Session 3: Fiberworks Basics using Pattie Graver's book, Next Steps in Weaving

Session Three: In this tutorial, we will add a few more tools to our "Toolbox."

- Copy & Paste vs. Copy, Drag & Drop including copying from one draft to another
- Turning a draft
- Double weave
- Block Substitution
- Sketchpad intro

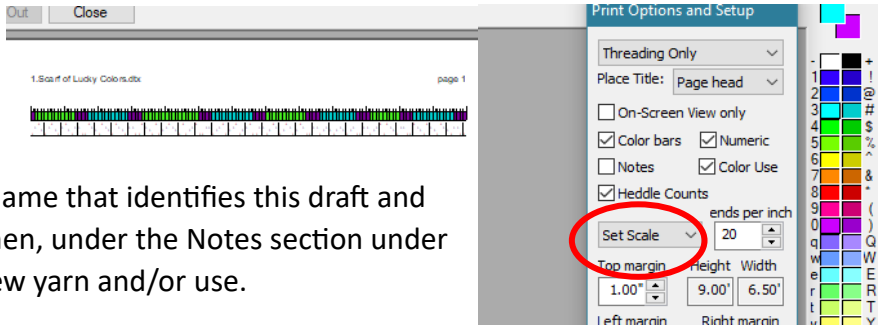
Answers from Bob Keates w/ Fiberworks PCW:

- **Shaft Shuffler for Windows Bronze: "**Sorry, this feature was omitted from Windows Bronze. We hope to include it in a future release."
- **Regarding showing a floating selvedge: "**Sorry, this is a tricky one, because the idea of the floating selvage makes it less predictable. The weaver chooses whether to pass the shuttle over or under, and it's not controlled by the shafts."

Sending or receiving weaving drafts through email or downloading drafts. In email, weaving draft files can be attached, just as any other type of file. Fiberworks files automatically save as .dtx files. Fiberworks can open and interpret 3 file types:

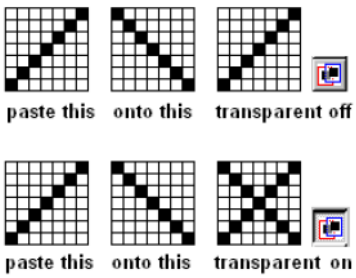
.dtx – Fiberworks version 4 files, only used by Fiberworks
.wif – weaving interchange format used by many weaving software programs
.des – Fiberworks version 3 files from an earlier version of Fiberworks

A note about EPI on Fiberworks. EPI only shows in the Print Previews screen. Unfortunately, if you have it set to 20 EPI (typical towel EPI), the print will be so small you won't be able to read it. When you change this to Fit Height, as I recommended in session 1, the EPI will change. Instead, I note the EPI I'm using in the **Notes** section under **Cloth**.



** **Fiberworks does not recalculate EPI.** So, if you change the draft for a new use such as a scarf to a towel, do a Save As with a name that identifies this draft and its use. Ex. Lucky Colors towel.dtx Then, under the Notes section under Cloth, change the EPI to match the new yarn and/or use.

A note about Transparent Paste Mode: Clicking this button on the toolbar only affects how Paste works in the Tieup and Liftplan modes.



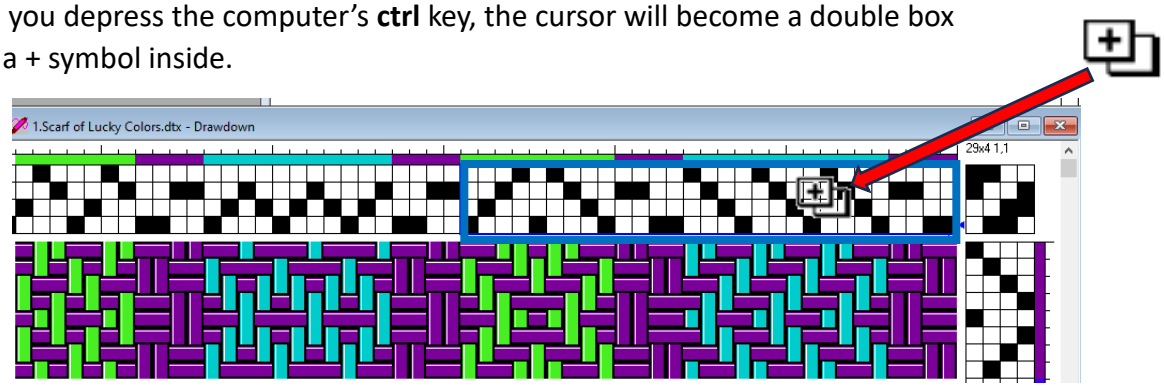
Helpful Features and Functions in Fiberworks:

1. **Preferences reminder: Under File –** Setting your preferences allows you to set how new drafts begin. This includes: # of shaft & treadles, cloth display mode, color palette (see page 7), magnification, mouse action (right click function), etc.

