

Expansion by color strip

Overview and explanation

Expansion by color strip allows the designer to expand ends and picks and assign boxes and regulators in one step. Color strip expansion allows for expanding the picks differently in different areas of the design. (Simplified expansion does not. It expands the ends evenly throughout the design). For supplemental picks, (a.k.a. lancé picks, a.k.a. tissue picks or dead picks) color strip or manual expansion must be used to accommodate the additional picks.

For each system of boxes a logical shuttle is defined. The logical shuttle allows one to define a unique set of commands for each design color. This means that for each separate system a logical shuttle is created the total number of different systems being used will be the total number of logical shuttles defined. So if the pattern requires 3 sets of box motions and two supplemental boxes, a total of 5 logical shuttles will be used.

Each logical shuttle has its own design end. So for 5 logical shuttles, 5 design ends will be added at the far right of the design area. The first color strip end at the right of the last pattern design end will be the first in the boxes triggered. The columns of color strip ends are read from left to right and loaded into the loom controller in that sequence.

Just as in the pattern area where a color is a number and a number is a weave, in the color strip, a color is a number and a number is a box assignment. The number of active boxes (or box sequences) for any single line in the design will determine the number of times that line is expanded during the expansion process. If there are 5 active boxes for a single line, that line will expand by 5. Simultaneously those five boxes are assigned and the regulators are also assigned for each line in the pattern.

The color used for each line in each color strip column determines the box selected for that line. Color # 1 = box #1, Color # 2 = box #2, Color # 3 = box #3, etc. If there is to be no box selected for that column (for example, where a dead pick is not to be used), the color #0 is used. Color #0 = not active or none selected.

To activate a regulator concurrently with a dead pick or supplemental fill, add 50, 100 or 150 to the color number used for the box selection. For example to activate the fabric regulator, (regulator #2 in the cast out rules), while using box 6 (color #6) for the supplemental fill, use color # 56 in the color strip. To activate only the warp regulator, (regulator #1 in the cast out rules), for that same box #6 (color #6), use color # 106. To activate both the fabric and warp regulators add 150 to the box selection number, so box #6 (color #6) would then become color #156.

The determination for which regulators to use, and in what combination, depends on how the jacquard head is set up and the kind of fabric construction being woven. Regulators are used to stop the fabric take up for individual picks, sometimes referred to as cramming motion or dead pick. Regulators are used to change the pick wheel settings in a head that has variable pick density capacity. Regulators are used to speed up the fabric take up while moving through a fringe or area that is not being woven and to override the stop mechanism that is triggered when no fill is detected during this area of the fabric.

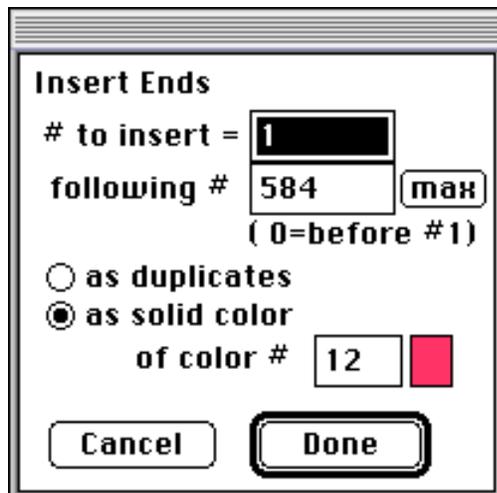
Step by Step procedure

Preparation:

On a finished image file (.PICT) that is ready for expansion and the application of weaves and box motion:

1. Insert the number of ends to be used for the expansion color strip at the far right of the design.

Options menu: Ins/Del Ends/Picks You can insert all the ends at one time but it is better to do each, one at a time, giving each a unique color (preferably a color that is not used anywhere in the design, but especially not used along the right edge of the design. (This allows more control when filling those ends with the pattern paint bucket.

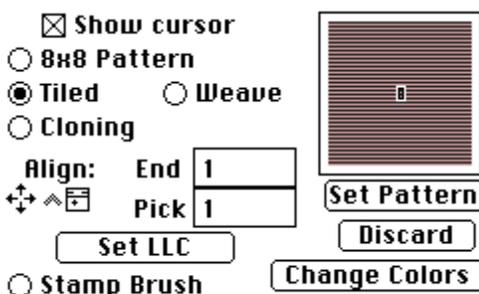
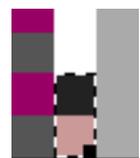


You can choose to fill the end with any color by clicking on the color patch at the right of the color number text box. The 256 color palette will pop up and whatever color you release on with your cursor will be the color that loads into the solid fill color.

