** you entered as your measured value. Try entering 9.92 instead of 9.94.

  ◊ If the square is still drawing smaller than 10 in, then increase the **Width** you entered. Try entering 9.96 instead of 9.94.

- Once you have your calibration set, please record these values in your "little black book" in case your computer crashes and you lose your calibration.

4. Tiling

- When cutting projects that are larger than the maximum cutting width of the cutter or the dimensions of the available material, the project will require tiling. This involves dividing up the design into rectangles that will later be pieced together after cutting. SignCut Pro 2 offers two ways to accomplish this:

  ◊ Automatically by entering the dimensions of the desired tile size (*Section 4.01*)

  ◊ Manually by clicking to add tile lines to your project (*Section 4.02*)

- Note that SignCut Draw offers a feature called **Modules** which is essentially equivalent to tiling but with some additional capabilities. For a complete coverage of the **Modules** function, refer to *Section 8.06* in the *SignCut Draw User Manual*.

4.01 Automatically Creating Tiles

- The **Tiles Panel** above the **Work Area** contains the tools needed to automatically tile a project into individual tiles based on dimensions entered. In this example, a large tree design will be tiled for application using 12" wide wall vinyl:
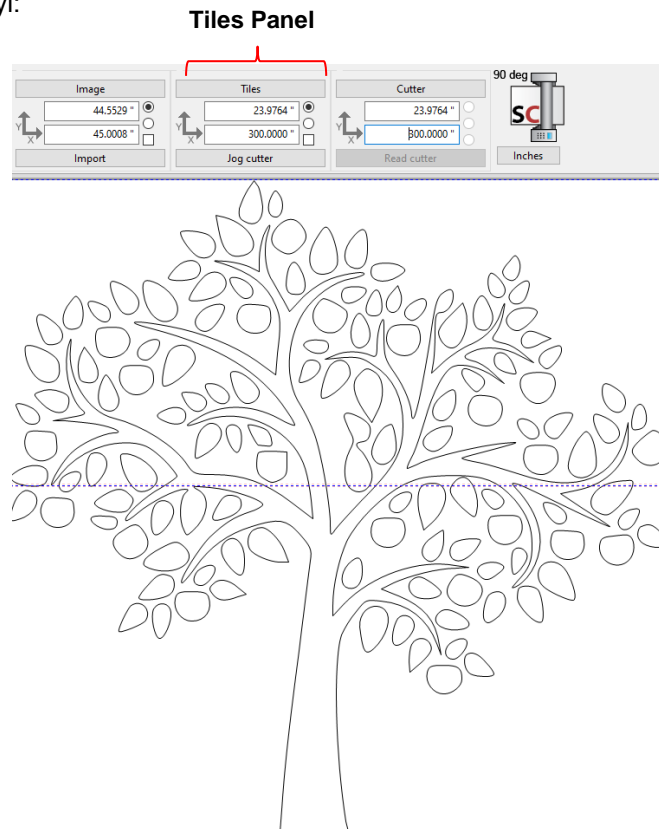
- In some cases, the limiting factor which leads to the need for tiling is the maximum cutting width of the cutter. In other cases, as presented here, the limiting factor is the width of the material available.

- Click on the **Tiles** button (or go to **Settings>Tiles**) and the following window opens:

The **Width is** changed to 11.5"

Set the desired **Overlap**

Mounting frame option

Click **Ok** when done
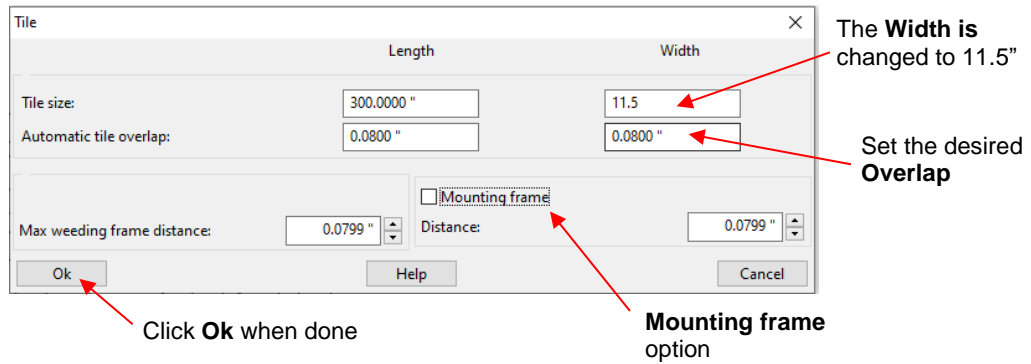
◊ **Tile size:** Enter the maximum **Length** and **Width** of each tile. Assuming the vinyl is on a roll, the **Length** can be left at a maximum size. The **Width**, however, will be changed to 11.5" because the wall vinyl happens to be 12" in width.

◊ **Automatic tile overlap:** mounting vinyl can be easier if a small amount of overlap is allowed. This ensures there will be no unsightly gaps in the final project after application. The overlap will appear as red dashed lines on either side of the blue dashed line. Note that to hide the overlap lines, go to the **View** menu (on the **File Menu**) and disable the option for **Show automatic tile overlap.**

◊ **Mounting frame:** mark this option to add a rectangle around the tiles. This can aid in alignment and/or weeding, as needed. The **Max weeding frame distances** indicate the amount of room between the shapes and the frame.

• After entering the **Tile Size Width** as 11.5 inches, click on **Ok** to close the window. The preview should update with the 11.5" tiles generated:

Tile Width updates here

Tile 4

Tile 3

Tile 2

Tile 1
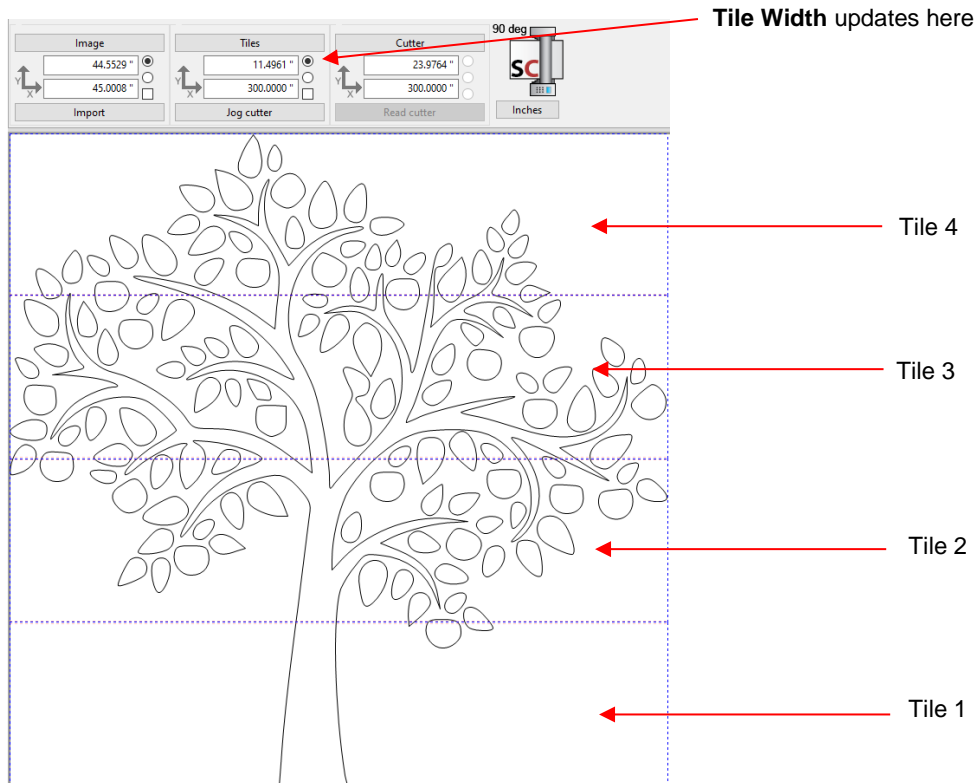
◊ Note that the **Width** indicated as 11.4961" instead of 11.5" is a programming round-off error and is negligible in size.

- At this point, if you were to send the project to cut, all four tiles will be cut, one after another, as shown in the **Cut Out** window:

Tile 1   Tile 2   Tile 3   Tile 4
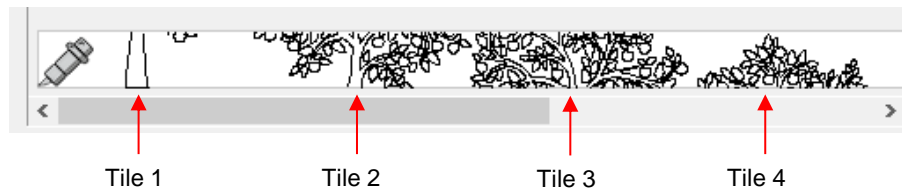
◊ If the **Mounting frame** option has been marked in the **Tile** settings window, then each tile would have been surrounded by a rectangle and the preview would appear like this:

Tile 1   Tile 2   Tile 3   Tile 4
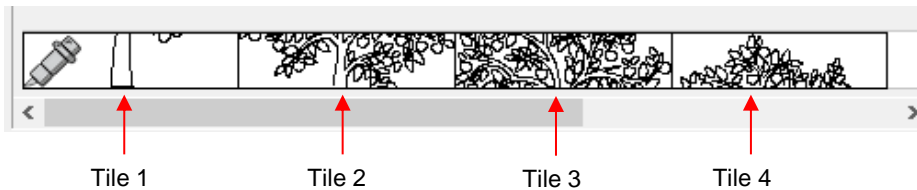
- If you prefer to not cut all of the tiles, click on the **Activate / deactivate tiles** icon ✖ located on the sub-toolbar and click inside any tiles to deactivate:
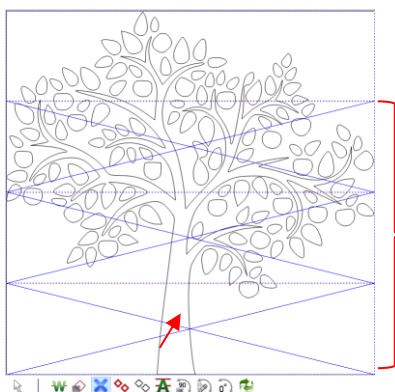
These three tiles are deactivated
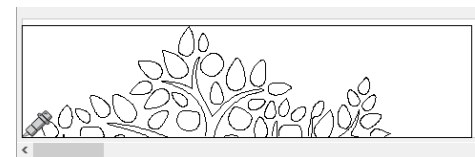
In the **Cut out** window, only the top tile appears

Activate/deactivate tiles selected

- The **Cutout** window has additional tile settings whereby you can have copies of tiles made and specify the distance between each copy. For example:

Copies set to 3 with a spacing of 0.25"
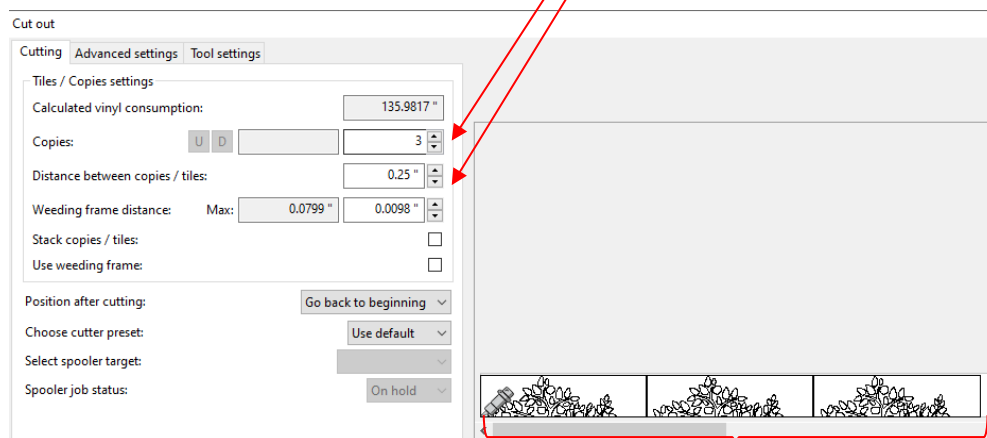
The top tile will be cut three times

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◊   Note the additional tile settings also available in this window:

- o   **Use weeding frame** and **Weeding frame distance**: Same as the setting in the **Tile** window but conveniently located here, in case it was forgotten.