2. **Another way to Copy & paste:** Using the Select rectangle, you can select and copy threading, treadling, tie-up, color sequences, and thickness sequences.

   When you first select an area, the cursor will become scissors. 

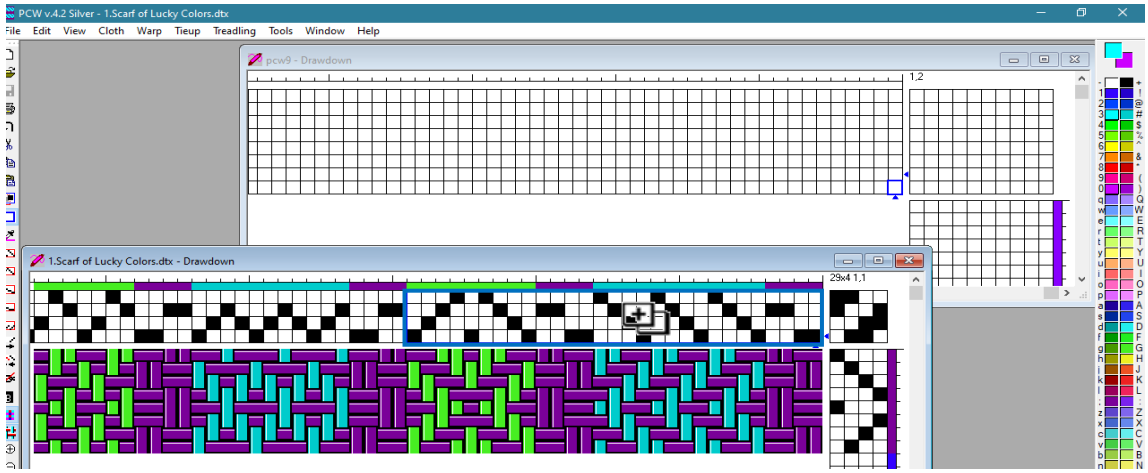
   When you depress the computer's **ctrl** key, the cursor will become a double box with a + symbol inside.



   You can now drag and drop copies of this selection. Each time you release the mouse button, a copy will be dropped in the designated area. Be careful to align the top of the blue selection box with the top shaft in the new draft.

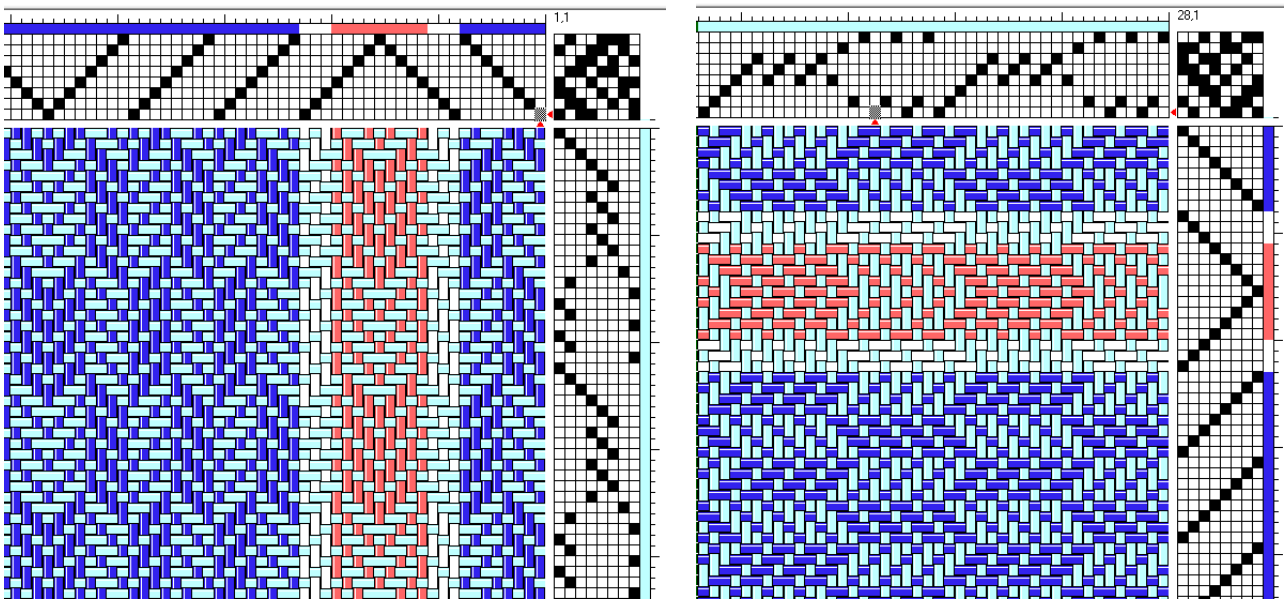
   ****You can use this same feature to copy from one draft to another as shown below in #3.**

