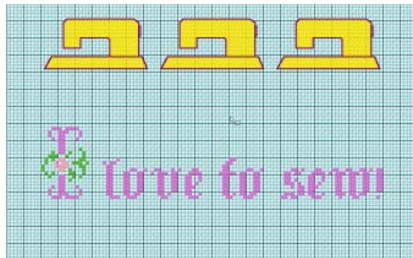# Intermediate 5D™ Software Training:
Create Original Patterns in 5D™ CrossStitcher

By: Janie Lantz, Education Software Specialist

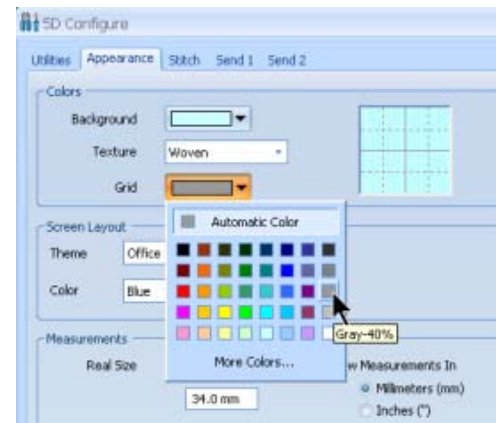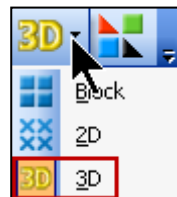**Modules:** 5D™ Embroidery or 5D™ Embroidery Extra with 5D™ CrossStitcher add-on, or 5D™ Suite

5D™ CrossStitcher has many different capabilities!

For this lesson, learn to create a unique pattern stitch, save it in a custom menu, and make use of the Pattern in an embroidery.

Adjust Settings in 5D™ Configure

1.   Open **5D™ Configure** 🖾.

2.   Select the **Appearance tab**.

3.   In the **Colors box**, click the drop-down menu by **Grid**. Choose the gray in the middle row, last column (**Gray 40%**) as the Grid color.

   When the Grid Color is Gray 40%, and 5D™ CrossStitcher is in 3D View, you adjust the Screen settings in Preferences 🖾 *to show a bold line every 5 or 10 gridlines, easing the task of selecting a specific section of the grid.*

4.   Click the **Utilities tab**. Click **Reset All Modules**.

5.   Click **OK** to the message, '**All modules will be closed and reset to their default settings**'.

6.   When you see the message, '**Please confirm that all modules except 5D™ Configure are now closed**', ensure no other modules are open in the background. If they are, click on the module(s) in the background, and close after saving any work that might be in progress. Click **OK** to the '**All modules will be closed**' message when you have verified all other modules are closed.

7.   Click **OK** to the message, '**All modules are now reset to their default settings**'. This will make all menus appear as they first installed, will reset all browse windows to their default size and folder, and will make the Control panels and

toolbars reset to default. No changes will be made in custom settings such as MyThreads, MyMachines, or MyHoops.

8.   Click **OK** to close **5D**™ **Configure**.
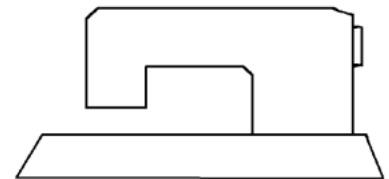
Open the 5D™ CrossStitcher Wizard

9.   Open **5D**™ **Embroidery** 5D. You will be asked to 'Please Wait, Configuring the software for the Current User'.

10. Click **5D**™ **CrossStitcher** in the QuickLink toolbar.

11. In Cross Stitch Design Wizard – Design Options, select '**Load Picture for New Cross Stitch Design**'. Click Next.

 Note: Several methods could be used to create the design, including QuickCross, which will apply crosses to clip art automatically, or simply drawing crosses in with no background picture with Start a New Cross Stitch Design with no Picture.
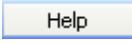
12. In Cross Stitch Design Wizard – Choose Picture, select **Load Picture** . Browse to Documents/ 5DEmbroidery/ Samples/ 5DEmb/ Pics2/ Motifs. Find **motif IMMo24.jpg**, a line drawing of a sewing machine. (You may not see the .jpg extension, depending on how your computer is set for viewing file names).

