

# WeavePoint 7

Version 7.0.1.4b

## User's Guide

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[www.weavepoint.com](http://www.weavepoint.com)

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## Installation

Insert the program CD into your drive and the installation dialog 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*

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

## System Requirements

Windows 98/ME/2000/XP/Vista/7.

Minimum Hardware Requirements:  
Standard requirements for your Windows version  
5 Mb free disk space.

# 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 dobby looms and industrial shaft looms, and 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 experienced designer. But also, if you are learning or teaching, this program is very useful since so many design principles are built into the program. The Design mode can even be used for knitting and other grid patterns. For using WeavePoint also in production, interface options for various loom control systems are available.

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

To get context sensitive help on commands and dialogs, press F1 when selecting a command or when in a dialog. Also, you can click the Help button available in many dialogs.

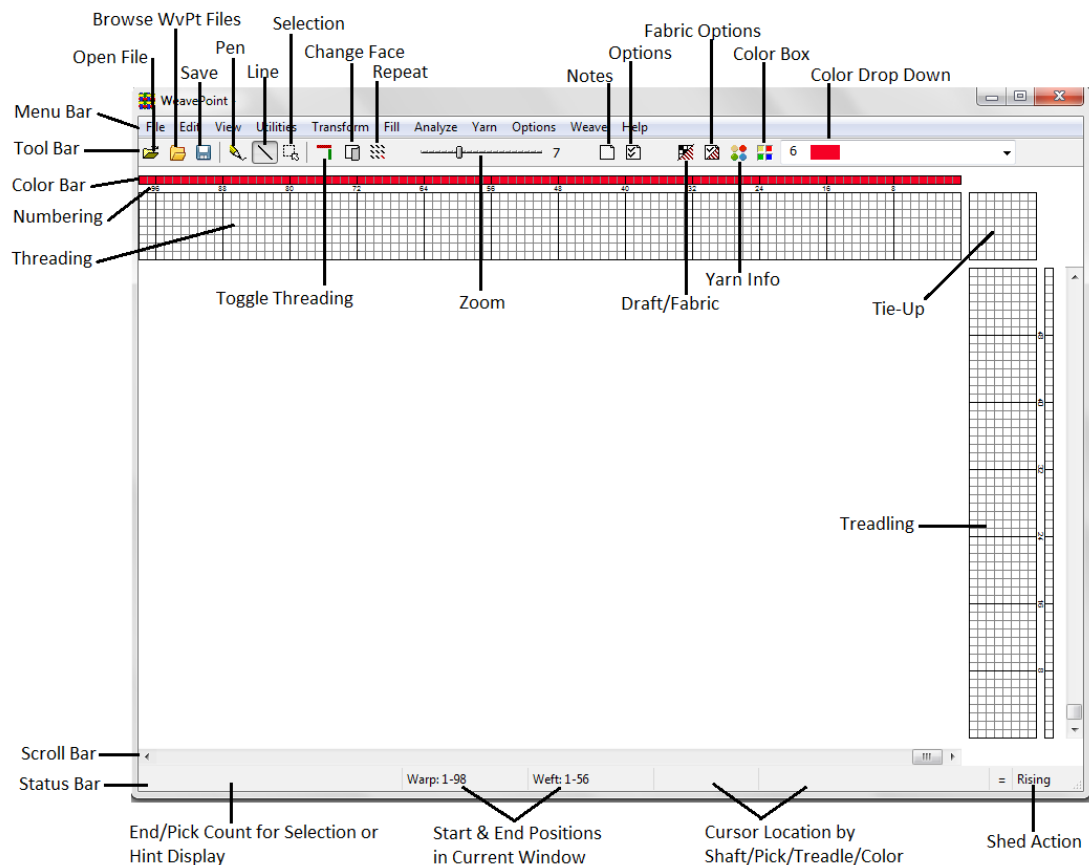
When the cursor is over a menu item or toolbar button, a short description is displayed in the status bar for many items.

A collection of sample patterns is installed to the Samples folder. These patterns are examples of various types of patterns, profiles, and networking components. The Samples folder is located in your Documents/WeavePoint folder and also, by default, in C:\Program Files\WeavePoint 7\Samples.

The Project Planner is a separate utility that is included with WeavePoint. The Project Planner lets you easily calculate yarn weights and costs for a project. You can start the Project Planner from the Options menu.