3. **Copying from one draft to another:** Open any draft (drawdown) then open a New drawdown. In the upper right corner of each, click on the Restore Down 



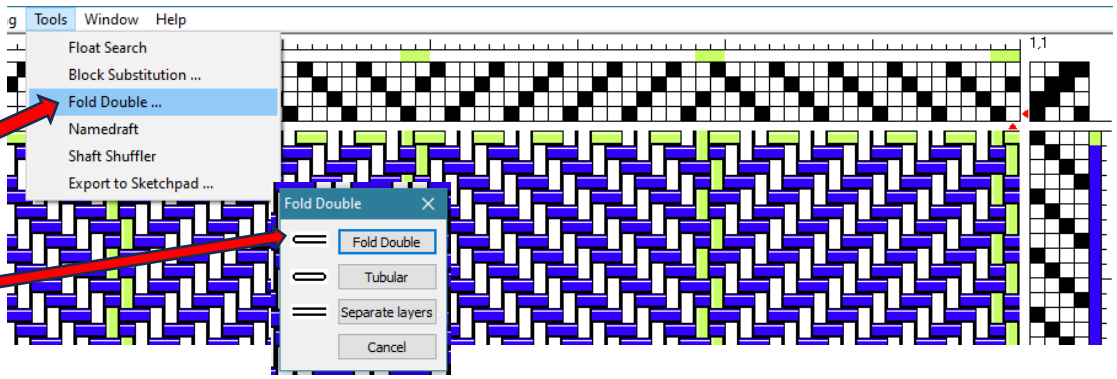
   button. It may help to arrange the drawdown screens so that they are both visible. To use one of the screens, click on it and it will come to the front. That screen is now functional. In the open draft, **Select** the area you wish to copy then place the cursor on the New drawdown and Paste.

4. **Turning a draft.** If you have a draft which has a simple threading and more complex treadling, you have two options. First, you might be able to simplify the treadling with the Shaft Shuffler. However, sometimes this is not possible. In this case, you might wish to "Turn the draft." Understand that vertical stripes of pattern and/or color will now be horizontal but the treadling will be much easier. This is a design decision to consider.
   You were sent a draft called 3..verticalherringbone.var.dtx We will be using it to go over the steps to turn a draft.
   a. Open the draft and do a Save As to your drafts.
   b. Go to Tieup and choose Turn Draft.