13. Select the image, and then click **Open**.

14. Click **Next**.

 In Cross Stitch Design Wizard – Grid and Hoop page, specific size parameters are required when making a new pattern motif.

Use the Help System for Additional Information

15. In the Wizard, click the **Help icon** Help . Select the **Index tab** in the Control Panel.

16. Under '**Type in the keyword to find**' box, type '**patterns**'. A list will appear below the box.

17. Double-click **Design New** in the list, and the Help information will appear at the right in the Preview.

18. A note under the picture of the New Fill Pattern box specifies that you can only save a new Pattern if the selected area is no larger than 32 grid squares in Height or Width, and is limited to 15 colors. The area has to have some stitches as well.

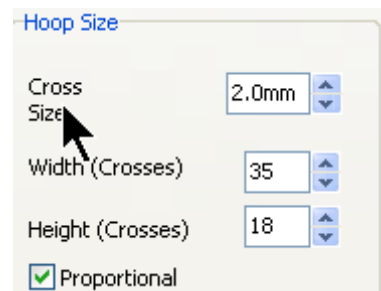19. Click **Close** to close the Help system.

Adjust Grid and Hoop Settings

To ensure we can create our sewing machine motif and save it properly as a Pattern stitch, we will change several settings in the Grid and Hoop page.

First, we need to adjust how the grid fits around the clipart in the Crop Box at right.

We need a little extra space around the image, so we have a bit of extra room when drawing our select box at the point of saving our Pattern. However, if we leave too much space, we'll get fewer crosses in the image, and fewer crosses mean less detail in the Pattern. Too little space around the image may cause us to miss selecting a few stitches that are too close to the edge of the Select Box.

20. In Hoop Size, the initial settings show a check in Proportional, and Width of Crosses at 50, Height at 26, for this image.
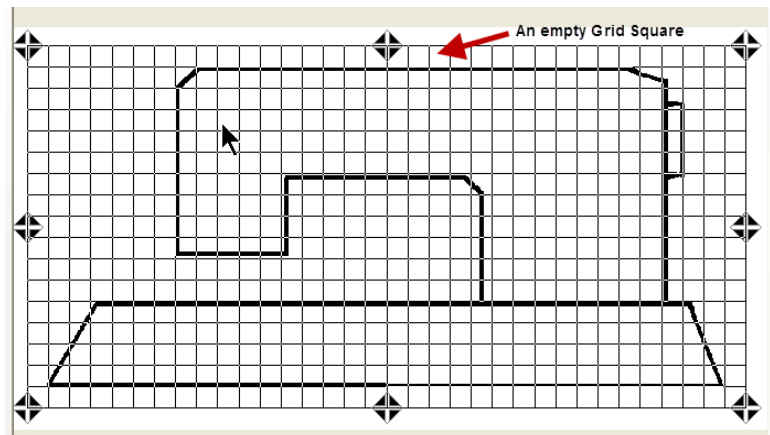
21. Change **Width of Crosses** to **35**, so it's close to the number of crosses we'll use in our final setting of 32, the maximum for saving a Pattern. Leave the **check in Proportional**, and the Width will automatically adjust to be proportional.

22. Click and drag the **top center handle** on the Crop Box ⩡ toward the center of the crop area.

    The handle will appear as a diamond once the edge of the box is visible ⬦.

23. Drag the handle down until there is an empty grid square above the top of the drawing, which will leave a small amount of room outside our design.

24. Click and drag to draw in the handles on the center bottom, and both sides, as shown, leaving a single grid square of space all around the perimeter of the artwork's outermost edges.

    This is known as cropping the area of the image to be used for the background.

25. Once the crop box is adjusted, we need to change the **Hoop Size** settings again. Change **Width** to **32**, to limit our Pattern element so it will be small enough to save, as stated in the Help system. Leave **Proportional** checked, and the Height will adjust automatically.