Be sure to check out the WeavePoint home site on a regular basis for news, tips and other information: [www.weavepoint.com](http://www.weavepoint.com).

# WeavePoint 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.

## The Toolbar

The toolbar gives quick access to commands frequently used. In addition to the standard Open File and Save buttons, Toolbar buttons, zoom sidebar and color selection box are located in the toolbar.

## Toolbar buttons



The toolbar contains toolbar buttons for quickly selecting commands that are typically frequently used. Place the mouse cursor over a button to see a hint about its function.



## **Browse**

The Browse button will open a window to allow the search for your WeavePoint files, shown as thumbnails, for easy identification. This is also available from the File Menu.

## **Toggle Threading**

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

## **Change Face**

This tool will immediately change to view the back face of the fabric in the Draft Window, the Fabric and Interlacement Views.

## **Repeat**

Repeat your pattern. Having used the Selection Tool to make a selection, open the Repeat dialog and your choice will be reflected in the active boxes.

## **Zoom**



Click to the left or right of the slider to increase or decrease the zoom, or press the left or right arrow key.

## **Notes**

This button will open a window for writing and maintaining notes for the selected Draft. If no information has been entered in the window, the icon/page will appear blank. Once information has been entered in the window, little lines will appear on the icon/page.

## **Draft/Fabric**

This button will instantly switch from the Draft Window to the Fabric View.

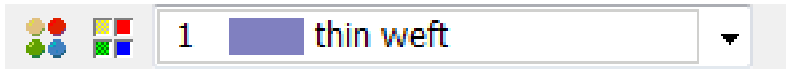
## **Fabric Options**

This will open a dialog box which will enable you to set the Fabric Density in the Fabric View. This information will affect the appearance of the textile in the Fabric View.

## Yarn Info

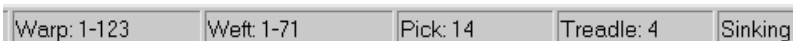
This button will open the Yarn Dialog window. Information on the yarn, its size and spacing, symbols for representation in the Draft display, and other tools will assist you in the design and production of your textile. This information will be important in building the Fabric View of your textile.

## Color selection



The color box shows the present selected color for drawing colors in warp color and weft color grids. To select another color, either click the color box or click the palette toolbar button to bring up the color palette window.

## 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 shown at bottom right. When the cursor is in warp or weft colors, the color index at the cursor is also displayed.

The left side of the status bar shows a helping hint when choosing a menu item or toolbar 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.

The link/unlink status is displayed as =/- in the status bar.

# Overview and Principles

## 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.

In addition, there are the fabric view modes also found in the View menu; Fabric and Interlacement.

Other kinds of modes are selected in Options. Most important, you can choose Loom System: Liftplan, Tie-up single treadle or Tie-up multiple treadles loom system. Liftplan is used for dobby looms, industrial shaft looms, computer controlled looms, table looms - all looms with direct shaft control. Tie-up system is equal to countermarch or sequence of lags. In Liftplan mode, the rising/sinking of shafts is decided in the liftplan (also called "pegplan").

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. Design mode and drawdown editing is not available in tie-up mode with multiple treadles.

Also, you can select rising or sinking shed and alter the layout of the screen.

## Zoom and window system

The grids function as a window to the pattern. The full size of your pattern depends on your Options settings. Maximum size is 9600 warp ends and 9600 weft picks. To reach more ends or picks than present at 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.