- o   **Stack copies/ tiles**: when checked, tiles will be arranged across the width of the cutter, if space allows.

4.02 Manually Creating Tiles

- The **Tiling tools** ⊞ in SignCut Pro 2 allow you to break up the design by clicking in the **Work Area** to add horizontal and/or vertical cut lines. Upon selecting the icon (or shortcut **W**), the sub-toolbar displays the following options:
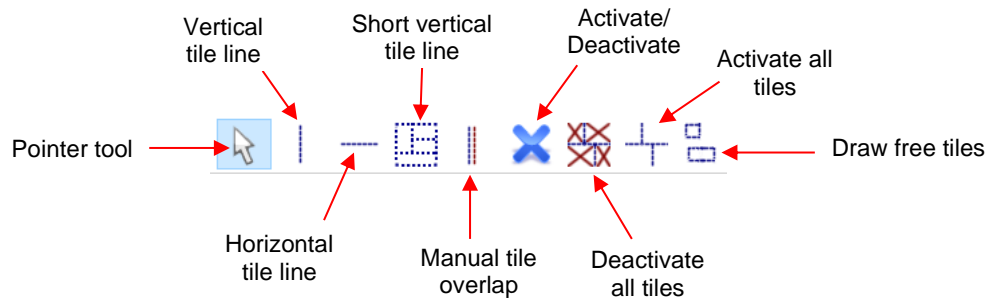
- The following example will be used to illustrate the use of the **Tiling tools**:

First tile line is automatically added

◊   Note the purple dashed line indicates that the design exceeds the maximum cutting width of the cutter, which will be used. This purple line is automatically the first tile line.

- Before covering each option, note the following:

◊   For most of the functions, left clicking the mouse will add a tile line. Holding **Shift** and/or **Ctrl** will provide additional options.

◊   Tiles lines can be dragged, as needed. In this example, the first purple tile line is dragged so that it is between the two lines of text:

Tile line has been dragged down

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◊   To delete a tile line, hold the **Ctrl** key and right click on the line. Note that if you delete a tile line that's required in order for the project to be cut, based on the cutter's maximum limits, the tiles will automatically become deactivated:

Tile is deactivated

After deleting the horizontal tile line, the tile is larger than the maximum cutting width

- **Add vertical tile line** - Left click once where you want a vertical tile line. Normally, when cutting from a roll of material, vertical tile lines won't be needed. But if the material on the roll isn't long enough for the entire project or if you prefer to cut using a cutting mat, then this option can be used:

Click to add a vertical tile line

Add vertical tile line selected

◊   Hold the **Shift** key while clicking and instead of creating a vertical line, another horizontal tile line will be added. While there is a second option on the sub-toolbar for adding horizontal tile lines, it can be more convenient to add them while in **Vertical tile line** mode if you're needing both types.

◊   Hold the **Ctrl** key while clicking to add a short vertical tile line:

Press **Ctrl** and click to add a short vertical tile line

Add vertical tile line selected

- **Add horizontal tile line** ------ - Left click once where you want a horizontal line. In this example, another line of text has been added to the design in SignCut Draw. In SignCut Pro 2, another horizontal tile line is added:

Click to add a horizontal tile line

Add horizontal tile line selected
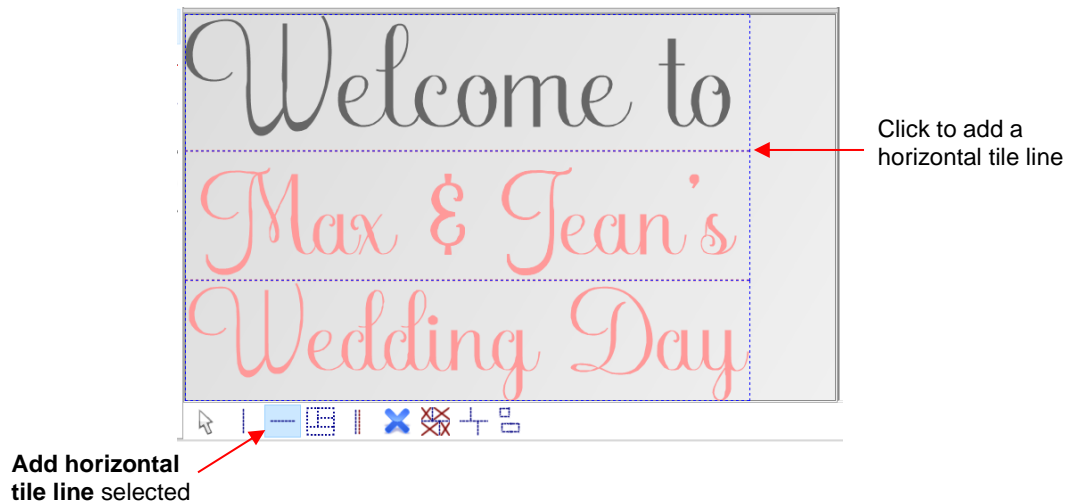
◊ Hold the **Shift** key and left click to add a vertical tile line, while in this mode.

- **Add short vertical tile line** - Left click to add short vertical tile lines between horizontal tile lines:

Click to add a short vertical tile line

Add short vertical tile line selected

Click to add a short vertical tile line

- **Manual tile overlap** - Some users prefer to have a small amount of overlap in the tiles so as to avoid any possible gap when aligning the cut pieces. To apply, drag an existing horizontal tile line upwards and/or drag a vertical tile line to the right:

**Manual tile
overlap** selected

- **Activate / deactivate tiles** ✖ **-** as covered earlier, click inside any tile to toggle whether or not it is sent to the cutter for cutting. For example, the lower two lines are deactivated:

**Activate/deactivate
tiles** selected

These tiles are
deactivated

In the **Cut out** window, only the
upper line of text appears
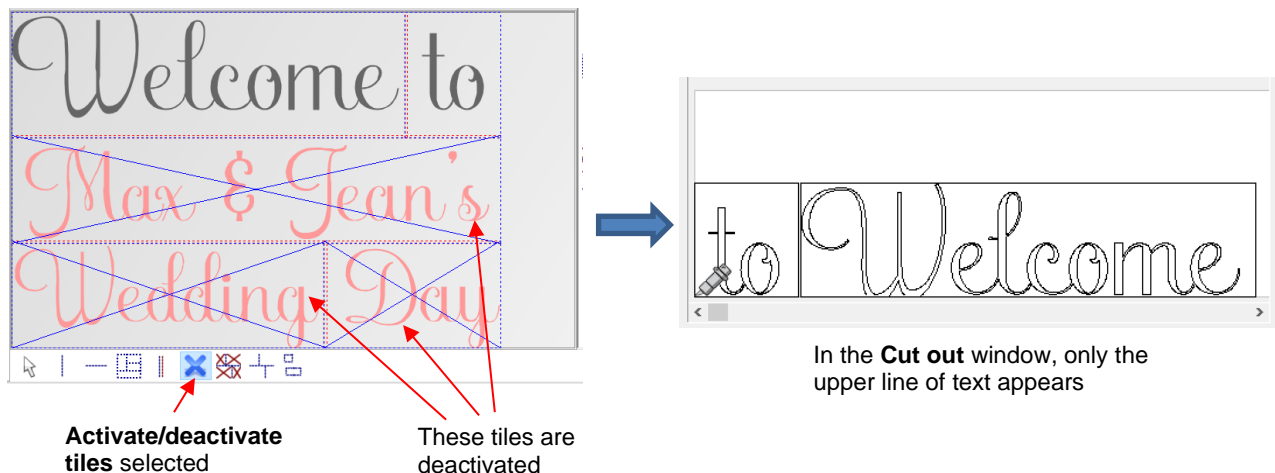
◊ The same tile settings in the **Cut out** window can be used to make additional copies with a specified spacing, add a weeding frame (in case it wasn't originally marked in the **Tile** window), etc.

- **Deactivate all tiles** - click this icon to deactivate all of the tiles. The prior icon, **Activate / deactivate tiles** icon will now be highlighted and you can click on any tile to reactivate it, as desired.

- **Activate all tiles** - click this icon to activate all of the tiles. As with the **Deactivate all tiles,** the mode will switch to **Activate / deactivate tiles** so that you can the individually deactivate any, as needed.

- **Draw free tiles** - click this icon and then drag your mouse to create rectangular tiles where needed. For example, if a few parts of a design need to be recut, then rectangles can be draw around just those parts to create tiles to be sent to the cutter:

Draw free tiles selected

Rectangles drawn here
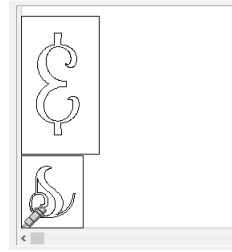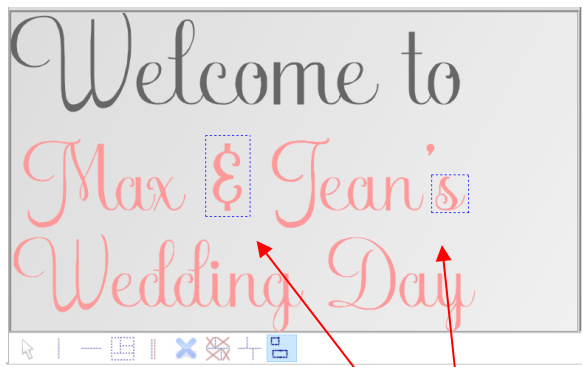
In the **Cut out** window, only those two tiles are sent to cut

- To delete all tiles in a project, go to **Edit>Delete all manual tiles**.

5. Registration Mark Tools

- The **Registration mark tools** are used to add alignment registration marks to use in multi-color and/or split cut (tiled) projects to aid in alignment during the application process.