    Note: if our clip art were tall rather than wide, we would adjust the largest dimension (Height in that case) instead, so the largest dimension would not be larger than 32 grid squares, or Crosses.

26. Click **Finish**.

Creating Crosses

27. Click **Preferences**. Select the **Screen tab**. In **Grid Lines**, choose **5 lines**. Click **OK** to **Preferences**.

28. We have multiple choices for ways to create crosses.

29. The toolbar on the left has many different full cross and partial cross styles, plus outlines, French knots, and Flood Fill of Full Size Crosses.

30. For this Pattern, we will use outline stitches to 'enclose' areas in the artwork, and then use Flood Fill to fill the areas with crosses.

    Other options could include selecting a cross tool, then 'painting' in individual crosses by clicking in a square, or clicking and holding the mouse button and moving the cursor.

31. Select **FreeHand BackStitch**. FreeHand BackStitch allows you to click and drag to make a straight line any length you need. The line must begin and end at a grid corner or center of a grid line.

32. Select the **Design tab** of the Control panel. In **Color Select**, click a bright color that will show well against the black lines of the artwork. Any stitches created after this point will appear in the color you just selected.

33. Bring the cursor point to the inner neck of the sewing machine where it meets the top of the machine's bed, as shown. Click and hold to **drag a**
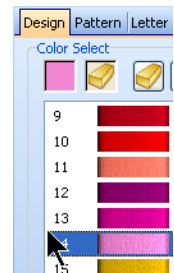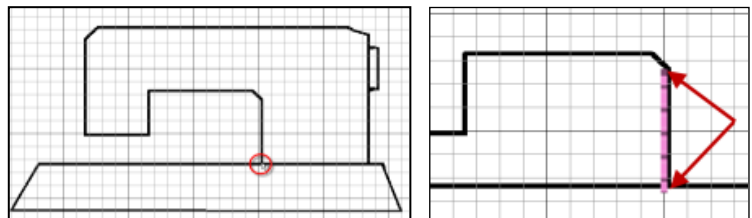
    line upward, ending where the line changes angle toward the left, by releasing the mouse cursor. The outline stitches will appear.

    Note: The line of stitches may be slightly off to the side of the artwork, as the artwork may not align exactly with a grid line or the center of the grid squares.

    Outline stitches will automatically 'snap' to horizontal or vertical grid lines, though they may be placed diagonally so they fall across any portion of the grid as long as they start and end at a grid corner or mid-line on the grid squares.

    As long as the stitches are close enough to the lines in the artwork that they will look appropriate when finished, it is not important they lay exactly over the drawing in 5D™ CrossStitcher. The original artwork will not show in your finished embroidery!
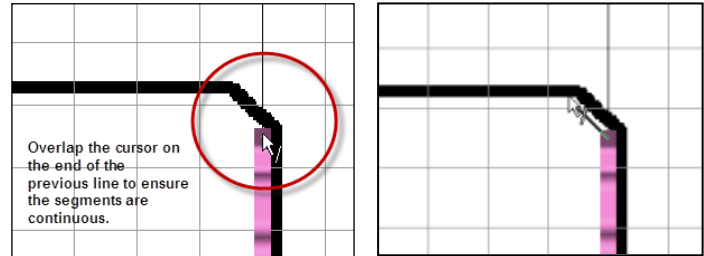
34. The FreeHand BackStitch stays selected until you choose a different tool.

35. Click to select **Zoom In** 🔍. The mouse cursor will become a Zoom icon. Click and drag a box around the center area of the clipart.

