WEAVE
Point

WEAVEPOINT®
for Windows

USER'S GUIDE

Version _____

by
Bjorn T. Myhre

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2 C:4 shaft, 2 end overshot blocks.wpo	
3 C:4 block Profile.wpo	
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Utilities Transform Fill An

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Transform Fill Analyze C

- Block Substitution...
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- Insert Threading...
- Insert Treadling...
- Insert Parallel...
- Reanalyze Threading
- Reanalyze Treadling
- Straight Threading
- Turn Draft

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WEAVEPOINT INSTALLATION

Insert the program CD into your drive and the installation dialogue window will pop up automatically.

If you do not see this window, it's probably because Autorun is turned off on your CD drive and you will have to start the Installer manually. To do this, open the contents of the CD in My Computer or in an Explorer window and double-click on **Setup.exe**.

For further details, please follow the steps as outlined in the letter you received with your CD for this application.

After the program is installed, you can start it from the Start Menu or by double-clicking on the Desktop icon.

INTRODUCTION

Welcome to *WeavePoint*!

WeavePoint lets you quickly produce patterns and colorways for all the main loom systems, from tie-up and table looms to industrial shaft looms; it is a very efficient tool for trying out new ideas and techniques in a systematic way. The graphics user interface is very fast and easy and gives a clear view of all parts of your design.

WeavePoint is made to fill the requirements of the professional designer. But it is also very useful if you are learning or teaching since so many of the same design principles are built into the program. The Design Mode can even be used for knitting and other repetitive grid patterns. When using *WeavePoint* in production, interface options for various loom control systems are available.

WeavePoint is designed with the philosophy that your time is best used studying patterns, not studying computers and manuals. Still, it is recommended to read through this manual to get the most out of the program.

To get context sensitive help on commands and dialogues, press **F1** when selecting a command or when in a dialogue. You can also click on the Help Menu, as well as the Help Button found in many dialogue boxes.

When the cursor is held over a menu item or speed button, a short description is displayed in the status bar for most items.

This version is compatible with Windows Vista or older versions of Windows, back to and including Windows'98.

INTRODUCTION

Enhanced Capability

1.) The maximum number of ends and picks has increased from 4800 to 9600.

2.) The maximum number of shafts has increased from 80 to 128.

3.) The maximum number of treadles has increased from 100 to 128.

4.) In the Design Mode, the maximum size has increased from 500 to 2400 ends and picks.

5.) The default new pattern size has increased from 500 to 2400 ends and picks.

Main Window

The main window is the Draft View. This is the default and will automatically open when the application is started. At the top is the Tool Bar and at the bottom is the Status Bar.

Pen Line Selection Tool Zoom Color Box & Drop Down

Menu Bar

Tool Bar

Color Bar

Numbering

Threading

Draft/Fabric Toggle Threading Repeat Options Notes Tie-Up

Treadling

Status Bar

End/Pick Count for Selection or Hint Display

Start & End Positions in Current Window Cursor Location Shed Action
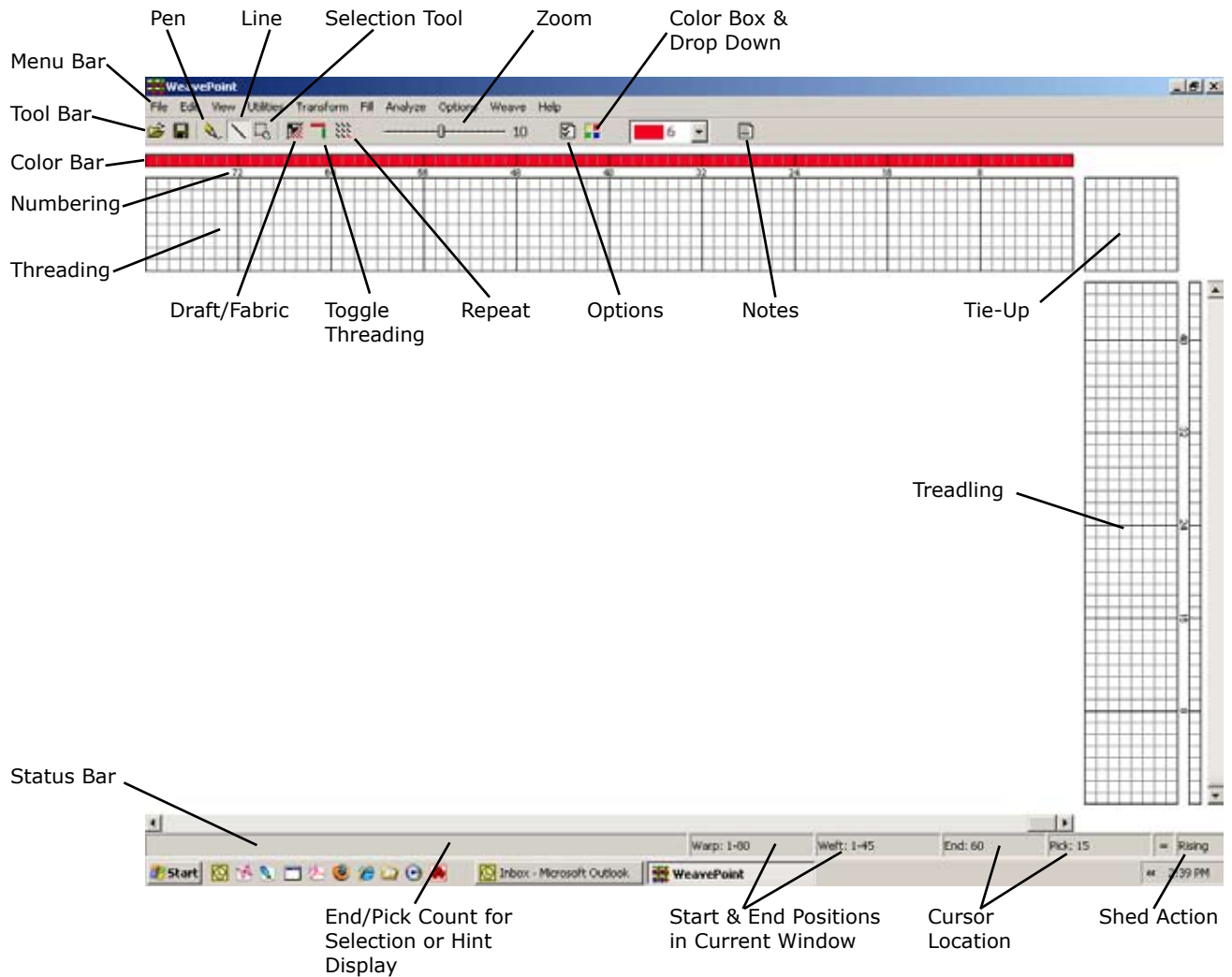
The Tool Bar

The Tool Bar gives quick access to frequently used commands. In addition to the standard Open File and Save buttons are Speed Buttons for accessing various tools and dialogs.

Speed Buttons

The Tool Bar contains Speed Buttons for quickly selecting some commands that are frequently used. Place the mouse cursor over a button to see a hint about its function.

Pen Tool

This Pen Tool is used to facilitate the entry of *irregular selections* in the Draft and Design Windows; for example, entering irregular twills in the threading or shaping forms in the lift-plan. **Tip – a left click will enter a selection and use the right mouse button to erase.

Line Tool

The Line Tool is used to facilitate the entry of *linear selections* in the Draft and Design Windows; for example, entering Straight or Pointed Twills.

Selection Tool

The Selection Tool will enable you to click and drag with your cursor to highlight and encircle areas on the Draft which you may then copy, paste, delete, or otherwise change. When using the Selection Tool in Design Mode, the selected area will be darkened to more easily see the selection (the darkest colors will be affected to enhance their viewing while selected).

Drawdown/ Fabric

Click on this button to switch instantly from the Draft Window to the Fabric View.

Toggle Threading

This will eliminate the Threading and Tie-up sections from the window. Simply reselect the button to bring back the missing sections.

Repeat

Having used the Selection Tool to make a Selection, use this to open the Repeat Dialog Box.

Zoom

Click to the left or right of the Slider to increase or decrease the zoom. Also, pressing the left or right cursor key will produce the same effect. The full size of your pattern depends on your Options settings. Maximum size is 9600 warp ends and 9600 weft picks. To view more ends or picks than presented on the screen, you can either set a lower zoom level or scroll the window. When setting a lower zoom level, a larger part of the pattern will be displayed. The components will diminish in size to fit the screen.

Options

This button gives instant access to the Options Window. In this window, selecting the Loom Tab will give you the tools to choose the appropriate selections for your loom: either Liftplan or Tie-up and Treadling; as well as selections for Single Treadle or Multiple Treadle Tie-Up; Rising or Sinking Shed; and the number of Shafts and Treadles.

Liftplan is used for dobby looms, industrial shaft looms, table looms - all looms with direct shaft control. In Liftplan Mode, the rising/sinking of shafts is decided in the liftplan (also called "peg plan" or "chain draft").

Tie-up system is equal to countermarch or sequence of lags. Tie-up with multiple treadles allows pressing two or more treadles at the same time, making what is called a skeleton treadling, and should be used only when this is needed. Note: Design Mode and Drawdown Editing are not available in Tie-up Mode with multiple treadles.

Other Tabs in the **Options** window include The Layout, Style, and Grid Tabs, for changing the arrangement of and selecting components for the Draft Window; the Pattern Tab, for setting the size of your draft and nature of the views; and other Miscellaneous settings.

The Grids function as an overlay/guide for the pattern. Selecting from the variety of options on the Grid Tab, one can set the visual cues of the grid lines to optimize the visual information in the Draft Window.

Color Box and Drop-Down Menu

Click on the Color Box to open the Color Palette Window. This will display all of the colors in the Palette for the draft. The Drop-Down Menu displays the currently selected color (and its number) for drawing colors in warp color and weft color grids. Click the arrow to display all colors in the drop down box. Double-click on a new color to change the selection.

Notes

This button will open a window for writing and maintaining notes for the selected Draft.

The Status Bar

The status bar at the bottom of the screen tells you the start and end positions of the warp and weft sections as shown in the current window. The location of the cursor is indicated by a cross reference of the warp (End) and weft (Pick) and will change as the cursor moves across the fabric in the drawdown. When the cursor is in the warp or weft color strips, the End or Pick number and the color index number will be displayed.

The left side of the status bar shows a helping hint when choosing a menu item or speed button; or, when making a selection, the number of Ends or Picks in the selection will be displayed at the left side of the status bar.

Numbering

Between the Threading and Treadling Grids and their respective Color Bars, numbers for identifying placement in the overall draft are located. Placed at the Grid Marking Lines, at intervals of eight, they will enable you to judge your location in the draft, even when you have set Zoom to the closest setting. The numbers are visible in Zoom level 7 and up (to 20).

Making Repeats

You only need to fill in one repeat in a diagram. Then let the program do the work of repeating it!

Repeats can be made in various ways. Normally you will use the Repeat command. If you have drawn one repeat, just click **Repeat** and check **Fill Pattern**. Or uncheck this and set the number of repeats. You can also use Copy and Paste Special.

Two Ways to Design: Program Modes

In the program, you can work in several different modes depending on what you are doing. In the menus, you will note that some items will be disabled, according to the mode in effect. A disabled menu item is gray in the menu and can not be selected.

With *WeavePoint*, you can make a pattern in basically two ways. First there is the normal Draft Mode, which is when the threading and other drafting components are present on the screen. Then there is Design Mode, where only the pattern grid and the color diagrams are viewed on the screen.

Turning Drafts into Files

One of the most important things to know, as you develop a library of patterns, is the location of the folders where you save your files. In the Save Dialog Box you can determine into which folder to keep the draft (**Folders** part of the box), the name of the Draft-as-File (**File Name** part of the box), the type of file (**Save As Type** part of the box) which will be .wpo or .wif.

The Location of your saved files may be thought of just like your residence address, with a general location (your City), your street address, and finally, the number of your house or apartment. Each step gives a more precise location for your File and will be described, generally, by three things:

1.   The Primary Location – like your city, this is the general area of the computer in which the file will be located. Your selection will be made by highlighting one of the locations shown in the vertical window on the left hand side of the Open Dialog Box. In this example, My Documents has been selected. Use your cursor to select another, such as the Desktop, if you wish.

2.   The Secondary Location – like the name of your street, this Folder will show in the Look In: drop-down window at the top of the Dialog Box. You may choose another location by clicking the arrow and highlighting one of the other locations shown in the drop-down list or you may choose to open a file that is listed in the central window, by double-clicking on it. In this example, the Folder is "WeavePoint v6".

3.   The Final Location – like your street number, this is the final location (unless you use a sub-folder here) and it will be listed in the large central window of the Dialog Box. Here it is shown as a *WeavePoint* file: "Test Image.wpo".

The **File Name** will be listed, with any other extant files/patterns, in the large central window of the box. To open the file, you may double-click on the icon next to the name or click once to highlight the icon and then click the Open button. When you have selected the name by highlighting it, the name will appear in the file name: box, the second drop-down menu from the bottom center of the box, just above the Files of Type. If you are saving a new pattern/file, for the first time, this is where you will enter the name. You will want to develop some form of description for your patterns, to help you keep them organized. You may use as many as 255 characters in the name (there will be more on New Files and Saving and Sending Files later, see below).

The **Type of File** determines the manner in which the file may be accessed and used in the future. The files that will be visible in the central window of the Dialog Box will be determined by your selection from the Files of Type: drop-down menu at the bottom center of the Dialog Box. The choices will be *WeavePoint* (.wpo), Bitmaps (.bmp), WIF files (.wif), or Any Files. If you select *WeavePoint* files, then the list in the central box will be limited to all folders and only *WeavePoint* files. If you select WIF files, again, you will be limited to folders and only WIF files. Selecting All Files will allow you to see all of the files included in the folder, not just one specific type.

WIF Files

Each of the various weaving programs available uses its own format for storing weave information, such as .wpo for files made in *WeavePoint*. Each format is especially suited to the individual program. In most cases, it is not possible to open a pattern saved in a different program.

WIF (Weaving Information File) is a common file format for weaving programs. *WeavePoint* follows the WIF version 1.1 specifications which were agreed upon by the developers of the major weaving programs in Spring, 1997. WIF files are ASCII text files which you also can open in a text editor like *Notepad* and can also be understood by a human reader.

WIF allows different programs to share common weave information and is now supported by many weaving programs. Using WIF, you can exchange weaving patterns between different programs. If you want to use more than one weaving program, you can, for example, start making a pattern in one program, and then continue editing in another program. Or use another program for weaving with loom control. WIF also makes it possible to exchange weaving patterns with a friend who uses another program and to transfer files by email.

Opening WIF Files: Open the WIF file as you would any other file. The WIF file can contain liftplan, tie-up/treadling, or both. If both, the liftplan will be loaded if you are presently in Liftplan Mode; tie-up/treadling will be loaded if you are presently in Tie-Up Mode. A WIF file can contain text information which will be placed in the note.

Note that WIF is an inefficient file format. A very large WIF file, with thousands of ends and picks, can take a long time to load.

To Save as WIF File: Choose **Export/Save** to WIF file. The WIF file will be saved with liftplan if you are in Liftplan Mode and tie-up/treadling if you are in Tie-up Mode. If **Save in both Tie-up and Liftplan format** is checked, both liftplan and tie-up/treadling will be stored. If there is some text in note, it will also be stored in the WIF file.

Select the number of ends and picks to save. Often all you need to save is one repeat. This will help to minimize the inefficiency of the file.

If you have received a WIF file, note that while you can open the file like any other pattern, you must save it on your computer as a file in your weaving program in order to be able to access its components through the controls in the Transform Menu (see the chapter on the Transform Menu for more details).

Sending WIF Files with E-Mail

A possible problem, when sending WIF files attached to an e-mail, is that because it is actually a text file, the line endings can be changed or corrupted in a way which makes it unreadable in weaving software. The solution is to send the WIF file in a zip file (or another compressed format). When zipped, you can be certain that the file's integrity will be protected. If you have received a problem file, you can try to clean it by opening and repairing it in a program like *Word,* being sure to save it as a .wif.

Bitmap Files (.bmp)

A bitmap will open in Design Mode.

Note that one pixel in a bitmap becomes one square in *WeavePoint*, so a bitmap that looks small in a paint program may appear much larger in *WeavePoint*. The maximum size of your bitmap file (.bmp) is 9600 x 9600.

Bitmaps can be monochromatic, 16 color, 256 color, etc. *WeavePoint* treats bitmaps as monochrome. Because the colors are in the threads, the drawdown structure is essentially red/white (over/under). For example, all of the warp will be red and all of the weft will be white. So, just like with any drawdown, an exposed warp end will show as red in the square and an exposed weft will be white.

Most paint programs are set up as default to save multi-color bitmaps. You can load color bitmaps, but the background should be pure white. All other colors except white are seen as red, so you need to use 100% white as one color in the image. Then you can use any other color as black. Alternatively, paint and save your image as a monochrome bitmap before loading it in *WeavePoint*.

Draft View Options

There are two ways to view and work on your draft. From the **View Menu**, select **Draft**. In the **Options Menu**, select the **Loom Style**. These two choices will determine the window in which you will be working; whether Tie-up (showing the combinations of harnesses to treadles and the order for treadling the pattern) or Liftplan (showing the combination of harnesses to lift for each pick).

Once these selections are made, in this view you will fill in the different components, like threading, tie-up, treadling. The program will then automatically construct the drawdown. Once a pattern is made, you can edit and modify it using any number of tools provided in the program.
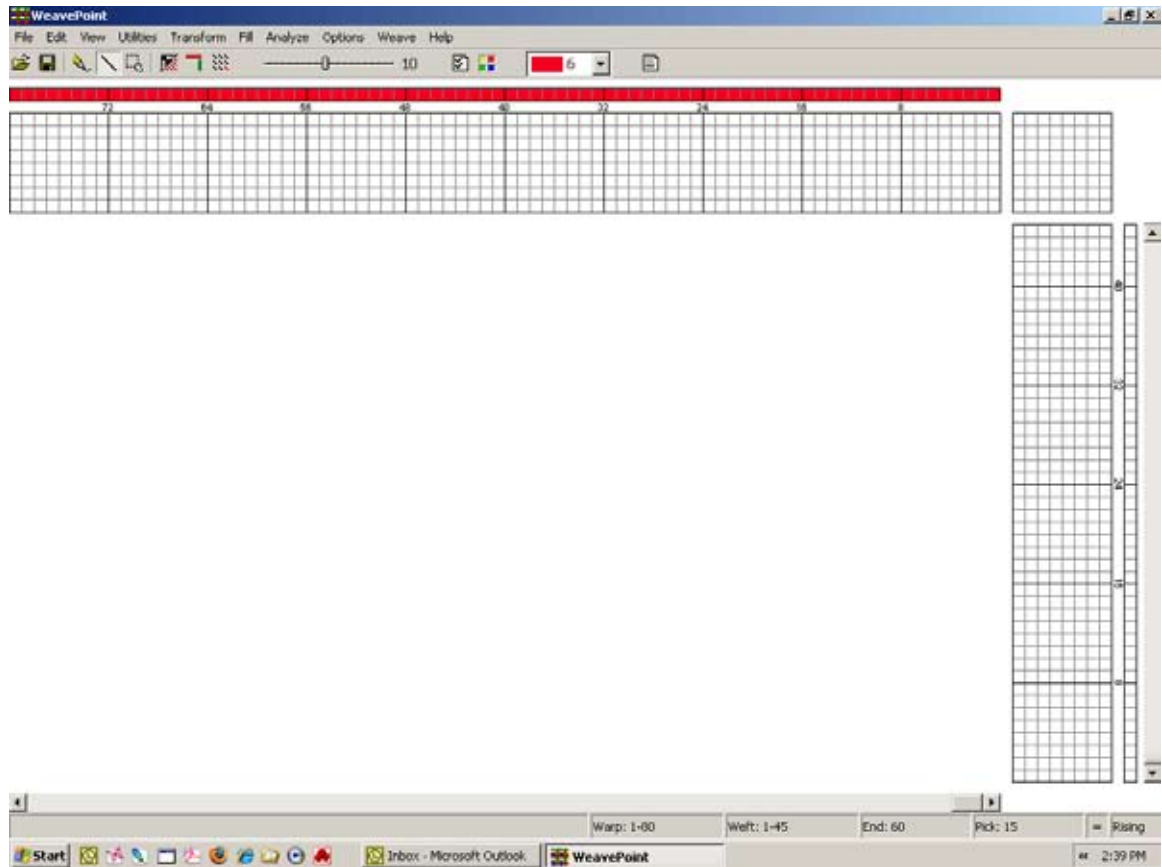
Main Window/Draft View - Treadling & Tie-up

If you are working in the **Draft** window, in **Liftplan Mode**, you can also draw directly on the drawdown. Once the threading is filled in, as you move (click and drag) your cursor over the drawdown area, the program will automatically construct the liftplan. When you then switch over to Tie-up Mode, the Liftplan will automatically be converted to treadling and Tie-up.

Draft View - Liftplan

In the Design View, you can draw your pattern directly into the grid. The Design View is used for drawing a pixilated pattern; each square will represent either an exposed warp end or weft end, whichever is to be on the cloth surface. The Design Mode/View may be accessed at any time from the View Menu.
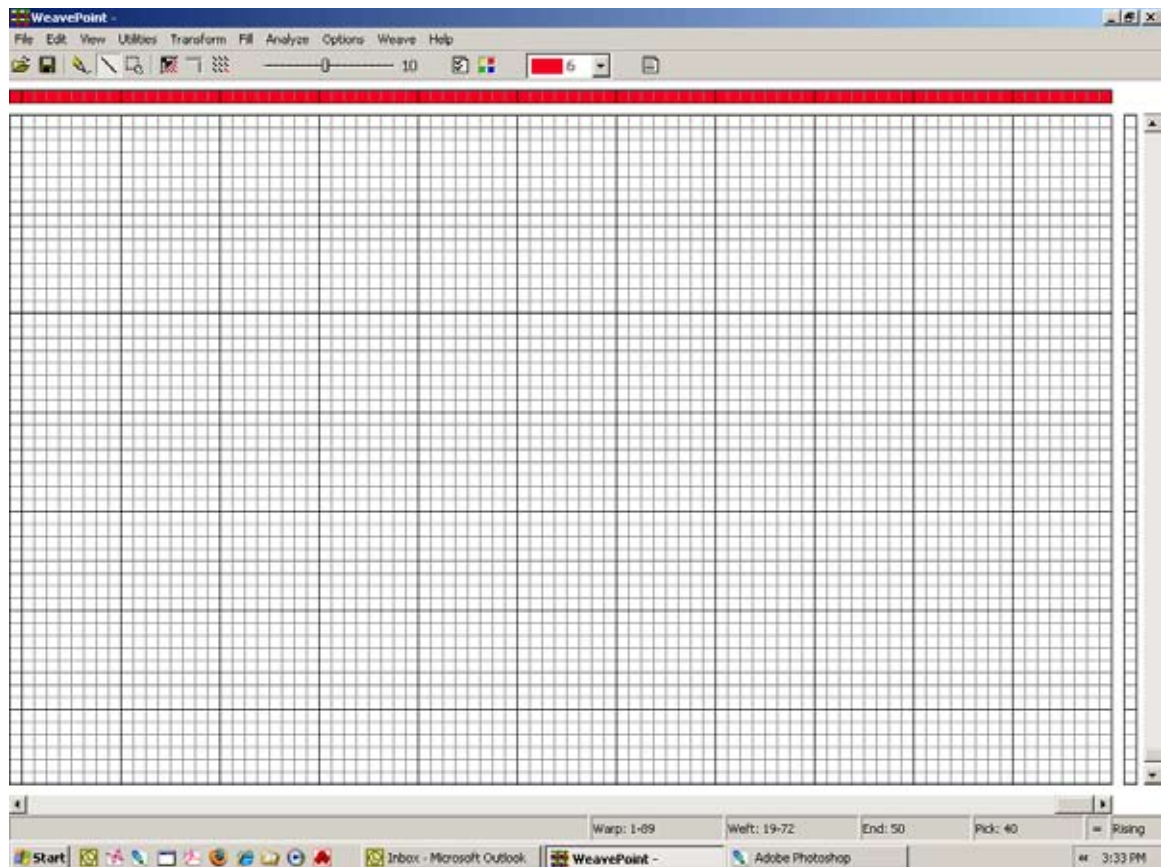
Design View

To enter **Design Mode**, choose **View/Design**. To enter **Draft Mode**, choose **View/Draft**.

Note that if you have a pattern in Draft Mode and change to Design Mode, you will be asked first to save the pattern. When the Design Window opens, the pattern will be automatically reduced to one repeat, to make it easy to work on the pattern. Choose **Repeat** with **Fill Pattern** checked to fill out the Design Window with the single repeat.

Additionally, a third way is to put together a design by loading elements from different patterns, using the **Open Components** command.

In addition, other fabric view modes are also found in the View Menu: Fabric, Drapery, and Interlacement.

Fabric Analysis

To analyze a woven cloth, examine the cloth and plot in the interlacement pattern in Design Mode. The program will construct the threading and other parts of the draft when you change to Draft Mode.

Optimizing a Design for the Loom

If you have constructed a design by filling in the draft, you will have chosen to use a certain number of shafts. If you would like to see if it would be possible to weave the pattern with less shafts, choose **Transform/Reanalyze**.

If you enter Design Mode and then return to Draft Mode, a reanalysis will be performed automatically.

A Quick Tutorial

This is a quick tutorial on how to make a pattern in Draft Mode. Please note that all of these points will be covered in detail in the appropriate sections of this manual.

First, pick **File Menu/New** from the menu to start with a blank draft. In the New Pattern dialog box, you can select the number of shafts and rising or sinking shed (depending on the action of your loom).

At start-up, the program will be either in Liftplan Mode or in Tie-up Mode, depending on the present settings. Check that you have the right kind of layout on the screen. If there is a tie-up grid in the upper right corner, you are in Tie-up Mode; if it is a series of right-angle lines, you are in Liftplan Mode. If necessary, change loom system: Pick **Options Menu/Options**, select the **Loom Tab (or use the Options Speed button on the Tool Bar)**, and select your loom system.

When editing, the cursor position is continually updated in the status bar. You can change zoom levels in the tool bar and click the scroll bars to move the window.

You can start drawing in any part of the draft, but it can be most effective to start with the threading. In the tool bar, click the **Pen** button to draw in Freehand Mode and **Line** to draw lines. It is usually most convenient to draw with Line Mode in the threading.
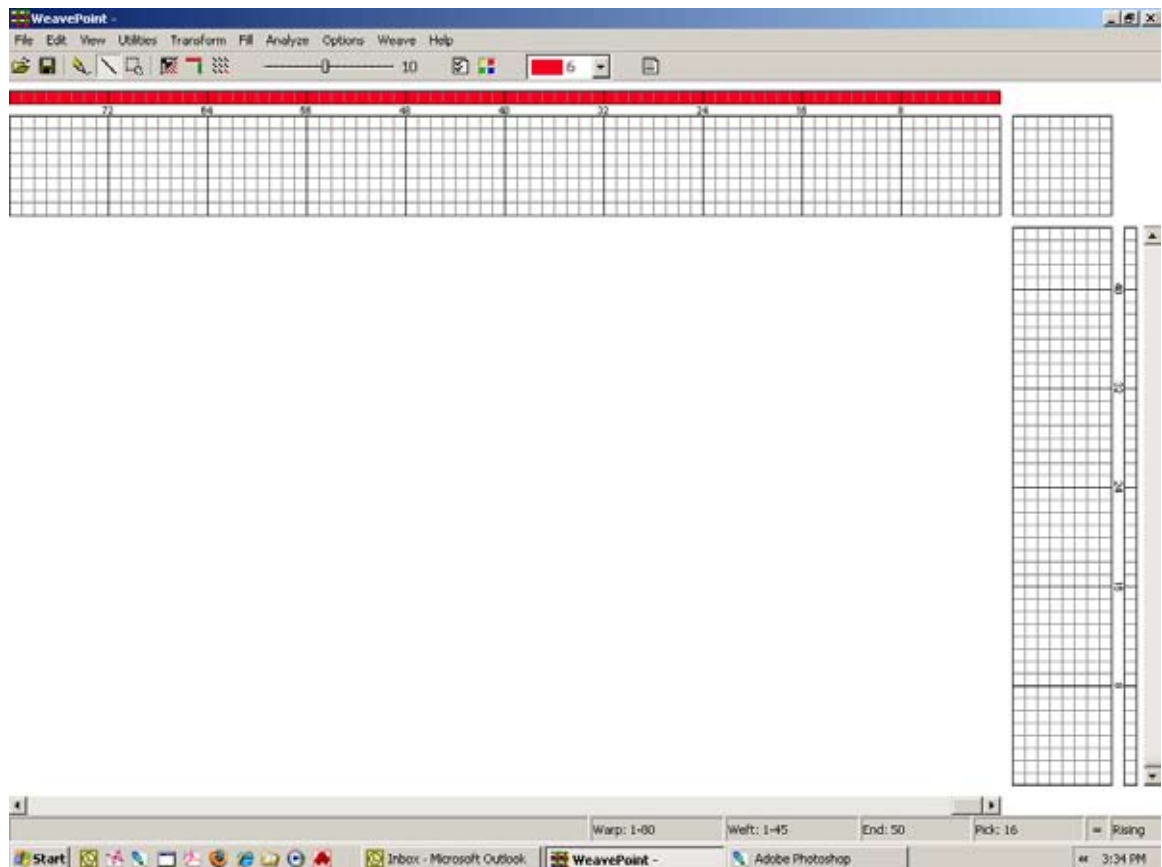
Draft View – Tie-up Mode

Entering a Draft

To draw, position the cursor and press the left mouse button. Then drag out your line and release the mouse button. If you want to correct warp ends, simply draw over what you already have drawn, and the filled squares will move. It is easier to create straight lines, as shown in the window below, if you click on the Line Tool. You can see, in this image, that it is highlighted in the Tool Bar. To undo your last drawing operation, pick **Edit/Undo** or press **Ctrl-Z**. To erase individual ends, click the right mouse button.

Fill in the threading until you have one repeat. If you want to make it symmetrical quickly, select **Utilities/Mirror Warp**.

Now you can fill in the liftplan or tie-up, depending on the mode you work in. Click the left mouse button to draw and the right mouse button to erase.

If you're in Tie-Up Mode, fill in one repeat in the treadling. You can fill the remaining picks in the same manner as filling in the threading (see above). Another option is to select **Utilities/Tromp As Writ**; this will copy the threading to the treadling.
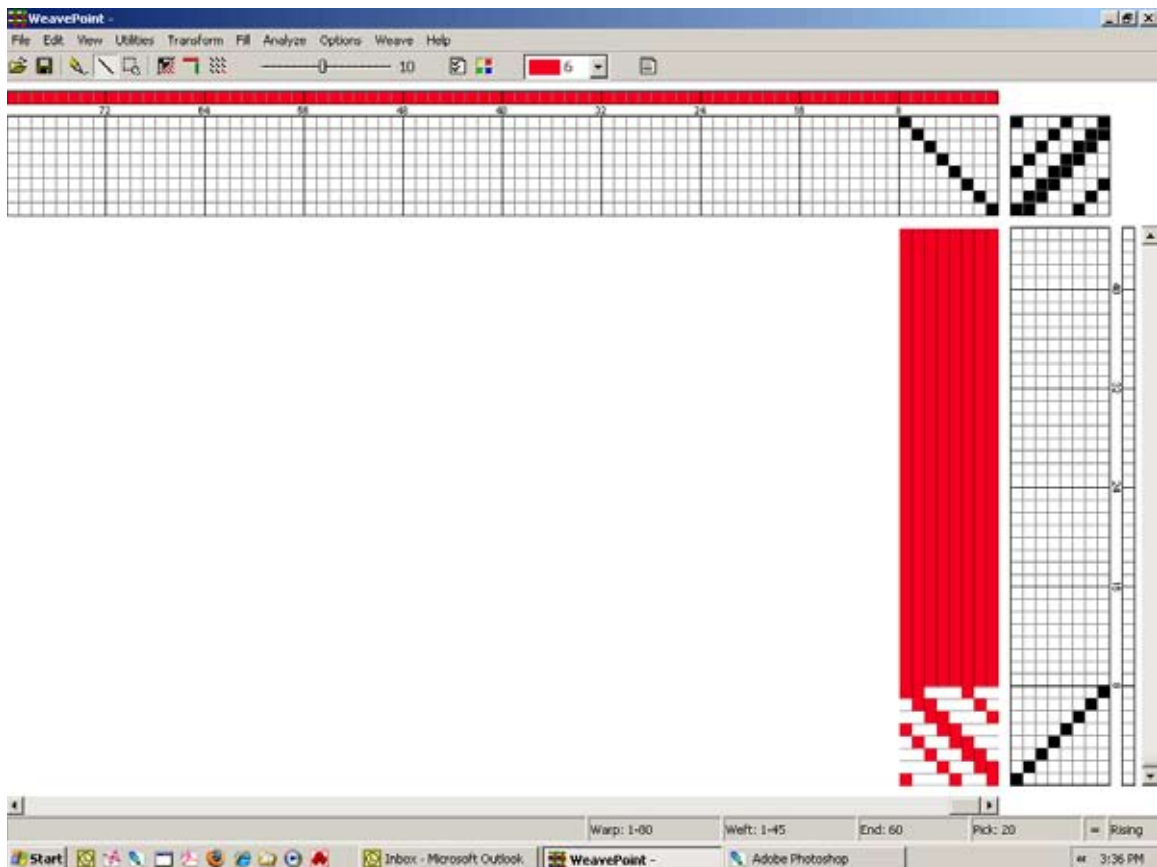
One Repeat in Treadling

Now to fill the pattern with your repeat, click the **Repeat** button on the tool bar, check **Fill Pattern**, and click **OK**.

Next, you can select different warp and weft colors. Right now the Warp is all red and the Weft is all white. This is the default setting. To change the colors for this draft, pick **View/Color Palette** to open the Color Palette window or select colors in the Color Box on the Tool Bar. Select a color and either click and drag, to change several contiguous ends, or click on each small square in the Color Bar, to effect the change. To repeat the colors, select **Repeat**, uncheck **Fill Pattern**, and check **Warp Colors** or **Weft Colors** and choose the part to repeat in the Repeat Source field and check **Fill Remaining**.