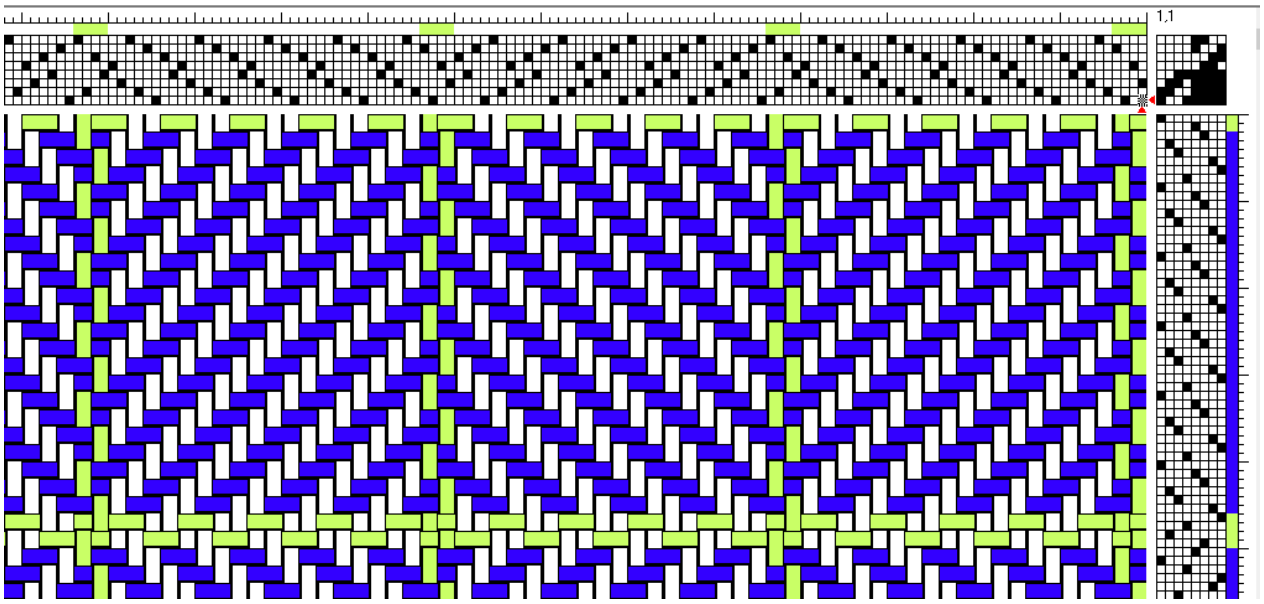


5. **Double Weave** – There may be an instance when you wish to weave something which is wider than your loom's weaving width. You can use Fiberworks to change the threading, tie-up and treadling in order to weave it as double weave and then be able to open it up to the wider width.

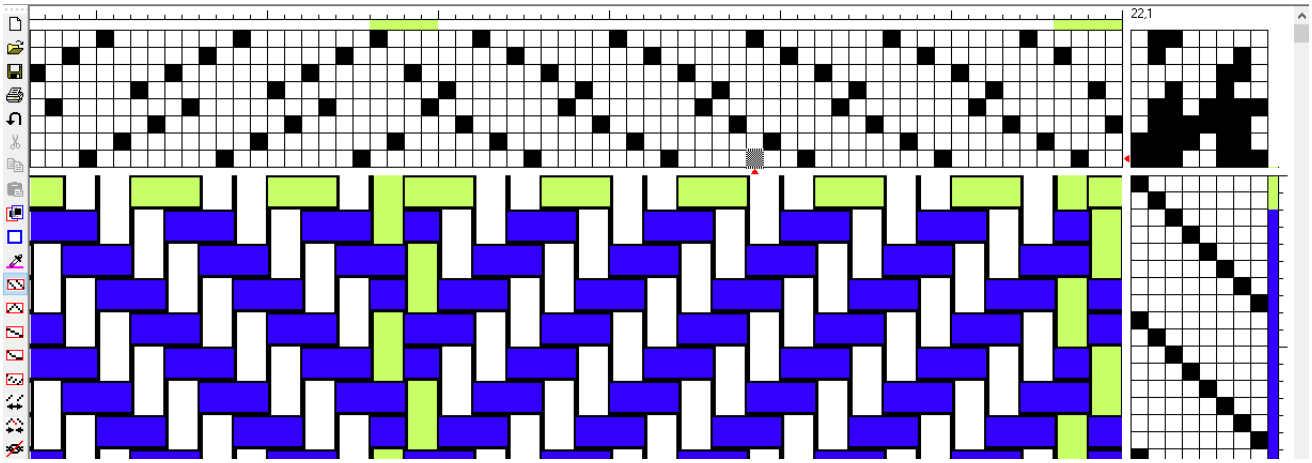
   a. You were sent a draft called **3.Baby Blanket broken twill (dornic twill)…doubleweave.dtx**
   b. Open it and do a Save As to your drafts.
   c. Notice the 4-shaft threading, tieup and treadling.
   d. Go to Tools, choose **Fold Double** then **Fold Double**.



e. Notice that the draft now has 8 shafts and the tie-up and treadling has also changed.