    Zoom to Fit ✛ *will adjust the view to the entire work area if your Zoom In* 🔍 *takes you too close.*
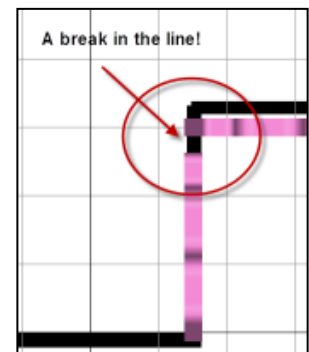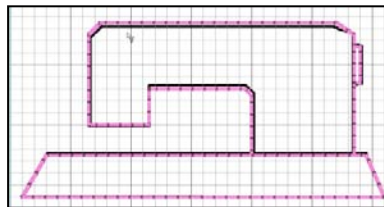
36. Place the **cursor** over the end of the first line, ensuring the cursor touches the end of the first set of visible stitches, so the two segments will connect. Click and drag another segment along the left-slanting line, releasing the cursor when you want to end the segment.

    Note: Segments that don't quite connect will allow Flood Fill objects to leak out. However, you can simply add a small segment in the gap. If they overlap slightly more than desired it won't matter, as the stitches will replace any that already exist, so you don't build up layers of stitches.

    You also have unlimited levels of Undo ↩ *and Redo* ↪*, so you can undo a line so you can draw it back in!*

    Even if you move in random order around the artwork as you draw in segments of line, as long as you carefully connect the ends, 5D™ CrossStitcher will automatically put the stitches in the best, continuous stitching order when it saves the embroidery!

37. Continue placing line segments until you have **outlined the entire clipart**.

38. Click to **Zoom In** 🔍 on a small area, and then use the **Panning bars** at right and bottom to make sure there are no breaks in your outline!

39. Click **Zoom to Fit** ✛.

40. Click the **Full Cross icon** ✖.

41. Click a new color in the **Design tab**, **Color Select**. Notice the left color indicator at the top of the Color Select box changes to the new color!

    Note: The right indicator at the top shows the eraser. If you select the icon for the stitch type you wish to remove, and then right click when the eraser is selected for the right cursor, you can erase stitches one at a time, or click and hold the right mouse button to erase multiple stitches!

    You can also left click the eraser tool to use it with a left mouse click.

    Additionally, you can use different thread colors in the left and right mouse buttons!

42. Click in any square within your outlines to place a cross. Filling the machine by clicking squares will be a slow process!

43. Click the **Flood Fill icon** 🖫. Flood Fill makes only Full Crosses within an area bordered by other stitches. If there are no other stitches bordering an open area, then the whole Work Area will fill when you click in it!

44. Click once **inside** any **outlined section**, and crosses will fill to the border, or outline stitch, around that section. Click in each section you want to fill with stitches.

    Note: Since you are using the same color as the single cross you just made, the Flood Fill crosses will replace the existing crosses in that color within your outlined area, and you will not stitch multiple layers in that grid square.
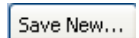
Save as a Pattern Stitch

45. To save the Pattern, click the **Pattern tab** in the Control Panel.

    A Save New icon appears in the middle of the Control Panel, but is grayed out. You cannot save the stitches until you select them, and there cannot be more than 32 grid squares in Height or Width within the select box.
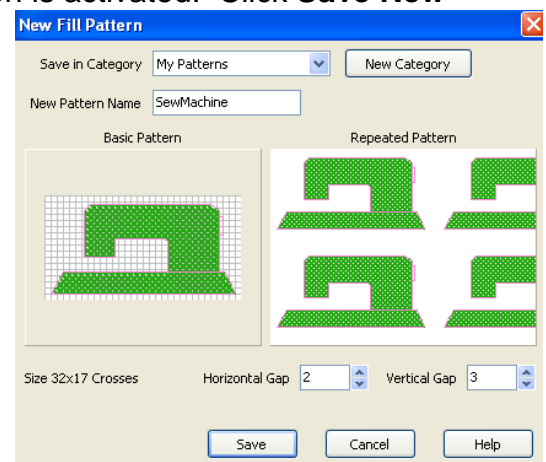
46. Click **Box Select** ⬚. Click and drag a select box around the entire Work Area, ensuring your select box has an empty square around all the stitches so when we save the Pattern, we will capture the entire repeat and all its stitches. If you crop too closely, some stitches can be omitted.

    If you don't select the whole area the first time, move the cursor outside the select box so you see a box attached to the cursor ⬚, then left click to deselect. Then, simply redraw using the Box Select tool ⬚.