That's how easy it is to make a pattern. Now you can try to display it with some of the views in the View Menu. Try Fabric, Drapery, and Interlacement. And try printing your pattern, for example, as draft.

Shortcuts

Additional time can be saved by learning and using these Keyboard Shortcuts for some of the Tools mentioned here:

- Press the S key to change between Pen, Line, and Select Modes
- Press the M key for Select Mode (marking mode)
- Press the L key for Line Mode
- Press the P key for Pen Mode (freehand mode)
- Press the D key to switch between Draft and Design Mode

When working with Color, you can change the color applied with your cursor by holding it over a different color in the Color Bars and right clicking with your mouse.

Other Information about *WeavePoint*

You can also quickly create patterns by using pre-saved elements from the **Fill Menu**. If you are in Tie-up Mode, you will be able to select one of the three basic patterns for threading and treadling. Then you can select a twill variation, satin, or tabby. If you are in Liftplan Mode, only the threading and liftplan will be available.

Under the Tie-up and Liftplan items in this Menu, you can select the Twill Variations Dialog Box. Each time you toggle the Generate Twill bar, the tie-up or liftplan will change and a new twill pattern will be displayed. Select OK to keep a pattern.

Remember, as you create your design, to Save it (File/Save or Save As). The first time you Save a pattern, a dialog box will open, giving you an opportunity to name your pattern and choose the location for keeping this and future designs. The pattern name can have as many as 255 characters, so you can be as detailed as you wish!

Also, as you develop a pattern, you may wish to **Save As**, in order to continue to diversify your draft and, if you choose, revert to the original pattern as saved.

Check out the sample patterns that have been included with your *WeavePoint* software.

Now you can continue to explore the program on your own. The following sections will explore each Menu in detail. Try **Copy** and **Paste**. And check out the **How to...** section. Try out all the possibilities in the Utilities and Transform Menus. Many of the Dialog Boxes will have Preview Buttons to allow you to explore possibilities without making permanent changes to your pattern.

WeavePoint, upon re-opening, will remember the size of the window you were working in previous to closing, instead of always opening in full screen. This is especially useful with large and wide screen monitors.

Help Menu

To bring up **Help** on a menu item, place the cursor over an item in a menu and press the **F1** key on your keyboard. You can also press **F1** in dialogs.

Sample File

The CD-ROM which you used to install this application also contains a separate folder labeled **Sample File**. This contains many weave patterns that you can use to help get started. Simply copy this file onto your desktop or hard-drive open them using your *WeavePoint* software.

BACK-UP

Be sure to save your *WeavePoint* files to a separate disc or flash drive, on a regular basis. This way, if your computer should experience a fatal event, you will not loose all your files/designs.

OPEN

If you wish to open a file that you have recently opened, double-click on the file name from the list at the bottom of the menu to open it. This list contains links for the previous seven files you have opened in *WeavePoint*. If you do not see the pattern you are looking for, choose **File/Open** or click the **Open** speed button to go to the Open dialog box.

If you browse to open a pattern, the program will remember the original location of that folder and open for any subsequent **SAVE AS** to the same folder.

File	Edit	View	Utilities	Transform	Fill	Analyze

Open...	Ctrl+O
Open Components...	
Save	Ctrl+S
Save As...	
Export	▸
Revert to Saved	
New...	Ctrl+N
Page Setup...	
Print	▸
Print Numeric	▸
Printer Setup...	
1 C:Test Image.wpo	
2 C:4 shaft, 2 end overshot blocks.wpo	
3 C:4 block Profile.wpo	
4 C:Rose.wpo	
5 C:Wool.wpo	
6 C:Weft Rib.wpo	
7 C:Monk's Belt.wpo	
Exit	
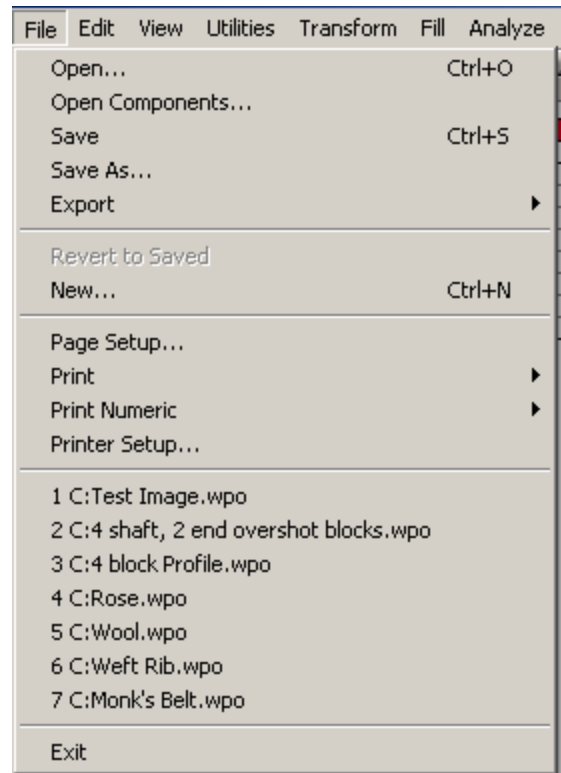
Display More than One Pattern

To see and work with more than one pattern at the same time, you can simply run more than one instance of the program - just select to run it again from the Windows/Vista Start Menu. Place the program windows side by side to compare patterns. You can also copy in one program window and then paste in another program window.

You will see one icon for each instance on the Windows taskbar - this icon will also show the present pattern name in each program window.

To switch to another *WeavePoint* window (that is, another instance of the program running), click on it in the taskbar.

To arrange the *WeavePoint* windows on the screen, right-click on any blank space in the taskbar, and select from the submenu. If comparing two patterns, **Tile Vertically** lets you see more weft and **Tile Horizontally** lets you see more warp.

OPEN COMPONENTS

When you save a pattern, all pattern components are saved in one file: threading, liftplan (or tie-up and treadling in Tie-up Mode), warp colors, weft colors, color palette, and transform weave units. Once you have opened a file or as you build or change a pattern, you may wish to select one or more components of a different pattern file to load into the present pattern. For example, you may want to use the color palette from another pattern.

To load separate pattern components instead of the whole pattern, choose **File/ Open Components**. A dialog box will open, with which you can locate and select the file with the particular component you desire to load into the current pattern. Once you have selected the file, the Load Components dialog box will open, asking which component(s) you wish to load into your pattern.
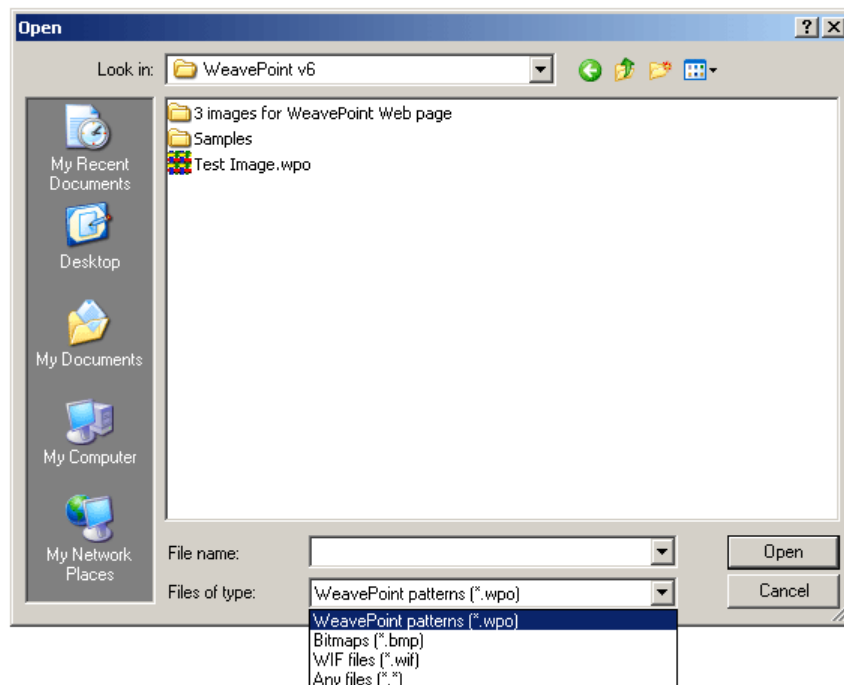
The component you load will replace the entire present component with one exception: when loading a liftplan or tie-up, it will replace only the number of shafts (and treadles) that are in the loaded component. For example, if the current number of shafts (or treadles) is greater, the remainder will be left intact. In this way, you may put two liftplans or tie-ups side by side.
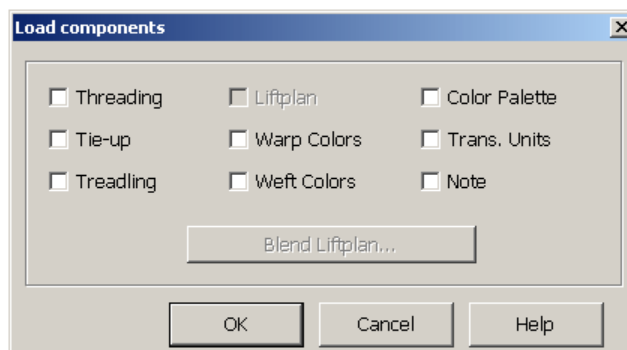
When you're in Liftplan Mode and open a pattern saved in Tie-up Mode, Liftplan will be disabled in the dialog, as there is no liftplan in the file. Likewise Tie-up and Treadling will be disabled if you're in Tie-up Mode and open a pattern saved in Liftplan Mode. You will have to go into the other file and convert it to the desired mode.

Note that "Trans. Units" refers to Transform Units. Creating, using, and opening Transform Units is addressed in greater detail in the Chapter on the Transform Menu (see Transform Menu/Translate and Transform Menu/Overlay).

Select one or more components of a pattern file to load into the present pattern. For example, if you just want to use the color palette from another pattern, check Palette in the dialog.

The components you open will replace the present contents of these components.

When you're in liftplan mode and seek components from a pattern saved in tie-up mode, Liftplan will be grayed-out. Likewise Tie-up and Treadling will be disabled if you're in Liftplan mode and open a pattern saved in Tie-up mode. You can, of course, remedy this by opening the draft with the desired component and changing it to the compatible format.

Blend Liftplan

Clicking Blend Liftplan will bring you to another dialog where you can select four different ways to combine the liftplan selected with the current one:

Append
Appends the liftplan you open to the end of the existing liftplan.

Add
Adds all filled squares in the loading liftplan to the current one.

Invert
Each filled square in the loading liftplan will show as a filled square if it was not filled earlier and an empty square if it was filled.

Subtract
Each filled square in the loading liftplan will produce an empty square in the present liftplan.

Hint: Reversing one of the liftplans before using Blend opens for a variety of new results.

SAVE

Choose **File/Save** or click the **Save** speed button to save the present pattern with the present name and path (folder) and any changes made since opening the file. The name and path of the present pattern is always displayed in the program title bar.

If you are working on a .wif, it will show as such in the title bar. You must **Save As** to create a new .wpo file.

When saving, the complete pattern is saved (whether filled in or empty), including the current color palette, notes, and transform weave units.

When working in a New File, if you have not attempted to Save, the **Save As** dialog box will be opened automatically if you select **Save** or choose to close the window.

Suggestion: If you are only really interested in saving one component, you do not need to care about how the other parts are filled in. When you later want to load the component, you just select to load only the component you want. For example, to save the present color palette, just use **Save** or **Save As**. Choose a file name like "Bright Colors 1" to remember what the file contains. You can then later use the various pattern elements as building blocks when constructing a new pattern. Or use them in various Transform Menu commands, like inserting a threading from file or loading weave units from a file.

SAVE AS

Here you can create a new pattern name or path to a new storage place or create a new folder to save it in.

If you are saving a new pattern/file for the first time, this is where you will enter the name. You will want to develop some form of description for your patterns to help you keep them organized. You may use as many as 255 characters in the name. This gives you room to use spaces and be very descriptive in your file names.

Remember to choose an appropriate location (folder). Here again, it is important to understand and remember how and where to save your files! To save to another drive, the desktop, flash stick, or other storage device, make sure you select the appropriate location on your computer.

If names of any file are too long to show in the presented window, the dialog box will show horizontal and vertical scroll bars. Note also that not all of the name will always be visible, depending on the size of the monitor, nature of the Dialog Box, format of the e-mail server, etc. So you may want to limit file names to something like thirty or forty characters.

If a pattern with the name already exists, you will be prompted to verify that you wish to overwrite the existing file. So, if you want to preserve the original file and save this new one with the changes, you might want to add a number or letter (for instance, 1 or A) which will change it enough to create a new file.

Another useful thing to do is to save a pattern file as a template for a new pattern. It can be convenient to have a more or less empty pattern with, for example, just the right number of shafts, a palette of your choice, and maybe a threading filled in, and then continue from there. When starting from a template file, remember to save your pattern with a new name, to not overwrite your template file.

Files saved, stored, and transported as *WeavePoint* (.wpo) files can only be used in yours or another *WeavePoint* program. So, if you plan to share your files with owners of other types of weaving software, or plan to e-mail your patterns, then it is necessary to save them as .wifs.

Files can also be saved as - PNG Images, to open, edit, or print large patterns in other programs, like graphics/photo programs.

EXPORT

This option allows you to export the pattern to be saved in other file formats.

Save to WIF file

A dialog box will open. The WIF file will be saved with liftplan if you are in Liftplan Mode and the tie-up/treadling if you are in Tie-up Mode. If **Save in both Tie-up and Liftplan format** is checked, both liftplan and tie-up/treadling will be stored. If there is some text in note, it will also be stored in the WIF file.

Select the number of ends and picks to save. Often all you need to save is one repeat. This will help to minimize the inefficiency of the file.

If you have received a WIF file, note that while you can open the file like any other pattern, you must save it on your computer as a file in your weaving program in order to be able to access its components through the controls in the Transform Menu (see the chapter on the Transform Menu for more details).

For more information on .wif files, see Chapter 1, *WeavePoint* Basics.

Save Draft or Fabric as PNG Image	Use this command to save an image of the fabric or draft as a graphic file in PNG format. Specify the number of ends and picks you want to include in the picture.
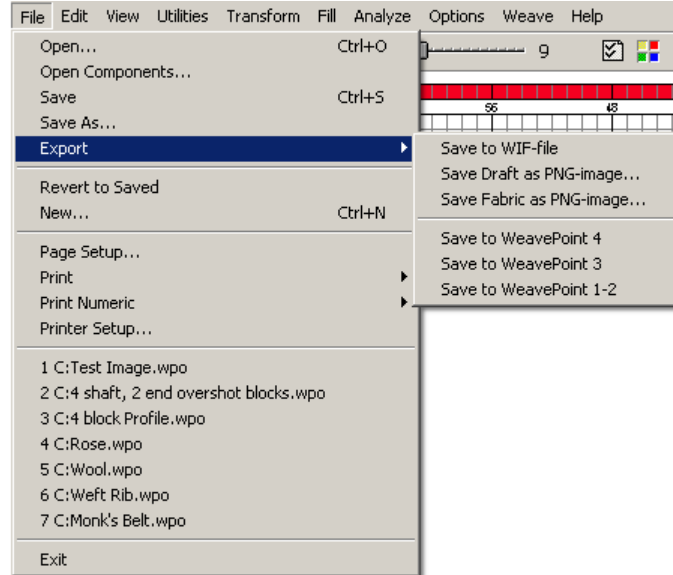
PNG files are effectively compressed to be as small as possible, but without any loss of image detail. PNG images can be opened in most graphic programs, photo and paint programs, word processors, etc., and is also used on the web. If you'd like to show some fabrics on your website, you can save them as PNG images and put them up on your site.

Saving as PNG images is a nice option, if you want to open fabric images in other programs, especially for large patterns. Two benefits you can get with saving as PNG images, compared to capturing the screen image in fabric view are:

1.   If your pattern is so large that it cannot fit on the screen, even with a small zoom level, you can still save the complete pattern to a PNG file.

2.   If PPI and EPI are different, the PNG file will be stretched so that the aspect ratio between warp and weft will be correct. This is done in a different way than in Fabric View, so that the image will be as small as possible.

REVERT TO SAVED

Revert to the present pattern as when last saved. This is a quick way to undo the changes you have made to the pattern since you last saved it.

NEW

Select this item on the File Menu to start a new, blank pattern. The new pattern will replace the present pattern in the window.

In the dialog box which opens, you will be asked to enter certain settings. Other settings can be selected in the **Options Menu/Options** dialog box and the Color Dialog Box.

The new warp and weft colors will be reset to 6(red) and 0(white), because this is the default setting (more on changing these settings in the chapter on the Transform Menu). Whatever changes you may have made to the color palette will remain in place and will be available to use in the new one.

If **Use Default Color Palette** is checked, the color palette will change to the default palette and any palette changes you may have made previously will not be available in this new pattern, unless you introduce that component into the new pattern (more on that in a later chapter).
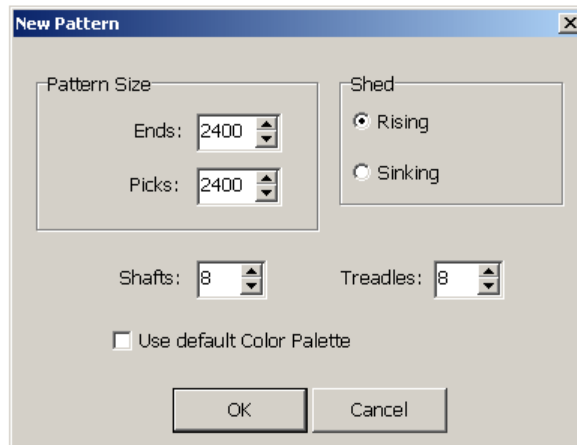
Older versions of *WeavePoint* use a slightly different file format and you need to export to this format if you want to load the pattern in any of these older versions of *WeavePoint*.

For information on the WIF format, see Working with WIF files in *WeavePoint* Basics.

PAGE SET-UP

This dialog box will enable you to select the paper size, set margins, select the layout, and choose the printer.

Set paper margins to select both the placement of the printed image on the paper and the size of the printed image. The margins setting affects all graphics printing, but not numeric printing. The rectangle, on the white paper displayed, shows the selected printing area. When setting margins, you not only select the placement of the printed image, but also, in effect, its size. To print the largest image possible, set all margins to zero. Note that because most printers cannot print on the edges, a small margin will still remain.

In Page Set-Up, you can also make other selections, like **Portrait** or **Landscape** format printing. And you can click Printer to check your printer settings. In most cases, the printed image will fill the selected printing area either in width or height, but not both. This is because the image to print has in itself a fixed width/height ratio and this ratio will be kept when printing. For example, if you choose to print a draft with forty ends and twenty picks, the image width will be almost double its height. If you want to print this as large as possible, choose **Landscape** format to better fit the image to the paper. Only Print Fabric in true size will normally fill the total printing area.

The settings you make will remain in effect until you exit from *WeavePoint*. Next time you start the program and wish to print, select Page Set-Up again to re-check these settings.

PRINT

To print images of the draft, fabric, etc., choose **File Menu/Print**. You will immediately be given the choice of **Draft**, **Fabric**, or **Screen Image**.

The date and time will be automatically added at the bottom of the print out.
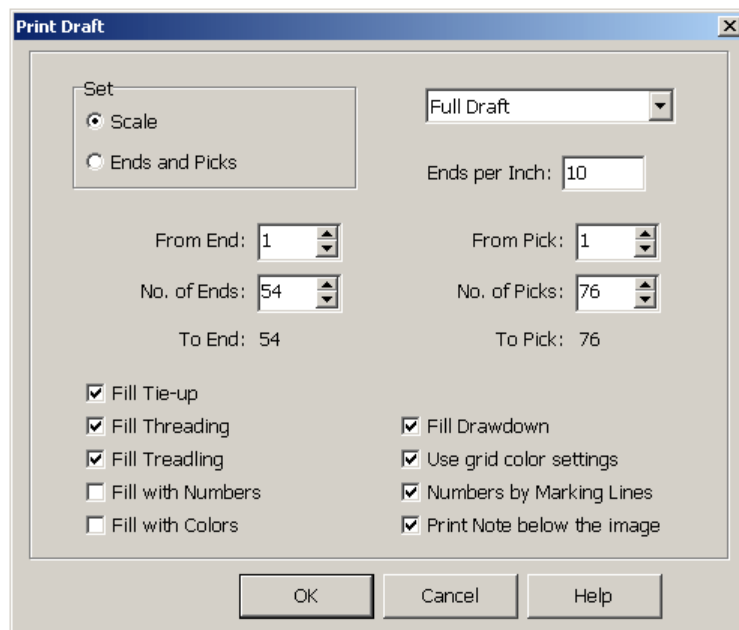
Print/Draft

Opens the **Print Draft** a dialog Box. This box contains a number of settings which will determine the scale and type of information to be printed on your draft. You can choose to fill threading, liftplan, tie-up, and/or drawdown. Note that the printout of your draft will be limited to one page, so the more ends/picks you print, the smaller will each end and pick become on paper. If you wish to print large patterns, print one part at a time (see information on setting for Ends and Picks, below). Please note: If threading is not on display in the Draft Window on your screen (toggle the Threading speed button to return it), the threading will not print.

Scale will give you a full range of options. This will enable you to choose whether to print the Full Draft, Only Threading, or Only Liftplan. In addition, you may set the number of **Ends per Inch**, or **Grid Squares per Millimeter**, depending on the setting you chose in **Options/Options/Miscellaneous Tab**. The lower the number of Ends/Inch or squares/mm, the larger will be the elements displayed. For example, set at 10 Ends Per Inch, you will only be able to view 46 ends and 68 picks; however, if set to 20 EPI, the program will automatically reset to show 111 ends and 156 picks.

Or you may wish to set printing for **Ends and Picks**. With this setting, you can adjust the number of ends and picks you wish to print; as well as the starting place for each (if not at #1) and the ending end/pick number will be automatically calculated and displayed.

If **Fill with Numbers** is selected, whatever draft components have been selected will print out as numbers in their respective grids, instead of the customary small, black box.

If **Fill with Colors** is selected, whatever draft components have been selected will print with the designated color for each particular end or pick, instead of the customary black. If you have also selected **Fill with Numbers**, the numbers will be superimposed on the color squares. Select the Color and Number options to ensure visibility when white or a very light color is used.

When **Use Grid Colors** is checked, the present grid color settings in Options will be used also for printing. If this square is unchecked, all lines will be printed black. Note: if you do not have a color printer and any of your grid lines are red, they will not show on your printed page. In this case, using black or grey for your grid will be more appropriate (see the chapter on Options Menu). Printing with color will allow the red grid markings to show and the color bars will print as well, to aid with color placement at the reed.

To print Threading only, for best results:

1.   Go to Page Set-Up and select Landscape.
2.   In the Print/Print Draft window:
      a.   Select Ends and Picks.
      b.   Enter the ends you wish to print (remember you are limited to one page, so the more ends, the smaller the scale will be (and harder to read!)
      c.   Set **Picks** to **0**.
3.   Check the boxes for Fill Threading, Fill with Numbers, Numbers by Marking Lines, and Note (if desired).

To print Liftplan or Treadling only (for best results):

1.   Go to Page Set-Up and select Portrait.
2.   In the Print/Print Draft Window:
    a.   Select Ends and Picks.
    b.   Enter the Picks you wish to print.
    c.   Set **Ends** to **0**.
3.   Check the boxes for Fill Liftplan/Treadling, Fill with Numbers, Numbers by Marking Lines, and Note (if desired).

You can select not to fill grids when printing. This is very useful for making exercises for students to fill in parts.

You can also print the note below the draft. This is an easy way to add text to a draft printout and to make single page handouts and printouts for education, etc.

Print/Fabric

To print as fabric with various options, pick **Print Fabric**.

Choose from the following options:

1.   Select Size: select how many ends and picks to print. You can even print the whole fabric of thousands of ends and picks on one page.

2.   True Size: the fabric is printed in true size according to your EPI and PPI setting in Options. How many ends and picks that is printed depends on paper size, margins, and EPI/PPI.

3.   To print the fabric with a yarn look, check the **Yarn View** box. When printing with yarn view, the colors will appear slightly darker because of the shadow effects added to the threads. Printing large fabrics (high number of ends and picks) in yarn view can take a longer time.

Print/Screen Image

To print other images, pick **Print Screen Image**. For example, to print a fabric drapery, first choose **View/Drapery** to see the drapery on the screen.

To print Design, Drapery, Interlacement, and other views, use this command. Note that for printing drafts, the Print Draft command prints in better quality with finer lines than using Print Screen Image and the Print Fabric command gives more options for printing an image of the fabric. It can also be useful for looking at complex liftplans, as the lines between filled squares are visible.

You can also display multiple tool windows and print them together. For example, have interlacement view displayed with color palette and fabric window on the top.

Set margins to control image size and placement. Note that the screen image is normally in landscape format and you can select to print in landscape format to better fit the image to the paper making it possible to print the image larger.

Note that if you have a window on top, for example the Color Palette, this will be printed on top like on the screen.

To print analysis results in the Analyze Menu, click the **Print** button in the result dialogs.

PRINT NUMERIC

Choose **File/Print Numeric** to print **Threading**, **Lift Plan**, or **Warp Color** information with letters and numbers. You may find this way of printing useful for printing draft information for using when setting up the loom or when weaving. Also, numeric printing lets you print long threadings, treadlings, and liftplans over several pages with one command. Select how many ends or picks to print in the dialog box.

Print Numeric/Threading will allow you to print and read your draft by harness number, rather than trying to read the placement of squares in a Threading grid.

```
8 Shafts      Ends 1-67

       6           5           4           3
765432109876543210987654321098765432109876543 21

43434343434343434343434343434343434343434343434343434

----------1-------------1-------------1--------
---------2-2-----------2-2-----------2-2-------
--------3---3--------3---3--------3---3------
-------4-----4-------4-----4-------4-----4-----
5-----5-------5-----5-------5-----5-------5----
-6---6---------6---6---------6---6---------6---
--7-7-----------7-7-----------7-7-----------7--
```

Print Numeric/Threading

Print Numeric/Liftplan. This offers the same advantage at the Numeric/Threading.

```
   8 Shafts    Picks 1-18

   1#       - 7 6 - - 3 - 1          9
   2#       8 7 - - 4 - 2 -          D
   3#       8 - - 5 - - - 1          D
   4#       - - 6 - 4 - 2 -          9
   5#       - 7 - 5 - 3 - -          D
   6#       8 - - - 4 - - 1          D
   7#       - 7 - 5 - - 2 1          9
   8#       8 - 6 - - 3 2 -          D
   9#       - 7 6 - - 3 - 1          D
  10#       8 7 - - 4 - 2 -          9
  11#       8 - - 5 - - - 1          D
  12#       - - 6 - 4 - 2 -          9
  13#       - 7 - 5 - 3 - -          D
  14#       8 - - - 4 - - 1          D
  15#       - 7 - 5 - - 2 1          9
  16#       8 - 6 - - 3 2 -          D
  17#       - 7 6 - - 3 - 1          D
  18#       8 7 - - 4 - 2 -          9
```

Print Numeric/Liftplan

Print Numeric/Warp Colors can be very useful when warping with many colors.

Prints the number of ends per color through the sequence of colors for warping, using the number from the Color Dropdown Menu, for reference. For example, in the figure shown below, the sequence of color numbers would be 15, 1, 15, 1, 2, 1, 15, etc.; using only one end per color. If there were multiple ends of one color to thread in immediate sequence, you would see the specific number of ends to thread, rather than the -1- shown here. One line is printed for each color used in the warp. If the warp is a single color, the information will be shown as a single line item; the color number will be followed by the total number of ends.

```
Asd16


Warp Colors/Yarns, Ends 1 - 128
Note: Starting from end #1 at left side.

Index

1      -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
2      ----1-----1-----1-----1-----1-----1-----1-----1-
15     1-1---1-1---1-1---1-1---1-1---1-1---1-1---1-1---

Index

1      -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
2      ----1-----1-----1-----1-----1-----1-----1-----1-
15     1-1---1-1---1-1---1-1---1-1---1-1---1-1---1-1---
```

Print Numeric/Warp Colors/showing one end per color throughout the sequence

PRINTER SET-UP

You can choose **File/Printer Set-Up** to check the selected printer and its settings.

Printing Colors

The colors you get in your printouts are the result of how your printer and printer driver handle colors. The printer driver you use is usually either one supplied with your printer or one that was included with Windows. Modern printer drivers normally produce good results, but sometimes are far from perfect compared to what you see on the screen.

Matching screen and printer colors is a complicated matter because of the different nature of the two mediums. Also, different PC monitors produce different colors. With some monitors, you can even adjust the color temperature yourself. And the light condition in your room can influence how you perceive the colors.

To match colors, you need a good monitor. Old or inexpensive monitors often do not display colors accurately.

If you are dissatisfied with the colors on your prints, first read the documentation that came with your printer to see if you can improve results by changing the printer setup, paper type, etc.

Some printers support the Windows Image Color Matching standard (ICM). In combination with a calibrated monitor, this could improve the color matching.

If you want to make an extra effort to synchronize monitor and printer colors, special software is available from various companies to help you match colors produced by your monitor and printer.

Note that with many printers, for example, inkjet printers, colors can vary with different types of paper. Make sure to select the paper type you load in the printer set-up dialog for your printer.

Some black and white printer drivers have problems converting colors to gray tones.

Printing to Laser Printers

Page printers, normally called laser printers, must have enough memory to produce a full-page graphic at the current resolution or the print will fail. This is not a problem specific to *WeavePoint*, but simply how laser printers work.

Example: If your printer has one megabyte of memory, you can print almost a full page at 300 DPI (in black and white).

If you think you have encountered this problem, try one or more of the following:

1.   Reduce the printer resolution in the Printer Set-Up dialog.

2.   Increase the paper margins to print a smaller image.

3.   Purchase more memory for your printer.

Note that ink jet printers do not have this memory problem because ink jet printers normally print line by line, not the full page at once, and so does not require memory to hold the whole image.

File/1-7 (Previously opened files)

This last section of the menu will list the last seven files that have been opened, enabling easier access to recent work.
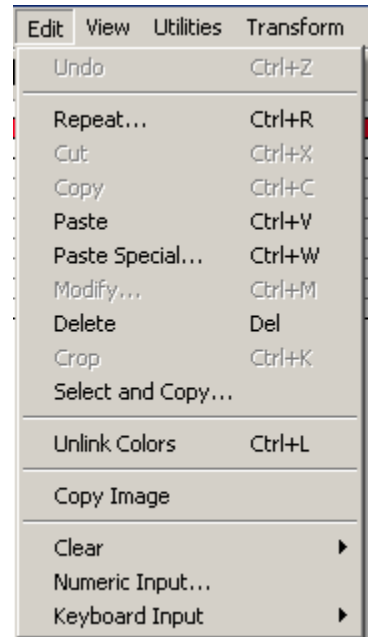
Exit will close the program.

Please note that there are **Preview** and **Cancel** options in many of the Dialog Boxes in this menu.

UNDO

To undo the last drawing operation, choose **Edit/Undo** or press **Ctrl-Z**. This command is also available after most menu commands from the Edit, Utilities, Transform Menus, and the Library.

Undo is not available for complex features, therefore, it is a good idea to save your pattern before making major changes to it, for example, by using commands in the **Utilities** or **Transform Menus** or before you change the color palette. Then you can quickly undo the change by choosing **File/Revert** to **Saved**.

Edit	View	Utilities	Transform
Undo			Ctrl+Z
Repeat...			Ctrl+R
Cut			Ctrl+X
Copy			Ctrl+C
Paste			Ctrl+V
Paste Special...			Ctrl+W
Modify...			Ctrl+M
Delete			Del
Crop			Ctrl+K
Select and Copy...			
Unlink Colors			Ctrl+L
Copy Image			
Clear			▶
Numeric Input...			
Keyboard Input			▶

REPEAT

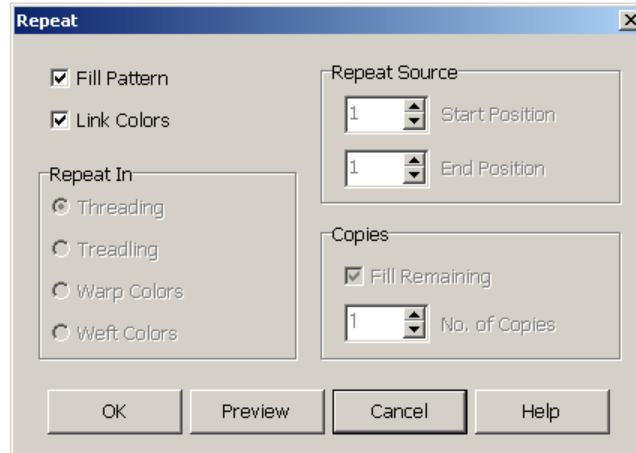Use this to repeat your pattern in Draft Mode or Design Mode.

For simple repeats, you can use the Repeat command instead of Copy and Paste.

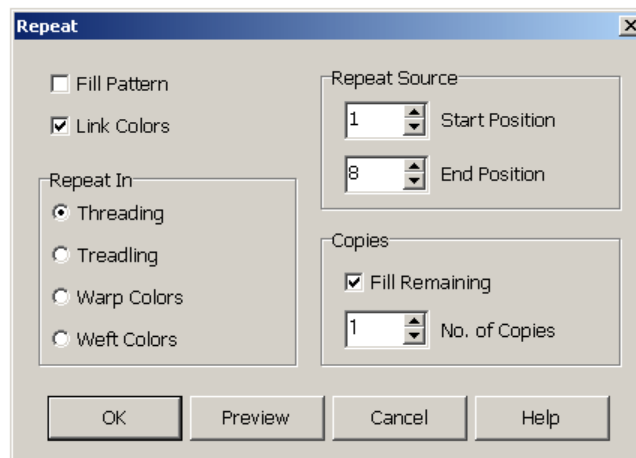When having selected an area, you can click the **Repeat** speed button or choose **Edit/Repeat**.

If you have just drawn one repeat and want to repeat this throughout the pattern, check **Fill Pattern**. This option is only available if part of the present pattern size is empty. The pattern is filled in both warp and warp and weft direction.

In the liftplan, if you select an area less than the total width before selection **Repeat**, only the selected width will be repeated.