If you will be using margin ends between your color strips, you may want to use the default set up so you do not have to enter any changes in the settings. The default for the margin ends is one between each and one on the far right, in color # 12. This coordinates with other design systems that use color strip for expansion.

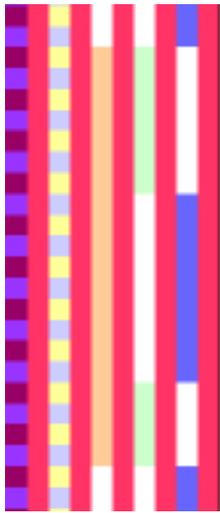
2. Fill each column with the appropriate box sequence.

If the box sequence will be 1, 2, or 3, 4, for example, make a pattern one pixel in width using color 1, 2 or 3, 4 in that sequence. Select this pattern of color, make a tile brush from it, bucket this pattern into the column using the control key with the bucket to turn it into a pattern bucket.



The pattern used to fill the area will be the current active brush in the brush micro palette, located beneath the foreground/background color patches.

You can change the color in the tile brush by clicking on change colors. Since the color used is the box number, the different box sequences can be quickly produced.

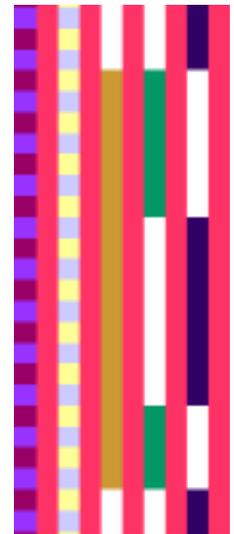


3. For columns that will be used for the supplemental fill: where the supplemental fill will be active, use the appropriate color # for the box to be selected, where the supplemental is to be inactive use color # 0 for those picks.

In the example shown here, column 1 uses box 1 then 2. Column 2 is a margin column in color #12. Column 3 uses box 3, then 4. Column 4 is a margin column in color #12. Column 5 is a dead pick (a.k.a supplemental fill or conditional shuttle). White is color 0, the conditional shuttle is not active where there is color 0, it is active where color 5 exists in the example. Column 6 is a margin column in color #12. Column 7 is a dead pick. The white is color 0, the conditional shuttle is not active where there is color 0, it is active where color 6 exists in the example. Column 8 is a margin column in color #12. Column 9 is a dead pick. White is color 0, the conditional shuttle is not active where there is color 0, it is active where color 7 exists in the example. Column 10 is a margin column in color #12. The columns are read from left to right.

The first box will be the box # in the first pick of the first column.

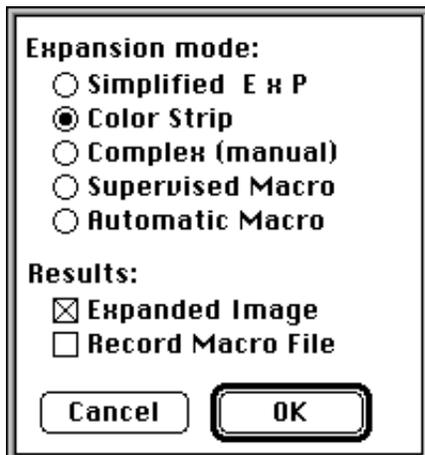
4. To assign a regulator along with the supplemental pick: for fabric regulator: add 50 to the color # used for the box assignment, (box 6 becomes color 56) regulator #2 for warp regulator add 100 to the color # used for the box assignment, (box 6 becomes color 106) regulator #1 for warp and fabric regulators: add 150 to the color # used for the box assignment, (box 6 becomes color 156). In the example, 50 was added to each of the colors for the conditional picks.



Turn on the Allow 50,100, 150 for regulators in the expansion by color strip dialogue.