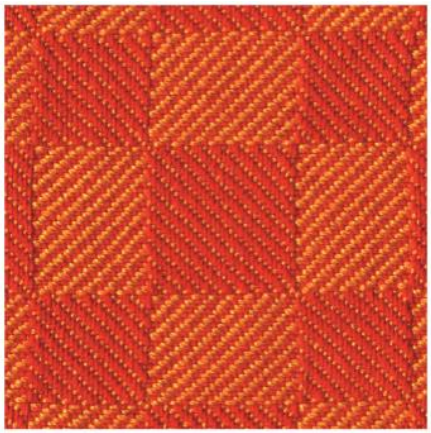
f. We can now use the Shaft Shuffler to arrange the treadles in an easier way to treadle. This changes the tie-up sequence.



6. **Profile Drafts and Block Substitution–** ** Handwoven – Nov/Dec 2011 – This issue has a great explanation of Block weaves and how to use them. Once you understand Block substitution, Fiberworks will allow you to experiment and create them relatively quickly.

   A profile draft in NOT a thread-by-thread draft. It condenses the draft information so that you see the basic design without the specific weave structure or threading interlacement.

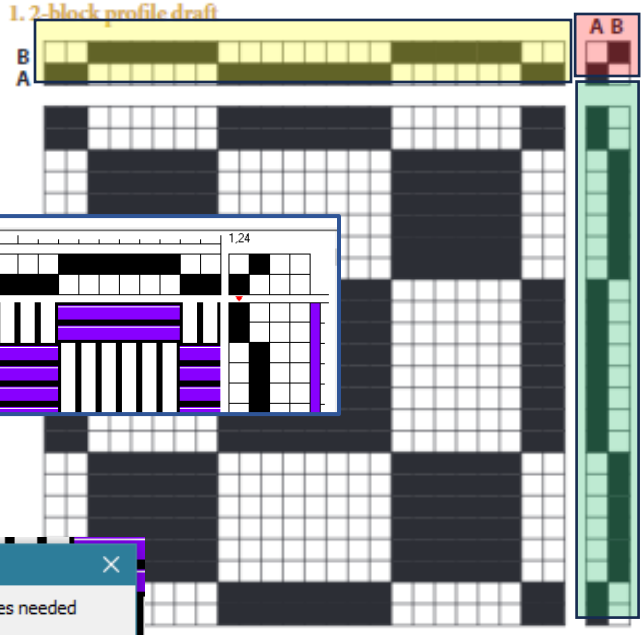
Turned Twill	Warp Rep	Patterned Doubleweave

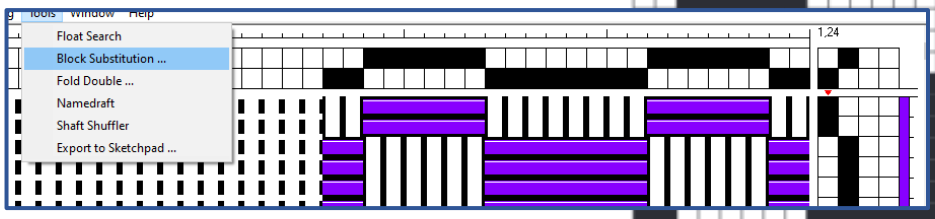


In block substitution, each “black block” of the draft actually represents a group of threads instead of a single thread. For instance, each black block in Row A of the draft below could be replaced with 1, 2, 3, 4 and each black block in Row B could be replaced with 5,6,7,8.

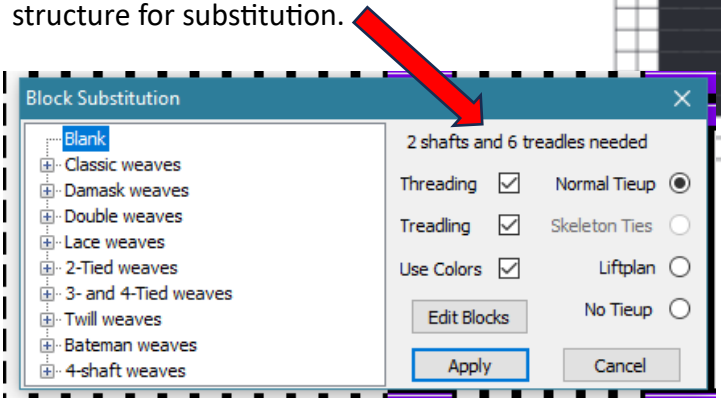
As a simple introduction, we will use the 2-block profile draft shown in this article.

a. Open a new draft.
b. Change the tie-up to 2 shaft, 4 treadle.
c. Enter the threading, tie-up and treadling as shown on the right.
d. Click on Tools > Block Substitution.