If the threading is empty and **Fill Pattern** is checked, the threading will be filled with a straight threading.

```
Repeat                                                    [x]

  ☑ Fill Pattern          ┌Repeat Source──────────────┐
  ☑ Link Colors           │  [1] [▲▼]  Start Position  │
                          │  [1] [▲▼]  End Position    │
  ┌Repeat In─────┐        └───────────────────────────┘
  │ ⦿ Threading  │        ┌Copies─────────────────────┐
  │ ○ Treadling  │        │  ☑ Fill Remaining          │
  │ ○ Warp Colors│        │  [1] [▲▼]  No. of Copies   │
  │ ○ Weft Colors│        └───────────────────────────┘
  └──────────────┘

  [   OK   ] [ Preview ] [ Cancel ] [  Help  ]
```

If you do not want to Fill Pattern (fill all grids) or if you have made changes to a pattern that was repeated before and now want to repeat your changes throughout, select the part to repeat. First mark what you wish to select. Threading, Warp Colors, etc., and then select start and end positions and number of copies. When entering number of copies, keep in mind you already have one copy (the feature should be called "how many more copies?").

```
Repeat                                                    [x]

  ☐ Fill Pattern          ┌Repeat Source──────────────┐
  ☑ Link Colors           │  [1] [▲▼]  Start Position  │
                          │  [8] [▲▼]  End Position    │
  ┌Repeat In─────┐        └───────────────────────────┘
  │ ⦿ Threading  │        ┌Copies─────────────────────┐
  │ ○ Treadling  │        │  ☑ Fill Remaining          │
  │ ○ Warp Colors│        │  [1] [▲▼]  No. of Copies   │
  │ ○ Weft Colors│        └───────────────────────────┘
  └──────────────┘

  [   OK   ] [ Preview ] [ Cancel ] [  Help  ]
```

If you have selected an area with the **Selection** tool, the area selected will be pre-selected in the **Repeat** dialog allowing a quick and simple repeat. This way you can visually select the area to repeat. You do not need to copy to the clipboard because the selected part on screen is being used (see also Copy and Paste).
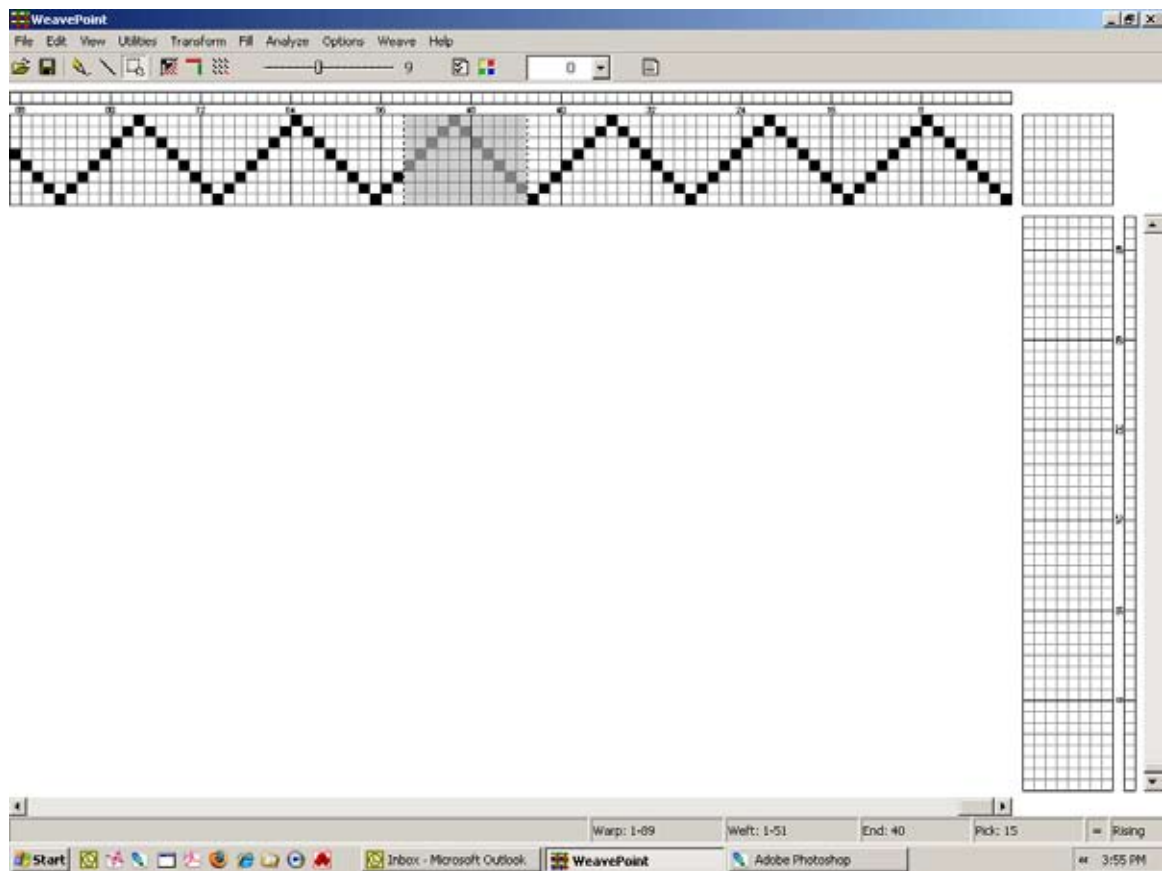
To use Cut, Copy, or Paste, first click the **Selection** tool in the tool bar. Note that the cursor changes so that you can easily see that you are in Selection Mode.

Draw a rectangle around the part you want to select. Then click **Copy** or **Cut** in the **Edit Menu**. Copy will just copy the selected part to the clipboard. Cut will do the same, but will also erase the selected area.

You can copy and paste both in Draft Mode and in Design Mode.

CUT

Select the area to delete with the Selection tool, and then choose **Edit/Cut**.

Deletes the selected area and copies it to the clipboard.

In threading, treadling, and color grids, the selected ends/picks will be deleted. In liftplan, tie-up, and design grids, the selected area will be cleared.

COPY

Copies the selected area to the clipboard.

PASTE

When you have copied or cut a selection to the clipboard, you can select the area where you want to paste it. Note that you **DO NOT** need make this selection area equal in size to the area you copied to the clipboard. Whatever is on the clipboard will be pasted in its full size. All you need to do before pasting is to select the **starting corner** for the pasting. Selecting one square in liftplan or one end in threading will be sufficient. But it does not matter even if you select a larger area for pasting - the result will be the same.

You can copy and paste from any grid to any other grid. You can paste from threading to treadling and vice versa, or from the liftplan to the tie-up. But note that regarding the color grids (warp colors and weft colors), you can only copy and paste within these grids.

Pasting from Other Programs: You can copy part of an image in, for example, a paint program and paste it in, for example, the liftplan. Note that the image you copy from must have a white background. Note also that one pixel in the image will be one square in the liftplan.

PASTE SPECIAL

Depending on the area of the draft in which you are working, there are four dialog boxes which will open.

First, select an area within one of the grid sections and select **Edit/Copy**. Then select an area where you want to paste and choose **Paste Special**. Note that you can only use Paste Special when the clipboard has a copy from the same part of the grid. For example, first copy from threading, then Paste Special in threading. The dialog box that opens will be specifically for that area of the grid in which your selection has occurred.

When using Paste Special and pasting multiple copies, the distance between the starting point of the copy and the starting point of the selection is crucial. The distance between these two points will be the distance between each copy pasted in liftplan and in Design Mode. In the threading, treadling, and color grids, following copies will always be placed next to the first copy.

The location of the starting point depends on your layout style. The starting point will always be the corner of the selected area that is closest to original (position 1,1) of the present grid.
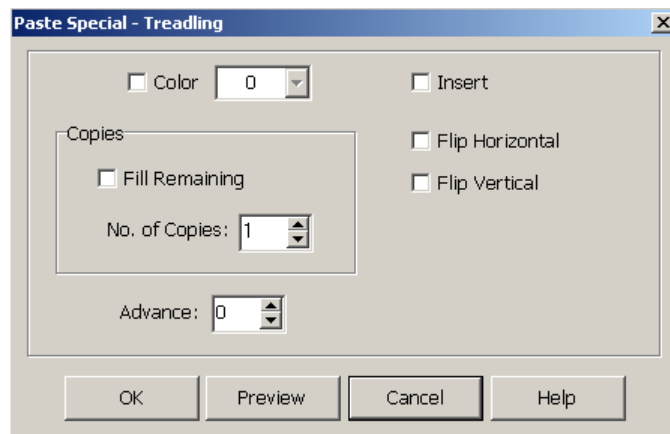
Paste Special - Tie-Up

When using Paste Special in a liftplan or a tie-up grid, you can apply the following features: Invert, Flip Horizontal, Flip Vertical, Rotate, and Transparent.

For you experienced *WeavePoint* users, Flip is similar to the Mirror command of *WeavePoint* 4.
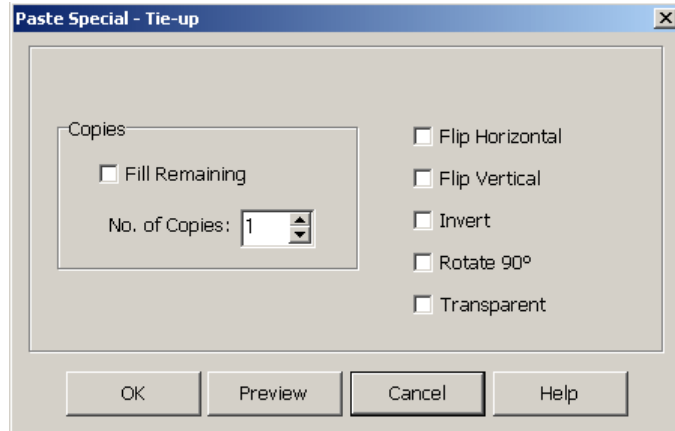
Invert - This will create the opposite of the present state. Whatever squares are black will become white and vice-versa.

Flip Horizontal or Vertical - this will create a repeat in the mirror image of the selected area, either side-to-side or upside-down.

To rotate 90 degrees, check **Rotate**.

In addition, you can select various effects in combination.

To rotate 180 degrees, check **Rotate**, **Flip Horizontal**, and **Flip Vertical**.

Note that rotating 90 degrees is applied to a square grid, check **Flip Horizontal** and **Flip Vertical**.

Transparent - is for pasting in liftplan, tie-up, treadling, and also in design mode.

For other Tie-Up Special Effect, see also Utilities/Tie-Up Special.

The main difference between Paste Special in the Tie-up and Tie-Up Special from Utilities Menu is that in Paste Special you can manipulate a section of your Tie-up, while in Tie-Up Special you can only make changes to the entire Tie-up grid.

**Paste Special –
Liftplan**

When using Paste Special in a liftplan, you can apply the following features: Invert, Flip Horizontal, Flip Vertical, Rotate, and Transparent; as well as Insert and Color specification.

```
Paste Special - Liftplan                              [x]

        □ Color    0    ▼         □ Insert

    ┌Copies────────────────┐      □ Flip Horizontal
    │                      │      □ Flip Vertical
    │  □ Fill Remaining    │
    │                      │      □ Invert
    │  No. of Copies: 1 ▲▼ │
    │                      │      □ Rotate 90°
    └──────────────────────┘
                                  □ Transparent

         OK      Preview      Cancel      Help
```
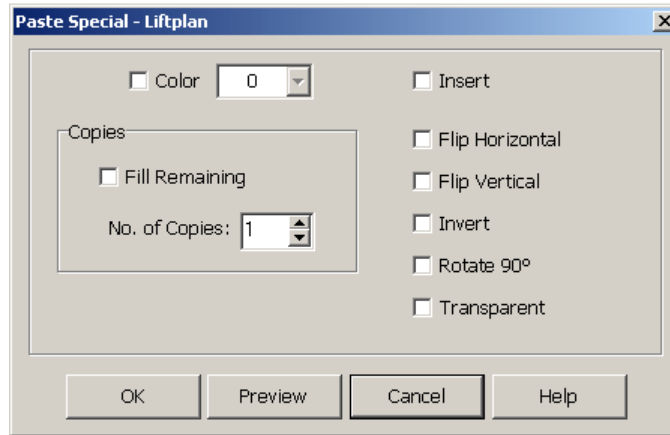
**Paste Special –
Treadling**

When using Paste Special in the Treadling area, your options are Color, Number of Copies, and whether to Advance, as well as Insert, Flip Horizontal, Flip Vertical.

```
Paste Special - Treadling                             [x]

        □ Color    0    ▼         □ Insert

    ┌Copies────────────────┐      □ Flip Horizontal
    │                      │      □ Flip Vertical
    │  □ Fill Remaining    │
    │                      │
    │  No. of Copies: 1 ▲▼ │
    │                      │
    └──────────────────────┘

       Advance: 0 ▲▼

         OK      Preview      Cancel      Help
```

In Treadling, you can displace the pasting position by changing the **Advance** value. This way you can quickly construct an advancing twill or make other effects. A positive value will advance each copy by the number of steps according to the value; a negative value will descend each copy. Leave the value at zero for no effect.

Paste Special –
Threading

> **Paste Special - Threading**   ☒
>
> ☐ Color ☐ 0 ▽   ☐ Insert
>
> ┌ Copies ──────────────┐
> │ ☐ Fill Remaining   │   ☐ Flip Horizontal
> │   │   ☐ Flip Vertical
> │ No. of Copies: ☐ 1 ⬍ │
> └────────────────────────┘
>
> Advance: ☐ 0 ⬍
>
> [OK]   [Preview]   [Cancel]   [Help]
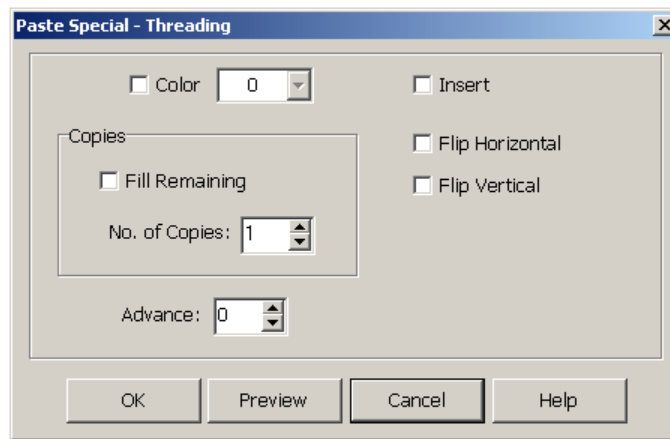
In addition to Insert, Flip Horizontal, Flip Vertical, this dialog box offers Advance features.

In Threading, you can displace the pasting position by changing the **Advance** value. This way you can quickly construct an advancing twill or make other effects. A positive value will advance each copy by the number of steps according to the value; a negative value will descend each copy. Leave the value at zero for no effect.

How to Quickly Make a Specific Twill in the Liftplan Using Paste Special

1. Draw the first twill line in the pick one of your liftplans.

2. Click the **Selection** tool speed button

3. Select the first line in the liftplan. It becomes gray as you select it.

4. Choose **Edit/Copy**.

5. Select in the liftplan the square at pick 2 (second line), shaft 2 (slide to right one square). You can also select the whole second line from column 2, but it is only necessary to select the starting square for where to paste. To twill in the opposite direction, select the last shaft instead of the second shaft.

6. Choose **Edit/Paste Special**. In the dialog, check **Fill Remaining** to fill the liftplan. Then click **Apply** and there's your twill.

How to Create Advanced Threading

1. Create the initial block (in your threading) you want to advance, then use the Select Tool and Copy it.
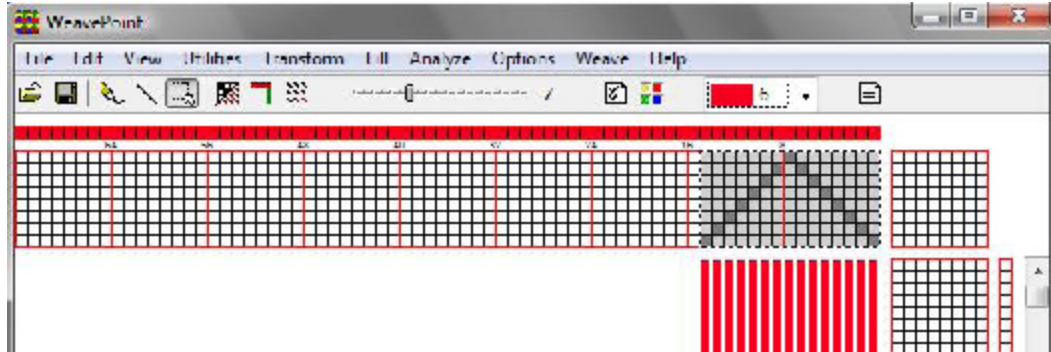
2. Using the Selection Tool, mark the grid where you want your pasted (advanced) part to begin. The size of that selection is not important, just the starting position. It is enough to mark just one end.
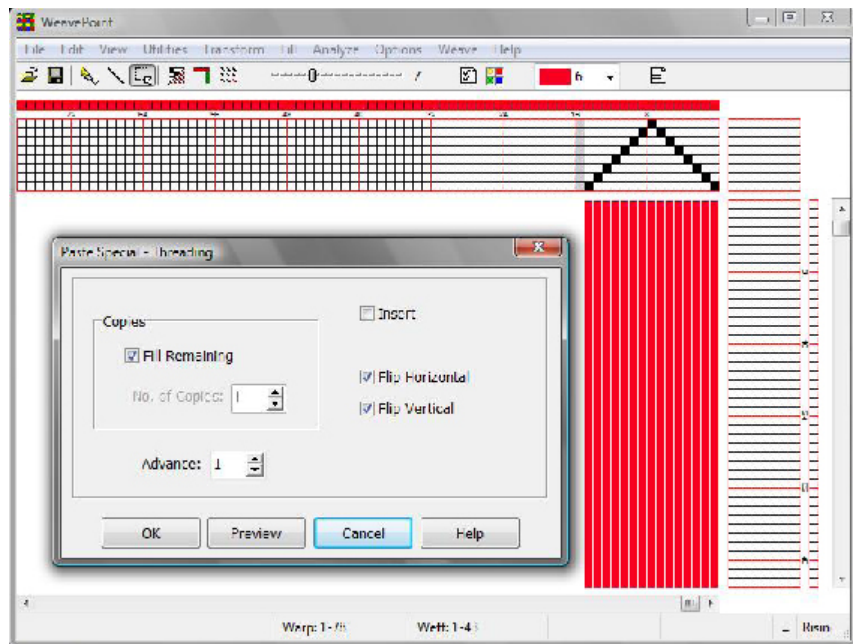
3.   Go to Edit Menu, click on Paste Special. Paste Special-Threading Window comes up to enter the option of how many copies you want and the Advance step. Choose your options and click OK.
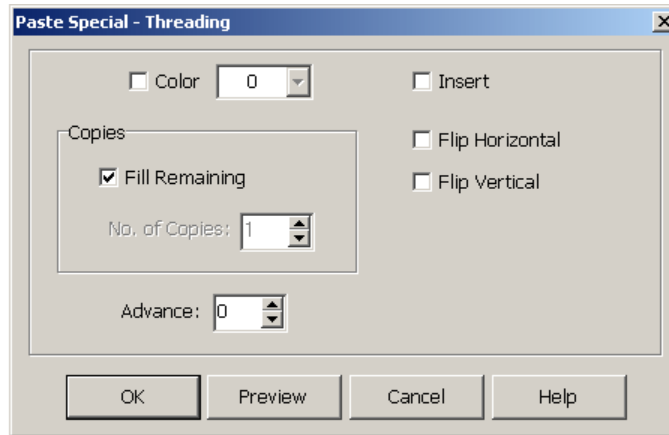
4.   Your threading is advanced by the desired advanced step from your initial selection. The same procedure can be used for Treadling.
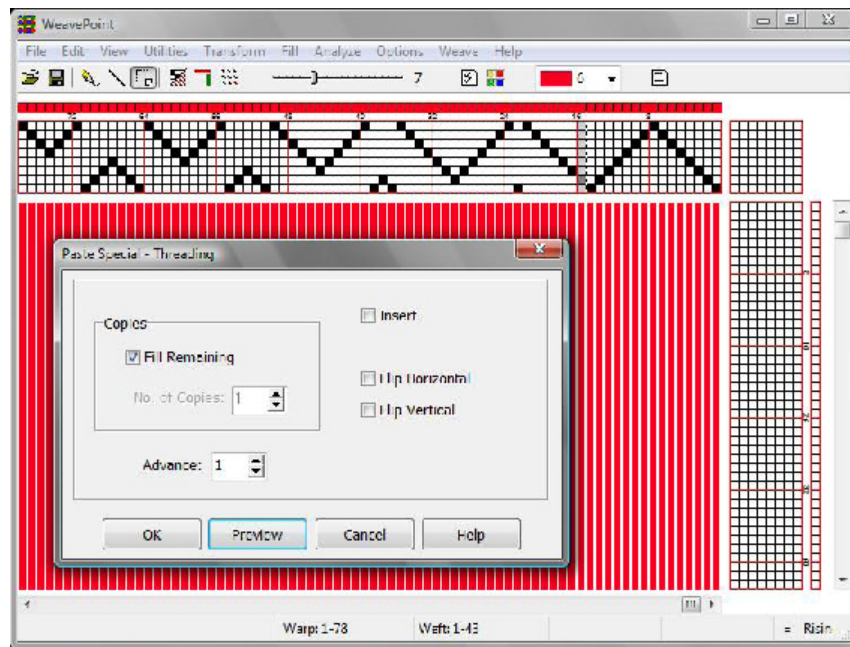
MODIFY

This dialog box will enable you to quickly Invert, Flip, Rotate, or Wrap a part of your draft. Simply use the Selection Tool and then open this dialog box from the Edit Menu to change the area you have pre-selected:

Invert: Invert the selection (negative/change face).

Flip Horizontal/Vertical: Flip the selection.

Rotate 180°: Rotate the selection 180 degrees. Equals Flip Horizontal + Flip Vertical.

Rotate 90°: Rotate the selection 90 degrees. The direction of rotation will depend on your layout settings in Options. To rotate 90 degrees in the opposite direction, click three times. Note that this rotation will be applied to a square grid, even if your selection is a rectangle, so for rotation 90°, it is recommended to select an area of equal width and height.

Arrow buttons: Cycle (wrap/shift) the selection in any of four directions.

DELETE

If a selection has been made, the selected area will be deleted or cleared.

In threading, treadling, and color grids, the selected end/picks or colors will be deleted. In tie-up and design grid, the selected area will be cleared.

In the liftplan, **Delete** works in a special way. If the selection spans the entire width of the liftplan, the selected picks will be deleted. If not, the selected parts of the liftplan will be cleared (shortcut: press the Delete key).

If no selection is made, the end or pick under the cursor will be deleted.

Using Edit/Paste Special to Insert

1. Select an area the size you want to insert.

2. Choose **Edit/Copy**.

3. Select the starting end/pick where you want to do the insertion.

4. Choose **Edit/Paste Special** and check **Insert** in the dialog box.

5. Now you can edit the inserted ends/picks as you like. This is a great method to do limited repeats.

See also Copy and Paste.

CROP

Crop to selection. This function is especially useful in Design Mode. If you only want to use a part of your design and cut away the rest, select the area you want to keep and click **Edit/Crop**. The selected area will be moved to the starting corner (position 1,1) in the Design Grid.

This function can also be used in the Threading, Treadling, Liftplan, and Tie-up grids.

SELECT AND COPY

You can select and copy an area with Select and Copy. This method is especially useful if you want to copy an area larger than visible on the screen. Select and Copy works the same as the Selection Tool and Copy. Simply choose the area you wish to select (Threading, Lift, Warp, or Weft colors) and then enter the number, say from 5 to 20. The Selection size will be displayed in the Status Line at bottom left.
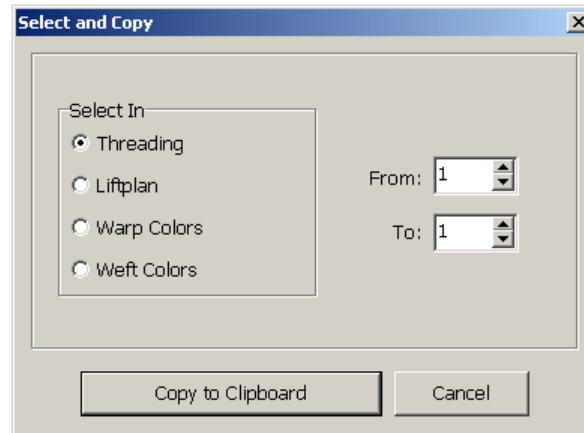
If you select, in the Liftplan, an area less than the total width of the liftplan before selecting Repeat, now only the selected width will be repeated. This is useful for quickly changing the tie-down order in a liftplan.

UNLINK COLORS

Determines if colors are linked when inserting or deleting ends and picks. Also determines if the colors will be expanded with the pattern when using Translate.

COPY IMAGE

Copy the complete present weaving image to the clipboard. You can then paste it as a graphic in a paint program, text editor, etc. You can reduce the size of the image by reducing the size of the *WeavePoint* window before selecting this command.

Note: For capturing the complete *WeavePoint* window with title bar, tool bar, status bar, etc., press **Alt-Print Screen** (a standard Windows feature).

Please note, in both cases, the software saves the images as a .BMP file.

CLEAR

Clear entries in an entire, specified grid area. Select **All** to clear all grids.

NUMERIC INPUT

To input your Threading or Treadling numerically, select Numerical Input from the Edit Menu. A window will appear in which you will be able to type in your sequence for either threading or treadling.
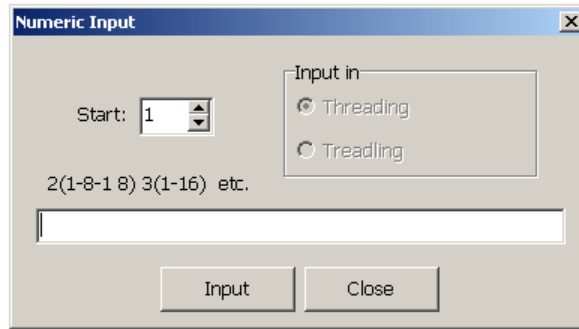
Write the shaft number for each end (or treadle number for each pick) with a comma or space between each number.

You can also create a sequence, like 1-8 means input end 1 on shaft 1, end 2 on shaft 2, end 3 on shaft 3, etc., until 8. You can write many sequences in combination, like 1-8-2-7, etc.

To input multiple sequences, use parentheses. For example, for 3 times 1-16 sequence enter 3(1-16).

Click Input or press Enter to make the input.

KEYBOARD INPUT

You can use your keyboard for entering in all three draft grids, depending on the Loom Type selected in the Options Menu. Some find this easier than using the mouse, and it is also useful if using a laptop PC without a mouse.

When you select Keyboard Input from the Edit Menu, a dialog window will appear with the information specifying which grid you are entering and also the position of your cursor. During the entering process, the window will remain open and will update the cursor position.

Along with this window, a cursor ("+") will appear in the end/shaft or pick/treadle indicated in the window.
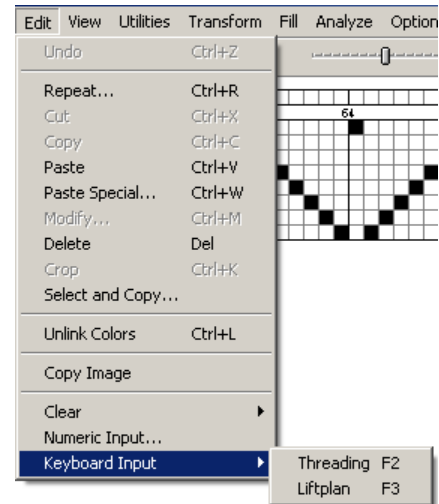
Move the cursor with the arrow keys, and mark the end/shaft or pick/treadle at the cursor by pressing the space bar or the '+' key. When you mark an end/pick, the cursor automatically advances to the next end/pick in threading and treadling.
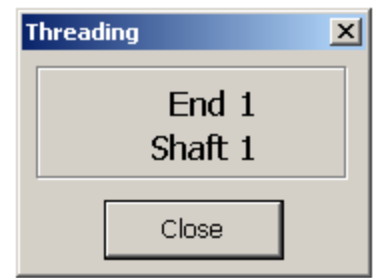
Hold the given key down for repeating entries, to move the cursor fast.

Press the Home and End keys to move the cursor quickly to the start (▶) or end (◀) of the grid.

Press PageUp (▲)and PageDown (▼) keys to scroll the pattern.

Press the Insert and Delete keys to insert or delete an end or pick.

To delete a mark, position the cursor on the filled square and press the space bar. If you wish to make a change or correction, and the position is already marked, the first mark will be cleared as the new one is entered .

In Keyboard Input you can also press the number keys for the shafts or treadles you want to mark. If the cursor is at end one, press '1', and end one will be marked at shaft one. The cursor will advance automatically to the next end/pick. Then press '4' to mark end two at shaft 4, etc.(Note: you must use the number keys above the letters on the keyboard, the numeric keypad at the right side of the keyboard does not work for this). To enter shafts 11-24, press the keys QWERTY (Q = 11, W = 12, etc.).

You can access Keyboard Input directly by pressing the function keys F2, F3 and F4, and you can exit from Keyboard Input by pressing the Esc key. This way you can keep the use of the mouse to a minimum.

The present cursor position for Keyboard Input is displayed in the small dialog window. Click the Close button or press Esc to exit from Keyboard Input.

There are two parts of View Menu. The top part options (**Draft**, **Design**, **Fabric**, **Drapery**, **and Interlacement**) show all the different modes you can be in within your main window. The Bullet next to the view option shows the current view.
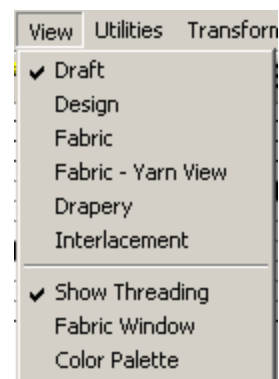
The bottom part of the menu (**Show Threading**, **Fabric Window**, and **Color Palette Window**) is showing all the options you can have displayed on the screen simultaneously. Assigning a checkmark next to an option is going to display that window/option at the same time as the main one.

DRAFT

Draft Mode is the standard mode to draw and edit weaving patterns.

How to Edit the Drawdown/Fabric: In Draft Mode, you can edit directly in the drawdown area simply by clicking in a square. Left click to fill in; right click to erase.

Editing the Drawdown in Liftplan Mode: Changes you make in the drawdown will be reflected in the liftplan. The threading is fixed and will remain unchanged. Note that you must have a threading before you can edit in the drawdown.

Editing the Drawdown in Tie-Up Mode: Changes you make in the drawdown will be reflected in the tie-up. The threading and treadling are fixed and will remain unchanged. Note that you must have the threading and treadling filled in before you can edit in the drawdown. In Multiple Treadles Mode, drawdown editing is not available.

DESIGN

In Design Mode, you can draw the pattern directly "from the fabric" or drawdown. You can freehand draw the look of the fabric. To turn your pattern into a weave design, just select **View/Draft** and the draft (Threading, Treadling, and Tie-Up or liftplan) will automatically be constructed.

In Design Mode, you can draw the fabric on the grid as a free pattern. When later selecting Draft Mode, the pattern will be completely analyzed and all parts of the Draft will be constructed.

You can also use Design Mode to design patterns in other textile mediums; that is, patterns for knitting, embroidery, or anything else that can be designed with the use of pixels. It works much like a specialized paint program, using pixels.

As with the Draft View, Grid Style choices are made in the **Options Menu/Options** dialog box. In order to view a grid in the Draft View, **Use Grid Style in Design Mode** must be checked; otherwise, a series of dashes (based on the warp color) will represent the bottom of each box/pixel. This selection is found in the window at **Options Menu/Options/Style Tab**.
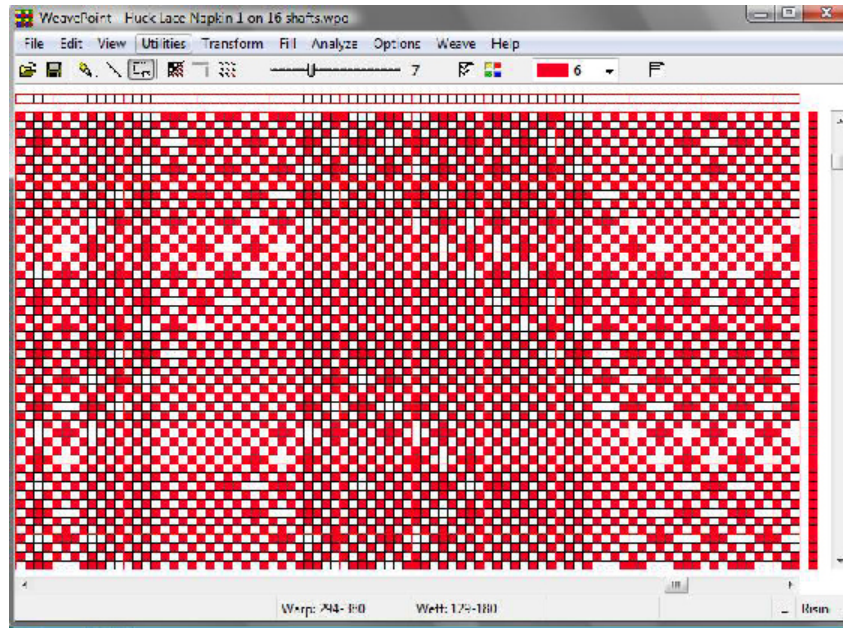
You can move between Draft Mode and Design Mode while making a pattern. Be aware that some changes to your pattern can take place. For this reason, the program will ask you to save your pattern to a new file before changing mode.

If you have a pattern with repeats in Draft Mode and change to Design Mode, the pattern will automatically be reduced to one repeat. This is done to make it simple to make some changes and then repeat it. When you want to fill the pattern with the repeat, use the **Repeat** and **Fill tools**.

Design Mode uses a 2400 x 2400 grid. This means it can accommodate up to 2400 ends and picks. If you convert a pattern, from Draft to Design, with a repeat larger than 2400, your pattern will be cut off when you enter Design Mode.

If you draw a large pattern in Design Mode, it could be cut off if you change to Draft Mode. The pattern will be limited in Draft Mode to 128 shafts and 128 treadles. This means that your pattern cannot contain more than 128 different ends (columns). To be sure not to exceed this limit, you can keep the repeat within 128 columns (or within as many columns, up to 128, depending on number of harnesses you intend to use).

