Guide to
Tall and Skinny

Carol A. Brown

Introduction

Have you ever needed to fit a lot of characters across the width of an embroidery hoop? The usual solution is to pick a small size of alphabet. We can fit the characters in the width, but the characters look too short for the height. I preferred a narrow alphabet with more presence. My solution was to produce an alphabet three times the normal height, digitized with a motif fill to give the characters an open and interesting look. I named the result my *Tall and Skinny* alphabet. The characters are quick to stitch, require less stabilization than a traditional fill, and leave the fabric soft and flexible.

The alphabet comes in five sizes. The characters, numbers and punctuation marks in the *Tall and Skinny* embroidery alphabet have "boxes" around them. The boxes in a given size of alphabet are all the same height, thus ensuring that all characters within that size are in correct proportion to each other. (The boxes also make it easy to align the characters into words and names; the instructions below show you how to use the boxes for this purpose and then delete them.)

The following chart gives the sizes of the alphabets (in mm) along with the dimensions of capital A shown in mm and inches. You can see that capital A is just over one half the height of the surrounding box. If you prefer to work in inches, divide the alphabet size by 50; that is the same as doubling the size and then moving the decimal point two places to the left (70 x 2 = 140, then 1.40).

Size	Dimensions of "A" in mm	Dimensions of "A" in inches
tas_70	12.7 x 35.6	0.5 x 1.4
tas_80	14.5 x 40.7	0.57 x 1.6
tas_100	18.3 x 50.9	0.72 x 2.0
tas_120	22.0 x 61.1	0.87 x 2.41
tas_140	25.7 x 71.4	1.01 x 2.81

Each alphabet includes upper and lower case letters, digits, and punctuation marks and symbols (ampersand, asterisk, at, colon, comma, dollar, equals, exclamation point (abbreviated *excla*), greater than, hyphen, less than, open and close parentheses, percent, period, plus, pound, question mark, semicolon, slash, open and close single quotation marks, and two empty boxes for spacing (a "gap" for spacing characters within a word and one for spacing words).

For best use of *Tall and Skinny* alphabets, you need embroidery software that will allow you to delete portions of a design. Typically, an Edit tab in a Customizing program or a Stitch Editor program will provide this ability. If you would like to use a single character for a project, or characters in more than one size, I recommend that you remove the boxes first. Open the design in the program you will use, then "hide" the character from view. (In my 5D Embroidery software, I remove the checkmark from the thread color for the character.) You can select everything that remains on screen or select Make Block from Visible Area and delete it from the design. Do this for each character and then arrange the characters as you normally would. Figure 1 shows an arrangement of three initials, with the initial in the middle at a larger size.
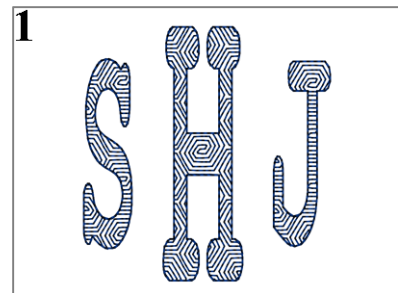
If you would like to arrange words, follow the instructions provided below. You will see how to delete the rectangles in these instructions, too.