## Making repeats

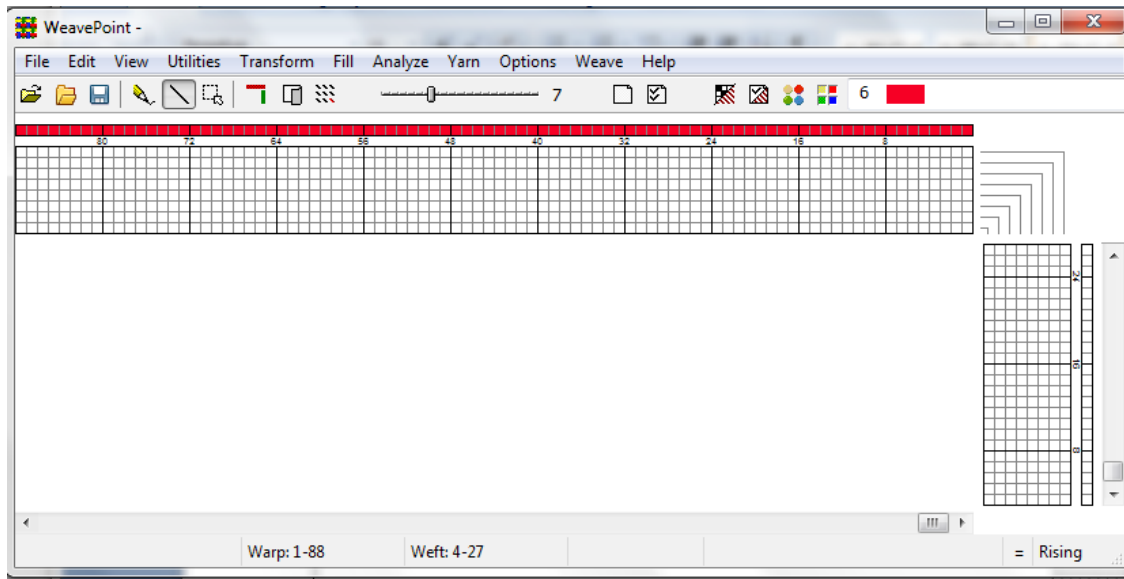
You only need to fill in one repeat in a diagram. Then let the program do the work of repeating it!

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 your repeat sizes. You can also use Copy and Paste Special.

When modifying a design, and you want the modification to be repeated, you then remake the repeat.

## Two ways to design

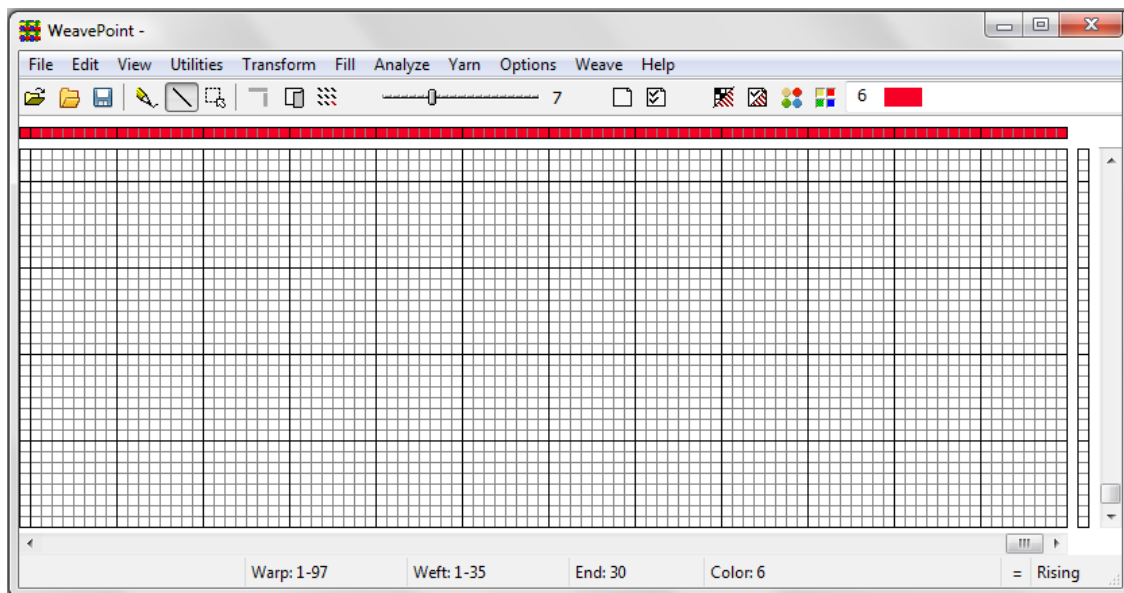
With WeavePoint, you can make a pattern in basically two ways. Either fill in the different diagrams, like threading, tie-up, etc., and let the program do the drawdown.



*Draft View – Liftplan mode*

Or you can draw your pattern directly in Design mode. The program will then automatically construct the draft. Once a pattern is made, you can edit and modify it using any way.

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.