If you are in Tie-Up Mode, it will be limited by the maximum number of treadles, which is 128. This means that your pattern cannot contain more than 128 different Picks (Lines) for Tie-up mode. There is no limit if you use Dobby Mode.

As long as you stay in Design Mode, including saving and opening Design Mode patterns, no such limitations can take place.

When saving in Design Mode, the pattern is stored as a standard .WPO file with liftplan. If the pattern uses more than 128 shafts, a special file will be saved in addition to the .WPO file (to preserve the full pattern). This file will have the same name as the WPO file, but will have the extension *.wpb. The saving and loading of .WPB files is automatic. Note that the .WPB files will carry the same names as the related .WPO pattern file.

Patterns will not be saved as .bmp, in *WeavePoint*. In order to save as a .bmp, **select and copy** an area, paste it into a graphics program as a new image and save as the image as a .bmp file.

Thread Style is available in Design Mode. Go to Options/Options/Style Tab, deselect **Use Grid Style in Design Mode** for this selection, and select **Threads** in the **Drawdown Style**.

All Tools will have the same function in Design View as in Draft View. When using the Selection Tool in Design Mode, the selected area will be darkened to more easily see the selection (the darkest colors will be affected to enhance their viewing while selected).

FABRIC   Displays the pattern as a flat surface. The Fabric View can be zoomed just like the Draft.
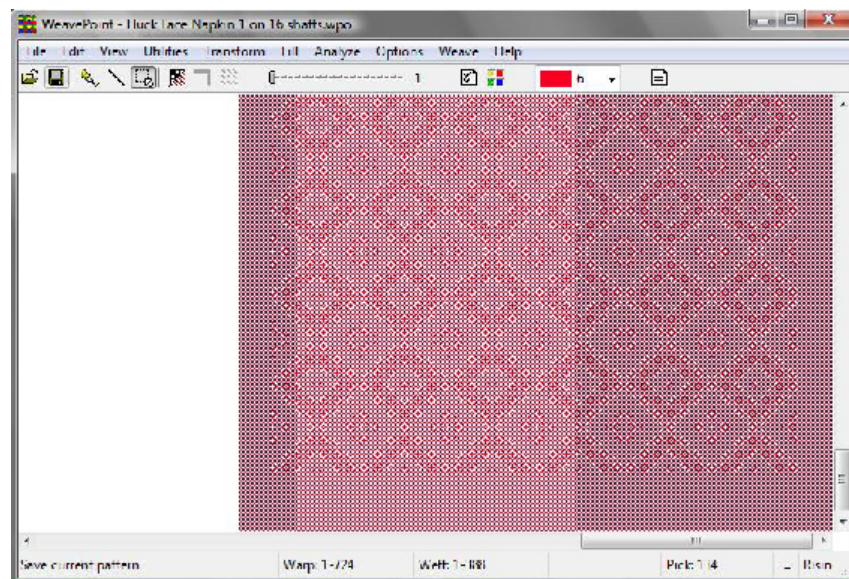
FABRIC–YARN VIEW

Displays the fabric with a yarn-like, three dimensional surface.

The relative size of warp/weft yarn is displayed according to the EPI/PPI or ends/ cm-picks/cm settings in Options, while the zoom level determines the absolute size (see also Fabric Compression).

DRAPERY

Displays the pattern as a curved surface. The surface curves to also show a small part of the reverse side of the cloth.
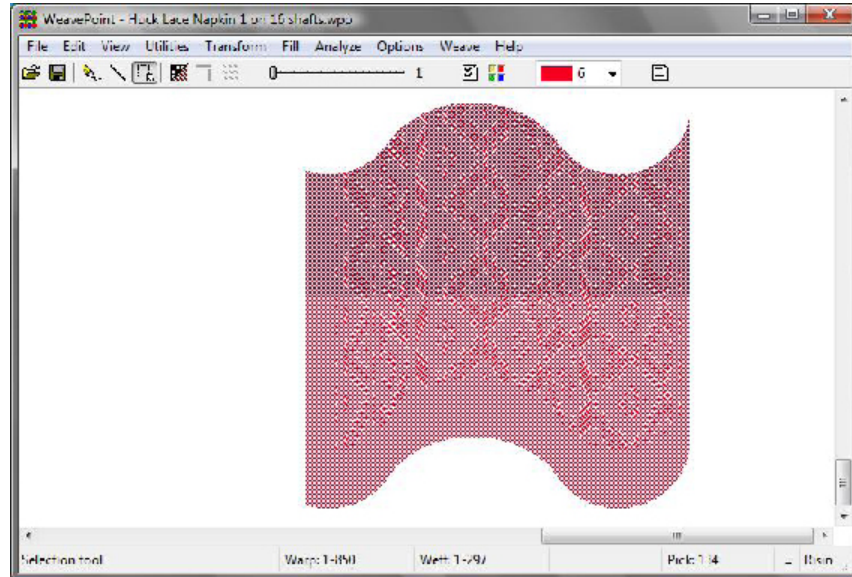
INTERLACEMENT

Displays a part of the drawdown as a three-dimensional structure to better visualize how the interlacement of the threads is working.

White threads will be displayed as light gray, to make them visible against a white background.
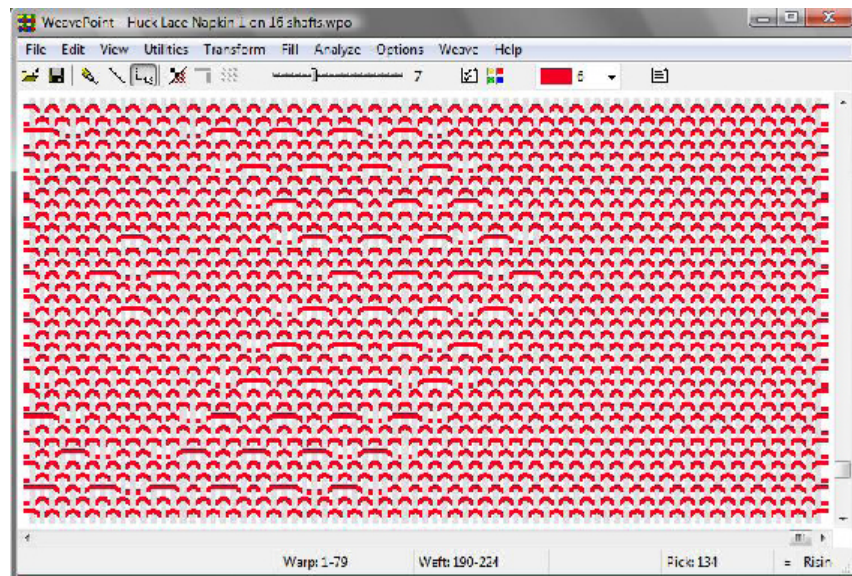
SHOW THREADING

Choose **View/Show Threading** or click the speed button in the tool bar to hide/show the threading and warp colors grids in Draft Mode.

Hiding the warp grids makes room for displaying more of the pattern and treadling/liftplan when editing in the weft grids or the drawdown.

FABRIC WINDOW

Show/Hide the fabric window. This is a separate window that floats on top of the main window. While editing, you can see your changes in the fabric window. It will display your pattern at the smallest size possible (1 screen pixel per end/pick).

Click in the fabric window to quickly reposition the main window. The end and pick you click in the fabric window will then appear in the middle of the main window. This is an effective way to move around in the pattern when working with a large pattern.

You can resize the fabric window as you like.

COLOR PALETTE WINDOW

Opens the Color Palette. Click on a color to select it for drawing. The Pencil Tool must be selected in order to apply color to the Color Bars. Double-click a color to bring up the Color dialog Box to adjust the color.

Click on the bottom color panel to toggle the number of colors displayed (16, 64, or 256). If you work only with a few colors, it is easier to see them with sixteen colors on display.

Please see the Chapter on Working with Colors, in this Manual, for further information on the Color Tools.

Please note that Preview and Cancel options are available in most of these dialog boxes.

EDIT COLOR

For further information on working with the color tools, please refer to Chapter 11, Working with Colors.

<table>
<tr><td>

Utilities Transform Fill An

Edit Colors...
Tromp as Writ...
Make Symmetrical ▶

Insert ▶
Delete ▶

Reverse Tie-up
Tie-up Special...
Switch Shafts...
Switch Treadles...
Reverse Warp Order
Reverse Weft Order

Reduce to one repeat

</td><td>

Utilities Transform Fill An

Edit Colors...
Tromp as Writ...
Make Symmetrical ▶

Insert ▶
Delete ▶

Reverse Liftplan
Wrap Liftplan...
Switch Shafts...
Reverse Warp Order
Reverse Weft Order

Reduce to one repeat

</td></tr>
<tr><td align="center">*Tie-up Mode*</td><td align="center">*Liftplan Mode*</td></tr>
</table>

TROMP AS WRIT

This function is also called "As drawn in".

In Tie-up Mode, select to copy threading to treadling or vice versa, or warp colors to weft colors or vice versa.

In Liftplan Mode, you can only select to copy warp colors to weft colors or weft colors to warp colors.

Tromp as Writ ☒

Copy

○ Threading to Treadling
○ Treadling to Threading
○ Switch Threading/Treadling
◉ Warp Colors to Weft Colors
○ Weft Colors to Warp Colors
○ Switch Warp/Weft Colors

[OK] [Preview] [Cancel]
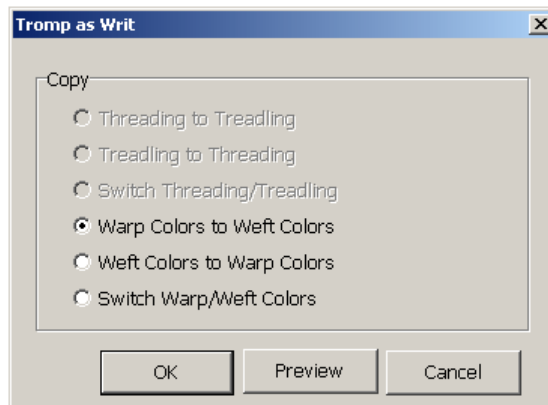
If you are threading, and able to treadle the harnesses or use the electronic assist on your loom, you can use **Tromp As Writ** to lift the harnesses to present in the correct order for threading. Save your Draft as a new file, especially for this purpose, perhaps with an indication in the name that it is for threading use only. In the new file, switch to Treadling/Tie-up mode, and then use this Dialog Box to copy the Threading to the Treadling. Now switch back to Liftplan, to treadle through the threading pattern!

MAKE SYMMETRICAL/
Warp or Weft

To quickly make the warp symmetrical. The warp will be mirrored from the last end filled in.

Note that you can also mirror (flip) parts of a pattern with **Paste Special** (see also **Copy and Paste**).

INSERT OR DELETE

Inserting and deleting ends and picks can be done in a variety of ways. You can insert and delete both in Draft Mode and in Design Mode.

Using Insert and Delete Keys

To quickly insert and delete ends or picks one by one in Draft Mode, place the mouse cursor on the desired end or pick in the threading or liftplan/treadling, then press the **Insert** or **Delete** key. Insert will open up the draft. Delete will remove a thread or pick. You can insert and delete colors in the same way.

Note: Do not press any mouse button. To make it easy to place the cursor accurately at an end or pick, use a higher zoom level.

Using Insert/Delete Dialogs

Choose **Utilities/Insert** or **Utilities/Delete** to reveal a dialog box. Pick the first number and last number of the sequence and hit OK.
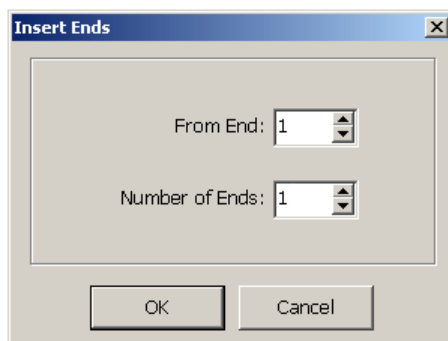
Insert/Delete Ends

Select the end to insert from and number of ends to insert or delete.

Insert/Delete Picks

Select the pick to insert from and number of picks to insert or delete.

Insert/Delete Shafts Select the shaft to insert from and number of shafts to insert or delete.

Insert/Delete Treadles Select the treadle to insert from and number of treadles to insert (available only in Tie-up Mode).

Deleting shafts or treadles is a quick way to delete, for example, a tabby inserted in the treading or treadling.

You can also use **Cut** or **Delete** from the **Edit Menu**, after a selection has been made, using the Selection Tool.

REVERSE TIE-UP/ Liftplan Reverse the liftplan or tie-up, depending on which loom system is in use. In effect, you will turn to see the reverse side of the pattern/Drawdown. To go back, select **Reverse** again.

LIFTPLAN/TIE-UP SPECIAL Make **Twill** or apply **Flip** and **Rotate** to the Tie-up.
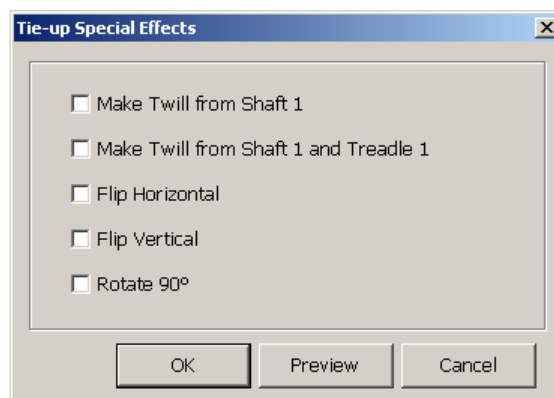
Make Twill from Shaft 1 Before using this option, the shaft 1 line must be filled in. This option is useful for straight threading and treadling.

Make Twill from Shaft 1 and Treadle 1 Before using this option, the shaft 1 line and treadle 1 line must be filled in. This option is useful for pointed threading and treadling.

How to Quickly Make a Twill in the Tie-Up

1. Draw first line in the tie-up.

2. Choose **Utilities/Tie-Up Special**. In the dialog, select **Make Twill** from shaft 1. Then click **OK** and there it is.

For special twills (typically using a pointed threading), you can fill both the first horizontal line and the first vertical line. Then select **Make Twill from shaft 1 and treadle 1**.

Wrap Liftplan

This sub-menu is only displayed if you are in a liftplan mode. Move the entire liftplan to one side. The part that is pushed outside the liftplan will wrap around and appear at the opposite side.

You can wrap the liftplan to alter the pattern. For example, it is useful with many networked patterns.

You can wrap a selected part of the liftplan, if a selection has been made (see Selection Tool).
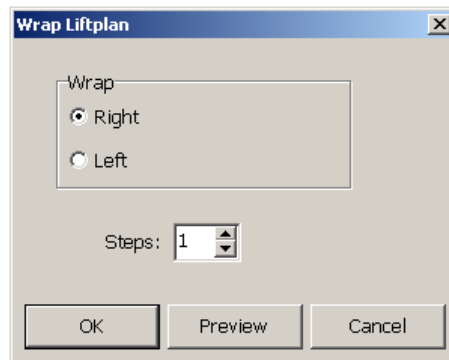
SWITCH SHAFTS

Use this command to rearrange the shafts.

When shafts are switched, the corresponding liftplan or tie-up area will also move and your drawdown pattern will not change.

Hint: Sometimes it will be easier to rearrange shafts if you increase the number of shafts to one more than actually needed. You will then get an empty shaft to switch to, which eliminates the need to swap with an already used shaft.

SWITCH TREADLES

Use this command to rearrange the treadles.

When treadles are switched, the corresponding tie-up area will also move so that your drawdown pattern will not change (see also Switch Shafts).

REVERSE WARP ORDER

Reverse the order of the ends so that the first end becomes the last end and vice versa. If you want to see the true reverse side of the cloth, use Reverse Tie-up/Liftplan and Reverse Warp Order to mirror it.

This command can also be useful if changing a display style between left and right start positions in the threading.

REVERSE WEFT ORDER

Reverse the order of picks, so that the first pick becomes the last pick and vice versa.

This command can be especially useful when changing display style between top and bottom start position in treadling/liftplan (see **Options**).

REDUCE TO ONE REPEAT

Use this to reduce the pattern to one repeat. You can use this to "undo" repeats made by Repeat with Fill Pattern.

The threading and liftplan (or treadling in Tie-up Mode) will be reduced to one repeat, if a repeat is found. Warp and weft colors will not change.

Before the reduction takes place, you will be asked if you want to use the color repeat. If the warp colors repeat is longer than the threading repeat or the weft colors repeat is longer than the liftplan/treadling repeat, the result depends on your answer. If **Yes**, the color repeat will be used. If **No**, the color repeat will be ignored. Note that in both cases, the color grids will remain unchanged. To not reduce the pattern, click **Cancel**.

Patterns with Borders

If you have borders in your pattern, you cannot reduce the pattern to one repeat. Because the border is not repeated, the whole pattern will look like one repeat to the program and a "No repeat found" message will be displayed.

If you use borders, it is natural to include the borders and have the total fabric in one pattern file. This is useful for things like displaying and printing the fabric and for Analyze Menu functions. But when working with a pattern with borders, it is a bit more laborious to make changes to the pattern and then have the changes repeated. Sometimes it would probably be easier to work with the pattern without the borders and have the borders in a separate file. You could then copy and insert the borders at a later stage of the pattern development.

Transform Menu has all the most complex features of *WeavePoint*.

Please note that all dialog boxes in the Transform Menu have a Preview and Cancel option.

Transform Menu/Tie-up   Transform Menu/Liftplan
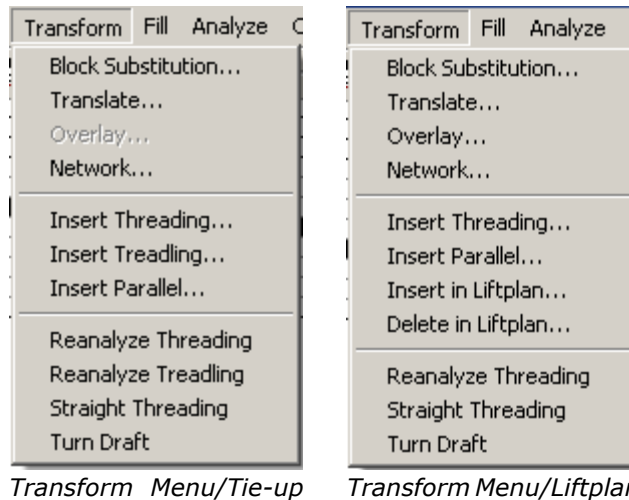
BLOCK SUBSTITUTION

Working with Profile Drafts

One method of developing a pattern starts with a Profile Draft. Each square in the Profile Draft will represent a complete group of ends and picks in the final draft. So, in this design process the pattern of the Profile will be expanded accordingly. A Profile Draft is a design tool and is not intended to be woven, but used in combination with other design tools on the Transform Menu.

A Profile Draft can be used in various ways and can be woven with many different weave structures. Use the normal draft view or design view, in tie-up or liftplan mode. You can enter a liftplan or tie-up/treadling, as well as threading. In a Profile Draft Block one (A) will be represented by shaft one, block two (B) will be shaft two, etc. A Profile Block in a Profile Draft is a linier unit.

You make a Profile Draft just like you make a normal repeat for a pattern, except you know you will use this one as a Profile. Be sure to use "Profile" in the name when you save these drafts. A tip is to save your Profile Drafts in a separate folder and Block Patterns (used with the Block Substitution command) or Translation Grids (used with the Translate and Overlay commands) in separate folders to more easily locate them.

There are three ways to transform your Profile Draft into a full pattern with block weaves. The three tools are found in the **Transform Menu.**

1.)   **Block Substitution**: Use this traditional method to replace each Profile Block in the threading with Block files. This will expand the size of the pattern exponentially, depending on the number of Blocks and ends/picks contained in each Block in the selected file.

2.)   **Translate**: Using this tool, the concept of Block Substitution is made easier and affects the Threading, as well as Treadling or Liftplan. Select weaves from a pre-defined Library or enter your own weaves. This will expand the size of the pattern exponentially, depending on the number of ends/picks represented by each block.

3.)   **Overlay**: Overlay within the confines of the liftplan. This is also know as "interleave" and resembles overlaying weaves for jacquard patterns. Unlike Block Substitution and Translate, this will not expand the pattern, so the pattern must have the correct number of ends and picks before the overlay. It is very useful for overlaying weaves on networked liftplans and for some weaves, such as shadow weaves.

Creating a Profile Draft

A Profile Draft can be used in various ways and can be woven with many different weave structures. A tip is to save your Profile Drafts in a separate folder, to be used with the Block Substitution, Translate and Overlay tools.

Enter a Profile Draft just like you would make a normal pattern, except you know you will use this one as a Profile. Block one (A) = shaft one, block two (B) = shaft two, etc. You can also enter your Liftplan or Tie-up/Treadling.
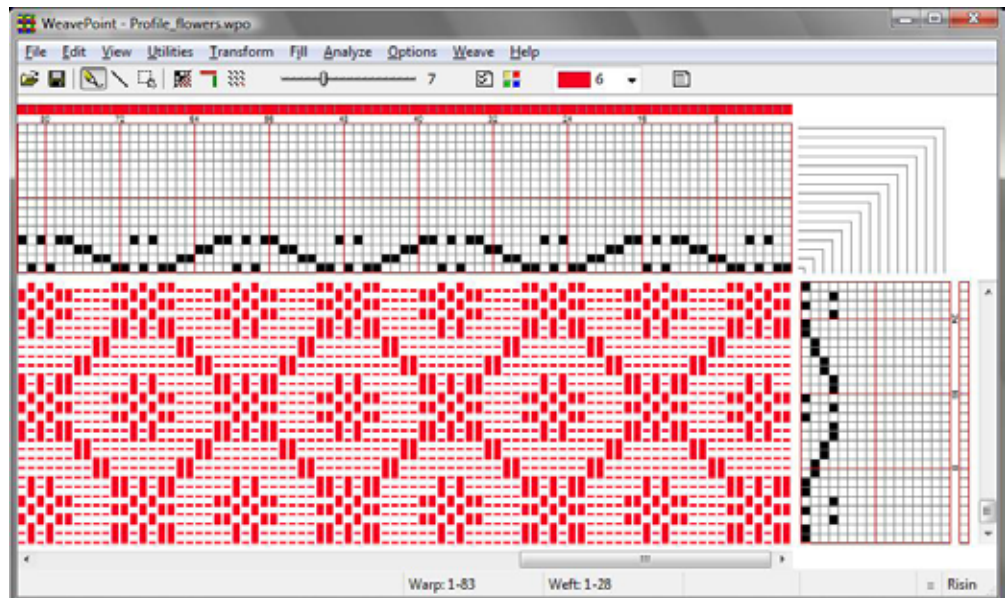
Profile Draft –showing a four block profile

Note that, in a Profile Draft, all of the warp is one color (red) and all of the weft is a second color (white). This contrast will be used during the Transform functions.

Save it to a special Profile folder.

Creating Blocks

During Block Substitution, the weave structure of each Block will be, literally, substituted for each square in the Profile Draft. Enter blocks in a normal threading (and treadling) grid, just like you would draw a normal pattern, except you know you will use these Blocks to fill your Profile.

Unlike the Profile Blocks, these Blocks are made up of the threading sequences, which are then defined by the break in the color assignments. Start drawing Block one (A) from end one, and then continue with Block two, etc., until you have drawn all the blocks you need. Leave no blank ends (unless you want a block to contain empty ends).

In this example, four Blocks of 4 ends each are shown, differentiated by the assignment of four different colors, one to each Block. If you have three Blocks of eight ends each, they will all together occupy the first twenty-four ends in the threading grid and you will need to assign a different color to each of the three Blocks.

This applies to the Liftplan or Tie-up, as well.
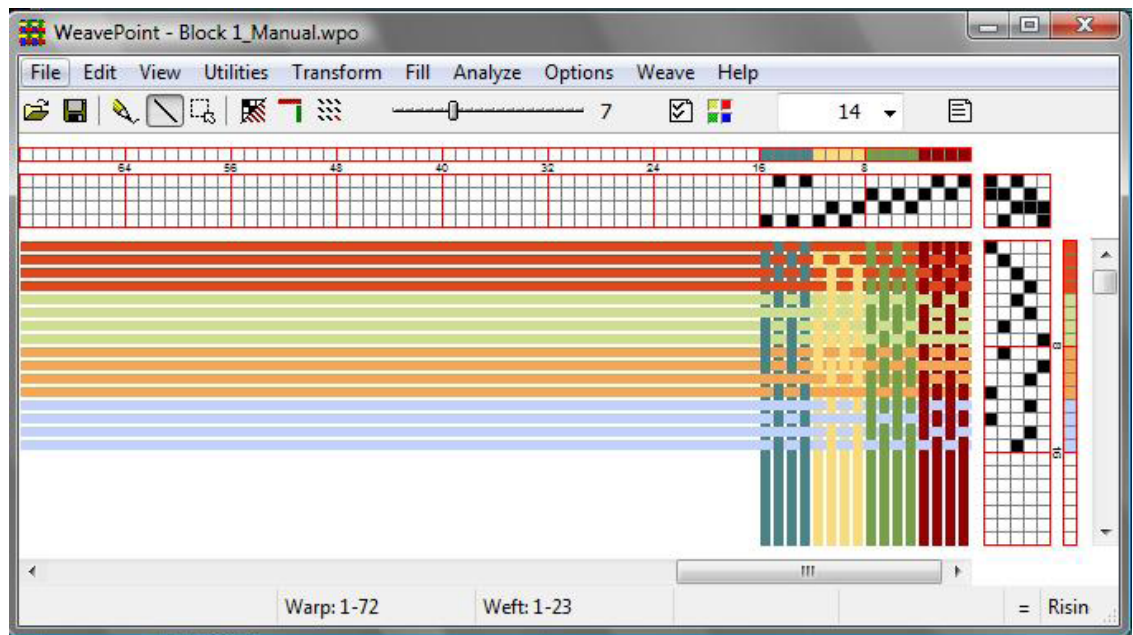
Creating a Blocks File

The tie-up in the Blocks file will automatically be used in the resulting expanded pattern, if both the Blocks file and the Profile are tie-up files. The draft type for Profile and Blocks must match. If you are working in Liftplan, any tie-up in the profile pattern will be dropped.

Save to a special Blocks folder, with a name to remember it contains blocks, like "4Blocks4Ends_1". Once you have made and saved a blocks file, you can reuse it any time you want for building new patterns.

Block Substitution

Open your Profile Draft and select Transform\Block Substitution to expand the Profile Draft. The dialog box that appears will lead you to select the desired Block file. In the same window, you will be selecting if you want the Blocks to be placed at an Absolute Position - on the same shafts as drawn, or if you want each Block to be placed Relative, to new shafts - in effect expanding the number of shafts.
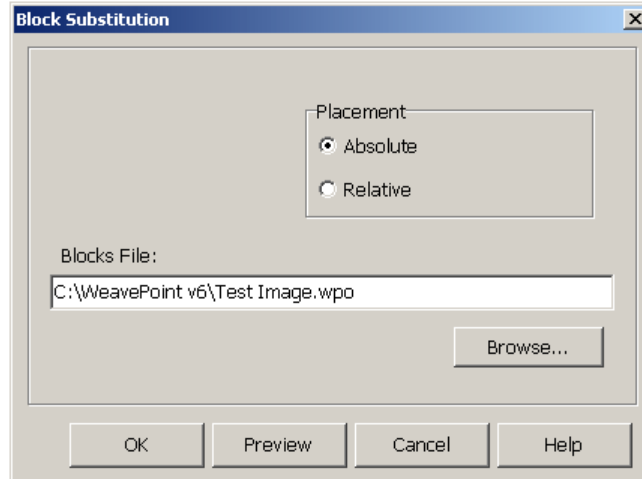
If the Profile Draft includes treadling or liftplan information, and the Block file to be introduced has the same format and treadling/liftplan entries, that information will also be Transformed as well.

TRANSLATE

This command is used to quickly translate a Profile Draft into a full weaving draft. The **Translate** command works in a new and different way from Block Substitution. Here, each square in the Threading and Lift plan will be replaced by specific Block Units, selected from a Library of weaves or created by your self. Only two weave units will be entered regardless of how many Blocks the Profile Draft may contain. One Unit will be imposed on the black squares of the grids and the other in the white squares.

First, make a Profile Draft, as described above. Use **Normal Edit Mode** or **Pattern Mode**, **Tie-Up** or **Liftplan Mode**. For this example we will be working with the Profile_Flowers Draft, shown at the beginning of this chapter.
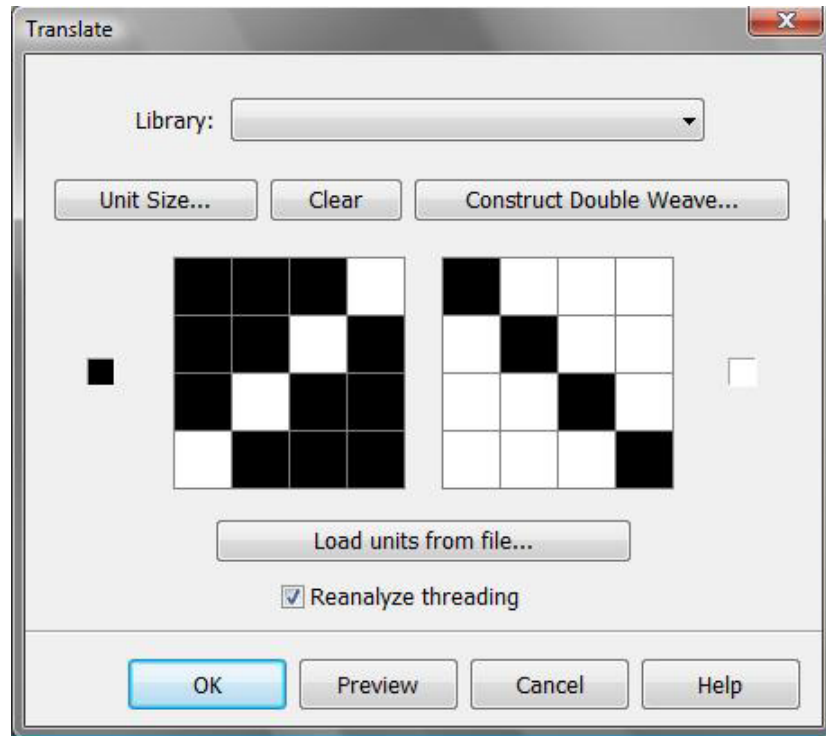
In our example Translate window, the small black box at the far left indicated that the 4x4 grid on the right will be applied to the dark squares of our Profile Draft, and the 4x4 grid on the left will be applied to the white squares.

Then you need to decide which weave units to use. There are three ways to do this: select from the **Weave Library**, **load units from another file**, or make **new units**.

Weave Library

The Weave Unit Library contains many weaves often used and is accessed when you choose Translate/Transform. The Transform dialog box opens and allows you to select or create the weave units. When selecting a weave from the Library, the units will be displayed as opposites. You can also edit these units if you like, but the changes you make will not be stored in the generally accessed Library.

To save new or altered units, save the pattern as normal. The present units will always be saved with the pattern. Save with a descriptive name like "My Twill Units" to remember that the file contains special units.

Load Units from File

Select your pattern. The weave units from the Library (see above) will be loaded. Note that the present units will be saved along with the rest of the pattern whenever you save. This way you can save weave units you draw and load them as needed.

TRANSFORM MENU

Drawing Your Own Weave Units

The challenge here is to determine the size and contents of the two weave units for the target weave structure. To do this, you can study the weave structure (interlacement) in question and find the smallest reducible weave units (or you could call it interlacement repeats or key units). One unit is needed for the pattern area and the other for the background area of the profile. Care must be taken here, or your Profile Draft might be expanded to astonishing proportions!

Unit Size

Set the Unit Size for drawing your own units. The minimum setting is 1high and 2 deep. It is not necessary to set width and height when selecting from the Library.

Clear

Clear the present units to begin drawing new units.
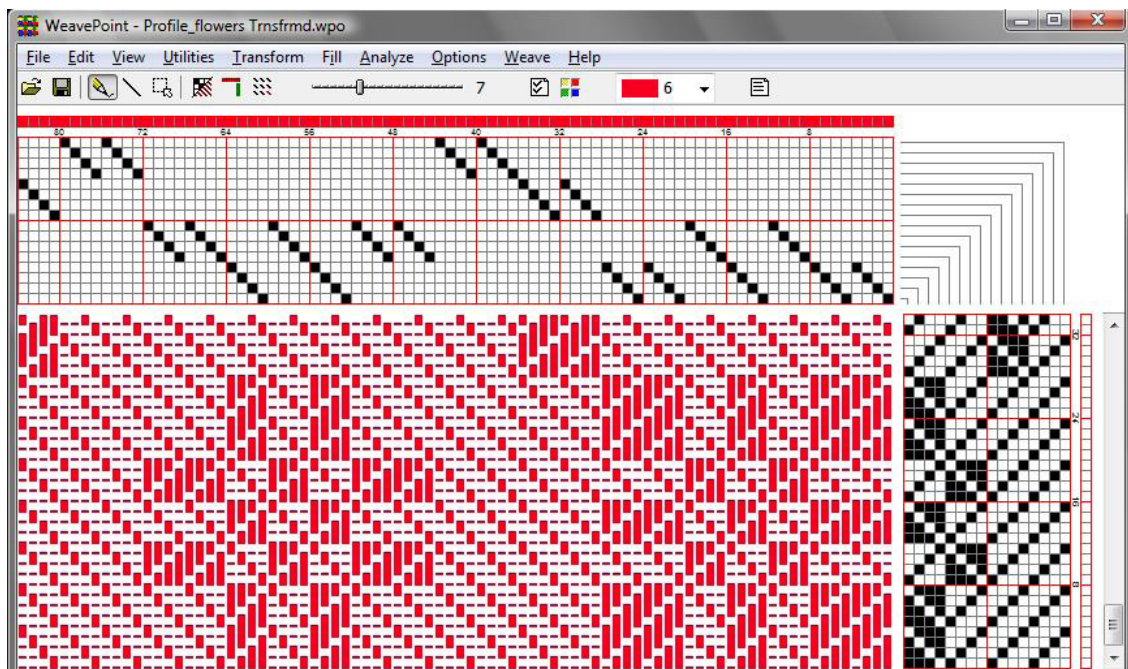
Profile_Flowers, after using the Transform Tool

More About Translate

When translating, the colors used in the profile will expand like the pattern. You may find it best to wait until after translating, to adjust the warp and weft colors.