Instructions

1. Open your embroidery customizing program.
2. Add the characters you need in left to right order. In this example: M, a, r, g, i, and e. (Fig. 2)
3. Arrange the characters along one line of the grid on your screen, near the center of the hoop area. If you use a character more than once (as in Betty or Sara), be sure to position the first occurrence to the left of the next. The characters will be stitched in the same order that you add them to your design on screen.
4. Set your software to display a grid. Zoom in so that you can see the grid lines, the boxes and the lower part of the characters clearly. Turn off the 3D view feature for easier viewing.
5. Arrange the characters so that they all rest on the same horizontal grid line and the box sides overlap exactly (you will see only one line). Start with the middle of the text. If you have an odd number of characters, center the middle one. If you have an even number of characters, butt the middle two characters up to the vertical center of the hoop. Work outward to each side of the text, scooting the next character to meet the one before and sit on the same horizontal line. (Fig. 3)
6. In most cases, butting the edges of the character boxes together will give the correct spacing between characters. Do take a look at the character pairs, however, because some may need a little tweaking. In this design, I thought that the **M** appeared too close to the **a** and the **e** too far from the **i**. I scooted both of those characters a little to the left until I was satisfied with the spacing. Try to ignore the boxes when you look. (Fig. 4)
7. If you prefer, you may use the provided *gap* box from the Punctuation folder for spacing the characters in your design.
8. As above, move each character so that the bottom of the box is resting exactly on a grid line. Make sure that all characters will fit across the width of the hoop. If necessary, choose a wider hoop.
9. Select the *gap* for the same size as your other characters. Copy it to the Clipboard.
10. Place the gap after the first character. If you position it so that the bottom is lower than the designated base line, you will be able to select and move it easily even if the *gap* overlaps a neighboring character box.
11. Scoot the gap left or right until the left side of the gap meets the right edge of the first character. Ignore the blue box and look at the character itself.
12. Move the second character left and/or right until the left edge of that character meets the right side of the gap.
13. Continue spacing characters with additional *gap*s pasted as needed. You may find that some gaps will look wider than others, even when you know they are the same. The shapes of the characters cause the difference in appearance, depending on where you measure. Adjust by eye as needed. (Fig. 5)
14. Your software may permit you to use the arrow keys to move a selected element of a design. If so, you can count clicks as you move characters closer together or farther apart. Keep in mind that if you move one character 3 clicks to the left, you would need to move the next character at its right 3 clicks as well, to maintain the set spacing. You would then need to move it another 3 clicks to the left for the new, narrower, spacing. The character at the right of that one would need to move 9 clicks to the left, and so on. If your software allows you to select multiple designs at once, you can move many characters as a group.
15. In some cases, you may need to place the gap between characters where they are closest to each other instead of where the characters themselves start and stop. Consider the word "AWARD." The sides of the **A**'s and the **W**
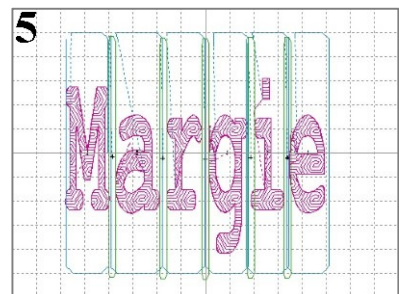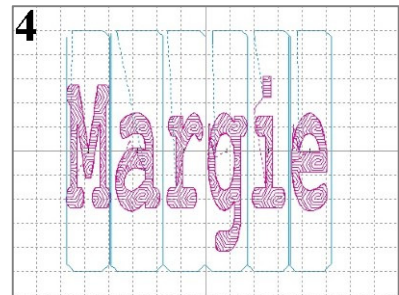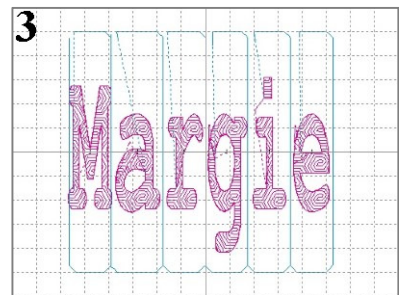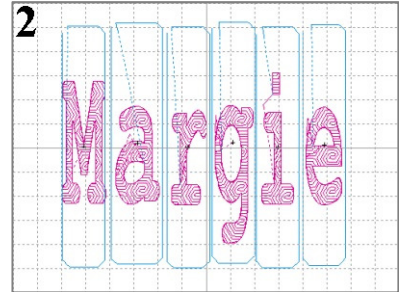
are approximately parallel, so the characters look more widely spaced. The boxes around the characters may need to overlap quite a bit for the spacing to look normal. (In printing, such overlap is known as *kerning*.) In Figure 6, look at the **gap**s before and after the **W**. You can see that the second one maintains the same **gap** as between the remaining characters in the word. I placed it between the bottom right of the **W** and the bottom left of the **A**. The first **A** is still too far away but can be moved right with its **gap** in the same way.