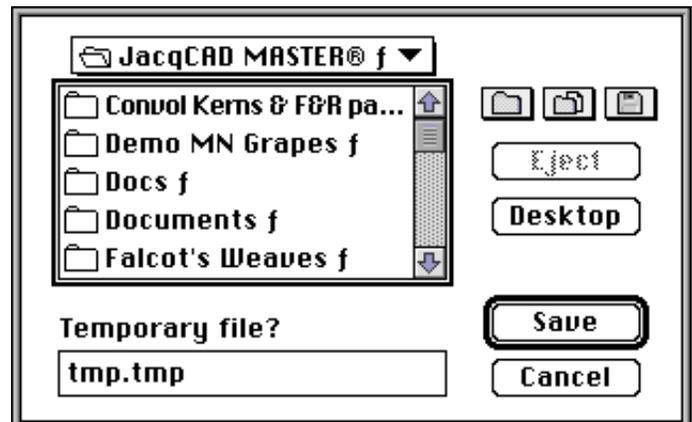
Expansion

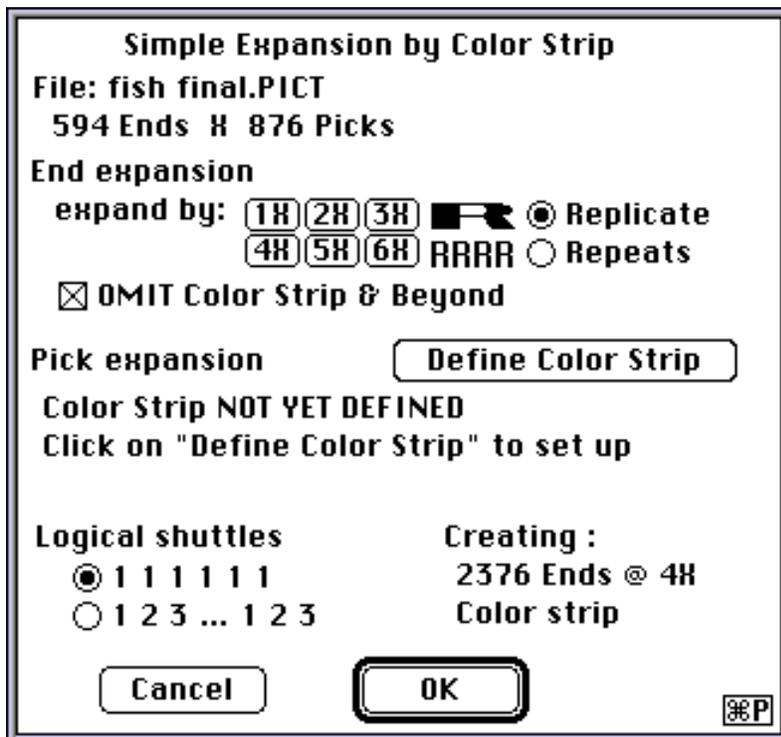
1. In the weave menu pull down to Expansion... (or command J)



2. Choose expand by color strip

3. Save the temporary file to your scratch hard drive if you have one or to your single hard drive if you have only one.





4. Choose the amount you want to expand in the ends, by replicate or by repeats.

- Replicate duplicates each end by the number of times specified. (In the example this is 4 times.)

- Repeats duplicates the entire image window, side by side

OMIT Color Strip & Beyond
Click on the box to the left to delete the color strip following the expansion process. This means weaves will not be assigned to it.

5. Click on define color strip.

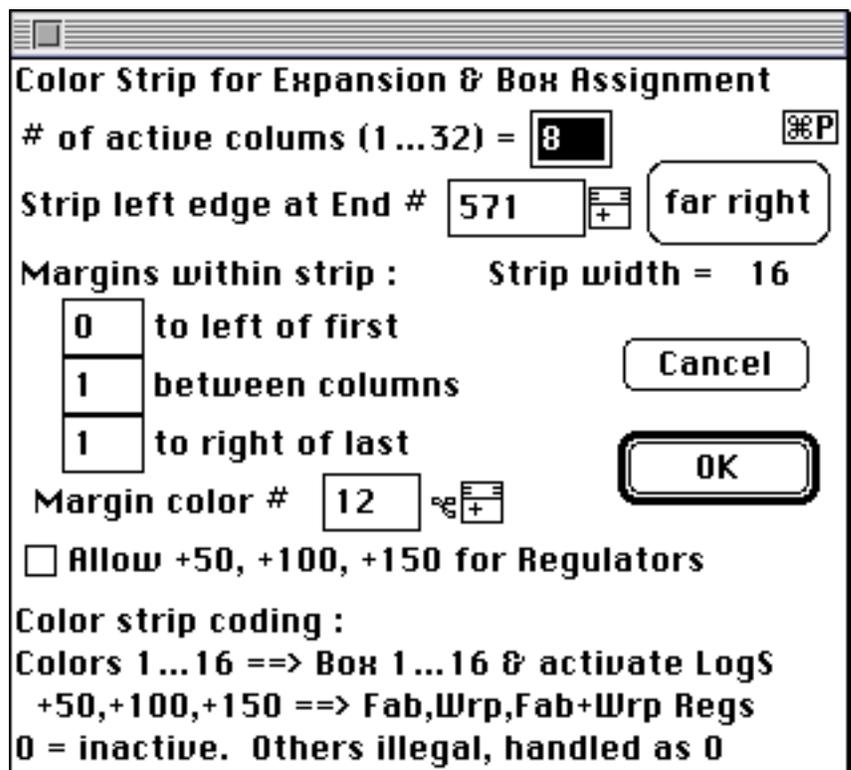
If you have no empty columns between the color strip ends enter 0 in the three boxes for margins.