Translation can be done both in Draft Mode and in Design Mode, but works in different ways: when in Draft Mode, each square in the tie-up or liftplan will be replaced by the contents of the translation grids and the full length of the threading (and treadling) will be expanded by the size of the units - a profile with five blocks (using five profile shafts) translated with 4x4 weave units will make (5 x 4 =) 20 shafts. Preset the draft window to your loom specifications. (See Options Menu).

In Design Mode, the pattern will be completely reanalyzed after translation and then automatically use a minimum number of shafts which is useful for weaves such as summer and winter, overshot, and taquete. Note that you can equally translate these weaves in Draft Mode and then choose **Transform/Reanalyze** to reduce shafts. After reanalysis, you can rearrange shafts and treadles with **Utilities/ Switch Shafts** and **Switch Treadles** if needed.

When, using Reanalyze (or when in Design Mode), the largest pattern that can be reanalyzed is 2400 x 2400 threads. If repeats are found within this size, the pattern will automatically be repeated throughout the full length after translation. This means that if the weave unit has a width of four, you can have a repeat up to 600 in the profile threading (600 x 4 = 2400) and get automatic repeat. The same applies in weft-direction. If your repeat exceeds this size limit, 2400 ends/picks will be translated and you will then need to adjust the pattern manually afterwards.

You can also use translation in two steps. For example, if you want to use a figure motif repeated on a background, you can first make a profile of some stylized motif or image in the liftplan grid, with a simple threading. Now, use the result as a new profile, fill in the weave structure units, for example, for Bronson Lace, and translate.
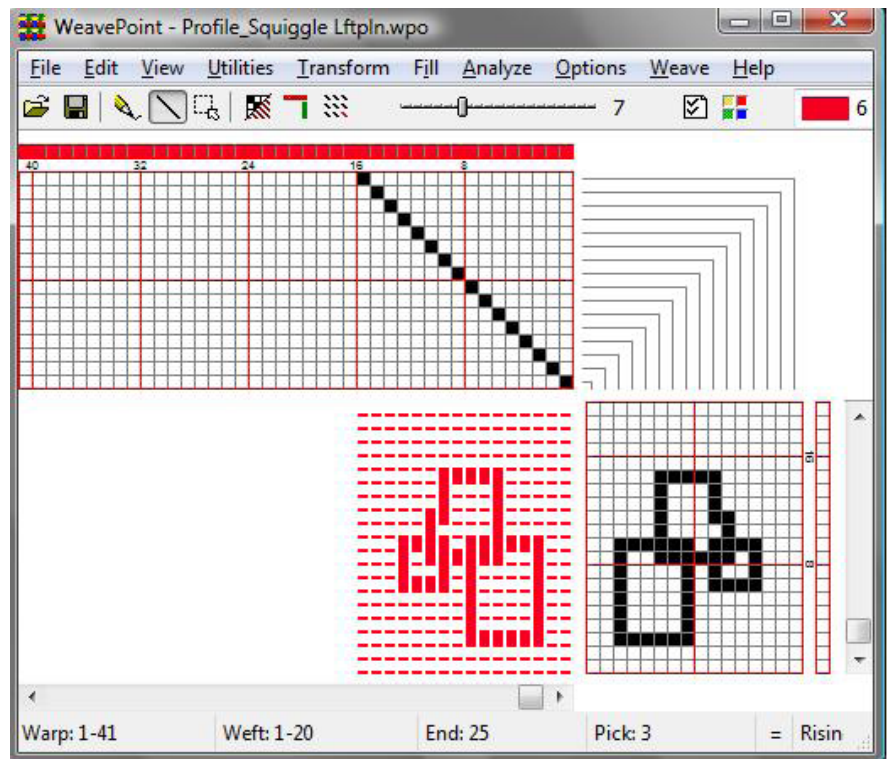
Step 1 – Create the Profile Draft
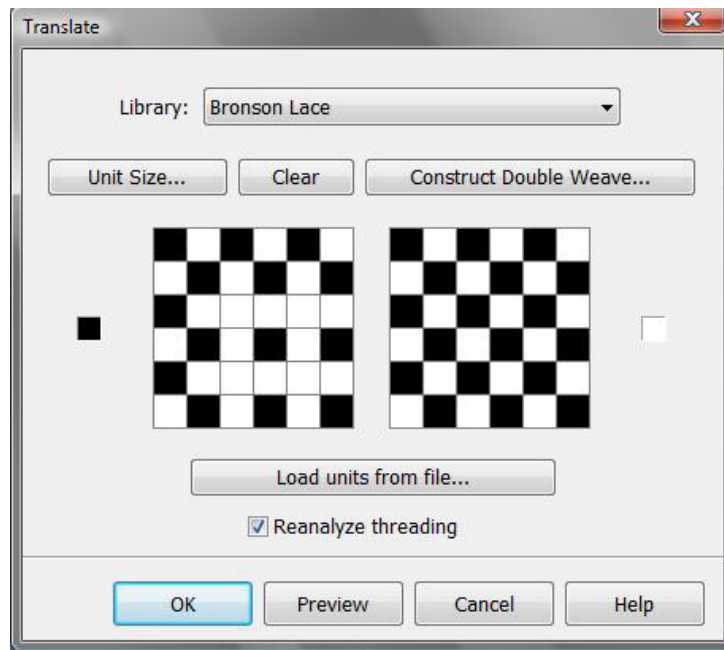
Step 2 – Create the Unit Blocks
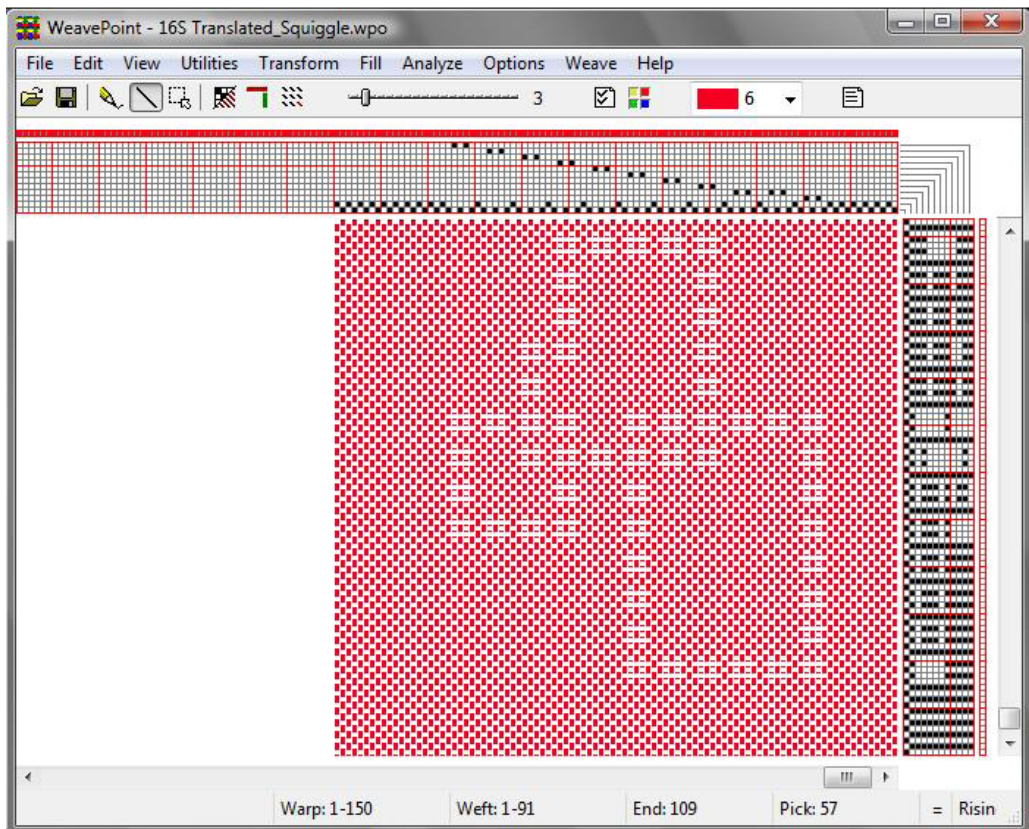
Step 3 – Translate!

For some weaves, you may not be able to obtain a perfect weaving draft by doing translation only. You can adjust the pattern after translation, by adding or removing threads, or by altering the tie-up or liftplan.

You can also simply expand the profile draft without altering it, by using one completely filled (black) and one completely empty (white) translation grid. The profile will then just be expanded by the size of the grids in each direction. The **Translate** function can thus be used in various ways and when you understand how it works, you may even find new ways to use it.

Construct Double Weave

To automatically construct a double weave, first, fill in the two layers as two single layers, one in each unit grid. For example, use 4 x 4 grids to fill in a 3/1 twill and a corresponding 1/3 twill. Then click the **Double Weave** button. The grids will expand to double size (in this example, to 8 x 8) with the two layers turned into double weave - one grid with the first layer on top, the other grid with the second layer on top. You can then use the resulting double weave units to translate a profile straight away into double weave. The initial weaves can use up to 8 x 8 grids (equals 16 x 16 when doubled).

Again, we will start with our Profile_Flowers Draft. To construct a double weave, follow these steps:

1.)   In the Transform window, use unit grids to create the face and the back of your fabric.
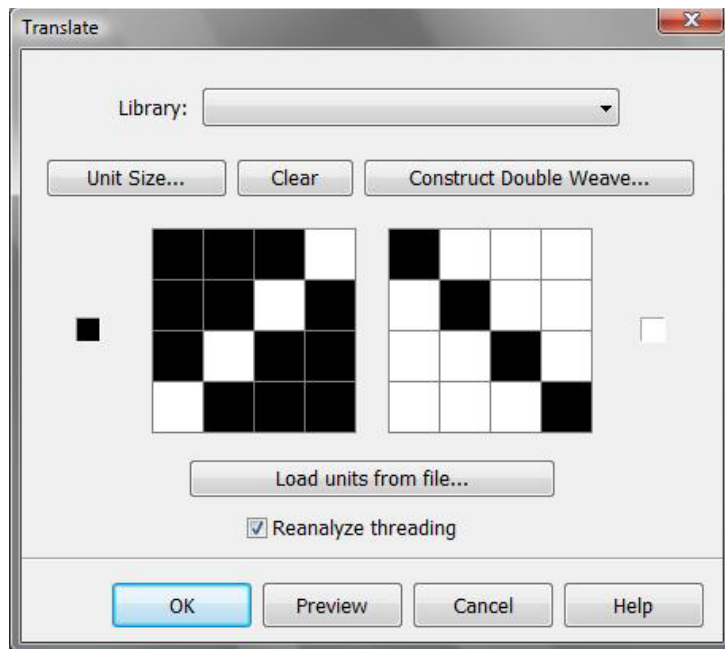
2.) Click on Construct Double Weave. The window with layer position comes up. Make your selection. Click OK.
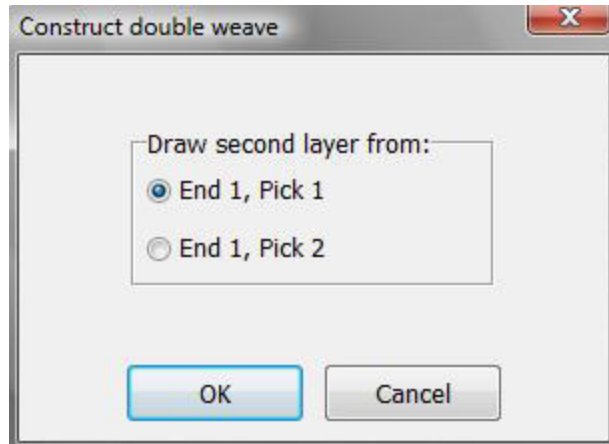
3.) Units become constructed double weaves. The first unit (on the left) has the first layer on the top and the second one (on the right) has the second layer on the top. At this point, you are ready to apply those double weave units into double weave block interlacing designs.
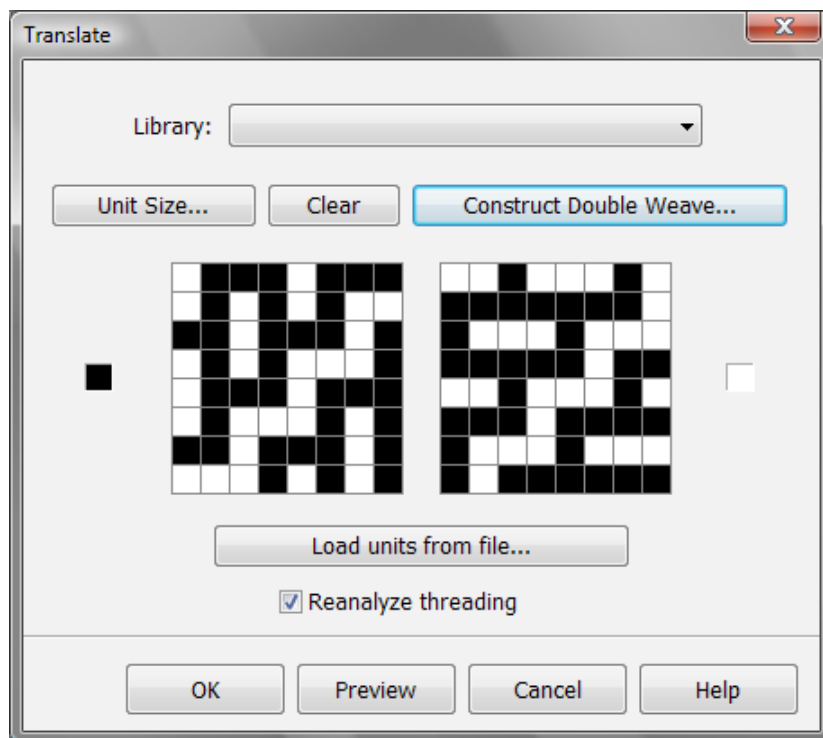
4.)   Preview, if you wish, and select OK to make the change.
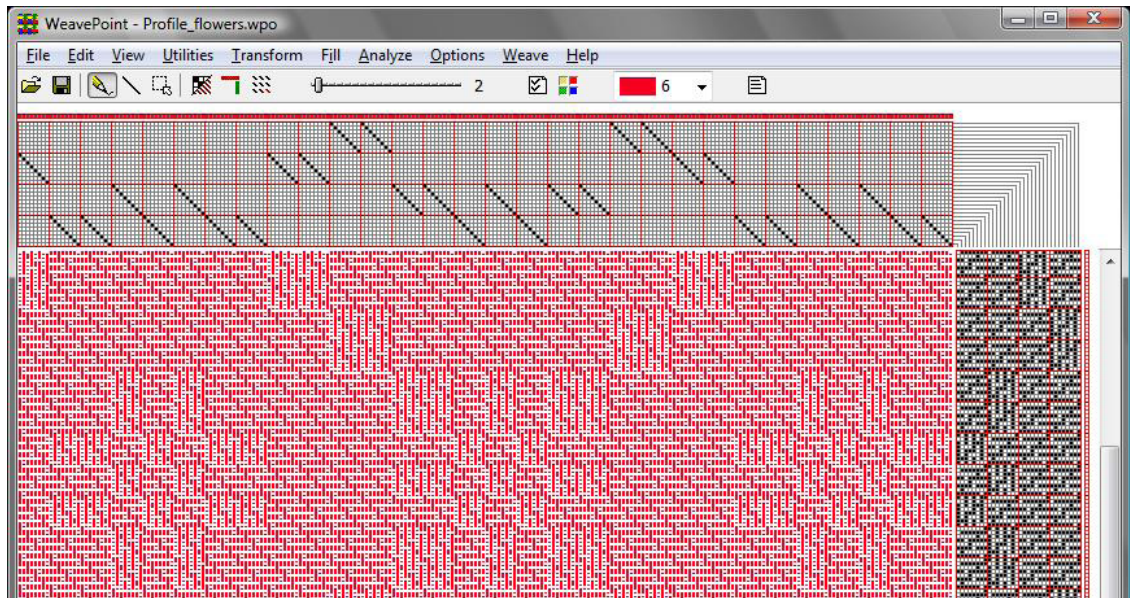
OVERLAY

Overlay is in many ways similar to Translate, and shares many of the same tools, but only affects the Liftplan and Design Views. This tool cannot be used in Tie-up Mode. It will not affect the threading, only the liftplan. The weave units used as in Translate are used here as well. Blend in two weaves over your present liftplan in one operation.

First, make your pattern with a "motif" or "profile" liftplan, complete with threading. It works best of one is developing a design based on a larger scale motif with broad areas of pattern. Then select your weave units and click the **Overlay** button. Keep in mind that the threading and number of ends in a unit will determine the effectiveness of the weave structures you will impose.
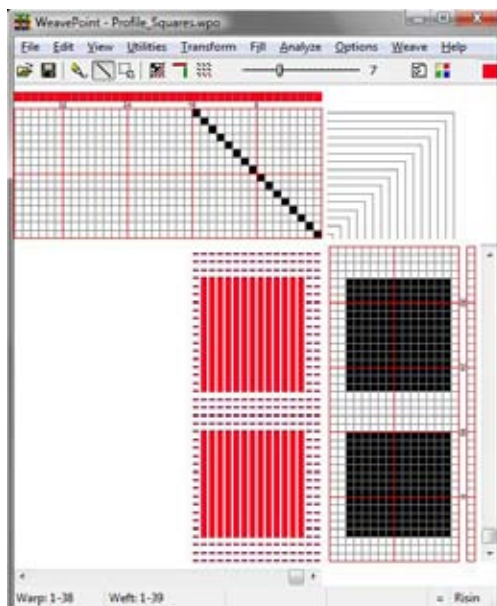
Profile for Overlay
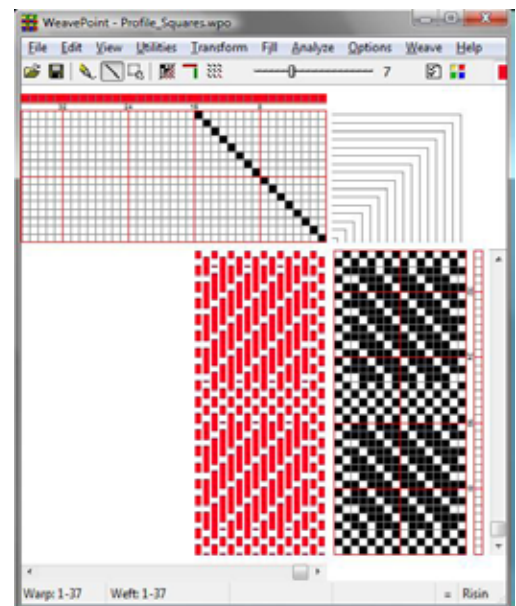
After Overlay Command

Overlay offers four options for accessing units. You can use units from the Library, draw your own units, load units from a pattern file, or use complete liftplans from two pattern files.

Many options in the Overlay window are the same as in the Translate window (see Translate for a description).

NETWORK

Network drafting is a special technique for making larger, complex or curved motifs on a standard loom - without draw devices or jacquard attachments. It originated in France and was brought to light by Masson/Roussel in their treatise *Shaft Weaving & Graph Design* (1988). Teaching network drafting is beyond the scope of this manual - see magazine articles or books about the subject, like *Network Drafting - An Introduction* (1994) by Alice Schlein.

Making a network pattern with paper and pencil is a tedious task. With the computer it is quickly done and this is probably the main reason for the growing popularity of network drafting. The network function in *WeavePoint* lets you network patterns in a quick and simple way.

In Tie-Up Mode, select to network the threading, treadling, or both. The present pattern line in threading/treadling will be networked, based on which Initial is selected in the Network Dialog Box.

In Liftplan Mode, the present pattern line in threading will be networked, based on the selected Initial. If Ribbon Width is higher than 0, the pattern line will be inserted in the liftplan as a ribbon with the selected width.

To paste in basic weaves or "key liftplans" over the resulting ribbon, use **Overlay**. To move the liftplan sideways, use **Wrap Liftplan (Utilities Menu)**.

The Pattern Line

Use as many shafts on the screen for the pattern line as you want to use on the loom. The number of shafts on the screen will not change when networking. If the upper shafts are left empty in the pattern line threading as extra room for the network (also called using "shaft rule"), these will be filled in when networking. If all shafts are used, the network will wrap around to the first shafts of the threading.

Telescoping

Telescoping, or telescopic reduction, is often used together with networking when creating a pattern line. Telescoping is not a separate command, but a feature which can take place when changing the number of shafts (or treadles) in Options. If you have a pattern with a threading and/or treadling using many shafts, you can reduce the amount of shafts/treadles and still retain much of the pattern image and get other interesting effects. When selecting less shafts/treadles, the threading (or treadling) will automatically be "compressed" or "folded" like a telescope. Telescoping works best with pure "motif" patterns - like curved or pictorial drawings.

As networking involves options at various steps, it is a good idea to save the file anew at each different stage so that you have the possibility to go back to the last stage. Note that you also can mix and match by saving and loading single pattern elements, use Tromp as Writ, switch between Tie-Up and Liftplan Mode, etc.

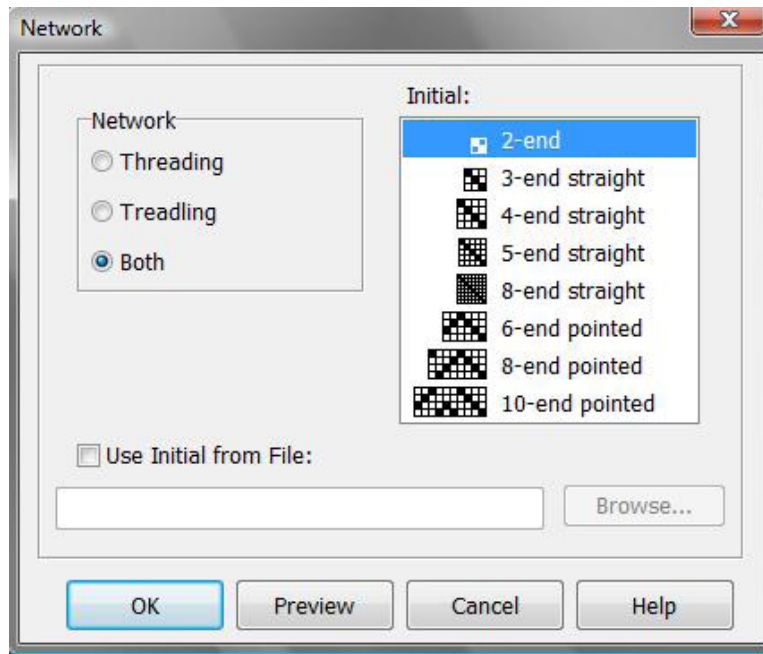**To create a network drafted design, follow these steps:**

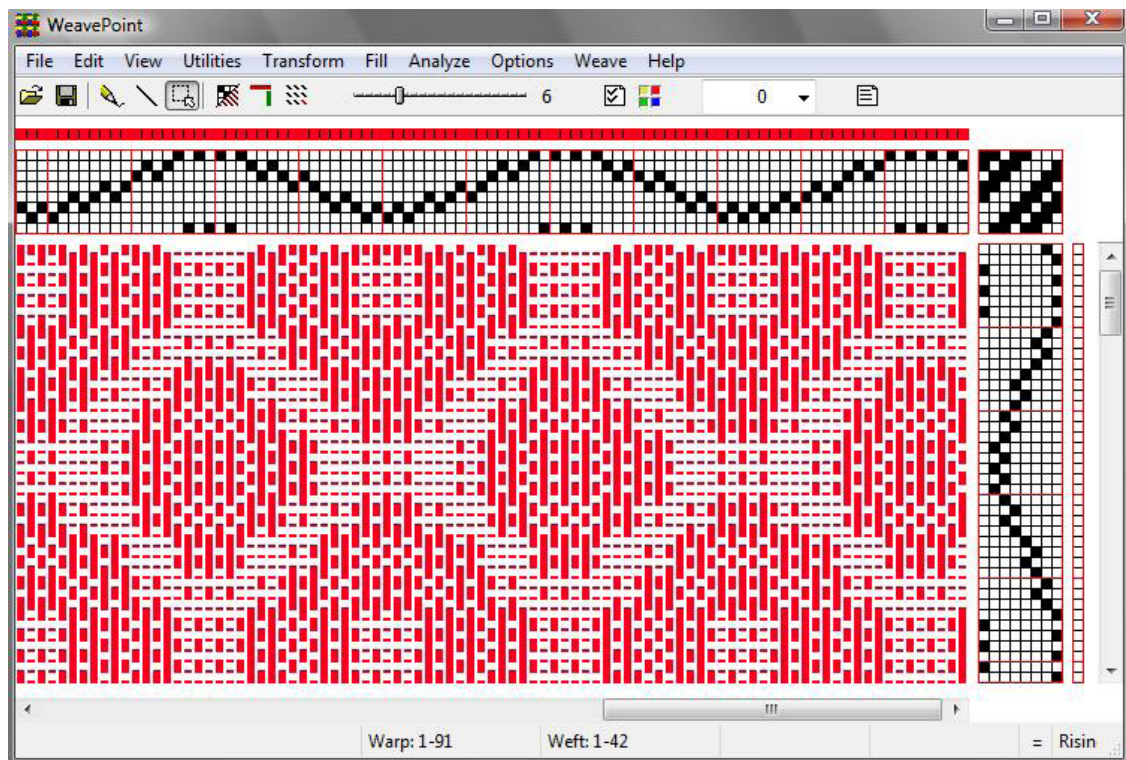1.)   Create desired curved shapes in your threading.
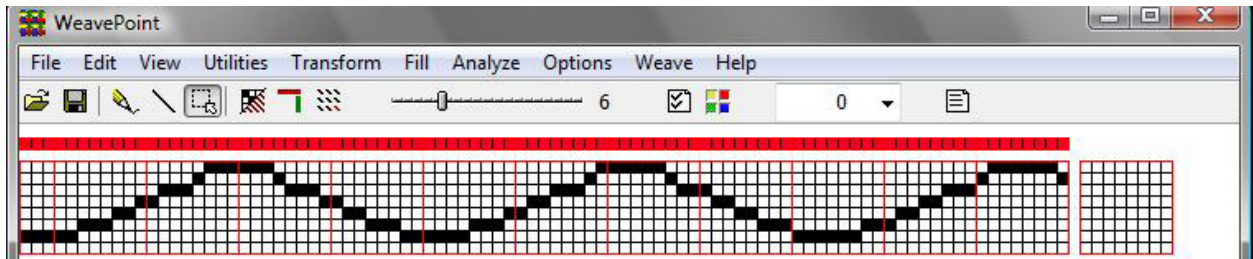
2.)   Select Tromp as Writ from Threading to Treadling or draw other curved shapes in your Treadling.

3.)   Input some structure in your Tie-up.
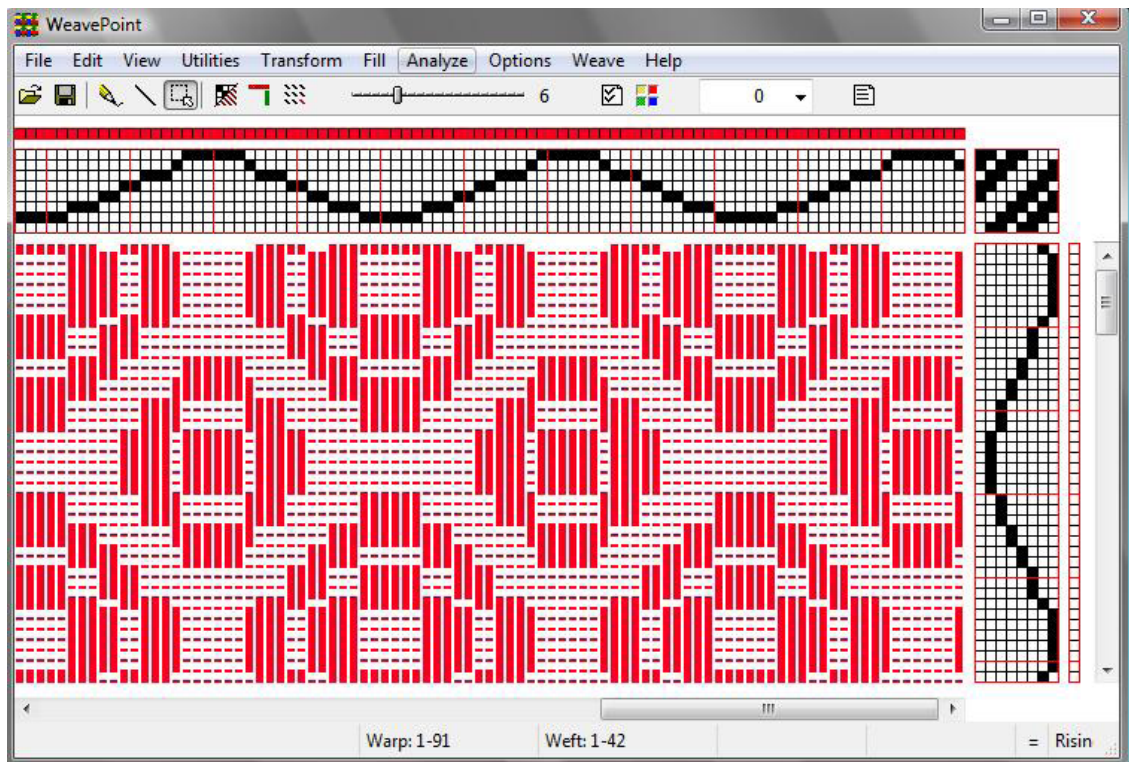
4.)   Go to Transform, Network, and select a Network Initial from the offered library or from one of your own files.

5.)   You have a network drafted design.

INSERT THREADING

This is a powerful command for inserting a ground weave, like a tabby or twill, into a threading.
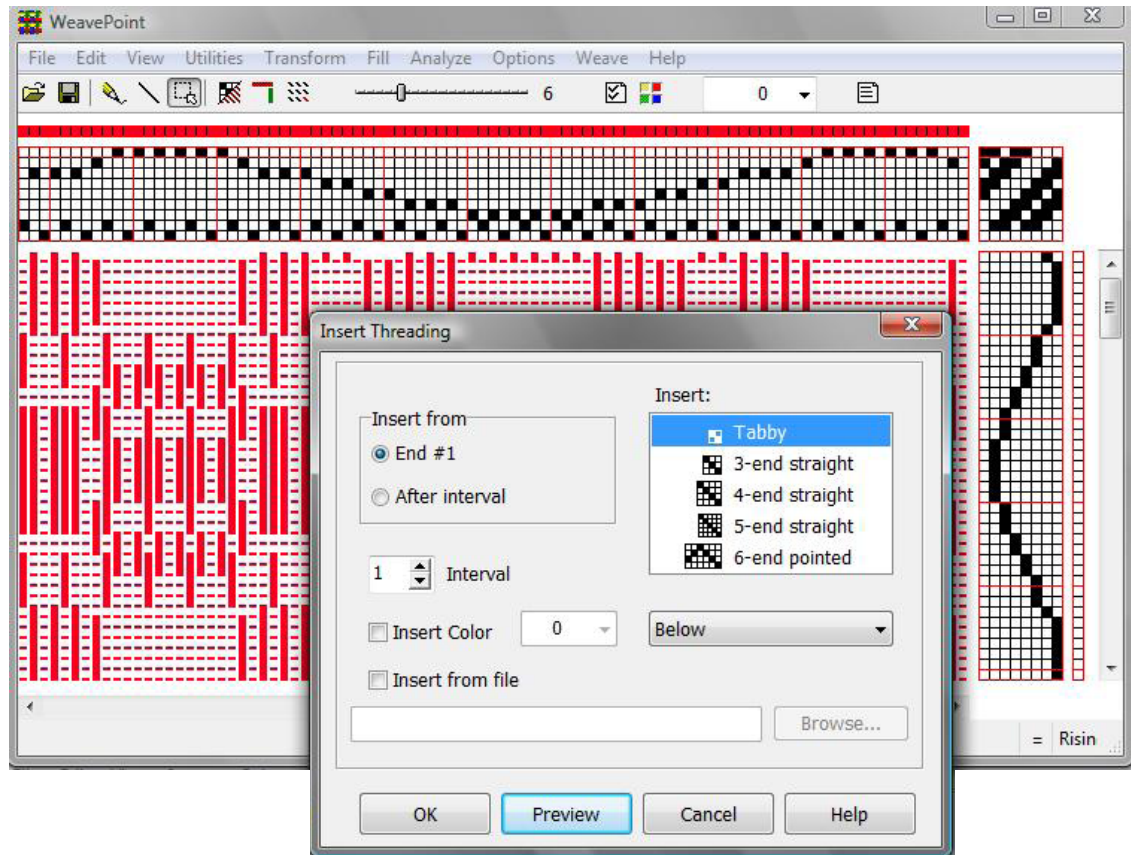
Select one of the predefined threadings shown in the window or load a threading from another pattern.

Check **insert from file** and use the Browse button to locate the desired file. The selected file name will then appear in the long box.

When inserting a threading, the present threading will automatically be moved up to make room, if necessary.

Interval

Select **Insert From/After Interval** and then select the desired **interval** between inserted ends. An interval of 1 will insert an end after each present end; an interval of 2 will insert an end after every two present ends, etc.