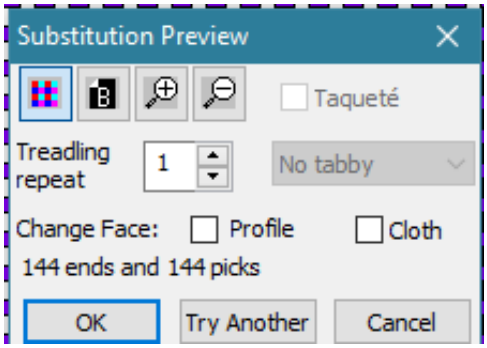




e. Things to notice before selecting a structure for substitution.

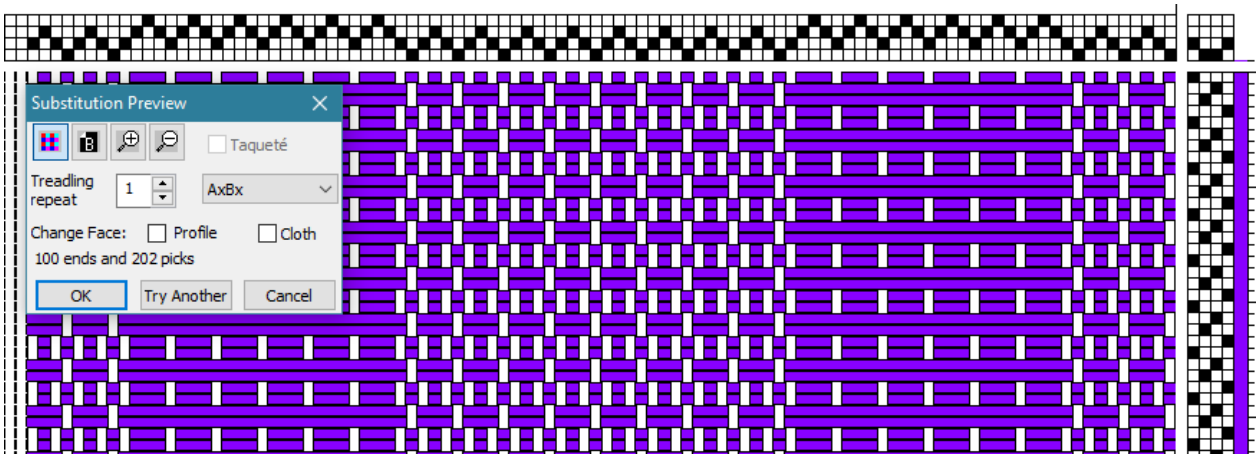


f. Select a structure- ** Before you click OK, notice that the menu box has changed. You have some new options.



i. Look at design vs. color, back of the fabric, enlarge, reduce, number of ends and picks **AND Try Another.**

ii. Once you have selected a structure, analyze it to see if it needs a Tabby. If so, click on the dropdown to add Tabby then re-analyze. If the draft is not weavable, **Try Another**! The draft below is not weavable, even with tabby due to long weft floats.



iii. If you click OK and decide you don't like the option you chose, simply x out of the draft and you will be taken back to the profile draft to begin selecting again.