*Design View*

You can also draw directly on the drawdown in Draft mode, as long as the threading (and

treadling in Tie-up mode) is filled in first. The program will then automatically construct the liftplan or tie-up as you draw. The threading (and treadling) will remain fixed.

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

### **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 Shafts.

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

## A Quick Tutorial

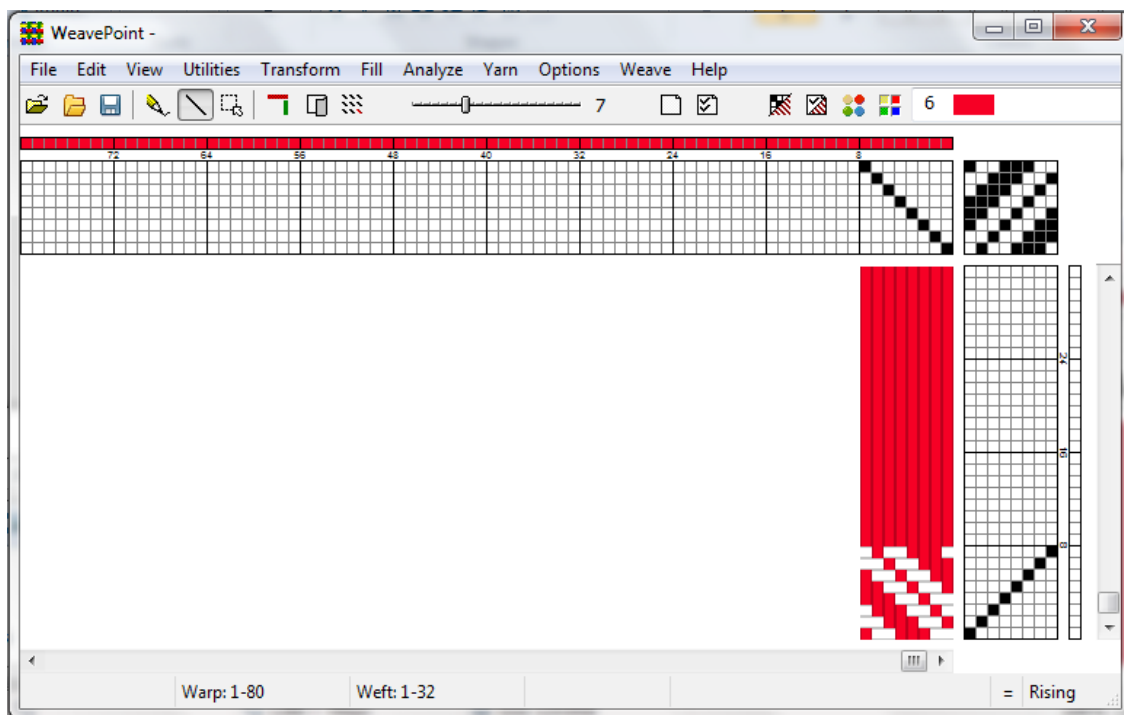
This is a quick tutorial on how to make a pattern in draft mode. Please note that all of these points will be covered in detail in the appropriate sections of this manual.

First, pick File/New from the menu to start with a blank screen. In the New dialog box you can select number of shafts and rising or sinking shed (depending on the action of your loom). You can leave the pattern size to the default values.

At startup, 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 grids on the screen (if there is a tie-up grid, you are in tie-up mode). If necessary, change loom system: Pick Options/Options (or use the Options speed button on the Tool Bar), select the Loom tab and select your loom system.

When editing, the cursor position is continually updated in the status bar. You can change zoom in the toolbar and click the scrollbars 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 toolbar, 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.



*One Repeat in Treadling, Threading with Tie Up*

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. To undo your last drawing operation, pick Edit/Undo or press Ctrl-Z. To erase ends, click the right mouse button.

Fill in the threading until you have one repeat.

Now you can fill in the liftplan or tie-up, depending on the mode you work in. It is often most convenient to draw with Pen mode in liftplan and tie-up. 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. This is just like filling in the threading. Or select Utilities/Tromp As Writ to copy the threading to the treadling.

Now, to fill the pattern with your repeat, click the Repeat button on the toolbar, 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. Select Fill/Colors to quickly fill in new warp and weft colors. To fill in more complex color sequences than is possible with Fill/Colors: Pick Yarn/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 and Interlacement. And try printing your pattern, for example as draft.