- Click on the **Registration mark tools** icon ⊕ and the **Sub-toolbar** displays these options:

| Non-snapping registration mark | Delete registration mark | Deactivate all registration marks in the active layer |

Snapping registration mark

Change status of registration mark — Activate all registration marks in the active layer — Registration mark size
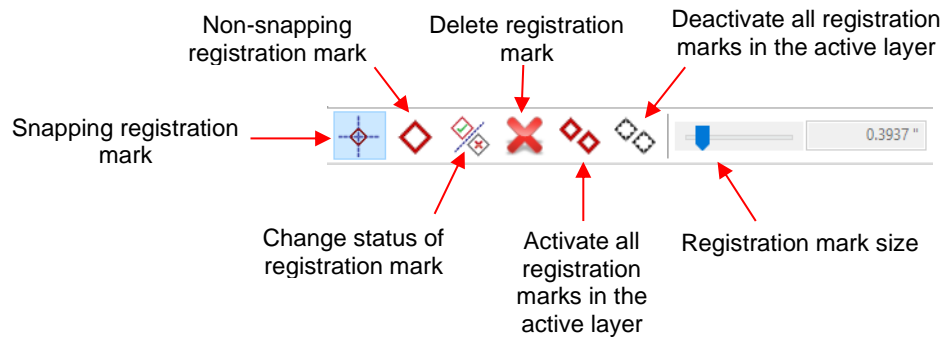
5.01 Adding Registration Marks

- **Snapping registration mark** ⊕ : Add a registration mark which will snap to a tile line.

    ◊ The following project from *Section 4.02* will again be used. The project has been split into three tiles:

    ◊ Left click on any of the cut lines separating tiles to add a registration mark which will cut from both tiles. Four registration marks have been added (as indicated by the red arrows):

Select **Snapping registration mark**

- The preview in the **Cut Out** window for each individual tile indicates the registration marks will be included in the cut:

Reg mark → ← Reg mark

Reg mark → ← Reg mark

Reg mark → ← Reg mark

Reg mark → ← Reg mark

- **Non-snapping registration mark** ◇ : Add a registration mark wherever needed.

  ◊ In this example, there's only one tile but more than one color will be cut for the project. Alignment registration marks are added and will be cut with each color so that one color layer can be properly aligned with the other:

Click to add reg mark → ← Click to add reg mark

Select **Non-snapping registration mark**

  ◊ Checking the preview in the **Cut Out** window indicates the registration marks will cut for each color:

Reg mark → ← Reg mark

Red color selected for cutting

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Reg mark →   ← Reg mark

Dark gold color selected for cutting
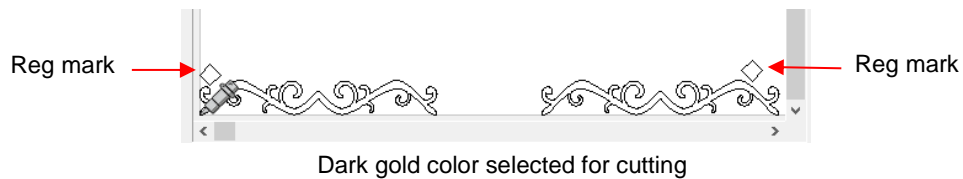
- Note that when either **Snapping** or **Non-snapping registration mark** mode is selected, the following shortcuts are applicable:

  ◊ Right click on a registration mark to make it inactive. Right click again to activate. Note that a deactivated registration mark will appear as a grey dotted line:

Activated
reg mark →

versus

Deactivated
reg mark →

  ◊ To delete a registration mark, hold the **Ctrl** key and right click on it or refer to other methods in *Section 5.02.*

- Note that you can also change the size of the registration marks (before adding them) by scrolling the **Registration mark size** setting on the right side of the **Sub-toolbar**:

versus

Reg mark size = 0.19"   **Reg mark size** = 0.47"
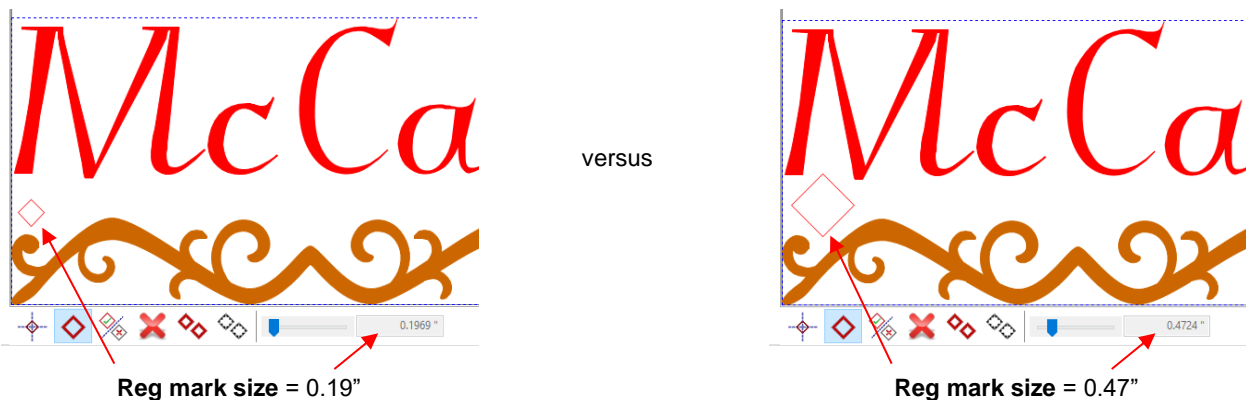
5.02 Other Registration Mark Options

- **Change status of registration mark** : Toggle individual registration marks as active or inactive

- **Delete registration mark :** Delete an individual registration mark. To delete all registration marks, go to **Edit>Delete all registration marks** or use the shortcut **F7**.

- **Activate all registration marks in the active layer** : For whichever colors are currently selected, clicking this option will activate all of the registration marks

- **Deactivate all registration marks in the active layer** : For whichever colors are currently selected, clicking this option will deactivate all of the registration marks (thus they will not cut)

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6. Weeding

- For those cutting vinyl and HTV, the **Weeding line tools** in SignCut Pro 2 are very useful. Upon selecting the icon (or shortcut **T**), the sub-toolbar displays the following options:
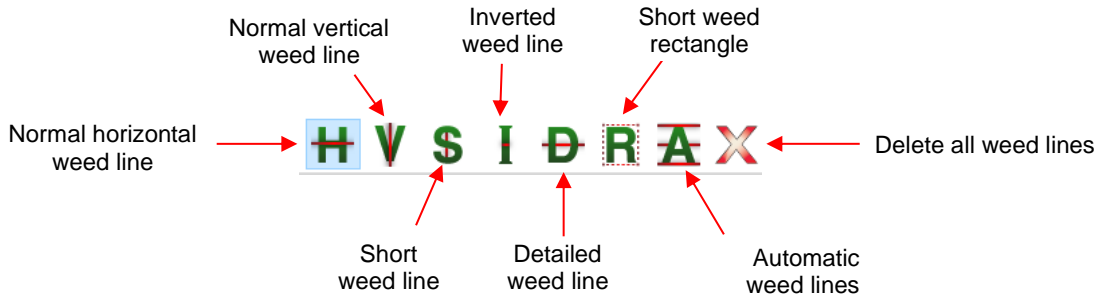
- Before covering each option, note the following:

    ◊ For most of the functions, left clicking the mouse will add a weed line. Holding **Shift** and/or **Ctrl** will provide additional options.

    ◊ Weed lines can be dragged, as needed.

    ◊ To delete a weed line, hold the **Ctrl** key and right click on the line.

    ◊ For projects that will be cut by color, each color can be individually selected on the **Color Toolbar** and the weed lines added for only that color.

- **Normal Horizontal Weed Line** - Left click once where you want a horizontal weed line added:

    ◊ Hold the **Shift** key while clicking and instead of creating a horizonal line, a vertical weed line will be made. While there is a second option on the sub-toolbar for adding vertical weed lines, it can be more convenient to add them while in **Horizontal weed line** mode, if you're needing both types of weed lines:

◊ Hold the **Ctrl** key and left click to add short weed lines inside any spaces you choose. For example, short lines were added in these spots:

Hold the **Ctrl** key and click to add short horizontal weed lines
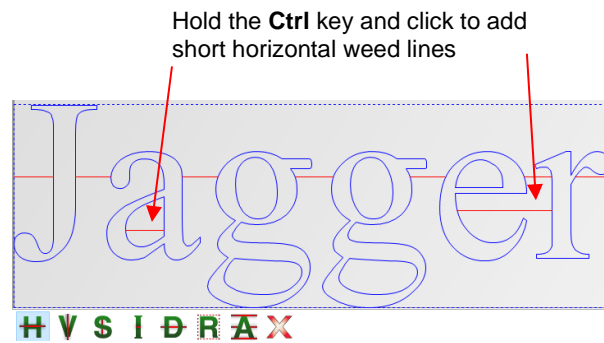
◊ Holding both the **Shift** key and the **Ctrl** key while clicking allows you to add short vertical weed lines, as needed.

- **Normal Vertical Weed Line** – Left click once where you want a vertical weed line added:

Click to add a vertical weed line

◊ Hold the **Shift** key while clicking and instead of creating a vertical line, a horizontal weed line will be made. Again, this can be more convenient to add them while in **Vertical weed line** mode if you're needing both types of weed lines:

◊ Hold the **Ctrl** key and click to add short vertical weed lines inside any space you choose. For example, short lines were added in these spots:

Hold the **Ctrl** key and click to add short vertical weed lines
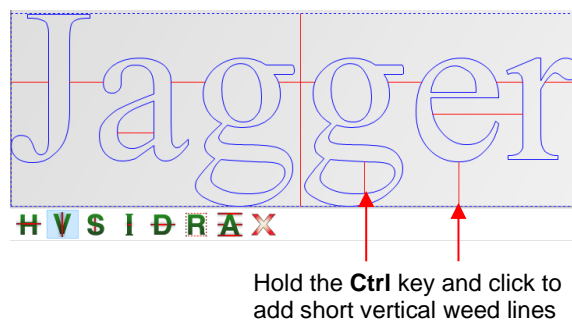
◊ Holding both the **Shift** key and the **Ctrl** key while clicking allows you to add short horizontal weed lines, as needed.