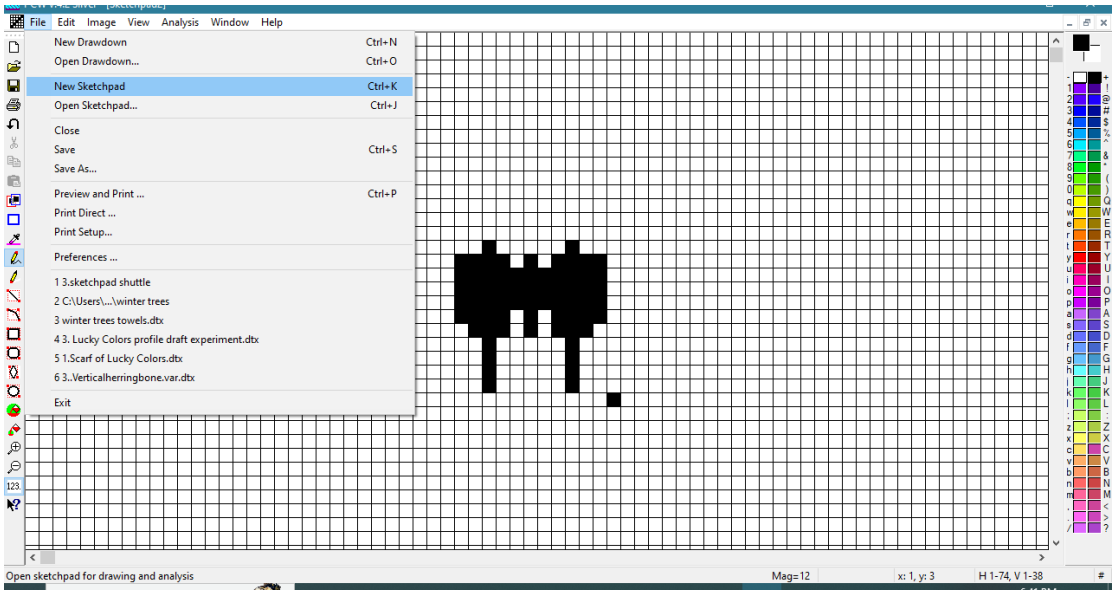
g. Now, you can try it with a 4-block draft. Open your Scarf of Lucky Colors and do a Save As named: Lucky Colors profile draft.

i. Go to Warp > Colors > change the color to all white.

ii. Go to Tools > Block Substitution and follow the same steps as above. Note the number of shafts required since this is now a 4 block profile draft and could take more shafts or treadles than you have on your loom.

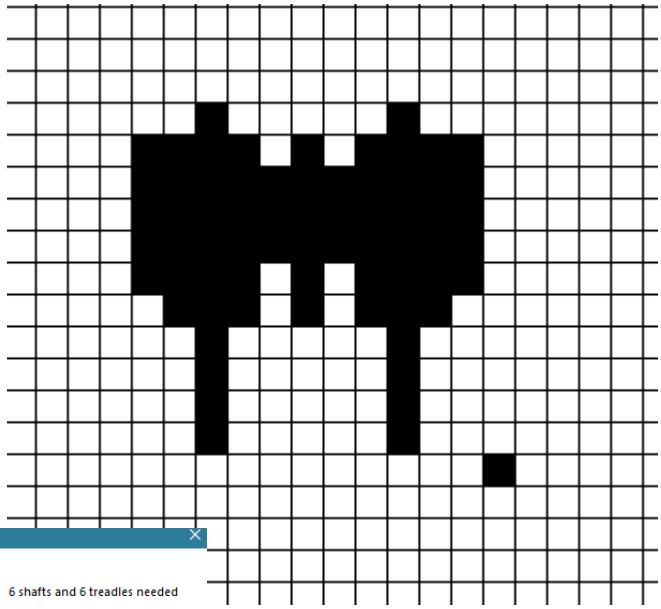
h. Intro to Sketchpad: The sketchpad allows you to do free-form design on a grid.

i. In this example, a simple butterfly design is drawn on a New Sketchpad.

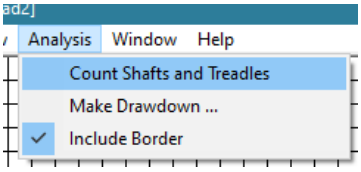


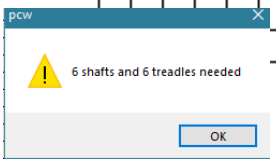
ii. Draw the butterfly design approximately in the middle of the new sketchpad.

iii. Notice, there is a single dot one space to the right and one space down from the butterfly design. This is so that the design will not start at the selvedge of the fabric.

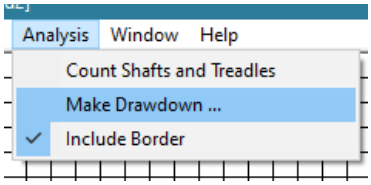


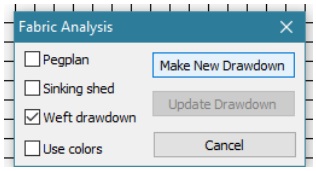
iv. Go to Analysis > Count Shafts and Treadles. See if you have sufficient shafts and treadles.