You can also quickly create patterns by using 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.

Check out the samples patterns to see various types of patterns created in WeavePoint.

Now you can continue to explore the program on your own. Read the documentation as needed. Try to Copy and Paste. And check out How to.... Try out all the possibilities in the Utilities and Transform menus. Read Help or the manual as needed.

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.

## Drawing and Drawing Modes

To draw, press the left mouse button. To erase, press the right mouse button.

In color grids, draw with the present selected color by pressing the left mouse button. Clicking the right mouse button in a color grid will select the color at the cursor. Note that if you are left handed, you can switch the left/right button functionality in your Windows settings.

You select drawing mode by clicking the appropriate toolbar buttons. You can draw in either line mode or pen (freehand) mode. Selection mode is used for selecting an area to copy or a place to paste. When in selection mode, the cursor will change to indicate selection mode.

## Keyboard shortcuts

Press the S key to change between Pen, Line and Select mode.

Press the M key for Select mode («mark 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.

Press the F key to open Fabric Options.

Press the G key to open the Yarn Info dialog.

If you have not changed any values, you can also close these dialogs by pressing F or G. If you have changed something, click OK or Cancel to keep the changes or not.

To undo the last drawing operation, choose Edit/Undo or press Ctrl-Z.

Various Ctrl-<key> shortcut commands are shown in the menus. You can use standard Windows shortcuts, like Ctrl-C to copy and Ctrl-V to paste.

For using the keyboard to open main menu items, press Alt to see the underlined letter in the menu (normally the first letter), then press the letter underlined. Next, press an underlined letter in the submenu to open an item.



## Copy and Paste

To use Cut, Copy or Paste, first click the Selection tool in the toolbar. Note that the cursor changes when you are in selection mode, 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

Deletes the selected area and copies it to the clipboard. See Delete below.

### Copy

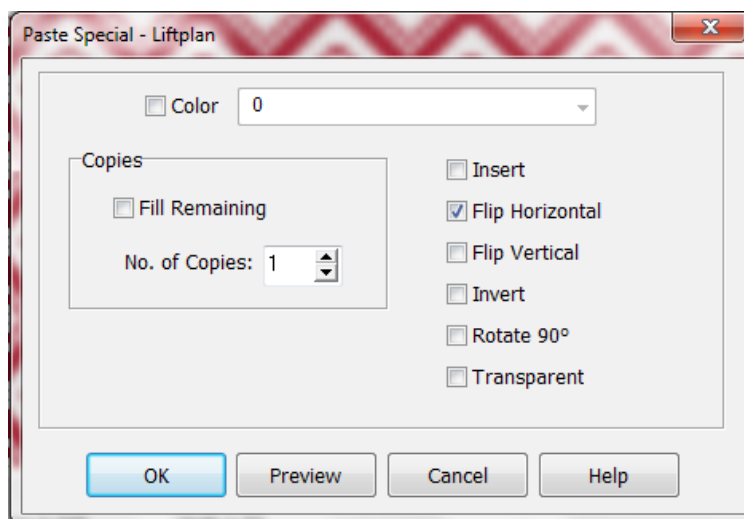
Copies the selected area to the clipboard.

### 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 if you select a larger area for pasting - the result will be the same.

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

### Paste Special



First, select an area and copy it. 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 grid. For example: First copy from threading, then Paste Special in threading.

When using Paste Special and pasting multiple copies, the distance between the starting point of the copy and the starting point of the original is crucial. The distance between these two points will be the distance between each copy pasted in liftplan and in Design mode. The principle is that the second copy will be displaced relative to the first copy, just like the first copy is displaced from the original. You can displace the pasted image both in horizontal and vertical direction. 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 the start position (position 1,1) in the present grid.

In addition, you can select an effect or various effects in combination.

To rotate 90 degrees, check Rotate.

To rotate 90 degrees in the opposite direction, check Rotate, Flip Horizontal and Flip Vertical. Note that rotating 90 degrees is applied to a square grid.

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

Invert: Paste a negative of the copy.

Transparent: Paste only black squares in the liftplan, tie-up, treadling and in design mode.

In threading and 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.

#### 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.

Note that you can only use Paste Special when the clipboard has a copy from the same grid. For example: First copy from threading, then Paste Special in threading.