- **Short Weed Line** - If you need to add a lot of short weed lines or, perhaps, only short weed lines, then this option will allow you to left click to add short lines without needing to hold the **Ctrl** key. Hold the **Shift** key to add short vertical weed lines:

Left click to add short
horizontal weed lines

Hold the **Shift** key and click to
add short vertical weed lines
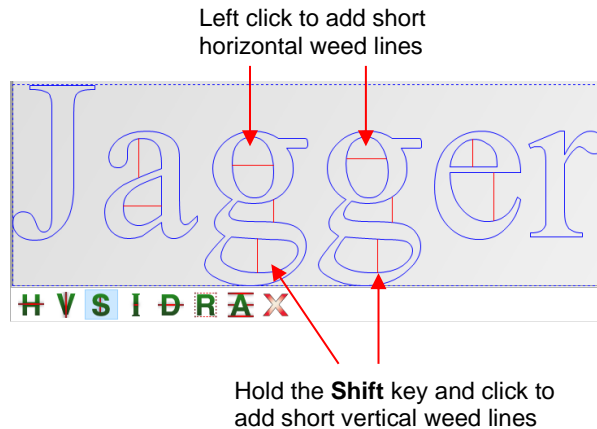
- **Inverted Weed Line** **I** **-** In some cases, such as stencil applications, the part being weeded is the opposite. Thus, what is normally the waste part of the material is the part being kept. Thus, in this example, it would be the letters themselves being weeded away, so having weed lines inside the letters would be desirable. Use the **Inverted Weed Line** tool to place weed lines inside the letters:

Weed lines are placed
inside the letters
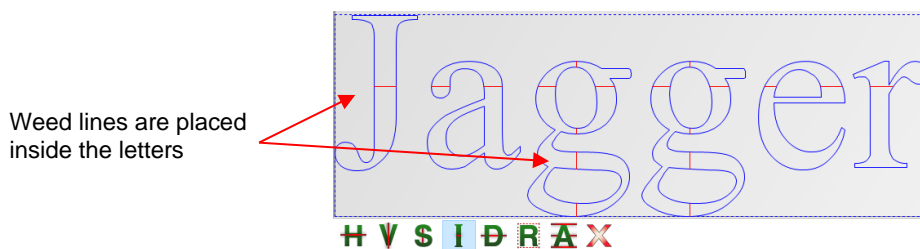
- **Detailed Weed Line** **D** **-** This option adds the weed line through any internal shapes as well as the normal waste area outside. Note the difference between the **Normal Horizontal Weed** and **Normal Vertical Weed** versus using the **Detailed Weed Line** option:

versus

Normal horizontal weed option – weed lines to not
pass through the interior shapes

Detailed weed line option – weed lines pass
through interior shapes, as well
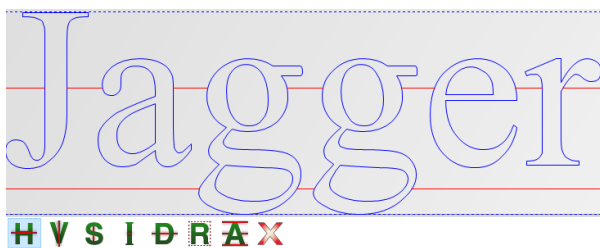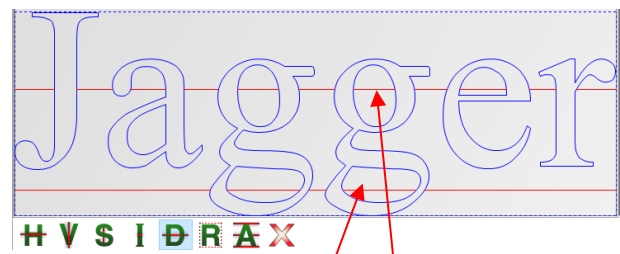
- **Short Weed Rectangle** **R** **-** Drag the mouse to create a rectangle which is added as a weed, along with horizontal and vertical extended weed lines:
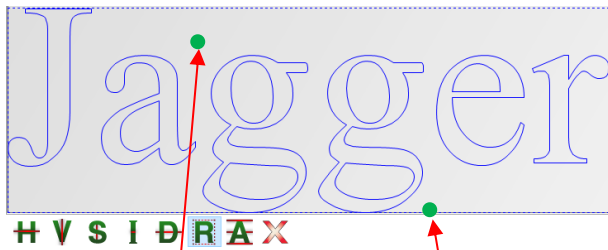
Drag mouse from here to here
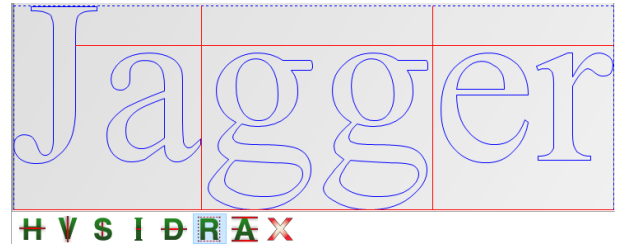
Rectangle is created with extending lines

- **Automatic Weed Lines** **-** Automatically adds weed lines to the design. Left click to add horizontal lines and/or **Shift** + left click to add vertical lines:
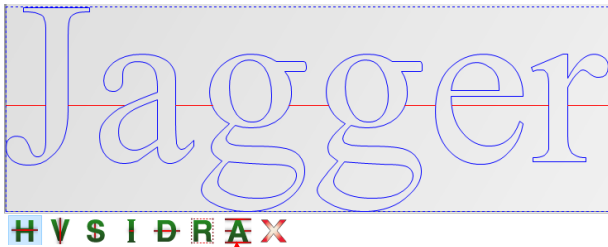
Click here

Shift + click here

◊ Note that this option is also available on the sub-toolbar when in **Collection of commonly used tools** mode.

- **Delete All Weed Lines** **-** Clicking this icon will delete all weed lines. Alternatively, you can go to **Edit>Delete all weeding lines** or use the shortcut **F6.**

7. Contour Cutting

7.01 What Is a Contour Cut?

- The contour cut process (also called print and cut) involves printing an image from the design software of choice to a printer and then, with the aid of either a manual or automatic positioning device, have the image or images cut out with perfect precision. Below are three typical kinds of contour cut applications:

    ◊ Cuts along the actual borders of the printed image(s):

Image is precisely cut along printed borders
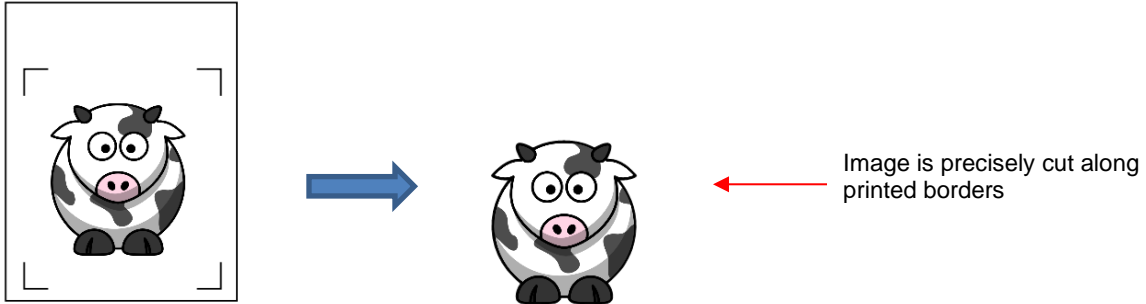
    ◊ Cuts outside of the borders but follows the shape(s) of the printed image(s):

Image is cut in same shape but offset from the printed borders (contour cut)
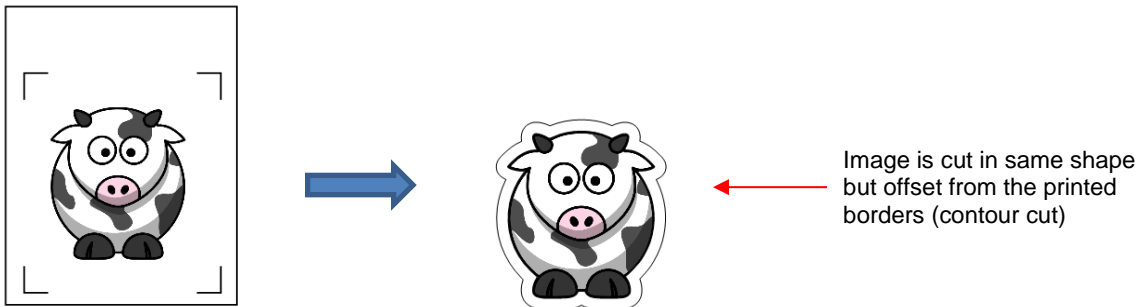
    ◊ Cuts follow a different shape from that of the printed image(s):

A custom shape is cut around the printed image.

- The contour cut process involves having 3 or more registration marks printed along with the design. Depending on the brand and model of the cutter, the identification of the registration marks is either

    ◊ Performed by the cutter itself using an installed optic eye or a camera (aka Automatic Registration Mark Sensor or ARMS)

    ◊ Manually performed whereby the user moves an alignment device, such as a laser light or a pin, to each registration mark.

- For a contour cut to be accurate, the optic eye or the camera or the alignment device needs to be calibrated with respect to the blade tip. On some cutters, the calibration is already in place when the cutter is sold. On others, the calibration is performed on the cutter's control panel and no further calibration is required in SignCut Pro 2. On still others, the calibration needs to be conducted from within SignCut Pro 2 (specifically those requiring manual alignment).

- <u>Refer to your cutter's user manual for instructions before beginning a calibration process provided in this manual.</u> Then, if you need to conduct the calibration within SignCut Pro 2, please go to *Section 7.03.*

7.02 Contour Cut Procedure with an ARMS Cutter

- Because there is so much variation from one ARMS cutter to the next, the contour cut window varies with each brand and model. The shape, size, and even positioning of the registration marks can also be different. Therefore, you will need to find out the acceptable parameters for the registration marks, as well as make sure the software you'll be using to create the contour cut file has these registration marks in place for both printing and for importing into SignCut Pro 2 for cutting.

- Once a project has been printed and then loaded into SignCut Pro 2, the contour cut process is initiated by either:

  ◊ Clicking the **Contour Cut** icon on the **MainToolbar** (not always present for all cutters)

  ◊ Going to **Special cutting>***"Brand name"* **Contour cut**

- A window will open with settings and instructions for your particular cutter. Follow these instructions and note that additional information will be provided by a SignCut Pro 2 representative when needed.

7.03 Calibrating for a Manual Contour Cut

- In order to get precise results, you must determine the contour cut calibration. This is nothing more than determining how far away the alignment device is located relative to the tip of the blade. For this reason, it's important to always use the same blade holder if you need extremely precise results, such as when cutting precisely along a printed line.

- In this and remaining sections of this chapter, the term "laser" will be used in reference to whatever device is used to target the registration marks in a contour cut process.

- Typically, the calibration distance is measured in mm in an X direction and in a Y direction:
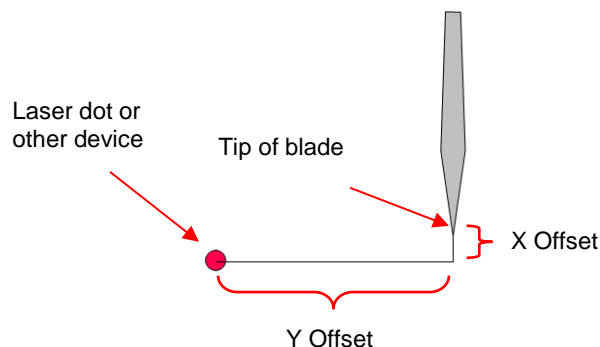
- This calibration only needs to be done one time, for a given blade holder, and then you can record this calibration in case you ever need to install the software on a new computer or you have to reformat the hard drive on your current computer.