Tip: If you just want empty spaces inserted, insert an empty threading.

|	
Insert Color	Check this box and select the **color** from the drop-down menu.
	To later delete what you have inserted, use **Utilities/Delete Shafts**.
	The drop-down menu to the right of the Color menu will allow you to select whether to Insert **Below**, **Above**, or **Overlap** the existing threading.
	Below means inserting the threading on new shafts below the present threading. This will increase the number of shafts corresponding to your selected insert.
	Above means inserting the threading on new shafts above the present threading. This will increase the number of shafts corresponding to your selected insert.
	Overlap means no new shafts will be added and the resulting number of shafts will be the same as before.
INSERT TREADLING	Available when in Tie-up mode, this works like Insert Threading, above.
INSERT PARALLEL	This menu item is available in Tie-up mode. Parallel Threading, a form of interleave, is used for shadow weave, warp rep, echo weave, turned taqueté and more. The original threading is used for the first set of warp threads and is generally a single color. A second set of warp threads, using the original threading sequence, is inserted alternating thread by thread and is placed a consistent step above the original set. The two sets of threads follow the same sequence and are an equal distance apart to create a parallel threading.
	Select whether you wish to insert in Threading or Treadling, and whether to begin before or after the first end/pick.
	If you wish to insert more than one Parallel Line, an additional box will appear, allowing you to place both lines in the same action, by selecting the corresponding Line Number and Step.
	If you wish to insert color with each parallel line, check the Insert Colors box and a Palette window will open, allowing you to assign a color to each inserted Line.
	Step can be set at 0, to simply double or triple the threading or treadling.
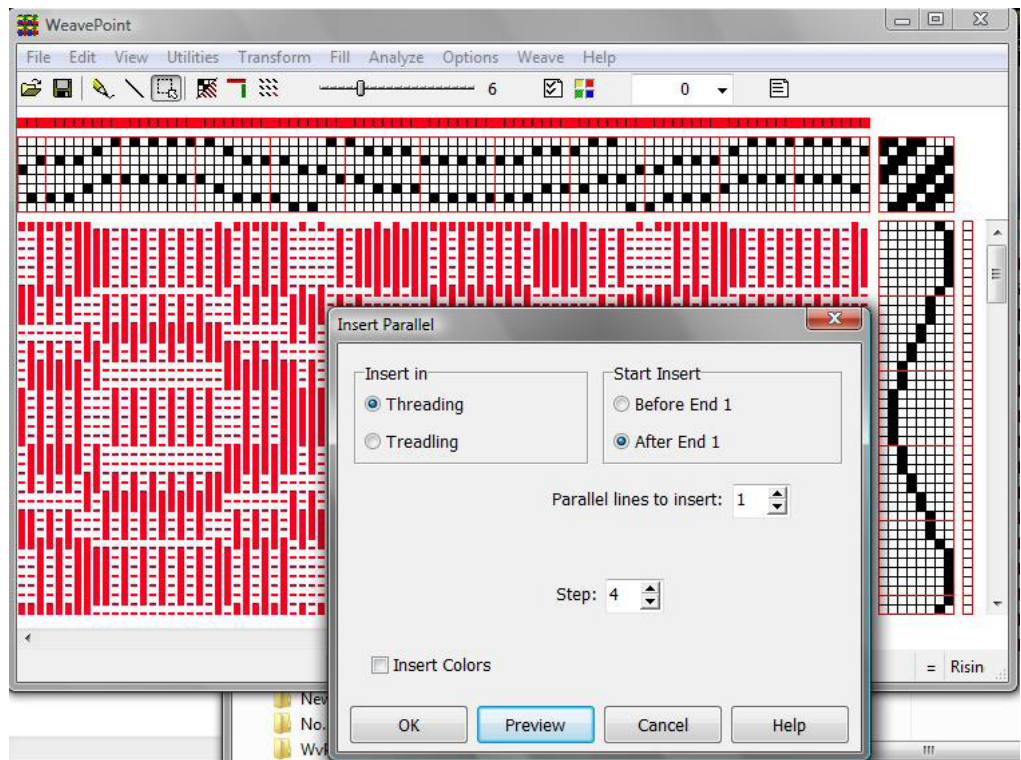
INSERT IN LIFTPLAN

Available when in Liftplan mode, use this to insert for example a tabby in the lift-plan. Either insert picks from a liftplan in a file or insert blank picks. To fill in the blank picks, remember you can draw one pick and use **Copy/Paste Special** to repeat it.
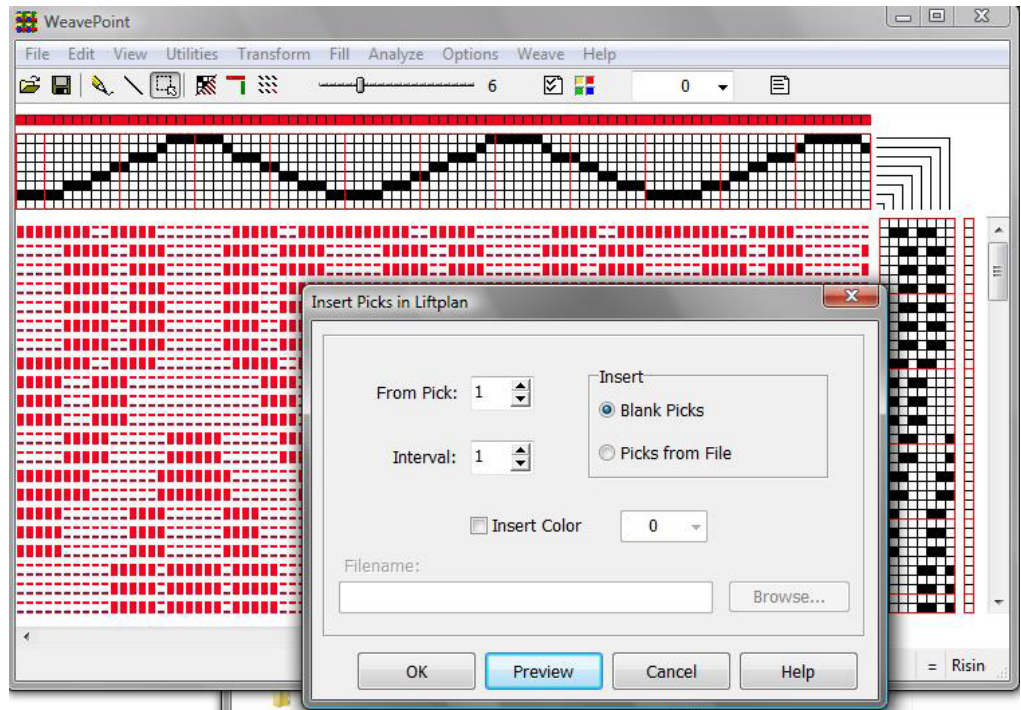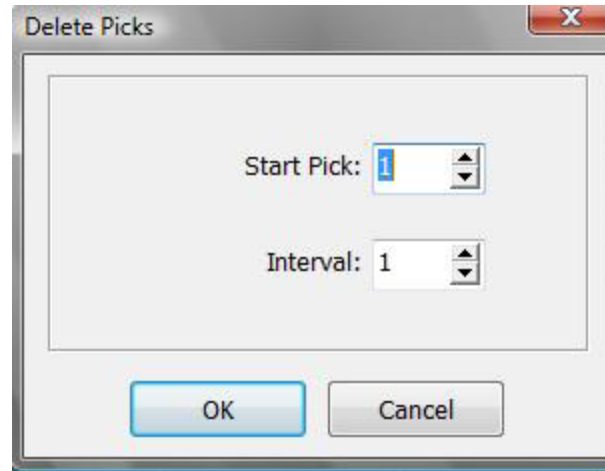
Interval

Select the desired interval between inserting picks. An interval of 1 will insert a pick after each present pick; an interval of 2 will insert a pick after every two present picks, etc.

DELETE IN LIFTPLAN

To delete inserted picks, choose **Delete in Liftplan**.

Delete picks in the liftplan at a selected interval. For example, an interval of 1 deletes every second pick; an interval of 2 deletes every third pick.

RE-ANALYZE THREADING

The threading will be entirely analyzed and reconstructed using as few shafts (harnesses) as possible. This command is useful to check if a pattern can be woven with less shafts (and treadles). When in Tie-up mode, Threading and Treadling will be controlled through separate menu selections (for Treadling, see below).

If the new arrangement of shafts is still not exactly like you want it, choose **Utilities/Switch Shafts/Treadles** to rearrange.

Up to 500 ends will be reanalyzed, but if a regular repeat is found within this limit, the pattern will automatically be corrected throughout the entire width. If the pattern is wider than 500 ends and no regular repeat is found, the first 500 ends will be analyzed and reconstructed.

Use **Edit Menu/Undo** to revert to your previous scheme.

RE-ANALYZE TREADLING

The treadling and tie-up will be entirely analyzed and reconstructed, using as few Treadles as possible. This command is useful to check if a pattern can be woven with fewer treadles. When in Tie-up mode, Threading and Treadling will be controlled through separate menu commands.

This tool can only be accessed in Tie-up Mode, not in Liftplan.

The treadling/Tie-up will be adjusted so that tabby/twill is placed on the first shafts, as is customary. If the new arrangement of treadles is still not exactly like you want it, choose **Utilities/Switch Shafts/Treadles** to rearrange.

Up to 500 picks will be reanalyzed, but if a regular repeat is found within this limit, the pattern will automatically be correct throughout the entire height. If the pattern is longer than 500 picks, and no regular repeat is found, 500 picks will be analyzed and reconstructed.

Use **Edit Menu/Undo** to revert to your previous scheme.

STRAIGHT THREADING

This command lets you change a messy threading into a straight one, while keeping your pattern intact. Your pattern will be analyzed and converted to straight threading, if possible. This selection will add considerably to the number of shafts required.

If the threading repeat is longer than the number of shafts you have available in the loom, you can not use a straight threading. Note that maximum repeat for straight threading is limited to the maximum number of shafts, which is 128.
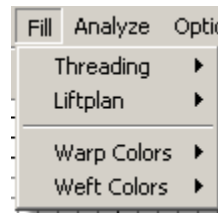
TURN DRAFT

This selection will swap warp and weft, in effect turning the pattern 90 degrees. All warp Threads will become the Weft Threads and the Weft Threads will become the Warp Threads.

Edit Menu/Undo will allow you to revert to the previous warp/weft setting, if no other changes have been made subsequent to selecting this menu item.

The fastest way to get a design up on the screen is to use the *WeavePoint* Fill Menu. It is designed as a separate menu in the program and the menu options change according to the LOOM STYLE you have previously selected in the OPTIONS MENU/OPTIONS DIALOG BOX/LOOM TAB.
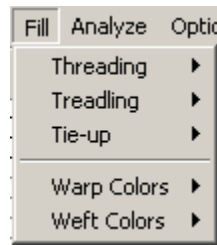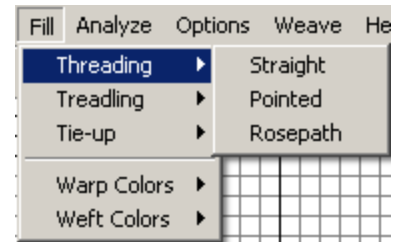
Fill Menu/TREADLING   *Fill Menu/LIFTPLAN*

THREADING

Quickly fill the threading with a **straight** draw, **pointed**, or **rosepath**.

The present number of shafts (or treadles) will be filled in.

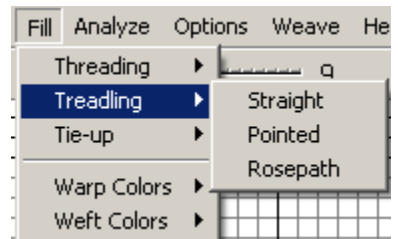If you already have a threading, it will be re-placed.

TREADLING

Quickly fill the treadling with a **straight** draw, **pointed**, or **rosepath**.

The present number of treadles will be filled in.

If you already have a treadling, it will be re-placed.

LIFTPLAN OR TIE-UP

Three Selections are offered in the drop down menu**: TWILL VARIA-TIONS, SATIN,** or **PLAIN WEAVE.**

FILL MENU

Twill Variations

This selection opens the Twill **Generator window**. This tool will allow you to create twills on a random basis. First select the **Twill Direction**, whether or not to have a **Balanced** Twill and the **Maximum Float** length desired. Click on the **Generate Twill** bar and the pattern displayed will be changed in the Tie-up or Liftplan, as selected. The Threading (and Treadling) will not be affected.
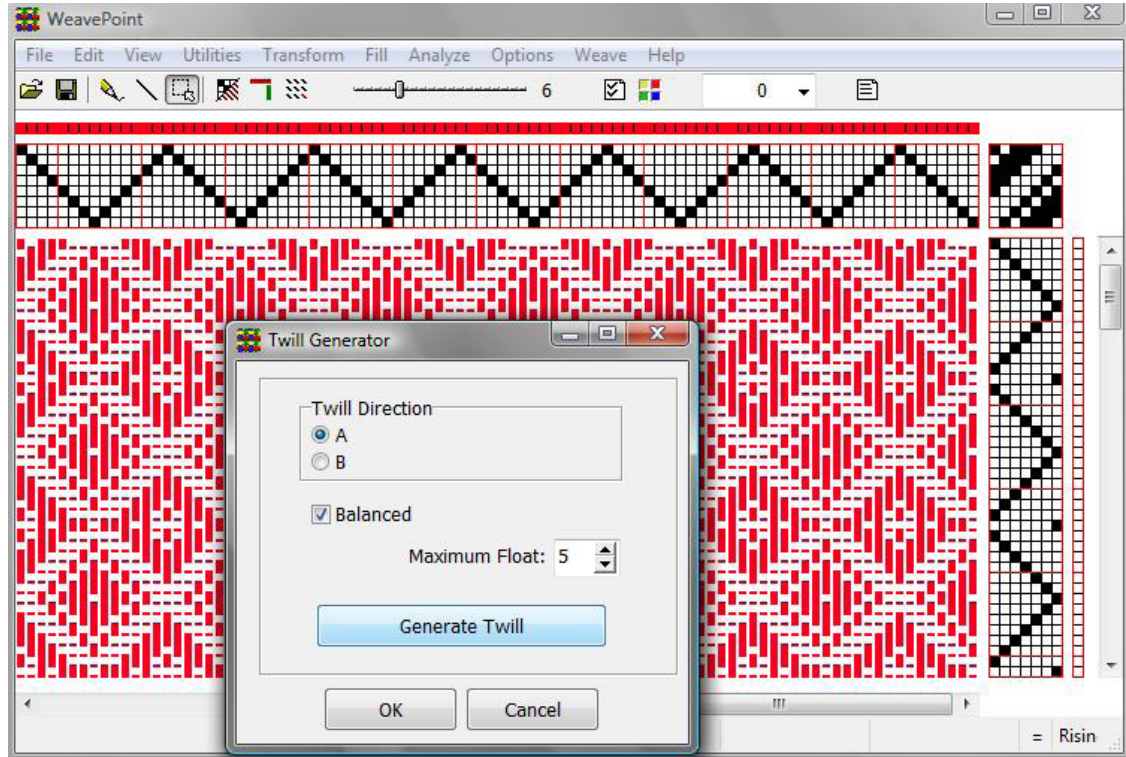
The window will remain open as long as you continue to use the **Generate Twill** Bar. **Cancel** to return to your original pattern. **OK** will close this window and your pattern will now reflect the change. **Edit Menu/Undo** will reverse this, if no other subsequent changes are made to the draft.
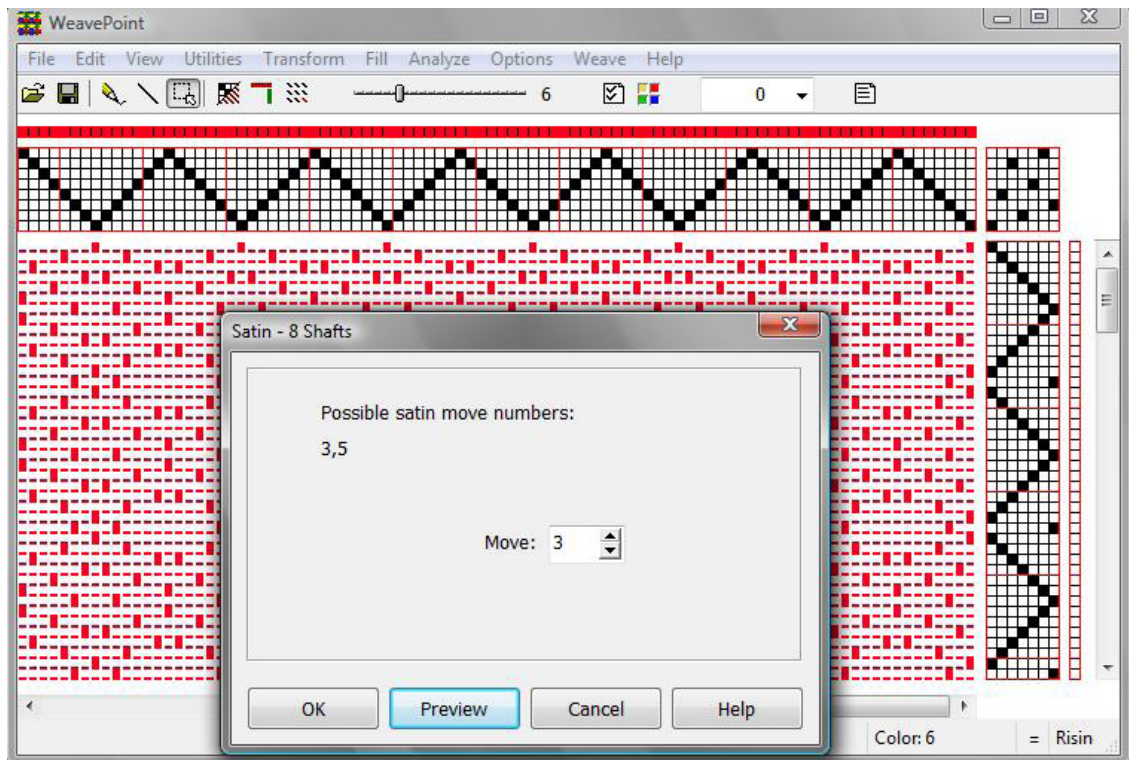
The twills are created in a random manner, so, if you see a pattern you wish to keep, click **OK** and follow the **Save As** procedure. Then, if you wish to revert to the original pattern, close without saving the changes and re-open. This procedure will retain your original pattern and save your newly developed twill, tool.

Satin

The satin weave produces a smooth, lustrous cloth. The points or stitches should be scattered as widely and as uniformly as possible. Use this satin dialog tool to understand and create satins. The satin weave requires at least five shafts.

A satin is constructed by filling in one square for each pick, in the Tie-up Grid or the Liftplan. Starting with the first pick and then proceeding to the next pick, the position will progress sideways by a selected number of ends. This number is called a "move number" or "rising number". For each number of shafts, there are only a few possible move numbers producing an even satin.

In the Satin dialog, the possible regular move numbers for the present number of shafts are displayed at the top of the dialog box. The numbers are always listed in pairs. A move number in a pair will make a similar, but mirrored satin weave of the corresponding move number.

Select the **Move** number and then take advantage of the **Preview** feature of this window, prior to selecting **OK**, which will effect a change in your pattern.

OK will close this window and your pattern will now reflect the change. **Edit Menu/Undo** will reverse this, if no other subsequent changes are made to the draft.

If you wish to keep the Previewed Satin, click **OK** and follow the **Save As** procedure. If you wish to revert to the original pattern, close without saving the changes and re-open.

You can try out creating satins with different move numbers. You are also allowed to try move numbers that are not listed as possible, to see the different irregular satins.
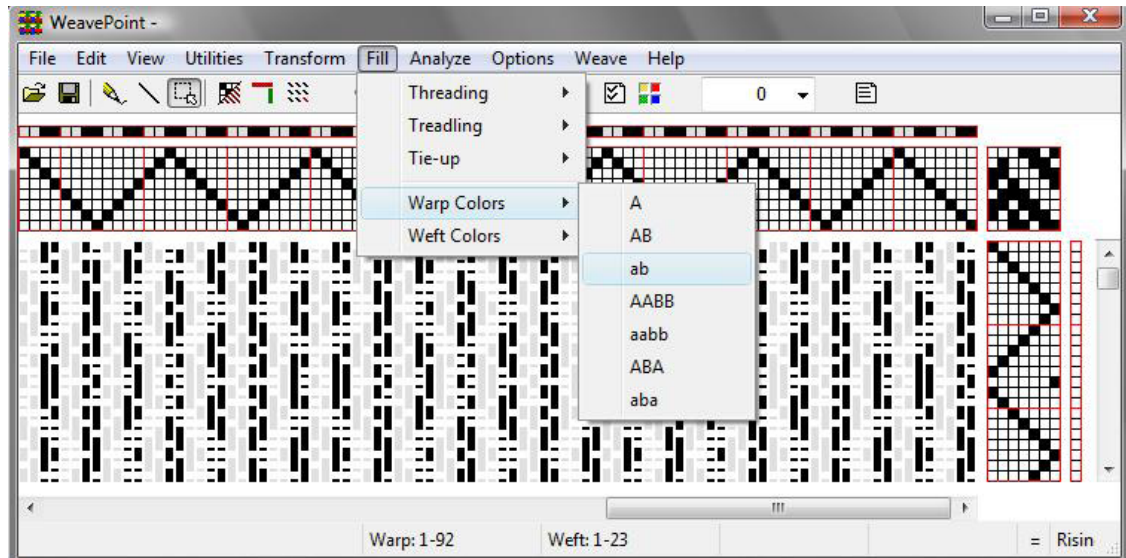
Plain Weave

Fill the present Tie-Up or liftplan with plain weave.

WARP OR WEFT COLORS

Use this command to quickly select **Warp Colors** or **Weft Colors**. Your selection will fill the entire Color Bar for Warp or Weft. The color letters correspond to the color numbers in your palette, as follows:

A	=	5
B	=	1
a	=	4
b	=	0

A and B correspond to black and light gray, respectively, in the default palette. The colors a and b are slightly different and correspond to dark gray and white, respectively, in the default palette. You can bring up the color palette to change the actual colors associated with these numbers.

If you have made changes to your palette and are uncertain about which color is represented by which letter, hold your cursor over the selected box in the Color Bar and right click. The color/number will appear in the window of the Color Drop-down Menu on the Quick Tool Bar.

Selecting pure A and B for warp and weft will let you more easily see the structure of a multicolored cloth (remember to save your pattern first).

You can use AB and AABB for color effects. You can use AB for double weaves, taquete, etc.

Note that this is just a quick way to select some common color schemes for the complete warp and weft. If this is not suitable, paint the warp/weft yarns directly in the warp and weft colors grids. Then use the Repeat command or Copy and Paste commands.

Within this menu, you can analyze **Repeats**, **Floats**, **Colors**, and **Heddles**.
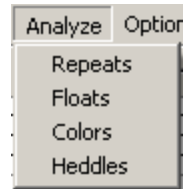
Each **Report Window** has a File Menu that allows you to print the window content. Each window also has an **Edit Menu** that will enable you to paste the content of each Report into a word document that can then contain all the information from the four reports.

ANALYZE REPEATS

A report will be displayed showing the following repeats:

1.   Warp: Threading, Warp Colors, and Total Repeat.

2.   Weft: Liftplan or Treadling, Weft Colors, and Total Repeat.

Total Repeat has calculated the minimal repeat one has to select to get the design repeated completely according to both the color and the structure.

For example, if the liftplan repeat is eight and the color repeat is twelve, the total repeat will be 24; for the repeat and the color sequence to coincide.

If no repeat length within 2400 is found, a length > (larger than) 2400 will be reported.

A **repeat** is here defined as the length of a pattern element that is starting from position 1 and is repeated regularly throughout the pattern. Note that when a selvage is inserted at the beginning, there will no longer be a regular repeat to be found.

ANALYZE FLOATS

A **Floats Report** will be displayed, showing an analysis of the full present pattern

The **Floats** Window will remain open and can be moved about the screen, enabling easier location and correction of the specific floats. After making a correction, you may click the **Update** button and the information in the window will be automatically updated.

To examine the floats on the screen, select **Thread Style** in Options to better see the floats in the drawdown.
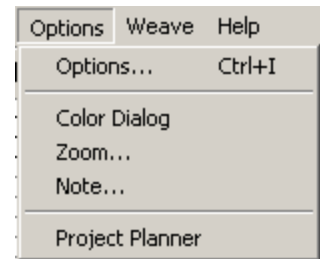
ANALYZE COLORS

The **Color Report** will be displayed showing the use of colors in warp and weft. It displays, in both number of ends and picks, the color (referenced by its number) and the percentage of end/picks for which it is used.
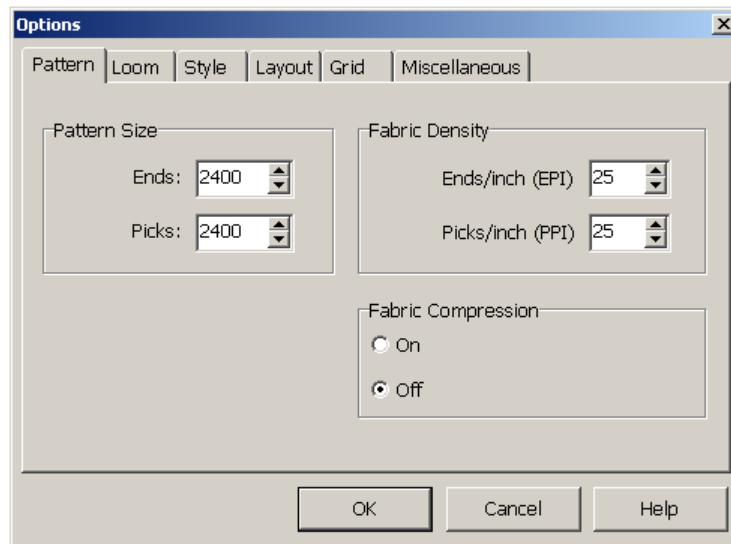
ANALYZE HEDDLES

A **Heddles Report** will be displayed. The numbers shown are the exact number of heddles per harness used throughout the full length of the threading.

To choose more options than are available in the New Pattern Window, go to the **Options** Menu/ **Options** sub-menu. The Options Window has six tabs that you can choose from to decide on specific parameters: **Pattern**, **Loom**, **Style**, **Layout**, **Grid**, and **Miscellaneous**.

Options	Weave	Help
Options...		Ctrl+I
Color Dialog		
Zoom...		
Note...		
Project Planner		

OPTIONS

Pattern Tab/Window

Options — Pattern | Loom | Style | Layout | Grid | Miscellaneous

Pattern Size
- Ends: 2400
- Picks: 2400

Fabric Density
- Ends/inch (EPI): 25
- Picks/inch (PPI): 25

Fabric Compression
- ○ On
- ● Off

OK   Cancel   Help

Pattern Size

Select the size of your fabric. The default size is 2400 ends and 2400 picks. This is the same as the maximum size in Design Mode. The maximum size in Draft Mode is 9600 ends and 9600 picks. Maximum number of Treadles and Shafts is 128.

Fabric Density

Select Ends per inch (EPI) and Picks per inch (PPI). This setting affects Fabric and Drapery Views.

Fabric Compression

When Fabric Compression is set on, it will affect the Fabric and Drapery views, but not the Draft/Drawdown. Set the number of ends per inch and picks per inch in Fabric Density and turn on the Fabric Compression. This will allow for more accurate viewing of warp or weft-faced weaves, eliminating the problem of the discrepancy between the image in the drawdown of the woven fabric and the desired effect to be seen on a weft- or warp-faced fabric.

This function can be a great help in visualizing a woven cloth and will give a good representation with common double-weft and other packable structures, though it cannot be guaranteed to be 100% accurate in all possible cases. Yarn sizes, texture, etc. will also influence the actual result at the loom. Use your own skills to determine how and when to use it. Combine with the fabric density setting to obtain a result as close to the woven cloth as possible.

OPTIONS MENU

Loom Tab
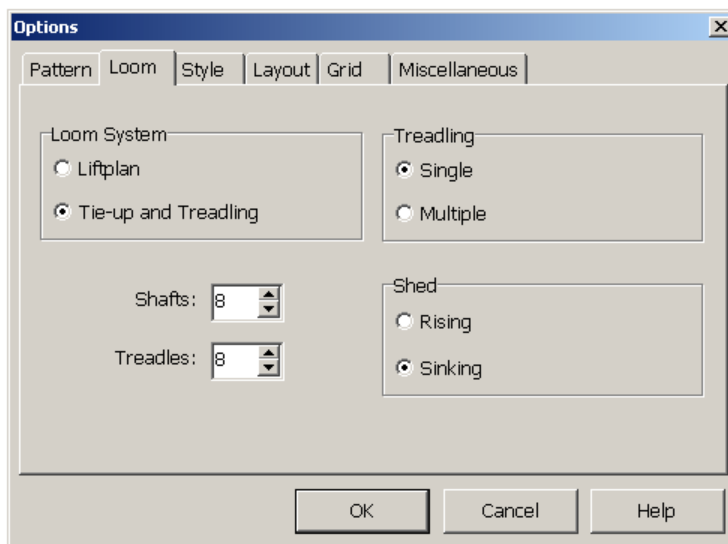
Loom System

Select Liftplan or Tie-up Mode.

If you have a pattern on screen, it will automatically be converted. If changing from Liftplan to Tie-up and the pattern contains more than 100 different lags, the exceeding part of the pattern will be corrupted.

Patterns are saved with information about the loom system used and when retrieved, the loom system will be set accordingly.

Treadling

If you are in the Tie-up and Treadling Mode, you can select Single or Multiple Treadling. If you are in Liftplan mode, this option is grayed out.

Note for Multiple Treadle settings: when in Liftplan and Single Tie-up Mode, there is a strict and always exact relationship between the draft and the drawdown; but the Tie-up Multiple Treadles Mode can be ambiguous as it allows a shaft to be set to be both up and down at the same time and thus makes it your own responsibility to make a correct pattern. Because of this, Drawdown and Design editing is not available in Multiple Treadles Mode and also several other menu items will be disabled. Use this mode only when you need to press more than one treadle for each pick.

To Make Patterns for a Drawloom, select the Liftplan mode and the number of shafts you want to use in your pattern threading. Also, it is preferable to select rising shed.

First, fill in the threading. Then draw your pattern in the drawdown. When a threading is filled in, your pattern will automatically be created in the drawdown as you enter it. Print out the liftplan to use it when lifting the pattern shafts or units at a drawloom.

Shed

Choose between Rising and Sinking Shed. With Rising Shed, a filled square in Liftplan or Tie-up indicates a warp thread passing over a weft thread in the draw-down. With Sinking Shed, a filled square indicates a weft thread passing over a warp thread.

Your choice of Rising or Sinking Shed is displayed in the Status Line.

Normally Sinking Shed is used with countermarch (tie-up) looms and Rising Shed with dobby looms and table looms. Patterns are saved with information about the shed system used and when retrieved, the shed system will be set accordingly.
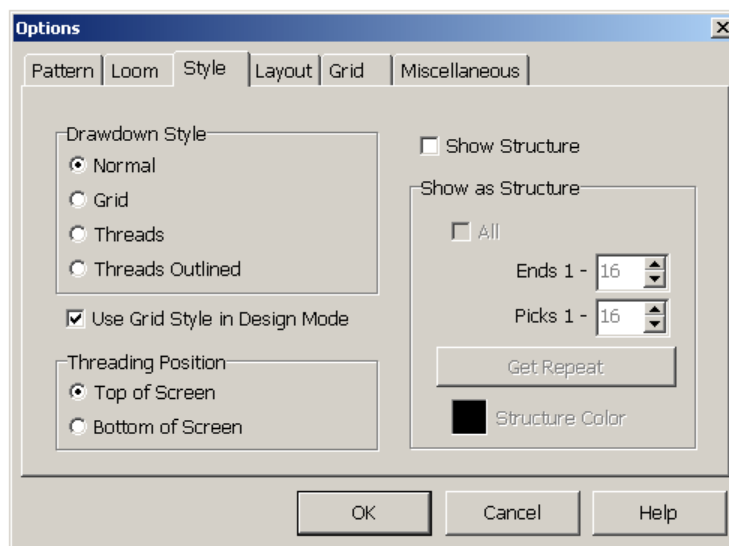
Shafts

Select number of shafts. Maximum is 128 shafts.

Treadles

Select number of treadles. Maximum is 128. If you are in Liftplan Mode, this option is grayed out.

Style Tab

Drawdown Style

In Draft Mode, you can select to have the drawdown represented in one of four different styles. The **Normal** style is the plain style in effect when you start the program. **Grid** will display the pattern with a grid outline, as when designing on graph paper. This style lets you see each square more clearly. **Thread** puts space between each exposed end, giving the image of a loosely woven cloth and lets you visualize the interlacing of warp and weft threads. **Threads Outlined** enhances this effect, with a small outline around each overshot/float.

All commands work the same way with all styles. Be aware that the screen is updated more slowly when the Thread style is selected. You will notice this especially when working at lower zoom levels.

Threading Position

Select to position the Threading Grid at the top or bottom of the screen. When the Threading is at the top, column 1 in the Tie-up/Treadling grid will be at the left side of the Treadling column. With the Threading at the bottom, column 1 in the Tie-up/Treadling grid will be at the right side - according to the European tradition. Remember, columns of Liftplan and Tie-up will correspond to the appropriate harnesses, depending on the settings selected in the Layout/Tab Window.

Use Grid Style in Design Mode

It is recommended to have this option selected. It gives you a scale reference when drawing in a Design Mode. Otherwise, it resembles a lined sheet of paper, rather than graph paper. Once your pattern is entered, you can select Thread style to better see the yarn/placement.

Show Structure

You can select to Show All, a Repeat, or a specific area of the cloth. Showing the first repeat as structure is typically useful in an educational situation. The structure area selected will be saved with the pattern. The structure colors are white and a selected color. Click the Structure Color Box to change the color.

Layout Tab
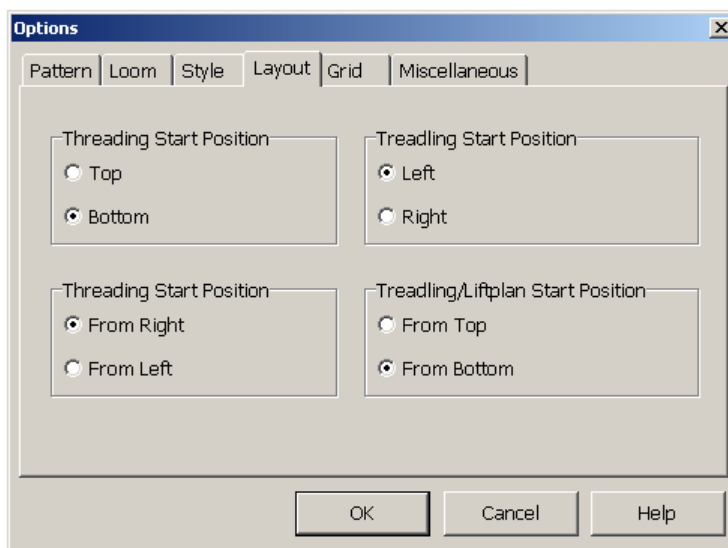
Threading Start Position

There are two selections to make for your Threading layout:

1.   Top/Bottom: Select From Top if you want your first harness to be the lower line in the Threading Grid; or select Bottom if you want your first harness to be the top line in the Threading Grid.