47. Once the stitches are selected, the Save New icon is activated. Click **Save New**
    Save New... .

48. In **New Fill Pattern**, click the drop-down menu by **Save In Category**. We'll Use **My Patterns**, but you could save in any of the default categories. Click My Patterns to reselect it.

    Note the New Category button. If you select New Category, you can create a separate 'folder' with a Category name, where you could keep a collection of special stitches that are all similar.
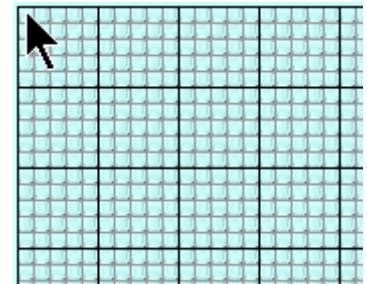
49. Click in the box beside **New Pattern Name** and type '**SewMachine**'.

50. Adjust **Horizontal Gap** to **10**. See how the Repeated Pattern preview changes, moving the repeats farther apart.

51. Adjust the **Horizontal Gap** to **0**. The Patterns will be one grid square apart.

52. Adjust the **Horizontal Gap** to **negative 31**. The Patterns will almost completely overlap.

53. Set **Horizontal Gap** at **2**, and **Vertical Gap** at **4**.

54. Click **Save**. The new Pattern will appear in the Preview at right.

55. Click to **select the Pattern** you just made.

Create a Pattern Fill Cross-stitch

56. Click **New** ⬜. If prompted to save the existing file, say No.

57. In the Cross Stitch Design Wizard – Design Options, select **Start a New Cross stitch Design with No Picture**. Click **Next**.

58. Click **Select Hoop** ⬜. Change the **Hoop Group** to PFAFF® *creative sensation™*. Change the **Hoop Size** to the 240mm x 150mm – *creative™* Master Hoop. Set **Orientation** at Horizontal.

59. Click **OK** to **Select Hoop**. Notice the number of crosses changes to fill the selected hoop size!

60. Click **Finish**.

61. Click the **Pattern tab** in the Control Panel.

62. Place a check by **Use Fill Pattern**.

63. Click the drop-down menu under **Category**, and select **My Patterns**. Click on the **SewMachine Pattern** you just created.

64. In **Colors**, the top color square corresponds to the fill in this embroidery, and the bottom color square corresponds to the outlines. Click either square to open the Color Selection box, and pick your choice of Thread Range and thread color. Click OK to Color Selection.

65. In **Shapes**, select the first shape, a **Rectangle** 🔲.

    Note: To use your new Pattern in a fill area, you must use one of the shapes to define the area you want to fill.

66. Under Shapes are choices for types of fill. Click **Solid Cross or Fill** 🔳, the last icon.

67. Place your cursor in the upper left grid square, and **click and drag a box** the full width of the Work Area (grid) by 18 small grid squares tall (the Pattern is 17 grid squares tall).
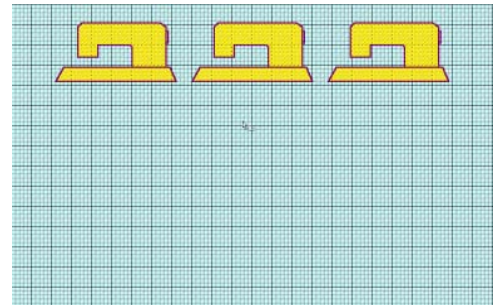
68. Release the cursor, and the box will fill with the Patterns, spaced apart by 4 grid squares horizontally, just as we set in the Horizontal Gap when saving the Pattern.

    Remember, if things don't select as you desire, you have unlimited Undo ↶.
    Simply click outside the select box, then click Undo ↶ and try again!