7.03.1 Calibrating Procedure

- There are two ways to access the laser calibrate function:

  ◊ Go to **Special Cutting>Calibrate laserpoint offset**

  ◊ Go to **Settings>Settings>General** tab and click on the **Calibrate laserpoint offset** button:

Click here
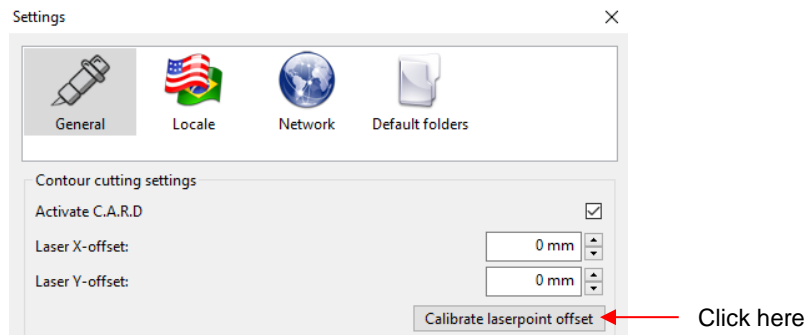
- You will need a sheet of paper and a test pen that's the same diameter tool as your blade holder. If your cutter didn't come with a test pen, you can use the blade holder with the blade tip just barely exposed since paper is a very thin material. You might want to do a test with either the pen or the blade to make sure the pressure setting is correct. Also, if you are using the blade holder, you will need your paper mounted on a cutting mat so that the blade doesn't cut into the cutting strip on the cutter itself.

- When you click on **Calibrate laserpoint offset**, the following window opens:
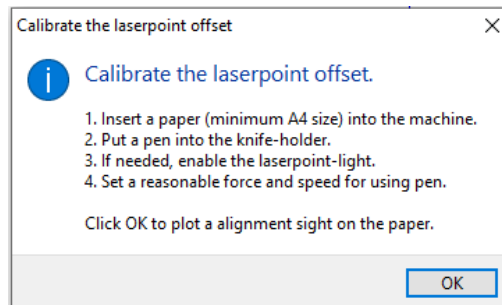
- Follow the steps shown and click on **OK**. The cutter's head will move over to the left and up before drawing/cutting a 1cm ✚ shape. A new window opens reminding you to turn on the laser light, if it's not activated:
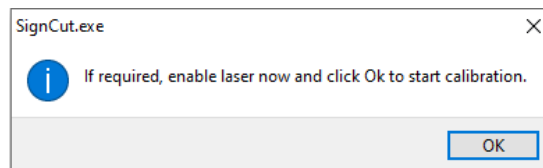
- Click on **OK** and the following **Jog** window opens. You will find that the process is the same as using the **Jog Cutter** button presented in *Section 3.02.3*. However, instead of setting an origin, the goal is to align the laser dot or other alignment tool with the center of the 1cm **+** shape:

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Note the keyboard shortcuts

Click on icons or use keyboard arrows to move the laser

Step Size control

X and Y will update as the laser light is moved

Click **Ok** once the laser light is aligned with the test **+** mark
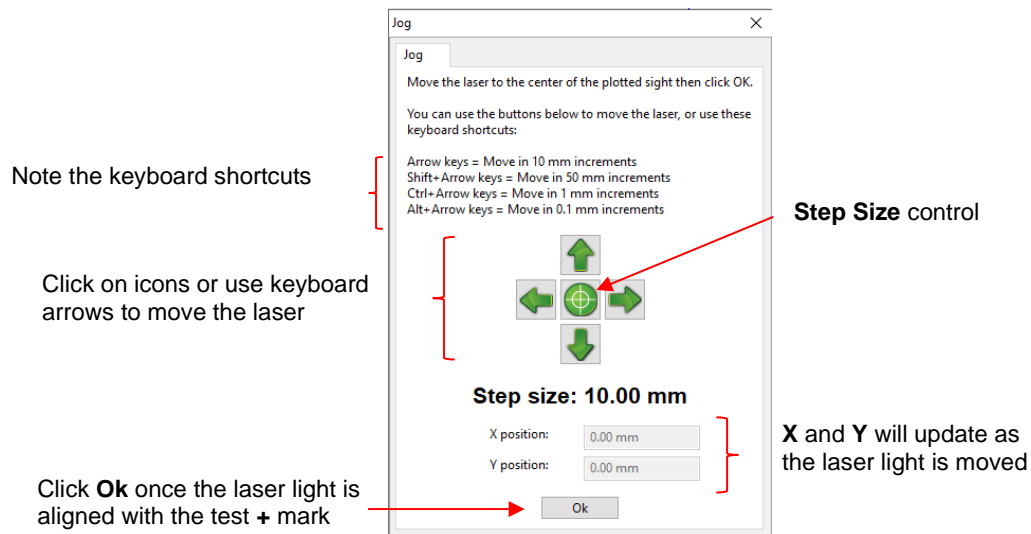
◊ Increase the **Step Size** so that you can move the laser in large increments until the light is close to the **+** shape. Then decrease so that you can narrow in on the dead center. At the lower **Step Size**, the laser dot will just barely move. Be meticulous because you want your calibration to be accurate.

• Once the laser dot is perfectly centered over the **+** shape, click on **Ok**. The calibration is concluded.

• Go to **Settings>Settings>General** tab and click on the **Calibrate laserpoint offset** button. Your calibration numbers will appear as **Laser X-offset** and **Laser Y-offset:**

Enable this setting

Calibration values
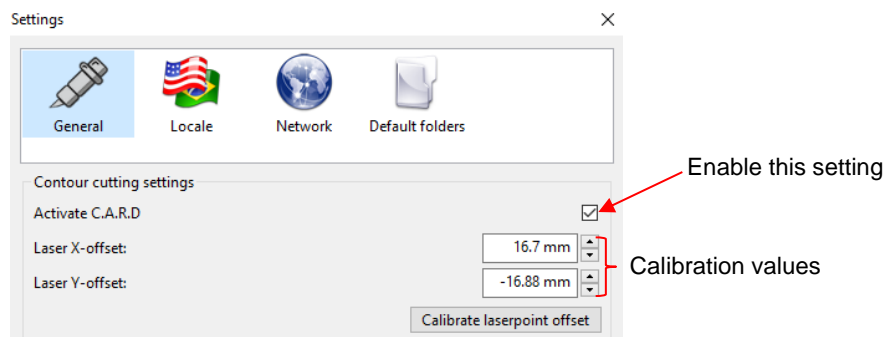
◊ Before conducting your first contour cut, note that the **Activate C.A.R.D** setting needs to be checked as shown in the prior screenshot.

7.03.2 Testing the Calibration

• Before performing your first contour cut project, especially a large one or one printed on expensive materials, it's recommended that you test it out. If the results are slightly inaccurate, you can tweak the **Laser offset values** shown in the prior screenshot.

◊ Choose a shape that has perfectly horizontal and perfectly vertical lines. When tweaking the offset, you can more easily determine which setting (**X** vs **Y**) needs to changed. A simple printed arrow works well because that way you can also make sure you place the printout correctly into the cutter.

◊ Printing on copy paper works well because it's inexpensive in the event you need to repeat a number of times. Also, copy paper, like vinyl, is extremely thin and requires very little blade exposure to cut. Plus, it

doesn't matter if the shape is completely cut out because you can still see the cut lines relative to the print lines and make any needed adjustments.

- Use whatever registration marks are suitable for your particular cutter. If you use SignCut Draw, refer to *Section 8.03*. Note that with some registration marks you will be moving the laser to the center of the mark whereas with others you will move to the corner:

versus

Laser light should be aligned in the center

Laser light should be aligned in the corner
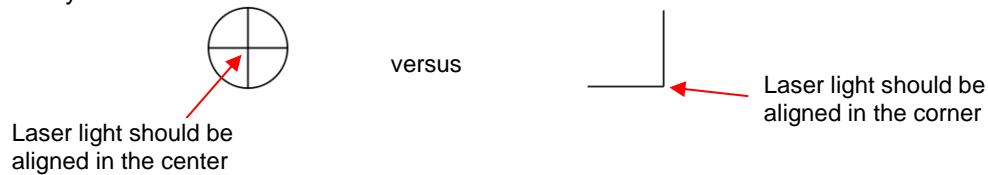
- After printing your project and importing the design into SignCut Pro 2, arrange the printout in the correct orientation in the cutter. Activate the laser light, as needed and then go to **Special cutting>Simple contourcut.** A window opens indicating the size of the registration marks followed by a window indicating the number of nodes:

Message	×
ℹ️ Regmark size: 14.020000,14.020000	
	OK

Click on **OK**

Message	×
ℹ️ Nodes: 10	
	OK

- After clicking on **OK** a second time, this window opens:

Red circle indicates which registration to use

Read the instructions

Click **Next** once the laser light is aligned with the registration mark
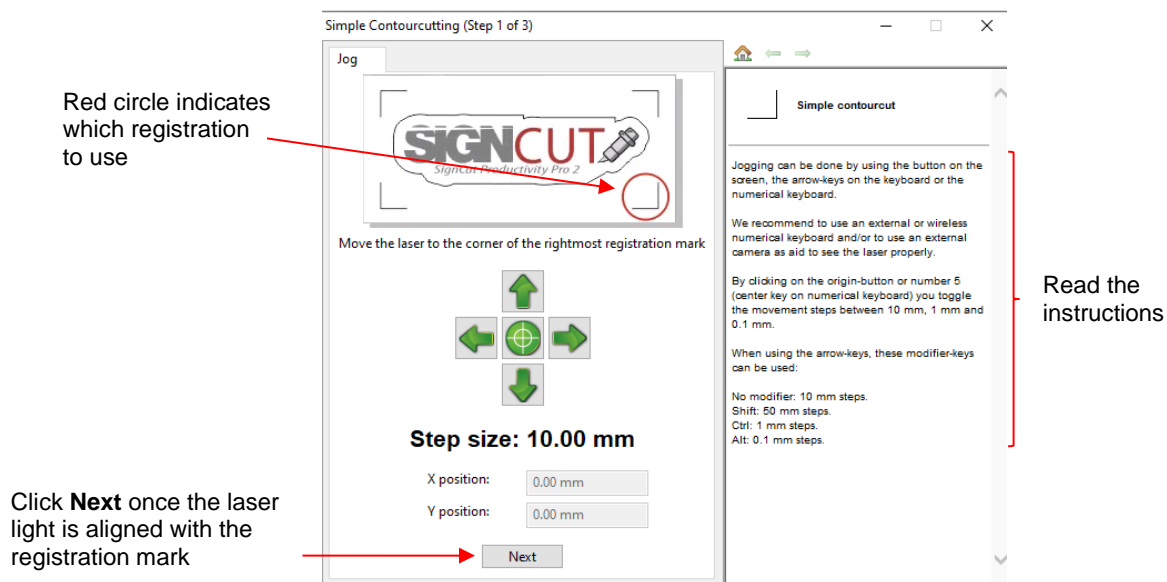
- This is a 3-step process in which you will click on **Next** after accurately positioning the laser with each registration mark. Read the instructions in the cut window and note that at each step, the diagram in the prior window will update indicating, with a red circle, which registration mark you should use:
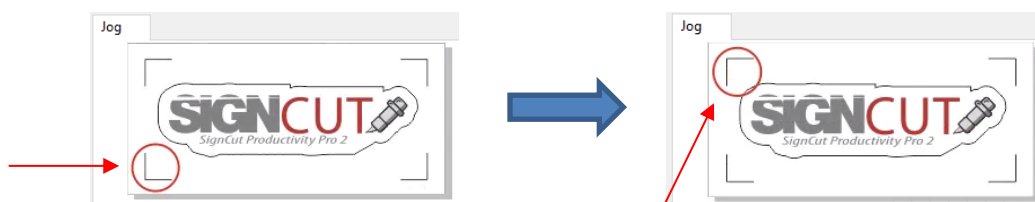
- After aligning the laser with the third registration mark, click on **Cut out** and the shape will be cut:

Click on **Cut out**
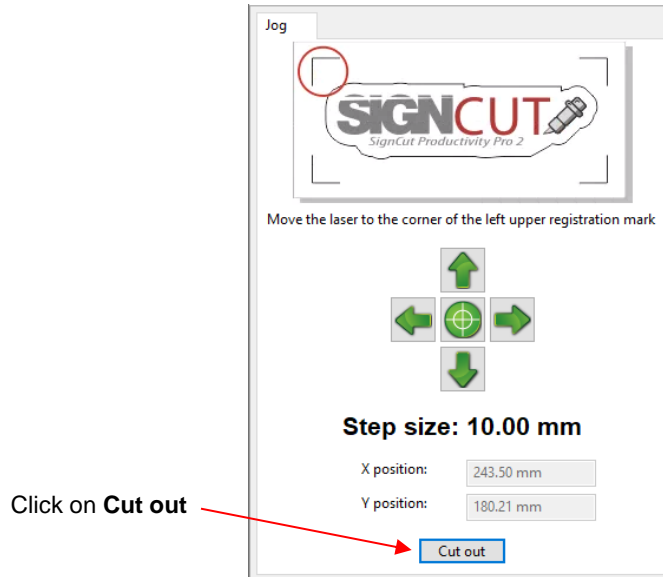
- Some tips on adjusting the calibration numbers:

  ◊ Use at least a 1mm adjustment for your first change so that you can make sure the next cut is in the needed direction.

  ◊ Keep each test with the **Laser X-offset** and **Laser Y-offset** numbers written on the printout so that you can refer back, if needed, to a prior test.

  ◊ After you make the first adjustment of 1 mm, you can then see if you over-corrected or under-corrected:

    o If under, use 1 mm again, unless you're really close. In that case use 0.5mm or 0.2mm, depending on your own judgment. Test again.

    o If you over-corrected, then back off by 0.5 mm. Test again.

  ◊ Typically, it can take 5 or 6 tests to get it perfect. Also note that if you end up with what appears to be a great calibration but, for example, one vertical line is perfect but the other is not. Or the diagonal on the arrow is off, then you need to do a resolution calibration because your cutter isn't cutting true size. Refer to *Section 3.09.*

  ◊ Once you have your final values, write them down and keep them in a safe place in case you ever need them again, such as after a computer crash.

8. SignCut Spooler

8.01 SignCut Spooler Basics

- SignCut Spooler allows up to 4 computers to send jobs to be cut to any number of different cutters already set up to work with SignCut Pro 2. A single Premium SignCut Pro 2 license is required.

- A fifth computer (or more) can serve as the dedicated computer with the ability to cut to the other cutters at the work location:

Send jobs wirelessly to a dedicated computer

Dedicated computer

Dedicated computer sends files to the cutters
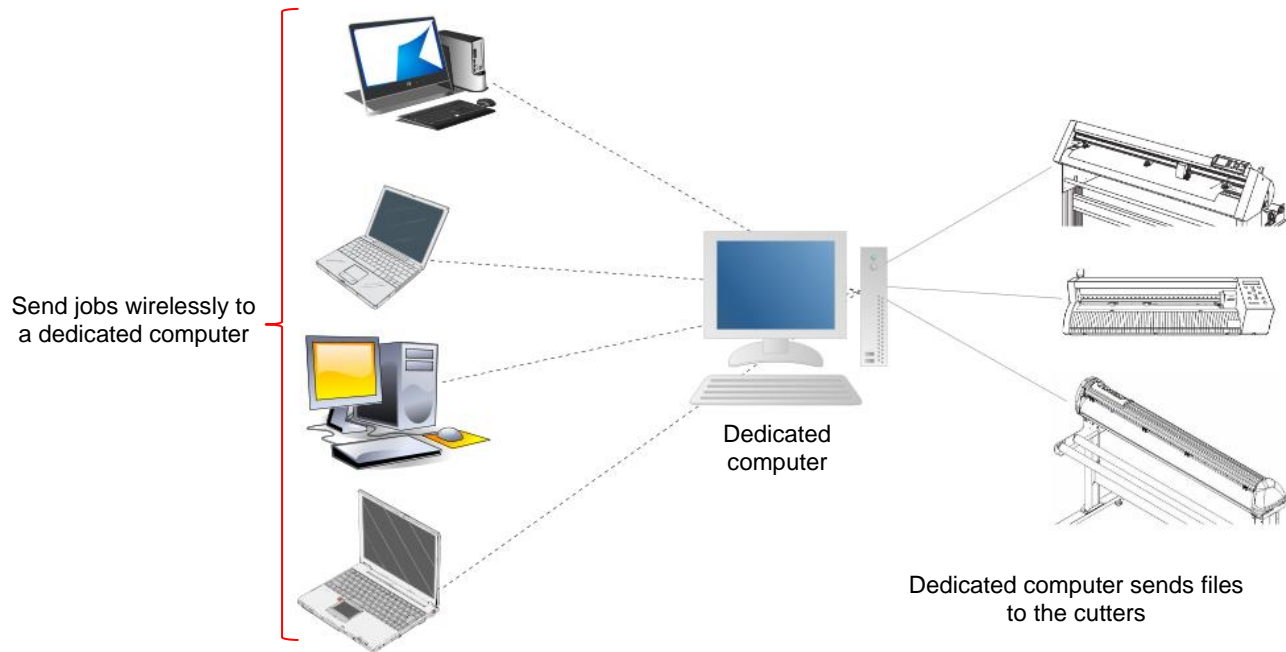
- Jobs are sent wirelessly to the dedicated computer which will accumulate the jobs in a queue and the operator of the dedicated computer can then send each job to the appropriate cutter once it is loaded with the appropriate material and ready to cut. Note that a new job can be sent while other jobs are still being completed on other cutters.

- The information which accompanies the sent file will include the date, source, and dimensions of the file. It can also include which material to use, the name of the customer, and any special notes (refer to *Section 8.05*).

8.02 Installing SignCut Spooler and Setting Up

- When you installed SignCut Pro 2, you were given the option to install SignCut Spooler, as well. If you do not find the SignCut Spooler program on the dedicated computer, reinstall SignCut Pro 2 on that computer, selecting the option for SignCut Spooler. Note that you only need SignCut Spooler installed on this particular computer and it can also be one of the computers sending jobs to SignCut Spooler.

- Upon opening SignCut Spooler, the following window appears:

Computer Name, **IP Address**, and **Port**

Spooler tools

Cutters you set up will be listed here

Jobs will be listed here

Information on a selected job
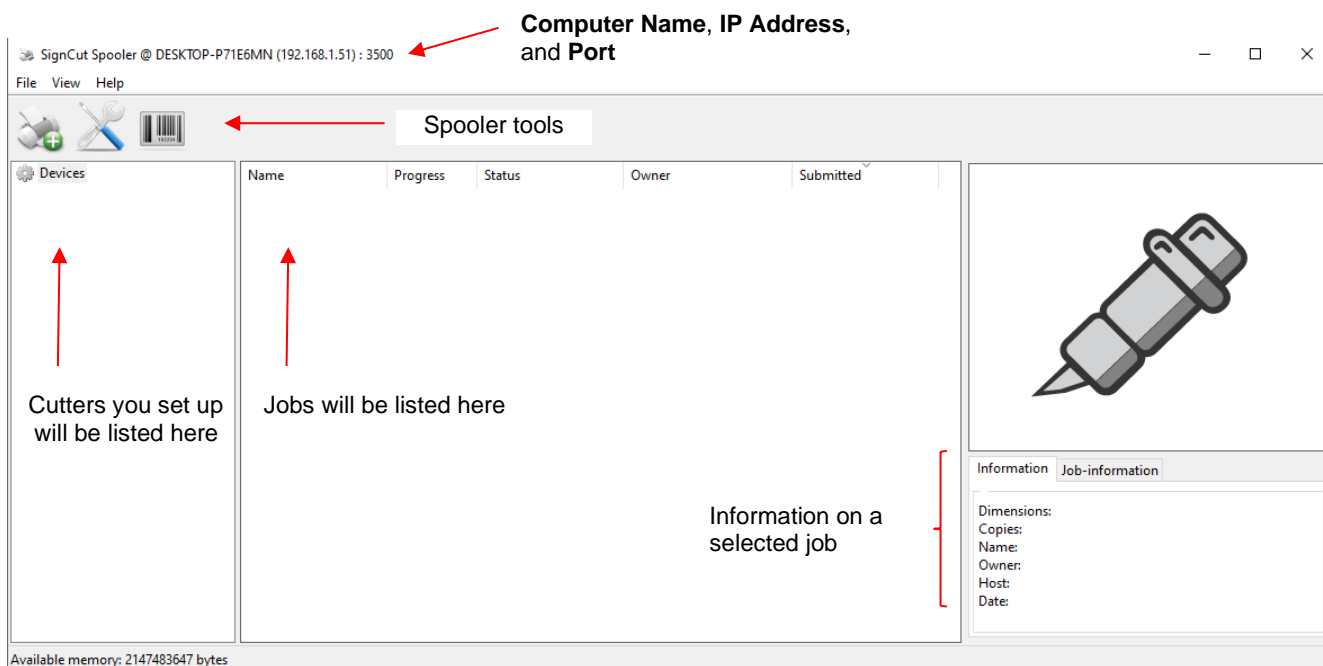
- The first step is to add the cutters that will be cutting from this computer. Click on the **Add new machine** icon or go to **File>Add New Machine**:

◊ **Device name:** Enter any name that immediately identifies itself as that particular cutter versus any others you'll be adding.

◊ **Output device:** Choose the connection method that this dedicated computer will use to communicate with that cutter. *Section 1.02* explains the various options available.

◊ Depending on the selected connection, the other settings may or may not activate so that you can make changes (such as **Baud**).