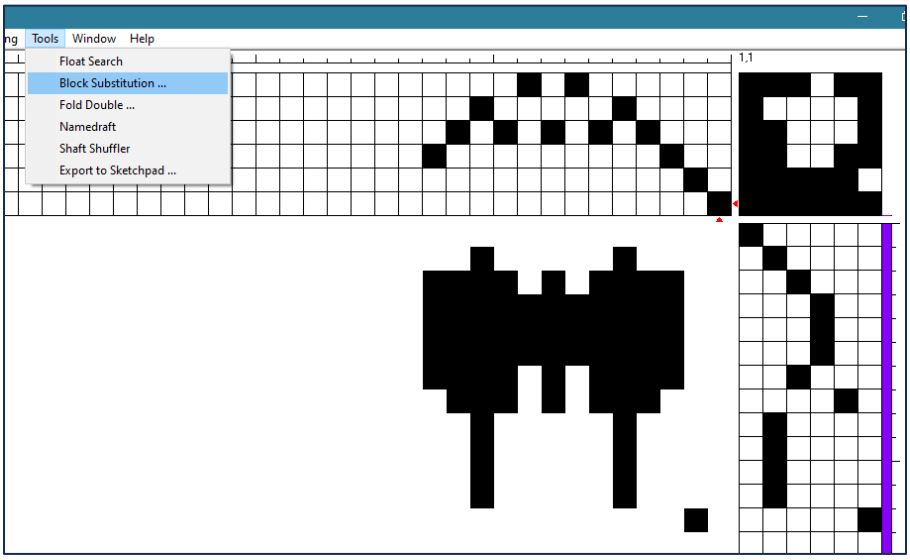


v. Then go to Analysis > **Make Drawdown** then click on Make New Drawdown

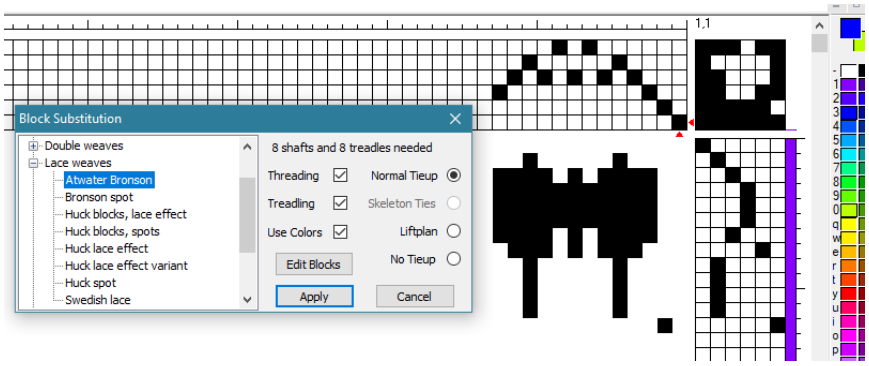


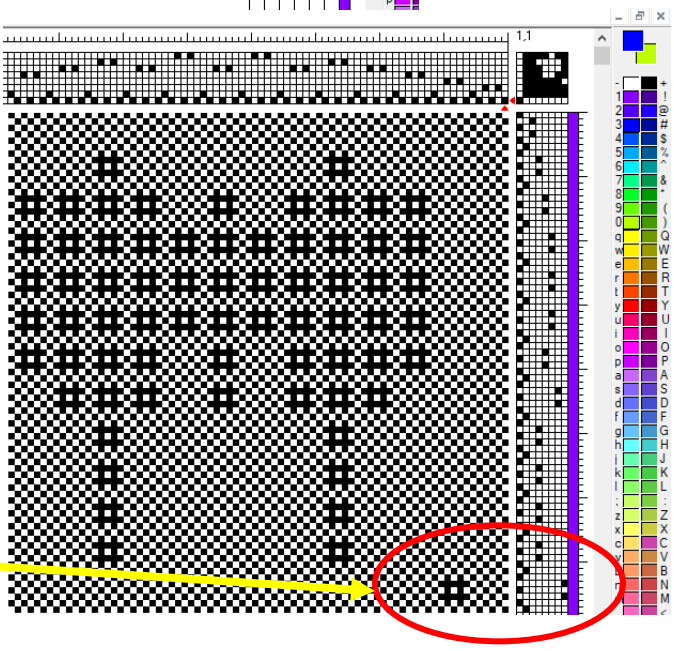


vi. Now click on Tools> Block Substitution and select a weave structure



vii. This block substitution example is Atwater Bronson Lace- note the number of shafts and treadles necessary. Click apply.





I would then manually change this section of the treadling to eliminate this random spot.