2.   Right/Left: Select From Right if you want your first warp thread (end 1) to start from the right side; or select From Left if you want your first warp thread (end 1) to start from the left side.

|	
Treadling Start Position	Select From Right if you want your first shaft to start from the right side. Select From Left if you want your first shaft to start from the left side.
	When in Liftplan, the Treadling Start Position selection will be grayed out.
Treadling/Liftplan Start Position	Select if you want the first pick to be at the top or at the bottom. Having the first pick at the bottom is like seeing the cloth on the loom, with the first weft placed accordingly.
	Note: The Fabric, Drapery, and Interlacement views are always displayed bottom up. If you want to see the fabric top down, you can select View/Fabric Window or just change to a low zoom level. You can also turn the fabric upside down with **Reverse Weft Order** from the Utilities Menu.
Grid Tab	
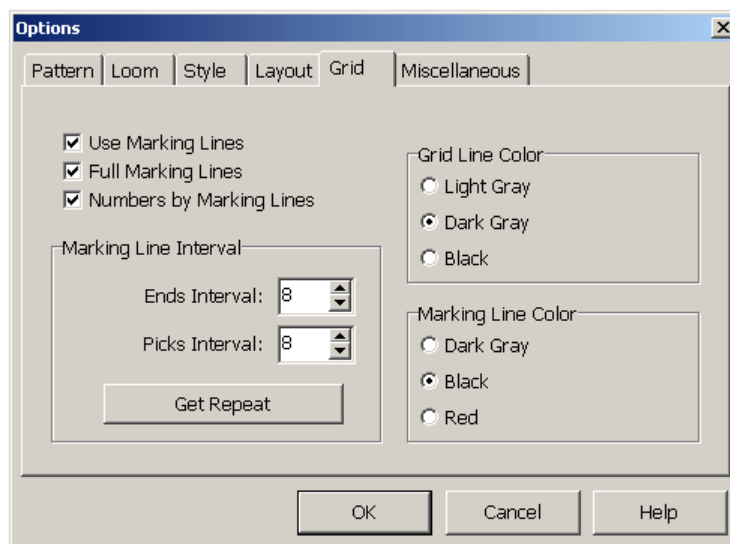
Marking Lines	Select the Marking Lines box to make the other options available. Full Marking Lines means both horizontal and vertical marking lines in all grids. If this box is left unchecked, only vertical marking lines will be visible.
Marking Line Interval	Choose an interval for the marking lines in ends and picks.
Numbers by Marking Lines	When checked, this option will insert numbers next to the Marking Lines in the Threading and Treadling/Liftplan. The numbers next to the marking lines are available in Zoom Level 7 and up. The numbers are larger at higher zoom levels. In Print/Draft and Export/Save Draft as PNG-image, you can select/unselect to print the numbers.

|	
Get Repeat Button	You can use this to visually mark a repeat by setting the intervals equal to the repeat size. This button is included to quickly set the marking lines to the repeat size.
Grid Line Color	Select the color for the overall grid in Threading and Treadling/Liftplan.
Marking Line Color	Select one of these color options to highlight the Marking Lines that you defined n the Interval Box.
Miscellaneous Tab	
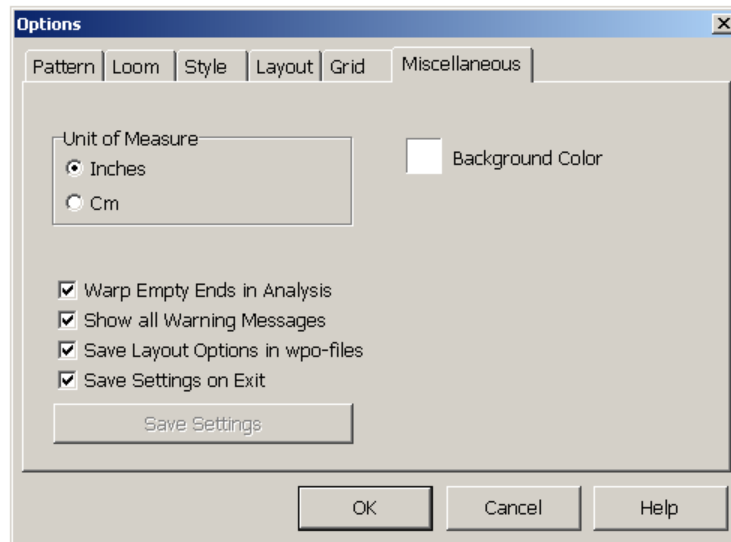
Unit of Measure	Select the unit of measure for the Fabric Density setting.
Background Color	Click the color square to bring up the Color dialog to change the background color behind the Threading/Tie-up/Treadling/Liftplan grids, in the main window. It will also affect the background in the Interlacement and Drapery Views. Useful if you, for some reason, want to use a background color other than the white default. Interlacement view can sometimes look better with a black background.
Warp Empty Ends in Analysis	Fill empty ends and picks in the threading grid, and also the treadling grid when in tie-up mode, after fabric analysis. Fabric analysis takes place when you change from Design Mode to Draft Mode and when you select Re-Analyze Shafts or Re-Analyze Treadles. Empty ends and picks are threads that do not form any interlacement with other threads. They will occur if you draw a motif on a plain background in Design Mode.

|	
Show All Warning Messages	Uncheck this option to display fewer warning messages.
Save Layout Options in WPO Files	When this option is checked, layout positions will be saved in the file as formatted in the various Options dialog windows. When a file which includes layout positions is opened, it will be displayed in accordance with the positions saved in the file. If the file does not contain position data, it will be displayed according to the present settings in the program. Layout positions are the start positions in the grids and the threading grid placement (top or bottom of the screen). Saving layout positions in the files is useful if you use different positions in different patterns or if you send patterns to someone else and want to make sure it will be displayed with the same positions.
Save Settings on Exit	Check this option to automatically save your settings when you exit from *Weave-Point*.
Save Settings	To save your selected settings now, choosing **Save Settings on Exit** will gray out the **SAVE Settings** bar and ensure that your work will be saved.
COLOR DIALOG	
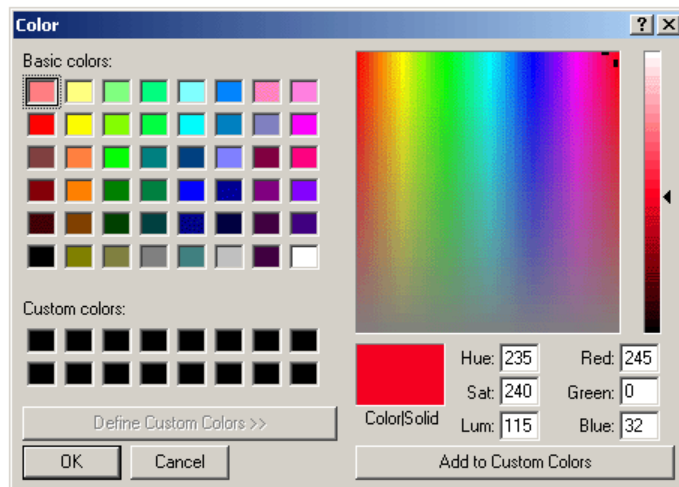
It brings up the standard Windows Color Dialog box. By selecting a color in the dialog box, you change the color that is currently active. For more information on the Color Dialog Box, see Chapter 11, Working with Colors.
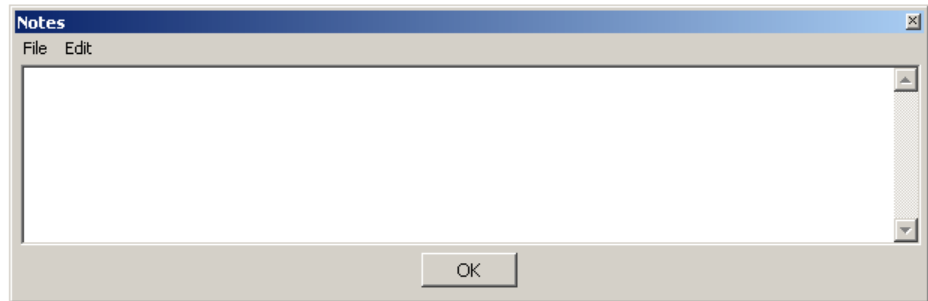
ZOOM

In addition to the zoom scroll bar, there is a zoom sub-menu and this dialog box. It is effective to use it when you have large size designs and need to scroll from one side of the zoom scale to another more quickly.
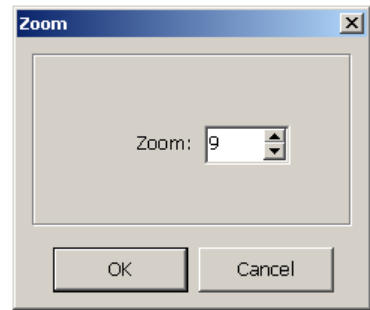
NOTE

You can write a note to accompany your pattern. The text can be whatever you want. It will automatically be saved together with everything else.

There is an Edit Menu in the Note Window for copy, cut, and paste functions or the shortcuts can be used.

To copy text in the note, press **Ctrl–C**. To cut, press **Ctrl–X**. To paste text, press **Ctrl–V**. You can also copy and paste from/to other programs.

The Notes Window will float on your Draft, so that you can edit the pattern while keeping notes. The window is also resizable.

PROJECT PLANNER

This dialog box enables you to calculate the amount of materials and costs for the project represented in the particular pattern/file. For more detailed information see Chapter 12, Project Planner.

Weave Menu items will allow you to select the settings to use the Drivers in the software to operate your particular AVL Compu-Dobby. Proper connection must be made between the Compu-Dobby and your Computer. (Refer to your Compu-Dobby manual for further information on connection issues.)
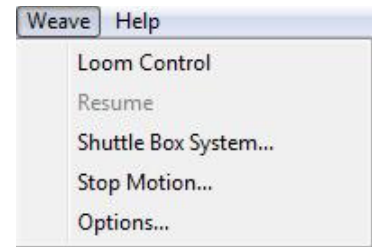
Commands may vary with different loom control drivers and different looms. Before using Loom Control, read the manual and other information about Loom Control included on the *WeavePoint* CD and by the loom manufacturer.

OPTIONS

Selecting Options on the Weave Menu will open the Weave Options dialogue box. This box will allow you to select the correct driver by choosing your type of Compu-Dobby, connect with your Computer by finding and selecting the correct Com Port, and other options that will provide tools to help you while weaving.
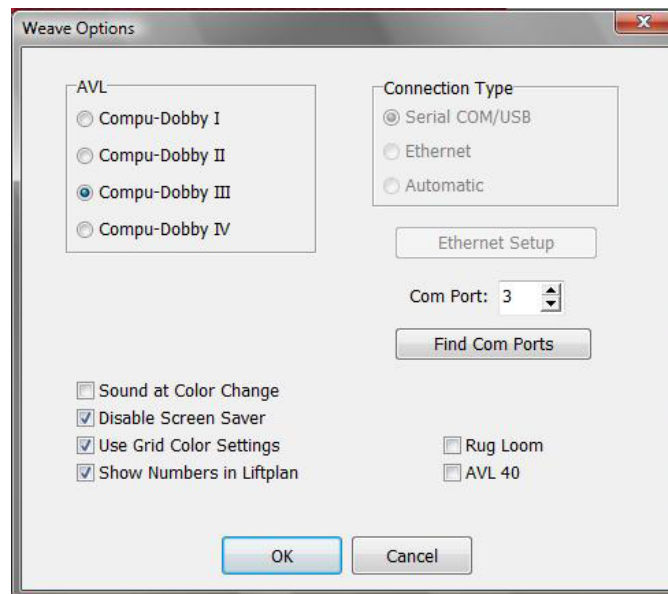
Com Port

Select the Com Port from the Drop-Down menu. Your computer may have pre-selected the Port, but should you experience connection issues, you may have as many as 9 Ports to try. Please note that more ports are listed than actual, physical ports on your computer. This is because some of the listed ports may be internal. You may have to try several different Ports (external or internal) to find the correct one. Refer to the Device Manager in your computer (Start Menu/Control Panel/ Device Manager/Com Ports) for more specific information as to the location of the port involved and re-assignment of available Com Ports. See your Compu-Dobby Manual for further information on connectivity issues and Error Recovery in WeavePoint Help (Help Menu). Use the **Find Com Ports** button to help narrow your search.

The list of available Com Ports will be include Serial and Serial/USB Ports 1 thru 9. If the driver has been assigned to a port other than those, look in the Device Manager on your computer to find the correct Com Port and enter it in the box.
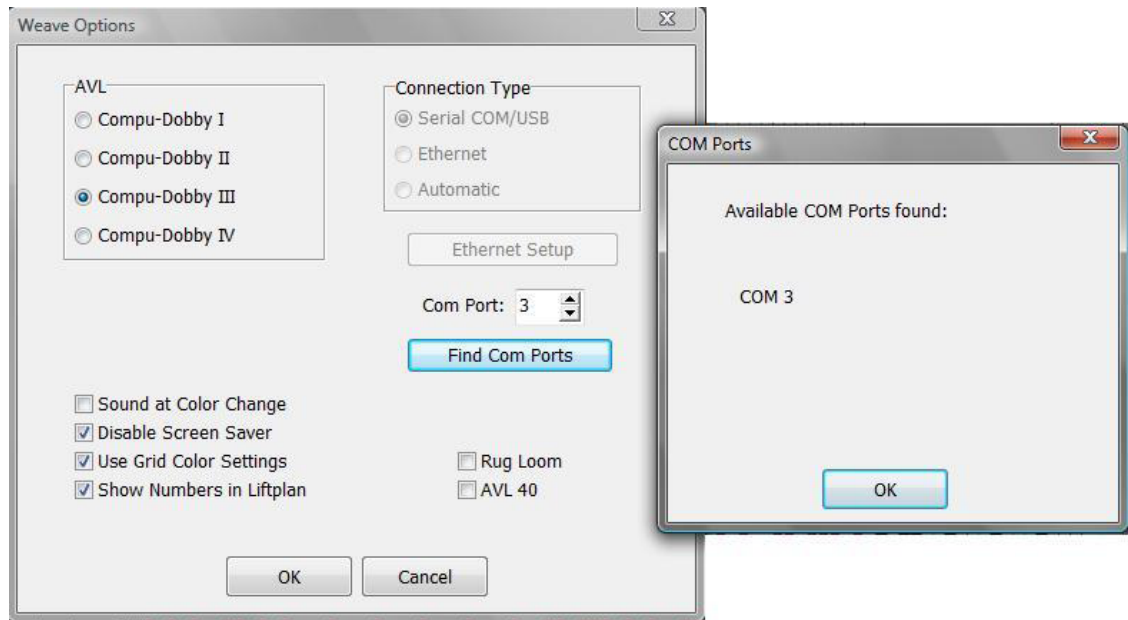
Compu-Dobby I, II, III, or IV

Select Compu-Dobby I, Compu-Dobby II, Compu-Dobby III, or Compu-Dobby IV, depending on which Compu-Dobby you have. If you are unsure, please refer to your Compu-Dobby manual. Compu-Dobby II was introduced in 1996, Compu-Dobby III made its debut in 2001, and Compu-Dobby IV was released in 2009.

Connection Type

The selection of connection options will be grayed-out unless you have selected and are using a Compu-Dobby IV. With this last selection, you will be able to choose what type of connection you will use with your computer.

USB - If you select to use a USB connection, the installation of a special USB driver (FTDI) will be required. This driver will be included on your *WeavePoint* CD-ROM. After installation of your *WeavePoint* software, locate the D.exe file for this driver on your CD-ROM and run it. It will not automatically install with the weaving software. Please refer to your Compu-Dobby IV manual for more information, or contact Customer Service at AVL Looms, Inc.

ETHERNET — The selection of Ethernet for your method of communication will require the use of the Ethernet Set-Up button. Enter the IP address:169.254.128.3. This connection must be made with a crossover cable.

If, for whatever reason, you find it necessary to go from one connection type to the other, it is best to change the protocol, then reboot the Compu-Dobby IV and restart *WeavePoint*.

AUTOMATIC - If you have a Compu-Dobby IV and select, *WeavePoint* will try out both Ethernet (with the present IP address) and COM ports (which includes USB with the driver), until it finds the loom or until all available options are tested.

Normally, Automatic will find the correct connection the first time Loom Control is run. This could take up to about 10 seconds. *WeavePoint* will then store the connection information and use this the next time you start Loom Control.

If connection is not obtained with Automatic, you can manually select Ethernet or Serial COM/USB. If the Com Port is not within range 1-9, you may wish to look at the settings in the Device Manager on your computer and set the Port number manually.

In Weave Options, you can check "Show Startup Message" to display the Start Up Message sent from the loom and thus confirm that communication is established.

Sound at Color Change

Choose this setting for the computer to notify the weaver to change the weft color while weaving. The sound used is the standard Windows exclamation sound. Note that this sound can be changed in the Control Panel Sounds to any sound you like.

Check the settings in Sounds in the Control Panel. Is any sound assigned to Exclamation? If not, select a sound. Then test the sound with Preview. (If there are no loudspeakers, there may still be a simple beep.)

Then make sure that the volume on your computer is turned up.

Disable Screen Saver

It is not desirable to have your weaving interrupted by the screen saver. You may weave for a long time without touching the mouse or the keyboard and then the screen saver will start if it is not disabled. Making this selection will automatically keep the screen saver disabled when in loom control mode. Each time you exit from weaving, the screen saver will be re-enabled. And don't worry about your screen. It can take long hours of weaving without any sign of damage.
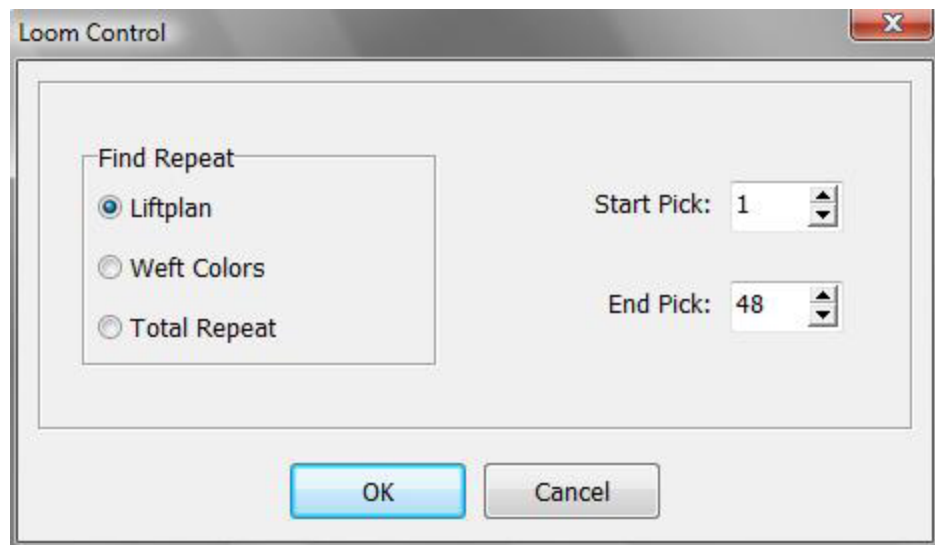
Use Grid Color Settings

Select this box if you want the Grid Color Settings in your Draft Window to be reflected in the Loom Control window, too.

LOOM CONTROL

The **Loom Control** dialog box lets you select the **Start Pick** (default is pick 1) and the **End Pick**. The End Pick, shown automatically in liftplan or treadling, is suggested according to your selection of the repeat in either the **liftplan**, **weft colors**, or the **total repeat** mode.

It is important to select **Total Repeat** if you work with complex color sequences and especially if their repeat is not matching with the **liftplan repeat**. Since your computer will give you a sound signal when to change the weft color, it is important to have an accurate repeat according to both color and structure. **Total Repeat** is the minimal repeat one has to select to get the design repeated completely, including color and pattern.

For example, if the liftplan is eight and the weft color repeat is twelve, the total repeat will be 24. T**otal Repeat** should be selected to the full range will repeat automatically when weaving.

You can override **start Pick** and **End Pick,** if you wish.

For weaving a pattern with weft borders, you can select Start Pick to be the first pick above the border.

When these selections have been completed, click **OK**, and the **Loom Control Window** will open in complete screen mode.

Loom Control Window

When weaving, your pattern will be displayed in a special weaving mode in an **enlarged scrolling grid**. This makes it easy to follow the pattern on the screen, even from a distance.
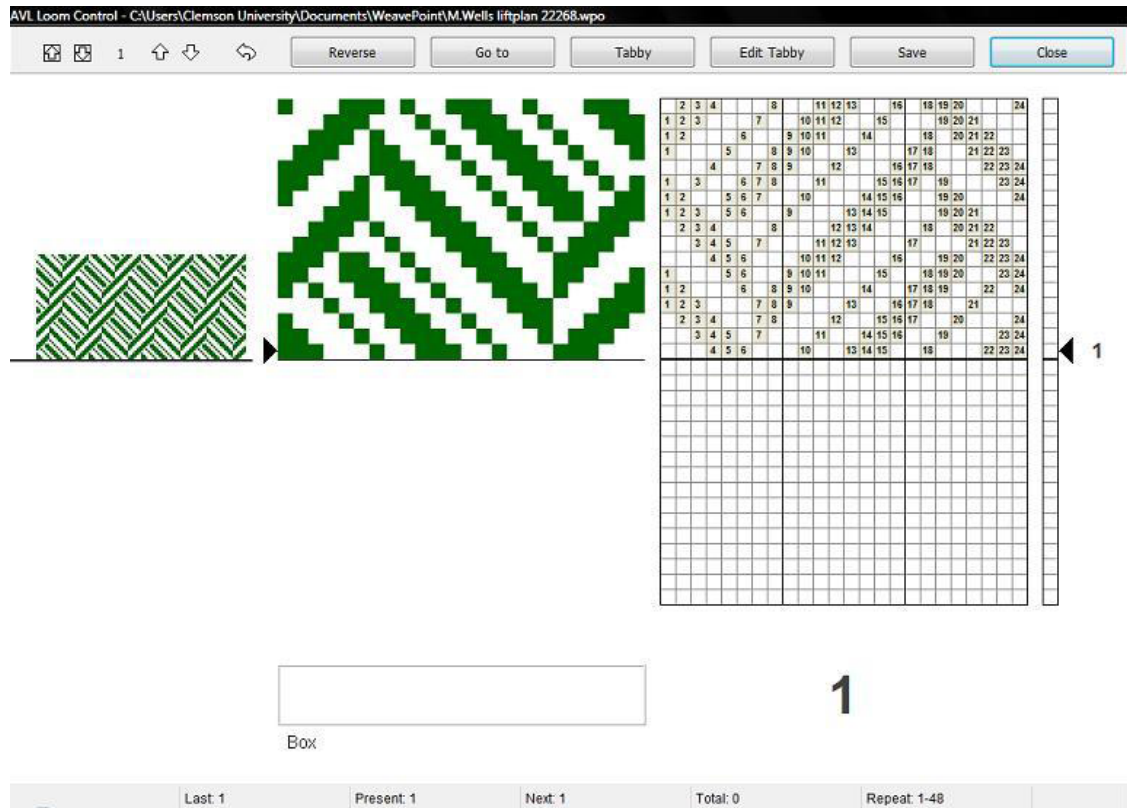
Loom Control Window

The **arrow** at the right side of the scrolling grid/Liftplan and Drawdown indicates the fell line and current pick. The **active pick number** is displayed to the right of the arrow.

When you first open this window, you should hear an immediate click signaling the firing of the selected solenoids for this pick.

The **Color Indicator** is the large, rectangular field located in the lower portion of the window. It shows the yarn color to weave in the active pick.

The **active pick number** is repeated again, by the large number to the right of the **Color Indicator**.

On the upper left side of the window you can see the **pattern repeat** as fabric. If your repeat is short, 16 for example, it will be a narrow horizontal selection of your pattern. The longer your repeat, the more will be shown, but the view will be limited to the range allowed in the upper left corner. It will scroll as you progress through your extended pattern.

WEAVE MENU

Status Bar

The **status bar** is located at the bottom of the window. Here you can see the total number of picks in the repeat to weave, the total number of picks you have woven since you started the present weaving session and the next, present, and last picks, and the position of the cursor if it is over a shaft in the Liftplan.

If you are not able to see the Status Bar, it is probably behind your computer's Task Bar. To hide the Task Bar, right-click at an empty place on the Bar and select Properties. Then check "Auto-hide the Task Bar".

Tool Bar

There are a series of **Arrow Buttons** and **Command Buttons** at the top of the window, in the Tool Bar.

The **two arrows inside the squares** will Advance the **Scrolling Grid**, as currently displayed in the window, to the complete next page of the pattern.

The two **Up and Down Arrows** will cause the next pick to move up or down as you select, and the **number of the next selection** is always reflected in the between the two sets of arrows. . You can also press the page up and page down keys on your keyboard. Please note, though, that the screen won't update until the next time you treadle.

The **little curved arrow** will send you **back by one pick**. The keyboard shortcut is "B".

The **six Command Buttons** are as follows: (To issue most of the following commands, you can either click the screen button or the button on the loom control box.)

Reverse

Change Reverse/Forward weaving direction. When **Reverse** is in effect, a large, red arrow will appear to the right of the Active Pick number in the lower right corner. The keyboard shortcut is "R".

To avoid skipping any picks**, it is important that Reverse is only selected while the shed is closed**.

Go To

Click this button to open a window, in which you can specify the next pick by its number.

Prior to this command, insure that you are not weaving in Reverse and tabby weaving is turned off. The keyboard shortcut is "G".

Tabby (Plain Weave)

Change to tabby (plain weave) weaving. Click the tabby button again to leave tabby weaving and return to your pattern.

When weaving tabby, the two tabby lags are called A and B in the status bar for Next, Present, and Last. These tabby picks will be counted separately from your other pattern, as long as you are in Tabby mode.

When Tabby is in use the arrow buttons are not be available. The keyboard shortcut is "T".

Edit Tabby

This will open a box which will enable you to adjust the tabby for your pattern/threading, to diminish overshots in the tabby. Use your cursor and right click to make any changes.

Save

Save your present pattern and weaving position. When save, you can later choose **Resume** to continue weaving the same pattern. The present position, repeat range, and weaving direction will be stored.

Note that the present pattern will be saved to disk like an ordinary WeavePoint pattern. You can open and edit this pattern also when not weaving. Any changes you make to the pattern will be used when you resume.

Skip

Skip one pick. This command is only available at the loom control box for Compu-Dobbys I and II.

Close

Click Close to quit the loom control window.

Resume

When weaving, before closing the Loom Control window you can click **Save** to store the present pattern and weaving position. Later, you can then just click **Resume on the Weave Menu** to open the same pattern and resume weaving where you left off last time.

SHUTTLE BOX SYSTEM STOP MOTION

See Chapter 13 for the Industrial Dobby Loom (IDL).

Step by Step Process of Weaving with your Computer or with use of a Cartridge	First five steps are the same for both Weaving On-Line or with the cartridge. After step 5, go to the appropriate part.

1.)   From the pull down **Weave** menu, select **Options**. From the **Weave Options Window**, choose the appropriate option, e.g. Compu-Dobby I or Compu-Dobby II.

2.)   From the same **Weave** menu, select **Com Port**. Choose the appropriate **Port**.

3.)   Make sure that the cable connecting your computer with the Compu-Dobby is connected to the same selected port on the back of your computer.

4.)   Click on the **Sound at the Color Change** if you will use more than one color in the weft and want computer to give you the sound signal at each color change

5.)   Click on **Disable the Screen Saver** if you screen has one and you intend to weave on-line. You want to be able to look at your weaving on the screen while weaving.

WEAVING WITH YOUR COMPUTER

1.)   Open your design on the screen. It can be in either **Liftplan** or a **Tie-Up Mode**.

2.)   Switch your CD box on and make sure it says "Waiting for a computer or switches".

3.)   From the **Weave** menu, select **Loom Control**. The Loom Control dialog box lets you select the **Starting Pick** and the **End Pick** of your weave (repeat). For the End Pick, the weft repeat will be suggested according to your selection of the repeat in either the liftplan, weft colors, or the **Total Repeat** mode. It is important to select Total Repeat if you work with complex color sequences and especially if their repeat does not match the liftplan repeat. The Total Repeat is the minimal repeat one has to select to get the design repeated completely. For example, if the liftplan repeat is eight and the weft color repeat is twelve, the total repeat will be 24. Click OK.

4.)   A large window will appear on your computer screen showing an enlarged scrolling grid. A horizontal line indicates the present pick. To the left you can see pattern repeated as fabric. You are ready to start weaving. The display on the CD box is showing the active and the next pick.

5.)   When you want to **Stop**, go back to your computer and click on the **Close** button in the top right corner of the displayed window.

Weaving with a Cartridge

1.) Open your design on the screen. Make sure the draft is in the **Liftplan** mode. If it is not, go to **Options** menu, **Options** submenu, **Loom** window. Change your **Loom Systems** to **Liftplan**. If you try to access the cartridge while in **Tie-Up** mode, you will see the warning "Turn to **Liftplan** mode for cartridge programming".

2.) Switch your CD box on and make sure it says "Waiting for a computer or switches" and that your cartridge is connected properly.

3.) From the **Weave** Menu, select **Cartridge**. An AVL Cartridge window appears on the screen. You have ten possible positions. Each liftplan will be displayed with its index number, name, and the number of picks in that liftplan. This is an information window. From this point you can:

a.) **Put Liftplan** to transfer your liftplan to the cartridge.

b.) **Get Liftplan** to transfer liftplan from the cartridge back to the computer.

c.) **Close** if you just wanted to see positions, index numbers, names or number of pick in each design, but did not want to make any changes.

4.) In your **Put Liftplan** window, you need to enter three parameters:

a.) **Put as Liftplan** #_____. Here you decide in which position on your cartridge you want to put this liftplan.

b.) Determine the size of your design by entering your end pick. Start pick is always 1.

c.) Enter the name of your design. If your design does not have a name, you can name it here; if it does, it has to be exactly the same. If you change the name of your design, it might not save it correctly. Click OK.

5.) Click on the **Select** button on your CD box to select among ten saved designs. When the name of the liftplan you want to weave is displayed, you will also see the first pick from that liftplan and you can start weaving.

USING THE CARTRIDGE

You must be in Liftplan Mode for Cartridge Programming.

You can store patterns in the cartridge inserted in the Compu-Dobby box. Then you can weave without having the PC connected to the loom.

The Cartridge dialogue will show the present patterns stored in the cartridge by index number, name, and number of picks. You can put your present liftplan in the cartridge or load a liftplan from the cartridge.

With Compu-Dobby II, you can store ten patterns. With Compu-Dobby I, you can store five patterns.

If the cartridge memory for some reason is corrupted, you will get a message and the option to erase the cartridge contents. It is then recommended to click **Yes** to erase the cartridge and reset the cartridge memory. If it is important to access any pattern stored in the cartridge, you can click **No** and then try to load the pattern from the cartridge.

Put Liftplan

Select the pattern index where you want the liftplan to be stored. If choosing an index where a liftplan is already stored, the new liftplan will replace the old one.

Select the number of picks you wish to store, starting from pick one. Patterns number 1 and 6 can accommodate up to 900 picks. Patterns 2-5 and 7-10 can accommodate up to 445 picks.

If you try to save a design in a tie-up mode, you will get a warning message to transform it to a liftplan mode.

Enter a pattern name of up to twelve characters, if you did not name it before. If you did, do not change the name here. Use the same name. Click **OK** to store the liftplan in the cartridge.

Get Liftplan

First, select a pattern to load by clicking its index.

Error Recovery

For Compu-Dobby II - when communicating with the loom controller box, errors may occur. If you ever get an error message, you can just try to proceed if possible.

One reason for errors when starting weaving or cartridge communication would be if you pressed any of the switches on the Dobby Control Box after turning on the Compu-Dobby power. This must not be done before you start to weave. Your Compu-Dobby II display should be in a "waiting for computers or switches" mode.

If errors occur, check that the cable is properly connected at both ends. And check that you have selected the correct Com Port - being the port where the loom cable is connected to your PC.

Sometimes it can help to restart the PC and the Compu-Dobby box.

When getting the message saying that the cartridge is corrupted or missing, it indicates that something is wrong in the cartridge memory. The cartridge battery (on Compu-Dobby I only) may need recharging. Check that the cartridge is actually installed. Compu-Dobby II batteries can be replaced.

For further information, refer to your Compu-Dobby manual.

Colors From the Library

There is a very fast way to assign one or two colors to your warp and/or weft using Fill Menu (Manual page 7-4).

Palettes

To access the color palette, click on the icon at the right hand side of the tool bar. The icon looks like four windows in different colors. Once the palette is displayed, you can select the number of colors viewed in the Palette Window by clicking on the Current Color bar at the bottom of the palette. The smallest size palette has 16 colors, then 64, and the largest one has 256.

The bar at the bottom of the palette is showing you which color is active and the same color is displayed at the tool bar, next to color palette icon, in your general window.

Yarn colors are set in the warp color and weft color grids along the threading and liftplan or treadling. You can use up to 256 colors in one pattern. Each color has a color index number, ranging from 0 to 255. Each color index can be adjusted to any color you wish within a range of more than 16 million hues and shades. You adjust a color in the Color dialog.
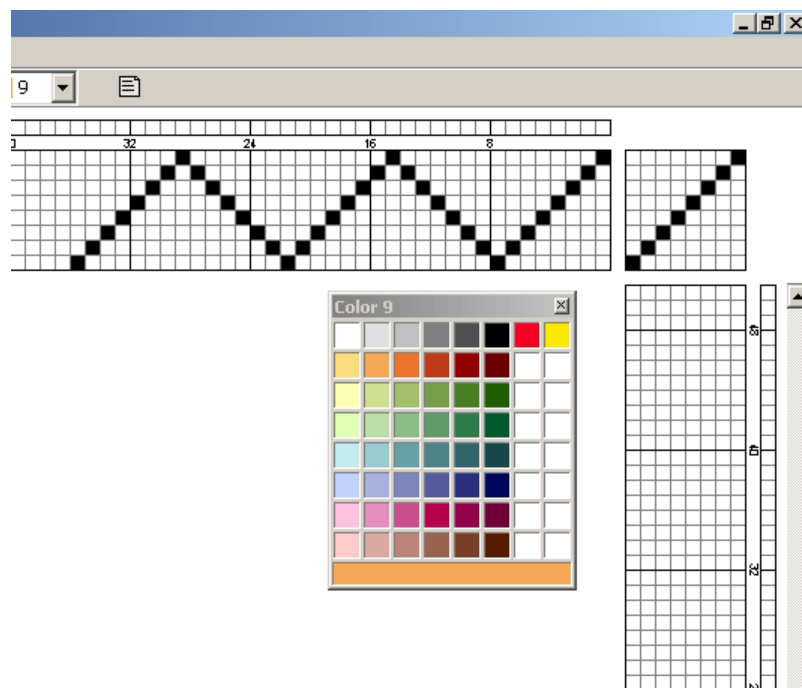
Think of it this way: In the color grids you select different yarns. In the Color dialog, you dye the yarns. The great advantage when simulating a fabric on the computer screen is that you can dye the yarns even after the cloth is woven.