- Click on **OK** to complete the addition of the cutter and it will show up under **Devices**. Continue adding other cutters in the same way until you have them all listed. If you need to delete a cutter, right click on

Custom **Device name** assigned to each cutter

Output Device selected for each cutter
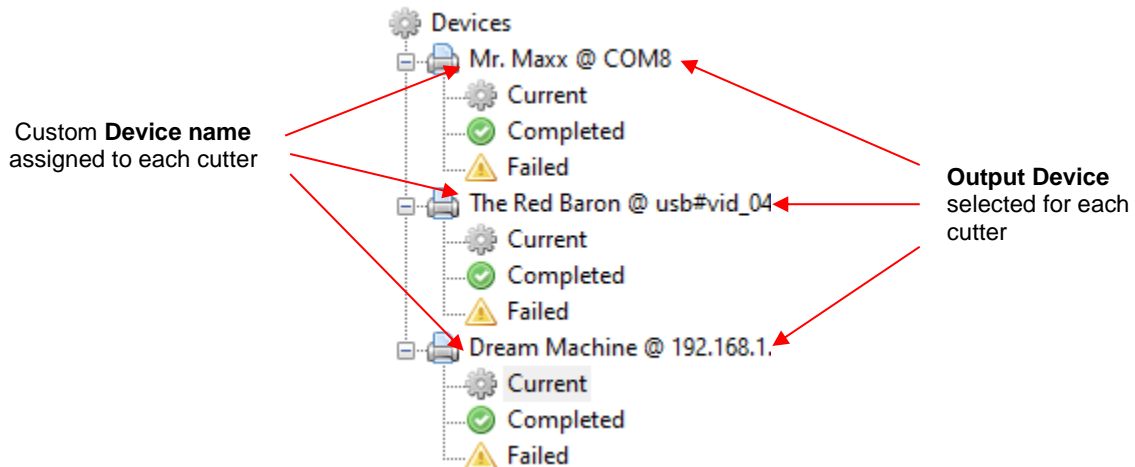
◊ If you need to edit the name or connection, right click on the name and select **Configure device.**

◊ If you need to delete a cutter from the menu, right click on the name and select **Remove device**.

- Click on the **Configure spooler** icon (or go to **File>Configure spooler**) and the following window opens:

Enter length of time to retain job data

◊ You have the option to enter how many days you wish to keep complete job information before it is automatically deleted from the job list. If left at 0, it will remain indefinitely on this dedicated computer.

◊ The **Start Summa barcode-server** icon in the main **Spooler** window and the **Barcode server** folder field in the **Setup spooler** window pertain only to OPOS contour cutting and will not be covered in this manual.

◊ Click on **OK** to close the window. In the main **Spooler** window, take note of the **computer name**, **IP Address**, and **Port** shown at the top of the window. These will be needed in the following section where SignCut Pro 2 will be set up to send jobs to SignCut Spooler. For example:

SignCut Spooler @ DESKTOP-P71E6MN (192.168.1.52) : 3500

8.03 Configuring SignCut Pro 2 to Send to Spooler

- On one of the computers which will be sending jobs to **SignCut Spooler**, open SignCut Pro 2, click on the **Cutter** button at the top of the **Cutter Panel** (or go to **Settings>Cutter**):

Click on **Cutter**
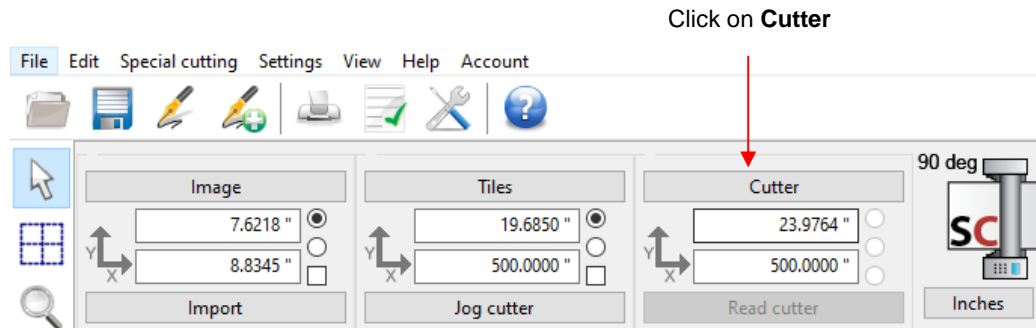
- Assuming the cutter has already been set up (refer to *Section 1.02),* change the **Output Device/Port** setting to **SignCut Spooler**:

Output Device / Port:

SignCut Spooler

- A popup window will indicate that SignCut Pro 2 is scanning for spoolers. This will then be followed by the following window opening:

Connect to SignCut Spooler

Detected running spoolers:

Two computers running SignCut Spooler

SignCut Spooler @ Sandys-MacBook-Pro (192.168.1.8)
SignCut Spooler @ DESKTOP-P71E6MN (192.168.1.52)

Rescan

Host/IP-Address: 192.168.1.79   Port: 3500

Ok
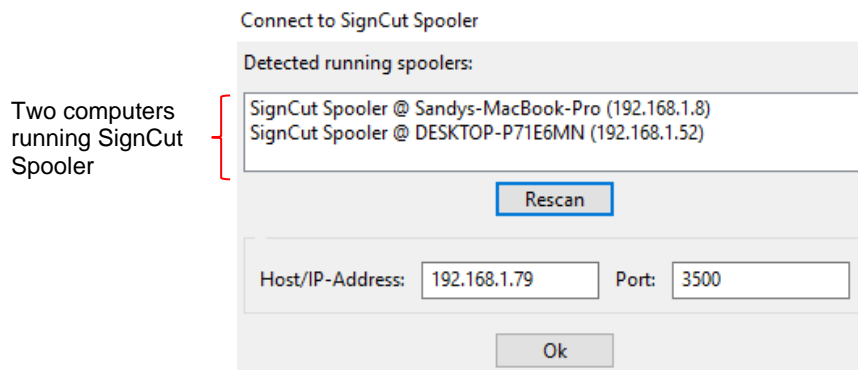
◊ Note that two computers have SignCut Spooler open, thus the reason to note (at the end of *Section 8.02)* which one has the cutter added that you want to use. In this example, it's the second one, thus it is selected:

Click on the correct **Spooler**

Connect to SignCut Spooler

Detected running spoolers:

SignCut Spooler @ Sandys-MacBook-Pro (192.168.1.8)
SignCut Spooler @ DESKTOP-P71E6MN (192.168.1.52)

Rescan

Host/IP-Address: 192.168.1.52   Port: 3500   ← Verify **Port** matches

IP-Address will update to match

Ok
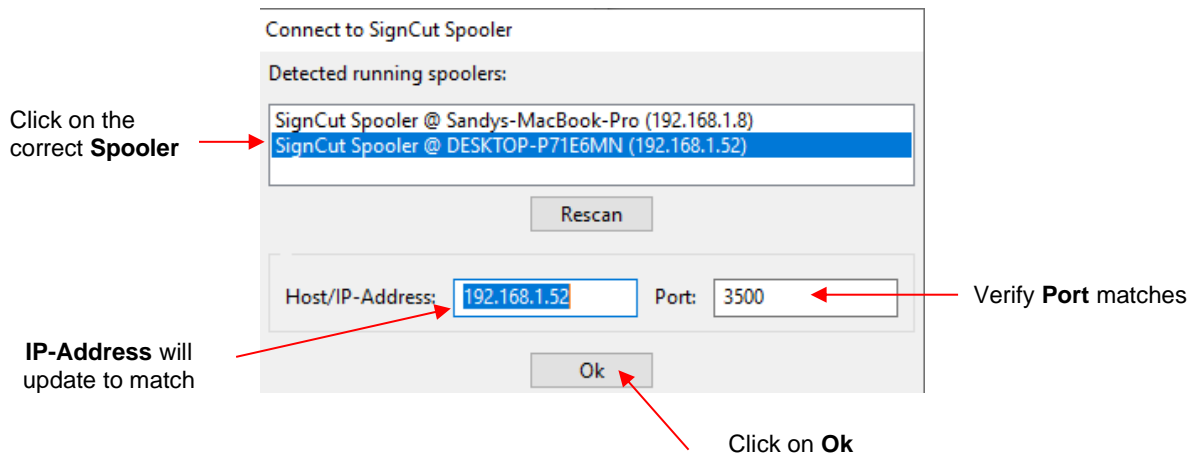
Click on **Ok**

- After you click on **Ok**, a new window opens where you can select which cutter to use based on the cutter names set up in SignCut Spooler:

Select destination machine.

Mr. Maxx
The Red Baron
Dream Machine

OK   Cancel

Select the cutter to use in SignCut Spooler and click on **OK**
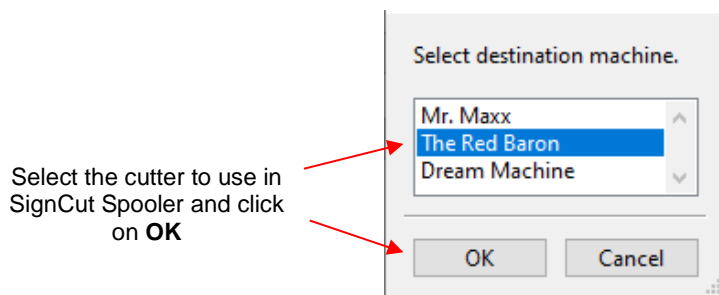
◊ Click on **OK** again to close the **Cutter** window and you are now ready to send jobs to SignCut Spooler.

- *IMPORTANT:* After preparing your project and entering cut settings, check these settings in the **Cut out** window before clicking on **Cut out:**

Position after cutting: Go back to beginning ⌄
Choose cutter preset: Use default ⌄   ← Cutter preset menu – select a different **Preset** if needed
Select spooler target: The Red Baron ⌄
Spooler job status: On hold ⌄   ← Cutter to be used by the spooler

Spooler job status

Cut out   Testfeed   Testcut
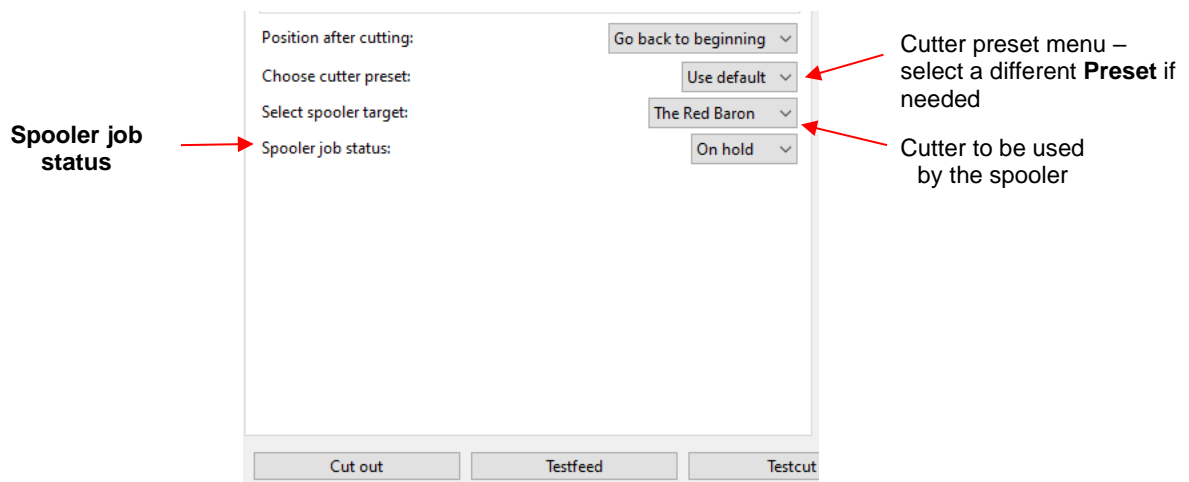
◊ **Spooler job status** has two options. Select the appropriate one:

  o **On hold**: Send the job to SignCut Spooler but wait for cutting

  o **Send now**: Send the job to SignCut Spooler and send to the cutter immediately