If you are using margins, enter the appropriate numbers and the color being used next to margin color below.

Enter the total number of columns being used for color strip expansion, the width will adjust in the box below. Click on the button that reads **far right** to choose the ends that are to be used for expansion.

6. If you are including the regulator rules in your box selection color numbers, click on allow +50, +100, +150 for regulators.

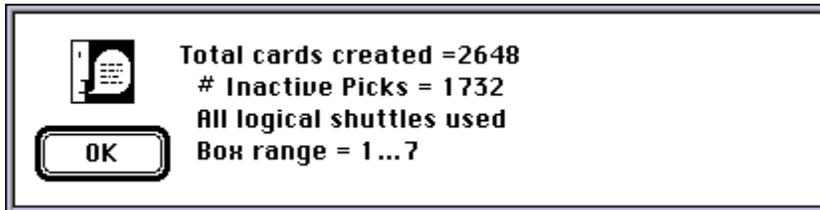
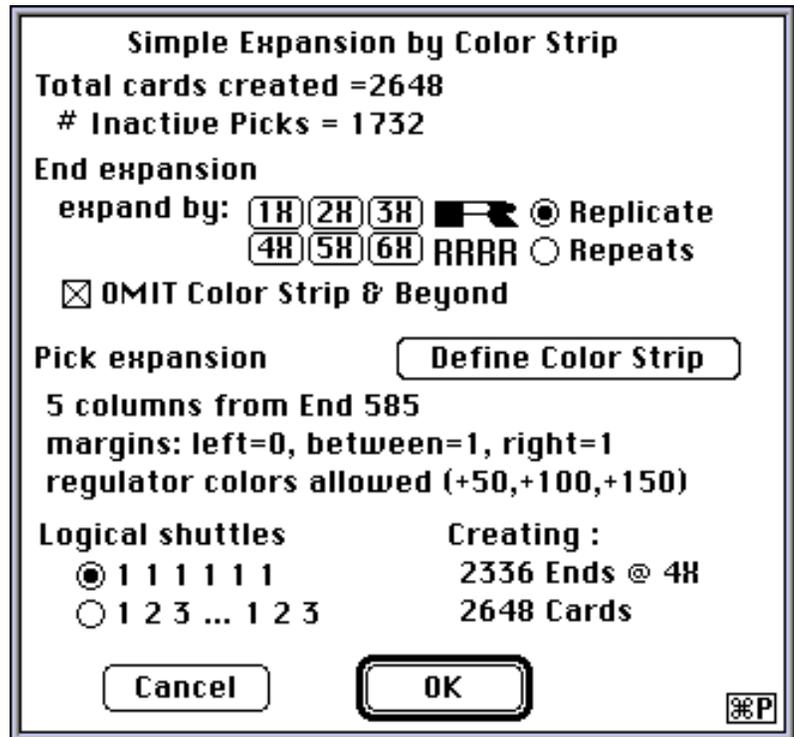
7. Click OK to return to the main dialogue.



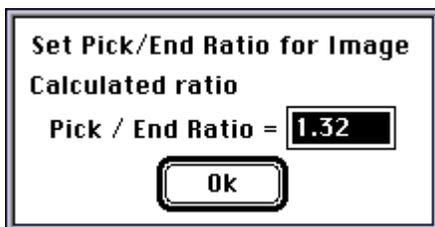
8. Check lower right corner to confirm the correct number of ends and picks have been created under Creating:

9. Check all the information resulting from your expansion process to check for errors. The number of Logical shuttles is determined by the number of active columns in your color strip. If you will need more than one logical shuttle, select 1 2 3...1 2 3. For example, five active columns would result in selecting 5 logical shuttles.

If all is right click OK



The results of your expansion will be displayed. Click OK.



10. The new aspect ratio, resulting from the expansion, is displayed. Click OK on end pick ratio dialogue box.

You will be prompted to choose where you want to save the expanded file and to change the name if desired. It is a good idea to leave the .Exp at the end of the file name to make it easy to identify as an expanded file.

The expanded file is now created and open. You can now assign weaves and punch pattern to create the loom file.