69. A partial Pattern appears at the end of the box.

70. Click **Box Select** ⬚, and then **click and drag a box** around the partial Pattern.

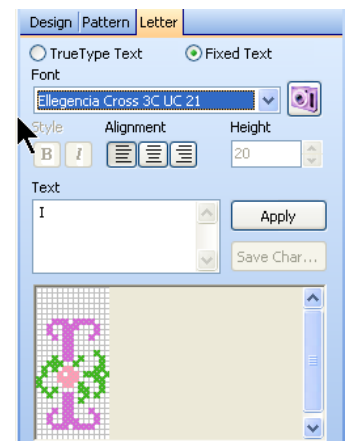71. Click **Delete** ✗ to remove the partial Pattern.

72. Note Box Select ⬚ is still active, so **click and drag** to box the **row of Pattern repeats**. When you place the cursor inside the select box, you may click and drag to move the positioning of the selected stitches. Click and drag the select box to move them so they are centered side to side, and positioned as you like them vertically.

73. When done moving the stitches, click outside the select box to **deselect**.

Add Text with Lettering

74. Select the **Letter tab** in the Control Panel.

75. Select **Fixed Text**.

76. Click the drop-down menu under **Font**, and select **Ellegencia Cross 3C UC 21**. 3C stands for 3 colors. UC means Upper Case. 21 is the font size.
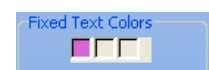
77. Click in the box under Text. Type in the **letter 'I'**. A preview will appear below the Text box.

78. Click **Apply**. The letter appears in the work area with a select box, ready to click and drag into position.

79. Place your cursor inside the select box, then click and drag to **move the letter** to the left side of the Work Area, centered in the open area under your border.

80. Click outside the letter to **deselect** it! Be sure to deselect the letter before you add additional lettering, or you'll replace what still has a select box.

    Note: if you accidentally deselect the letter before you have it positioned, just click Undo ↶ once to reselect it.

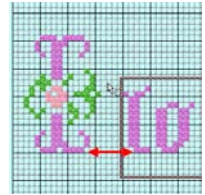81. Click the drop-down menu under **Font** and select **Hamlet Cross LC 9**. LC stands for lower case font.

82. Highlight the letter I in the **Text box**. Type in '**love to sew!**'.

83. At the bottom of the Control Panel, click the **first color square** (black) in **Fixed Text Colors**. In Color Selection, choose your favorite Thread Range and color. Click **OK** to Color Selection.

84. Click **Apply**. Click and drag the selected lettering so its baseline (the lower edge of the letters) lies along the same horizontal grid as the bottom of the letter 'I', and is spaced appropriately.

85. Click outside the select box to **deselect.**

86. Click **Box Select** ☐. Select all the letters, and then click and drag them into the desired position.

87. Click outside the select box to **deselect** the lettering.

Save Your Cross-stitch Embroidery

5D™ CrossStitcher can save two types of files.

The .krz file is a working file. Save a .krz file, open it at a later time, and you can make changes without altering the integrity of the finished embroidery.

The other file type is a finished embroidery design, which saves in one of multiple file formats. The preferred type is .vp3, as all special thread brand, name and type information is saved with the file.

88. Click **Save As** 🖫. Notice the **Save As Type** is **.krz**. This file can only be opened again in 5D™ CrossStitcher. Browse to the folder of your choice, and name the file **LoveToSewCrosses**. Click **Save**.

89. Click **3D Create Stitches** ✂. You will see a preview of the finished embroidery design. In **Output**, click the **Save Embroidery Design icon** 🖫. Browse to the folder of your choice. Notice the file is named the same as the .krz file, because the .krz was saved first. Click **Save**.

Because of many, close jump stitches, it is recommended you turn off the automatic jump stitch trim command if your embroidery machine has that function. 5D™ CrossStitcher generally sequences the stitches to optimize stitch-out, so you can simply clip the jump stitches at the end of each color change.

For more information on how to create cross-stitch embroidery in 5D™ CrossStitcher software, browse the tutorials in the Help system in the Contents tab, under QuickStart Tutorials, or consult the PDF guide in your 5D™ Program Folder, inside Reference Guides, then Main Modules .

And don't forget to visit the 5D™ Learning Center from the 5D™ Embroidery module!