8.04 Managing the Job Queue

- As jobs are sent and completed, the **Devices** list will update to indicate the **Status** of each job:

Jobs that have been sent to the cutters

Jobs waiting to be cut
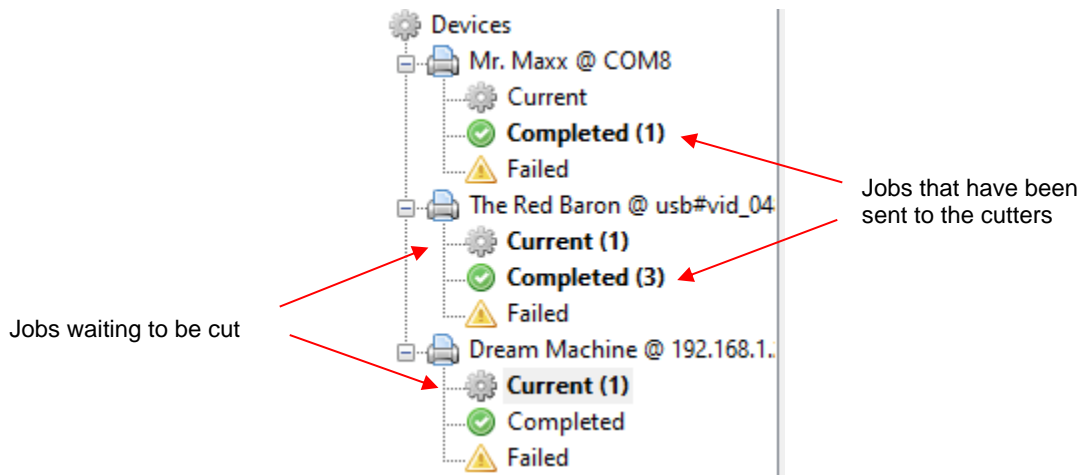
- ◊ **Current:** Indicates that a job is waiting to be sent to the cutter
- ◊ **Completed:** Indicates jobs already sent to the cutter
- ◊ **Failed:** Jobs that failed to be sent to the cutter

- Clicking on any of the above statuses under a cutter will then list the jobs on the right side. For example:

Job waiting to be sent

Select **Current**

- ◊ Right click on a job that has a **Current** status and two options will be provided: **Send Job** or **Delete Job**.

- If **Completed** is selected instead, then all past jobs are listed:

Jobs successfully sent

Select **Completed**

◊ Right click on a job that has a **Current** status and two options will be provided: **Resend Job** or **Delete Job**. The **Resend Job** option is very handy when in a production mode of re-cutting the same project over and over.

◊ If wish to clear the queue of all jobs within one status, right click on the **Status** (such as **Completed**) and you'll be provided the option to **Delete all jobs**.

- You'll also observe that when any particular job is selected (**Current** or **Completed**), the automatically-sent information appears on the right side:

Select a job

Image of job

Basic job information

8.05 Adding Additional Job Information

- Apart from the automatic information sent with a job, you have the option to add more. In SignCut Pro 2, click on the **Write job information** icon on the **Top Toolbar** and the following window opens:

Complete any fields you like

- For example, the following information is added:

Enter any relevant information

Click **Ok** when done

Print the information

◊ Note that if you want a printout of the **Job information**, you can elect to click on the **Print** icon in this window or, from the **Top Toolbar** in the main SignCut Pro 2 window, click on the **Print job information** icon: .

◊ When you save the file in SignCut Pro 2, the **Job information** will also be saved. When the file is sent to the Spooler, this **Job information** will be accessible by clicking the **Job-information** tab:

Select a job

Select **Job-information** tab

Additional **Job information** you entered in SignCut Pro 2

Appendix A SignCut Pro 2 Shortcuts and Icons

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location

Top Toolbar

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
Ctrl+O (or Shift+1)		Open an existing .scpro2 file or other acceptable vector file (2.01.1)	m:File>Open i:Top Toolbar
Ctrl+S		Save a file (2.01.2)	m:File>Save As i:Top Toolbar
		Open SignCut Draw (2.01.3)	i:Top Toolbar
		Open current project in SignCut Draw (2.01.3)	i:Top Toolbar
		Print job information (8.05)	i:Top Toolbar
		Write (create) job information (8.05)	i:Top Toolbar
F11		Open Settings window (1.03)	m:Settings>Settings i:Top Toolbar
F1		Open Startup guide (1.08)	m:Help>Help i:Top Toolbar

Panels and Miscellaneous

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
1	Import	Import the most recently created file (2.01.1)	i:Image Panel
2	Read cutter	Poll plotter for vinyl dimensions (if cutter is equipped to do so) (3.04.1)	i:Cutter Panel
7	Image	Open the Image / Sign Size window (2.02)	m:Settings>Image i:Image Panel
9	Tiles	Open the Tile window (4.01)	m:Settings>Tile i:Tiles Panel
0	Cutter	Open the Cutter window (1.02)	m:Settings>Cutter i:Cutter Panel
	Jog cutter	Set an origin on the cutter (3.02.3)	i:Tiles Panel
Spacebar		Cycle through Registration Mark Tools, Weeding Line Tools, and Tiling Tools	
Shift+Spacebar		Toggle between Measuring Tools and Tools for Objects	
Alt+F4		Close SignCut Pro 2 (2.01.4)	m:File>Close

Color Toolbar

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
F8		Whole area vs Optimized (3.02.2)	i:Color Toolbar
F9		Wireframe view vs Filled view (1.04.2)	i:Color Toolbar
		Select all colors (3.02.1)	i:Color Toolbar
		Click to enable only red closed shapes (applies to all other colors, too) (1.05.3)	i:Color Toolbar
		Click to enable only red open shapes (applies to all other colors, too) (1.05.3)	i:Color Toolbar
Ctrl+Spacebar		Cycle through making each color the active layer (1.05.3)	

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location

Main Toolbar: Collection of commonly used tools

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
Q		Collection of commonly used tools (1.05.2)	i:Main Toolbar
QZ		Pointer tool (1.05.2)	i:Subtoolbar
QX		Add vertical tile line (4.02)	i:Subtoolbar
QC		Add normal horizontal weed line (6)	i:Subtoolbar
QV		Add a snapping registration mark (5.01)	i:Subtoolbar
QB		Activate/deactivate a tile (4.01)	i:Subtoolbar
QN		Activate registration marks in active layer (5.02)	i:Subtoolbar
QM		Deactivate registration marks in active layer (5.02)	i:Subtoolbar
Q,		Create automatic weeding lines (6)	i:Subtoolbar
Tab (or Q.)		Rotate project in 90 degree increments (2.04)	i:Subtoolbar
Shift + Tab		Rotate project for minimal vinyl consumption (2.04)	i:Subtoolbar
		Reset the rotation (2.04)	i:Subtoolbar
Ctrl + Tab		Mirror (2.05)	i:Subtoolbar

Main Toolbar: Tiling Tools

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
W		Tiling tools (4.02 applies to all below)	i:Main Toolbar
WZ		Pointer tool	i:Subtoolbar
WX		Add vertical tile line	i:Subtoolbar
WC		Add horizontal tile line	i:Subtoolbar
WV		Add short vertical tile line	i:Subtoolbar
WB		Manual tile overlap	i:Subtoolbar
WN		Activate/deactivate a tile	i:Subtoolbar
W,		Deactivate all tiles	i:Subtoolbar
W.		Activate all tiles	i:Subtoolbar
WM		Draw free tiles	i:Subtoolbar

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location

Main Toolbar: Zooming Tools

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
E		Zooming tools (1.07 applies to all below)	i:Tools Panel
EZ		Zoom+ marquee-select area to zoom	i:Subtoolbar
Right click (or EX)		Zoom- click to zoom out	i:Subtoolbar
EC		Zoom100% click to zoom back to default	i:Subtoolbar

Main Toolbar: Measuring Tools

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
R (or 8)		Measuring Tools (2.03 applies to all below)	i:Tools Panel
RZ (or 8)		Snapping measuring frame	i:Subtoolbar
RX		Non-snapping measure frame	i:Subtoolbar

Main Toolbar: Weeding Line Tools

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
T		Weeding Line Tools (6 applies to all below)	i:Tools Panel
TZ		Horizontal weed line	i:Subtoolbar
TX		Vertical weed line	i:Subtoolbar
TC		Short weed line	i:Subtoolbar
TV		Inverted weed line	i:Subtoolbar
TB		Detailed weed line	i:Subtoolbar
TN		Short weed rectangle	i:Subtoolbar
TM		Automatically add weed lines	i:Subtoolbar
F6 (or T,)		Delete all weed lines in active layer	m:Edit>Delete all weeding lines i:Top Toolbar

Main Toolbar: Registration Mark Tools

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
Y		Registration Mark Tools (5)	i:Tools Panel
YZ		Snapping registration mark (5.01)	i:Subtoolbar
YX		Non-snapping registration mark (5.01)	i:Subtoolbar
YC		Change status of registration mark (5.02)	i:Subtoolbar
YV		Delete registration mark (5.02)	i:Subtoolbar
YB		Activate all registration marks in active layer (5.02)	i:Subtoolbar

Shortcut	Icon	Description & UM Section	Menu (m:) and/or Icon (i:) Location
Main Toolbar: Registration Mark Tools (cont.)			
YN		Deactivate all registration marks in active layer (5.02)	i:Subtoolbar
F7		Delete all registration marks (5.02)	m:Edit>Delete all registration marks
Main Toolbar: Tools for Objects			
U		Tools for Objects (2.06)	i:Tools Panel
UZ		Marking tool (2.06)	i:Subtoolbar
UX		Switch between all / none (2.06)	i:Subtoolbar
		Switch between marked / not marked (2.06)	i:Subtoolbar
		Change color of selected objects (2.06)	i:Subtoolbar
		Setup path(s) attributes (3.04.4)	i:Subtoolbar
Main Toolbar: Cut out			
4 (or Ctrl+P)		Open Cut out window (3.04.2)	m:File>Cut out
Shift+I (or Shift +click icon)		Write to file (export file in .plt format) (3.04.2)	
Shift + F4		Preview 1 copy	
3		Calculate automatic tiles and automatic weedlines	