16. When you are satisfied with your arrangement, Combine Stitches as directed for your software. Do not worry that the design is not centered in the hoop.

17. Cut or Copy the design and Paste it into a stitch editing program, or click the Edit tab of your Customizing program.

18. Take a look at the thread color list. Click on all the check boxes next to the fuchsia threads in the list to deselect them. You will see only the blue boxes (and green **gap** boxes, if you included them in your design). (Fig. 7)

19. Drag a selection box to select everything that is visible on the screen, or click a tool that will do that for you.

20. Click the Delete tool. The screen may appear empty. If so, click the Draw All Stitches tool and your text will appear on the screen once again.
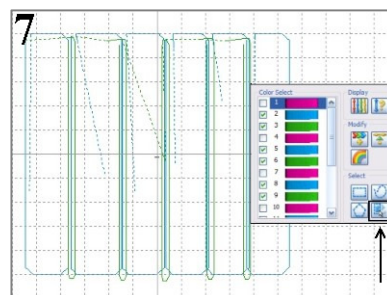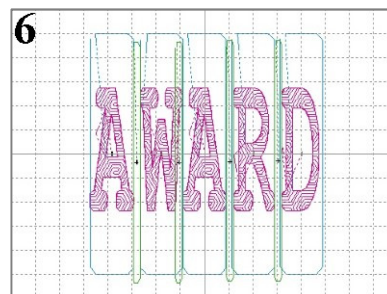
21. If you want, choose a different color for each character in your design. (Fig. 8)

22. Otherwise, Sort colors to reduce the design to a single color and then choose the color you would like to use. (The design will stitch from left to right if you were careful in adding characters in the proper sequence.) (Fig. 9)
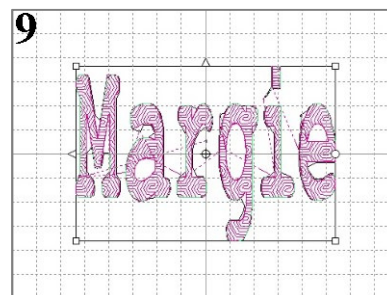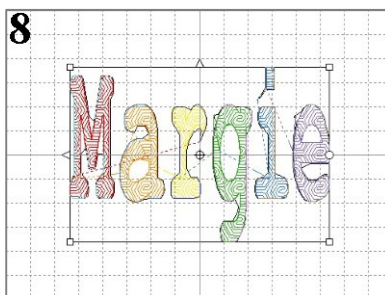
23. Variegated threads work very well with motif filled alphabets. Figure 10 shows a 3D simulation of the design arranged with Rainbows, a 1" interval variegated thread. These are available from Superior Threads.

24. Center the design in the hoop.

25. Save in the format needed by your embroidery machine.

26. If you are arranging more than one word on a line, it may be easiest to combine characters for each word, but then strip away the boxes after you have arranged all the text on that line. Save each word as you arrange it so that you can clear the hoop for the next. For spacing between words, append the **space** character from the Punctuation folder to the end of one word, position the next word to follow (maintaining vertical alignment), and then delete the space.

27. If you need multiple lines of text, save each line on its own and then arrange the lines of text. Without the boxes, descending characters (g, j, p, q, and y) will make lines containing them bigger. Spacing between lines needs to consider the base lines of the characters, not the descenders. I arranged **Happy Birthday Margie** on three lines of text. With the boxes in place you can see that the spacing between lines is the same. I then stripped the boxes away and saved the design. (Fig. 11)

28. In the second version of this design you can see that I changed the thread colors for each line. Even when I intend to use the same thread for an entire design, I would rather restart my embroidery machine than stitch over a long jump thread from the end of one line to the beginning of the next. Color sorting within each line is not a problem because a jump ends at the left edge of the following character.