The current color to draw in the warp and weft color grids is always displayed in the Color Box in the status bar. Click the color box to select another color. To easily see and select many colors, choose **View/Color Palette**. The color palette floats on top of the main window.

To quickly select a color already in use, right click on it in the warp or weft color grid. Note that you cannot "erase" a color, as there is no specific background color (white is a color like any other color).

To edit many colors or make your own palette, the Edit Colors Window offers many extra options.

The Color Dialog

Double-click a color in the **Color Palette** or **Edit Colors** window to bring up the Color dialog to adjust the color. Double-click on a white square to create a new color for the palette.
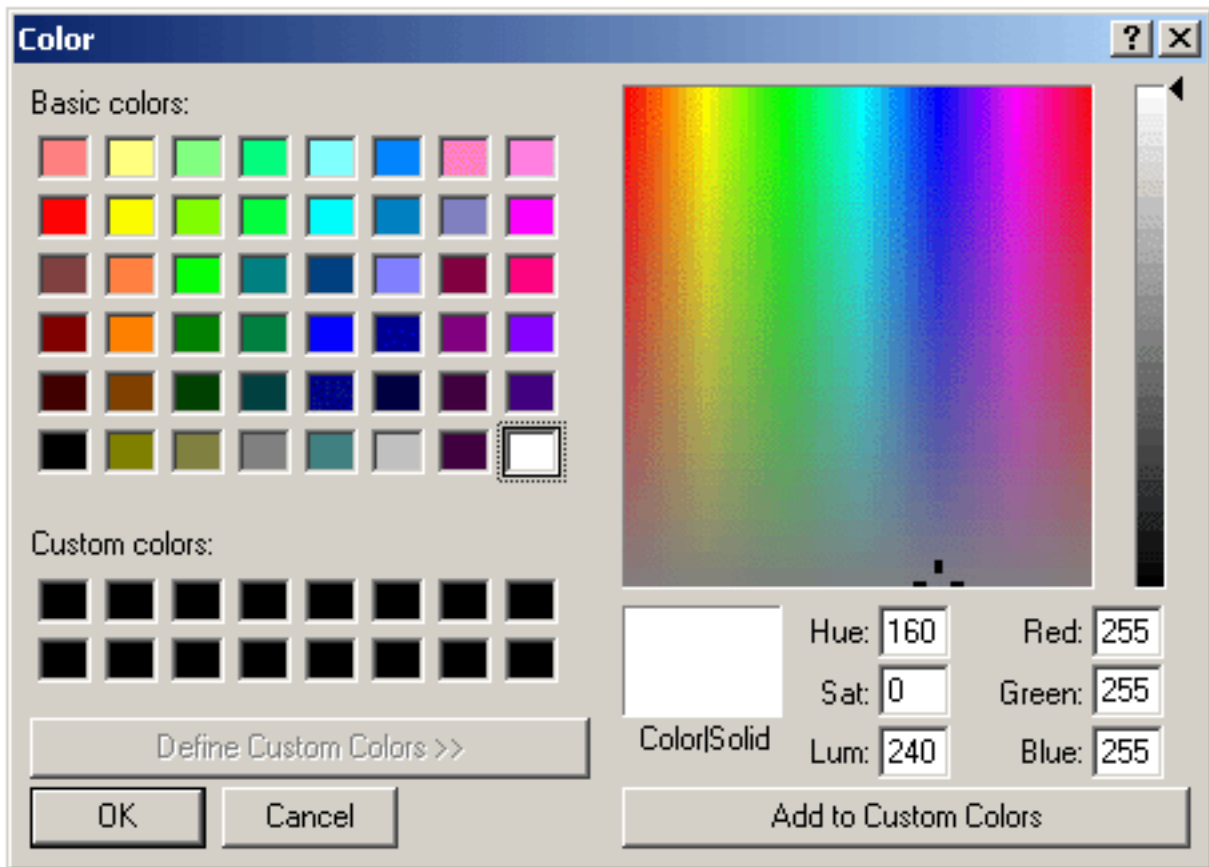

Whatever color you are selecting with the cross hairs will be shown in the Color/Solid box. Drag the little arrow up and down along the color bar on the far right to change the value of your color. Create a new one and click OK and the pre-selected white square will be filled with the new color. If you are adjusting a color, just click OK and the color change will be reflected in pre-selected square.

Note: the Custom Colors field is not used by WeavePoint. You can use it to compare colors if you like, but the custom colors will not be there the next time you open the Color dialogue. So, do not use the Add to Custom Colors button.

Edit Colors from the Utilities Menu

You can select to display 16, 64, or 256 colors. Note that there are always 256 colors available and the full 256 color palette will be stored when saving a pattern. If you work only with a few colors, it is easier to see them with sixteen colors on display.

At the left side of the color grid, there are seven small buttons. Clicking one of these grey buttons will move that row to the top row.
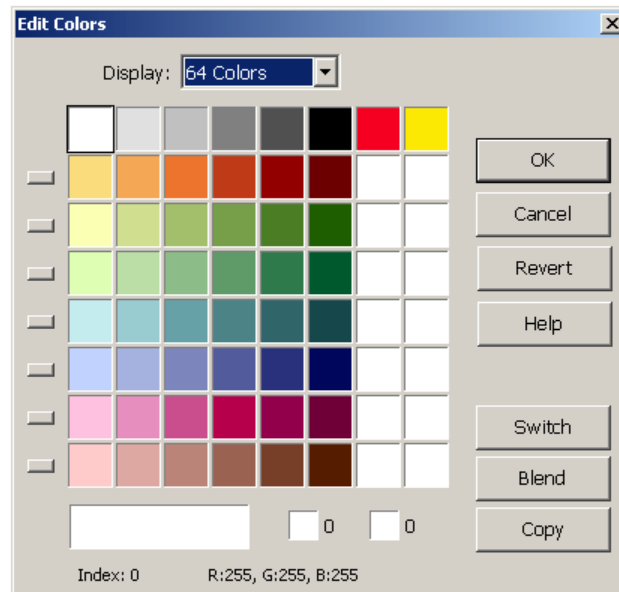
This can be used to let each row be a colorway for your fabric. This way you can make up to eight colorways, each up to eight colors in a 64 color display or up to sixteen colors with a 256 color display.

To set up several colorways, first fill in the warp and weft colors with colors from the top row of the palette, using color index 0-7 (15 with 256 color display). Then fill the second row with a new colorway, etc. Click the small buttons to switch quickly between colorways. The changes will be seen in the draft window immediately.

The selected color is always displayed at the bottom of the window in the large color panel on the left hand side with the index and RGB values for that particular color.

Click the two small color panels at the bottom to put the selected color here. These two colors will be switched when clicking Switch, copied by clicking Copy, or used as start and end color for blending when clicking Blend.

Number of color blends between two selected colors will be determined by the position of these two colors in the color palette. If they are only two spaces apart, we will have two blended colors in between.

If color one was the first color in the grid (index 0) and the second selected color was the last color in the grid (index 255), the entire color palette will be showing blends between these two colors.

Click **Revert** to revert your changes to the palette.

Click **OK** to close the dialogue and use your changes.

Click **Cancel** to close the dialogue and discard any changes.

Quick Tutorial

There are two ways to access Project Planner. One is from the Options Menu and the other is from the separate icon in the *WeavePoint* folder on your CD-ROM. Either way, information entered into Project Planner is saved as a separate Project Planner file (.wpp), not as a *WeavePoint* file.

The *WeavePoint* Project Planner works like a very flexible weave calculator. You can just fill in a few numbers and the program will calculate the rest. When you change a number, recalculation takes place automatically.

First change **Shrinkage**, **Take-Up**, and **Draw-In** if necessary. Also, check if you want to change Options.

To start filling in the form, there's basically two different ways:

Either fill in **Finished Length** and **Finished Width**

or

Fill in **Number of Ends** and **Number of Picks**.

Then fill in **Sett (EPI)** or **Ends/cm** and **Picks per Inch (PPI)** or **Picks/cm**.

Add a length for **Test Samples** if you like, add a length for **Fringes** or other extra non-woven warp and set **Loom Waste** length.

At last, fill in the weight and cost part. For yarn count, click the yards/lb or m/kg field. You can enter Tex or Denier yarn count number, or yards/lb or m/kg directly.

The procedure suggested above is normally the most convenient, but you can fill the boxes in any order. After it is filled in, you can freely play around with the numbers.

Press the **Notes** button to add your personal notes to the project.

You can print all project information. You can also copy it to the clipboard and paste it into any other Windows program, to reformat the text or combine it with other information.

GLOSSARY

Project Name

Type in a name or description of your project. This will be the heading on the printout.

Tip: Include the name of your *WeavePoint* pattern file, to remember which pattern belongs to this particular Project.

Date

The current date is inserted automatically. You can edit and format the date as you like.

Notes

Press the Notes button to write a free text description of the project. Here you can write information about yarn types and colors, technical weaving issues, etc. The notes will be printed or copied to the clipboard with the project data.

Finished Length

Finished, final length of fabric in warp direction (all items summed up), after making allowance for take-up and shrinkage.

Shrinkage

Shrinkage is the extent to which the fabric will shrink after it has been washed, relative to its Woven Length.

Woven Length

This is the length of fabric as woven, making allowance for take-up, after it has come off the loom.

Test Samples

Here you can add additional woven length for test weaving. Picks for the test samples length will be included in Total Picks.

Take-Up	Take-up is the difference between the length of the warp before weaving begins and the length of the woven textile.
Fringes and Extras	Here you can add extra warp length for fringes and other extra warp that will not be woven. No weft will be calculated for the length entered here.
Loom Waste	The part of the warp that is never woven, but is needed to attach the warp to the loom at the front and back.
On-Loom Length	The length of the warp before weaving begins, including loom waste and fringe.
Sett (E.P.I.) or Ends/ cm	Sett or ends per inch is the number of warp ends per inch on the reed. If metric, ends/cm is the number of warp ends per cm on the reed.
Ends	Number of warp ends used across the width of the fabric
Total Warp Length	Total yarn length needed for the warp.
Finished Width	Finished Width is the final width of fabric, after making allowance for draw-in and shrinkage.
Woven Width	Woven width is the width of fabric as woven, making allowance for draw-in, as it comes off the loom.
Draw-In	Draw-in is the amount by which the sett is changed at the fell, during the process of weaving.
Width in Reed	The width of the warp in the reed, warp width before weaving begins.
P.P.I. or Picks/cm	This is the number of picks per inch or cm in the fabric as woven. P.P.I. (or Picks/cm) is calculated from the Woven Width value.
Picks	Number of picks used in Woven Length.

Total Picks

This is the number of picks used by Woven Length + Test Samples length.

Weft Waste

Here you can add weft yarn waste.

Total Weft Length

Total yarn length needed for the weft.

Yards/lb or Meter/kg

Enter number of yards per pound or meter per kg for the yarn used. Or enter the Tex count number or Denier count number for the yarn (see **Yarn Count**).

$/lb or $/kg

Enter $ per pound or kg for the yarn used.

Total Cost

Shows total cost for the fabric (warp and weft).

Yarn Count

To calculate the amount of yarn needed in pounds or kilogram, yards per pound or meter per kg must be known. You can input this directly or you can input the yarn count system number in the Tex or Denier system. In the input dialog, conversion is done automatically when entering a number. The yarn count number indicates the length of yarn in relation to the weight.

If you have yarn in a different system, you should work out yards per pound or meter per kg, and then enter this in the program.

Tex

The Tex count represents the weight in grams per 1 kilometer (1000 meters) of yarn. For example, a yarn numbered 10 Tex weighs 10 grams per kilometer. The Tex number increases with the size of the yarn.

When the yarn count is not known, it can be established by measuring a length of 10, 50, or 100 meters. For example, if 50 meters of yarn weighs 2 grams, 1000 meters will weigh 40 grams and the count is, therefore, 40 Tex.

Denier

The Denier system in used to number continuous filament yarns, like reeled silk and man-made extruded yarns such as rayon. The denier count of a yarn states the weight in grams per 9000 meters. The coarser the yarn, the higher the denier count number becomes. Thus: 9000 meters of 30 denier yarn weighs 30 grams.

Calculation Details

Here you can check the calculation formulas used in the *WeavePoint* Project Planner. Not all formulas will be used in a project. When you input some values, other values will automatically be calculated by the program.

Note that a few of the results can be calculated in alternative ways, depending on what is already filled in. This makes the Project Planner very flexible. Also, some value names depend on if inches or cm is used.

All calculations are in inches or cm. If a value is displayed in yards or meter, the result is divided by 36 for yards or 100 for meter.

Warp Calculation Formulas

Finished Length
= Woven Length - (Woven Length / 100) * Shrinkage

Woven Length
= (Finished Length / (100 - Shrinkage)) * 100
= Number of Picks / PPI
= Number of Picks / Picks/cm

On-Loom Length
= ((Woven Length + Test Samples length) / (100 - Take-Up)) * 100 + Fringes and Extras + Loom Waste

Number of Ends
= Width in Reed * EPI
= Width in Reed * Ends/cm

EPI or Ends/cm
= Number of Ends / Woven Length

Total Warp Yarn Length
= On-loom Length * Number of Ends

Weft Calculation Formulas

Finished Width
= Woven Width - (Woven Width / 100) * Shrinkage

Woven Width
= (Finished Width / (100 - Shrinkage)) * 100
= Width in Reed - (Width in Reed / 100) * Draw-in

Width in Reed
= (Woven Width / (100 - Draw-in)) * 100
= Ends / EPI
= Ends / Ends/cm

Number of Picks
= Woven Warp Length * PPI
= Woven Warp Length * Picks/cm

Total Picks
= Number of Picks + (Test Sample length * PPI)
= Number of Picks + (Test Sample length * Picks/cm)

**PPI or Picks/cm**
= Number of Picks / Woven Length

Total Weft Yarn Length
= (Total Picks * Width in Reed) + Weft Waste

Weight and cost is calculated from Total Yarn Length in warp and weft.

Sectional Beam Calculations

This menu item is found under Special/Sectional Warping. When this is clicked, the program will first check if the information needed is entered. If not, there will be a message "Please enter basic project information before calculating sectional warping" or similar. Then a dialog to input sectional width will appear. When this is entered, the program will check if Width in Reed (as already input by the user) divides evenly with sectional width. If not, there will be a message "Width in Reed must divide evenly with sectional width". If everything is OK, the program will show a window displaying the calculated **Number of Spools** and **Number of Yards on Each Spool**. This information will automatically be printed along with the project, if it exists at printing time.
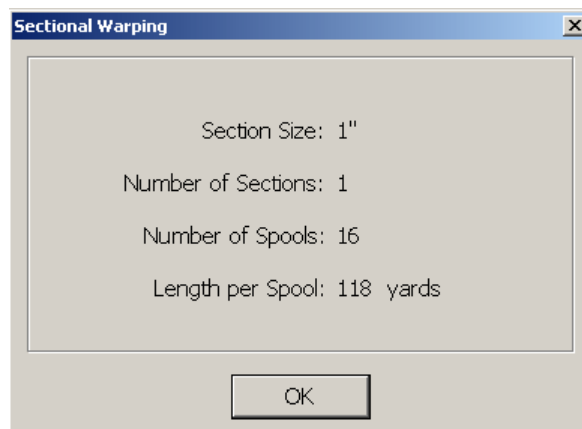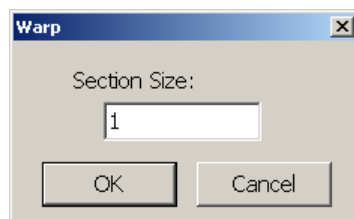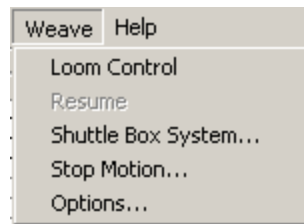
Weave Menu

If you have purchased the IDL version of *WeavePoint*, two tools on the Weave Menu will become available to you. These menu items will enable you to control the sequence in which the shuttles are fired and to stop the loom automatically to accommodate, for example, a change of pattern or shuttle/color placement.

Prior to initiating the weaving process on the loom, it will be necessary to:

1. Select the appropriate **Shuttle Box System** and coordinate shuttles to the colors in the Shuttle Boxes.

2. Specify the **Stop Motion** settings or clear them, as needed.

3. Confirm the setting in the **Options** window.

4. And, finally, select your Repeat Source, and start/end picks in **Loom Control**.

The functions for **Loom Control** and **Options** will not change, although there are slight differences in the dialog boxes.

SHUTTLE BOX SYSTEM

When you click on the Shuttle Box System in the Weave Menu, the Shuttle Box System Window opens.

Choose the Shuttle Box Mode that is appropriate for your project.

The three Shuttle Box Modes:

1. **NORMAL**: one to four shuttles.

2. **SPECIAL**: up to six shuttles -- designed for Tartan weaving. There must be an even number of picks of each color.

3. **EXTRA**: seven shuttle weaving.

WeavePoint gives each color an Index Number. *WeavePoint* for IDL uses these numbers to "tell" the loom which shuttle to launch. To review using the *WeavePoint* Color Palettes and Color Dialog, see the following.

COLOR PALETTE: To access the color palette, click on the icon at the right hand side of the tool bar. The icon looks like four windows in different colors. Once the palette is displayed, you can select the size (number of colors per palette) by clicking at the bar at the bottom of the palette. The smallest size has sixteen colors, then 64, and the largest one has 256. The bar at the bottom of the palette is showing you which color is active and the same color is displayed at the tool bar, next to the color palette icon, in your general window.

Yarn colors are set in the warp color and weft color grids along the threading and liftplan or treadling. You can use up to 256 colors in one pattern. Each color has a **color index number**, ranging from 0 to 255. **Each color index can be adjusted to any color you wish within a range of more than sixteen million hues and shades**. You adjust a color in the Color Dialog.

Think of it this way: In the color grids, you select different yarns. In the Color Dialog, you dye the yarns. The great advantage when simulating a fabric on the computer screen is that you can dye the yarns even after the cloth is woven.

Shuttle Box Modes

NORMAL is the mode used for most weaving and is the simplest to understand.
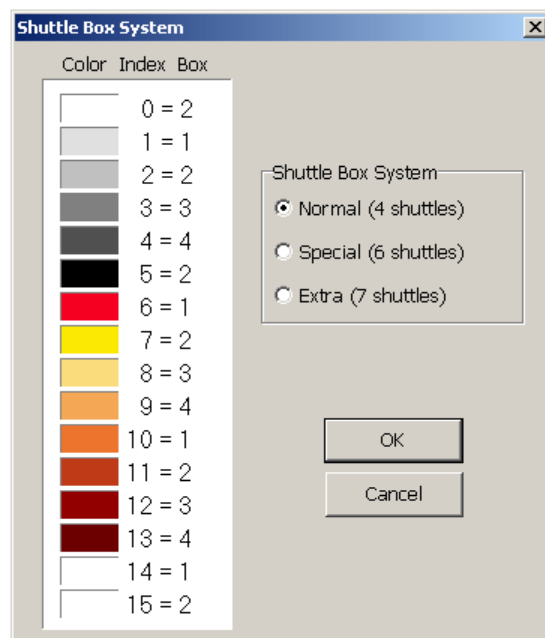
Shuttles move from Box 1 on one side to Box 1 on the other side; from Box 2 to Box 2; from Box 3 to Box 3; and from Box 4 to Box 4. The Shuttle Boxes on both sides move up and down together.

In NORMAL mode, use the first five indexed colors (0-4) to indicate the color usage in the pattern draft. (You can actually use the other ten colors, but it is simpler to just use 0-4.) You may want to change the color associated with any Index Number to the color you will actually be using by employing the Color Dialog.

If you are using one color and one shuttle, use the color with Index Number 0 and place the shuttle in Box 2 -- either right or left.

If you are using two colors and two shuttles, use the colors with Index Numbers 1 and 3 and start the shuttles in Box 1 right and 3 left. This helps keep the threads from catching on each other, especially good for pick and pick weaving, i.e., shadow weave or Summer and Winter.

If you are using three or four colors and shuttles, place the shuttles as indicated in the previous table.

In NORMAL mode, your design can have any number of picks of any color in any order.

SPECIAL is the mode designed especially for weaving Tartans. You can have up to six shuttles and six colors. The following table shows which Index Numbers to use in the pattern and how to arrange the colors in the shuttle boxes.
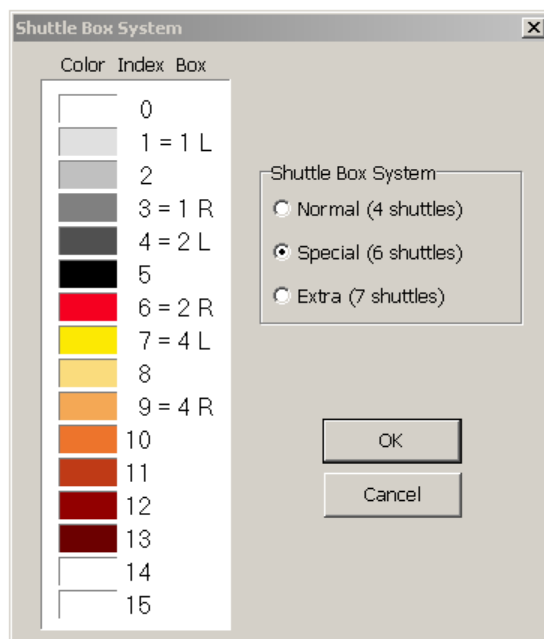

You will notice that Shuttle Box 3 remains open on both sides. These boxes are left open to accept any of the six shuttles from either side on the first pick of a pair of picks; one the second pick, the shuttle returns to its original location. **There must always be an even number of picks of each color in the design**.

Authentic Tartan setts always have an even number of ends and picks of each color. The vast majority of Tartan setts use six or fewer colors. Many only use three or four, for these it is possible to use the NORMAL mode. For setts calling for more than six colors, it is possible to use the optional STOP MOTION feature to stop the loom; switch to Manual operation; to throw a seventh or eighth shuttle by hand; and then go back to the Automatic operation.
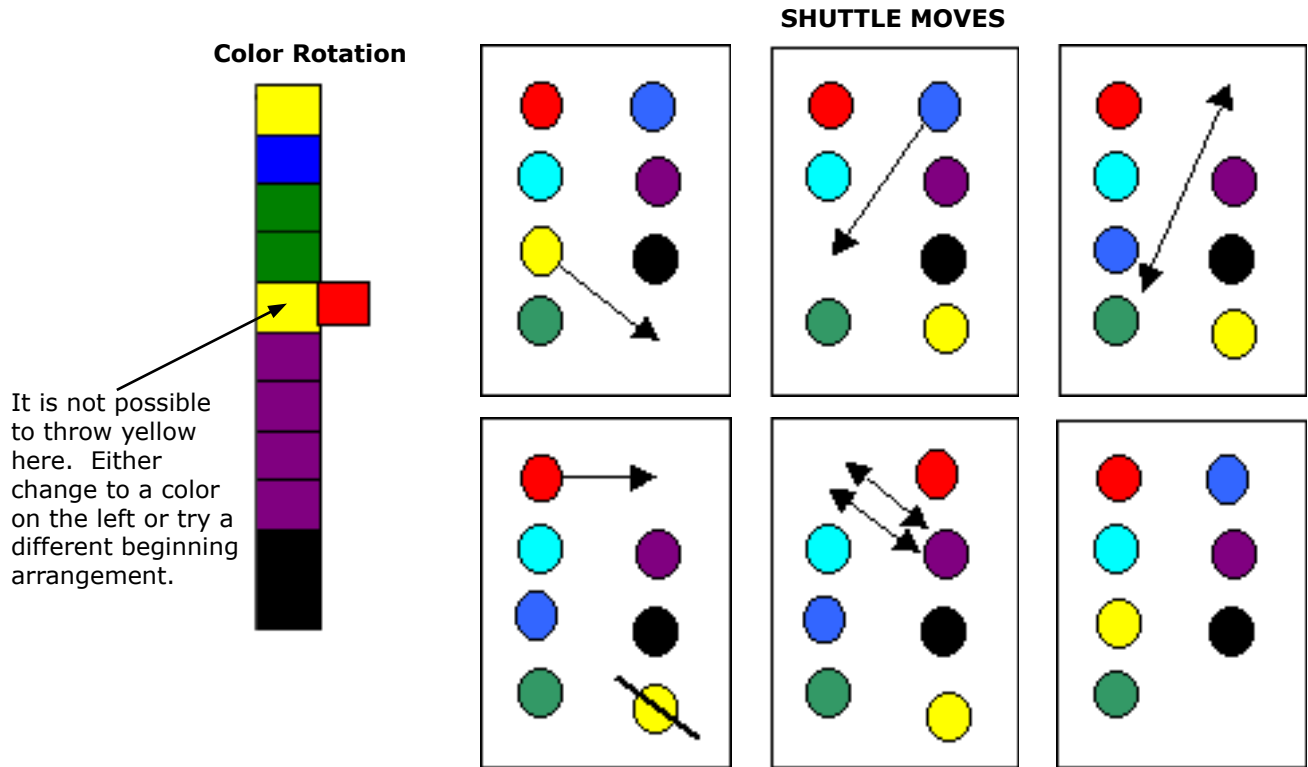
EXTRA is the most complicated mode and is used for weaving with seven shuttles. Both sets of shuttle boxes move independently. Before assigning shuttles/colors to specific box locations, the possible shuttle moves must be determined.
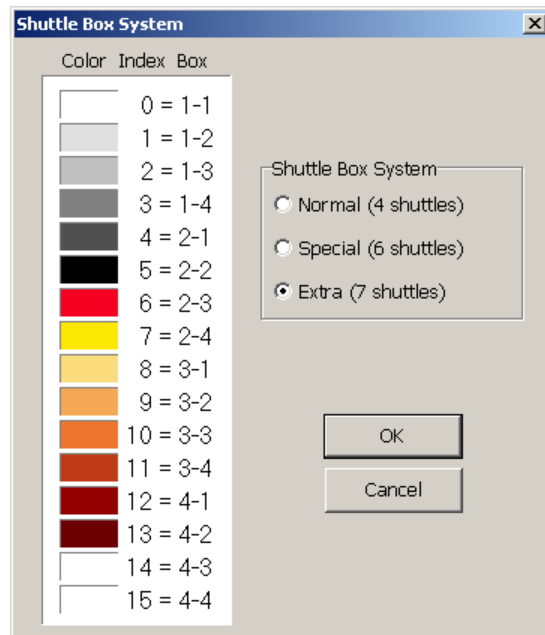
An easy way to work out the possible moves is to use seven colored dots arranged as shown on the next page. Place colors in any order to start, they may need to be rearranged to gain the desired result or the color rotation may need to be changed.

Look at the proposed color rotation below. The first color to be used is on the left; move it to the open space on the right. The next color is on the right and moves to the open space on the left. Then the third color moves to the open space on the right and back to its original spot. At the fourth color change, we see that there is not an open box to accept the yellow shuttle. It is necessary to either change the color rotation or rearrange the color dots and start again. Continue moving the colors from side to side, rearranging or editing as needed.

Color Rotation

SHUTTLE MOVES

It is not possible to throw yellow here. Either change to a color on the left or try a different beginning arrangement.
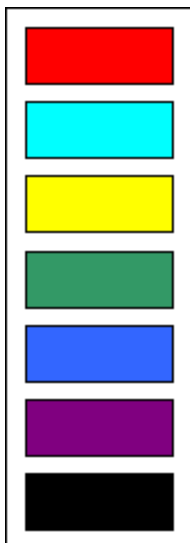
When the desired result is achieved, arrange the shuttles in the boxes as indicated by the table on the following page.

Use the color order established in the previous exercise to determine shuttle placement and the Index Numbers to use in the pattern draft. Use the Color Dialog as needed to change the hue associated with a particular Index Number.
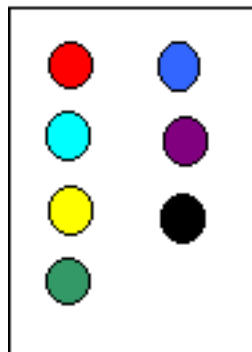
SHUTTLE BOXES

Sample Colors	Index Number	Left	Right
	could be # 0, 1, 2, or 3	1	
	could be # 4, 5, 6, or 7	2	
	could be #8, 9, 10, or 11	3	
	could be # 12, 13, 14, or 15	4	
	could be #0, 4, 8, or 12		1
	could be # 1, 5, 9, or 13		2
	could be # 2, 6, 10, or 14		3

STOP MOTION

Use these options to automatically stop the weaving process. You may select to stop at a **Color Change**, a predetermined **Pick Interval**, or a **Specific Pick** in the repeat. These Stop Options are self explanatory.
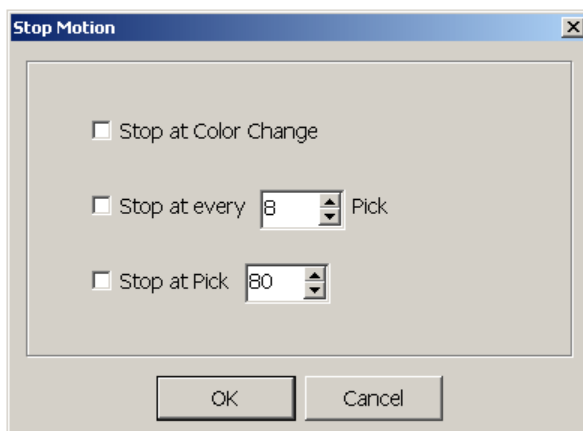
Insert Picks Manually - One purpose of Stop Motion is to enable the weaver to manually insert an additional color into the sequence at pre-chosen intervals, such as a fifth shuttle for a two-shot throw in the middle of a tartan repeat.

Be sure your liftplan includes all picks, including the ones you will throw by hand (the program will advance to the next pick in Manual Mode every time you manually go through the weaving cycle for each pick). To proceed:

1.   Simply set the Stop Motion choice.

2.   When the loom stops, change to Manual Mode.

3.   Throw the desired number of picks manually.

4.   Revert to Automatic Mode, and restart the loom.

If, after this process, the selection for Stop Motion is not longer valid (perhaps the Stop at Pick number needs to change) in order to change the settings:

1.   Leave Weave Mode.

2.   Change the Stop Motion setting.

3.   Re-enter Weave Mode.

4.   Switch to Automatic Mode and continue weaving.

WEAVE OPTIONS

Com Port -This dialog box will help you with the Com Port settings for communication between your IDL Loom and computer. Select the Com Port from the drop-down menu. Use the Find Com Ports button for assistance in locating the available Com Ports.
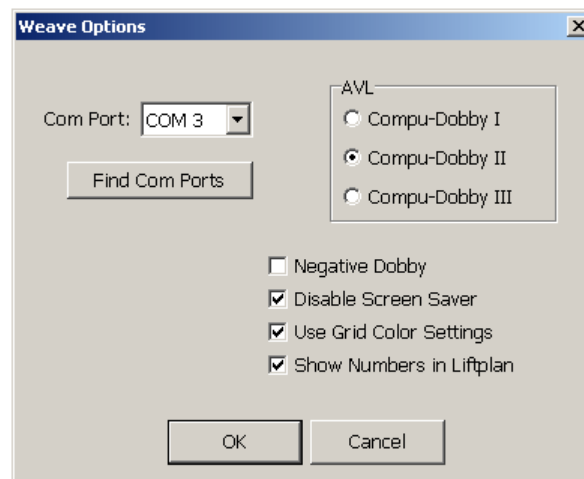
AVL - Specifies the type of Compu-Dobby specific to your loom and software. Your IDL will require the setting for **Compu-Dobby II**.

Negative Dobby — Your Compu-Dobby II is a Positive Dobby, so leave this unchecked.

Disable Screen Saver - Check this box, to avoid disruption of viewing on your computer monitor.

Use Grid Color Settings and Show Numbers in Liftplan — These are tools best left available, for ease in reading your draft.

Loom Control – The **Loom Control** dialog box lets you select the **Start Pick** (default is pick 1) and the **End Pick**. The End Pick, shown automatically in lift-plan or treadling, is suggested according to your selection of the repeat in either the **liftplan**, **weft colors**, or the **total repeat** mode.

It is important to select **Total Repeat** if you work with complex color sequences and especially if their repeat is not matching with the **liftplan repeat**. Since your computer will give you a sound signal when to change the weft color, it is important to have an accurate repeat according to both color and structure. **Total Repeat** is the minimal repeat one has to select to get the design repeated completely, including color and pattern.

For example, if the liftplan is eight and the weft color repeat is twelve, the total repeat will be 24. **Total Repeat** should be selected so the full range will repeat automatically when weaving.

You can override **Start Pick** and **End Pick,** if you wish.

For weaving a pattern with weft borders, you can select Start Pick to be the first pick above the border.

Loom Control Window

When these selections have been completed, click **OK**, and the **Loom Control Window** will open in complete screen mode.
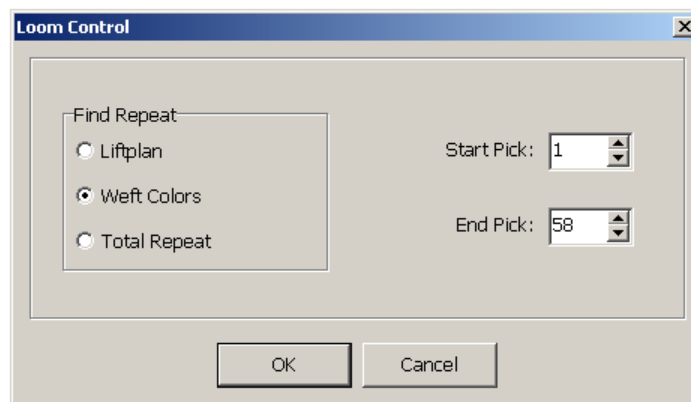
Loom Control Window – Please refer to the information in Chapter 10 for in-depth information on the Loom Control Window.