For tie-up special effects, see also Utilities/Tie-up Special..

### **Select and Copy**

You can also select and copy an area with Edit/Select and Copy. This method is especially useful if you want to copy an area larger than visible on the screen. Select and Copy is equal to selecting an area with the Selection tool and choosing Edit/Copy.

## **Repeat**

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

When having selected an area, you can click the Repeat toolbar button or choose Edit/Repeat. The area selected will now be preselected in the Repeat dialog. This way you can visually select the area and then use the Repeat dialog to repeat.

Note that when using Repeat, you do not need to copy to the clipboard, it is the selected part on screen that is being used.

## **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.

## **Insert and Delete**

Inserting and deleting ends and picks can be done in various ways. You can insert and delete both in draft mode and in design mode.

### **Edit/Delete**

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

In threading, treadling and color grids, the selected ends/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 part of the liftplan will be cleared.

Shortcut: Press the Delete key.

### **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. 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 high zoom level. If «Show all warning messages» is checked in Options, a warning message will be displayed when deleting.

### **Using Insert and Delete dialogs**

Choose Utilities/Insert or Utilities/Delete.

### **Using Edit/Cut to delete**

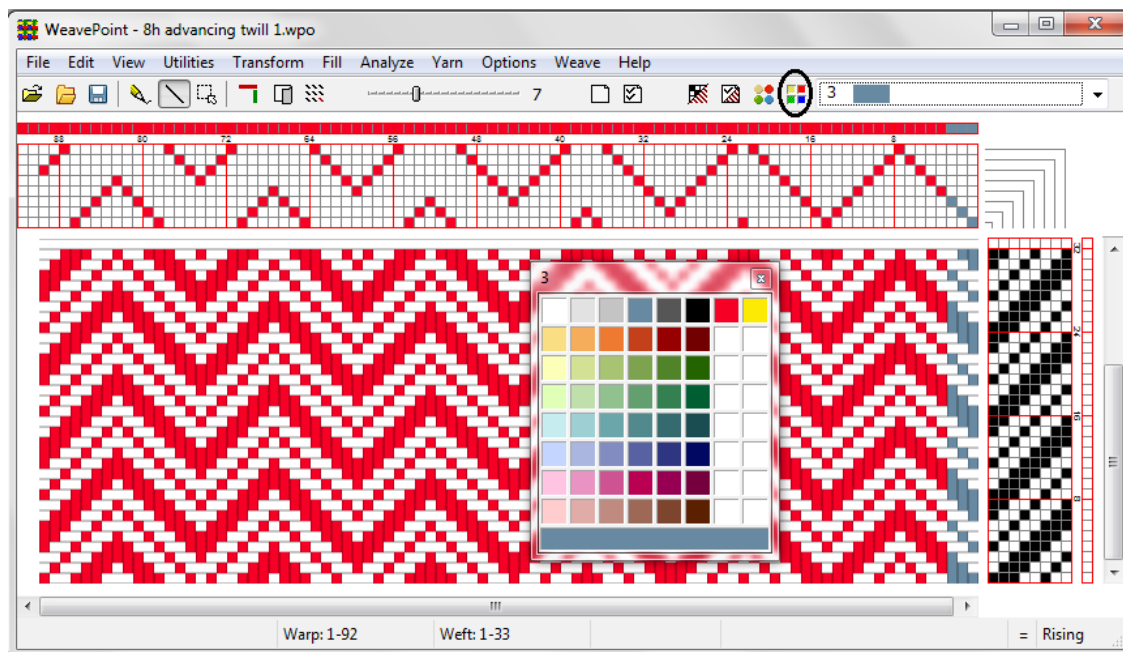
Select the area to delete. Then choose Edit/Cut. The deleted item will be placed on the clipboard.

## Using Edit/Paste Special to insert

1. Select an area the size you want to insert.
2. Choose Edit/Copy.
3. Select the start end/pick where you want to do the insert.
4. Choose Edit/Paste Special and check Insert in the dialog.
5. Now you can edit the inserted ends/picks as you like.

See also Unlink and Copy and Paste.

## Working with Colors



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 tool bar. Click the color box to select another color. To easily see and select many colors, choose Yarn/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 can not "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.

### Fill Colors

The quickest way to fill in color sequences in warp and weft is to use Fill/Colors.

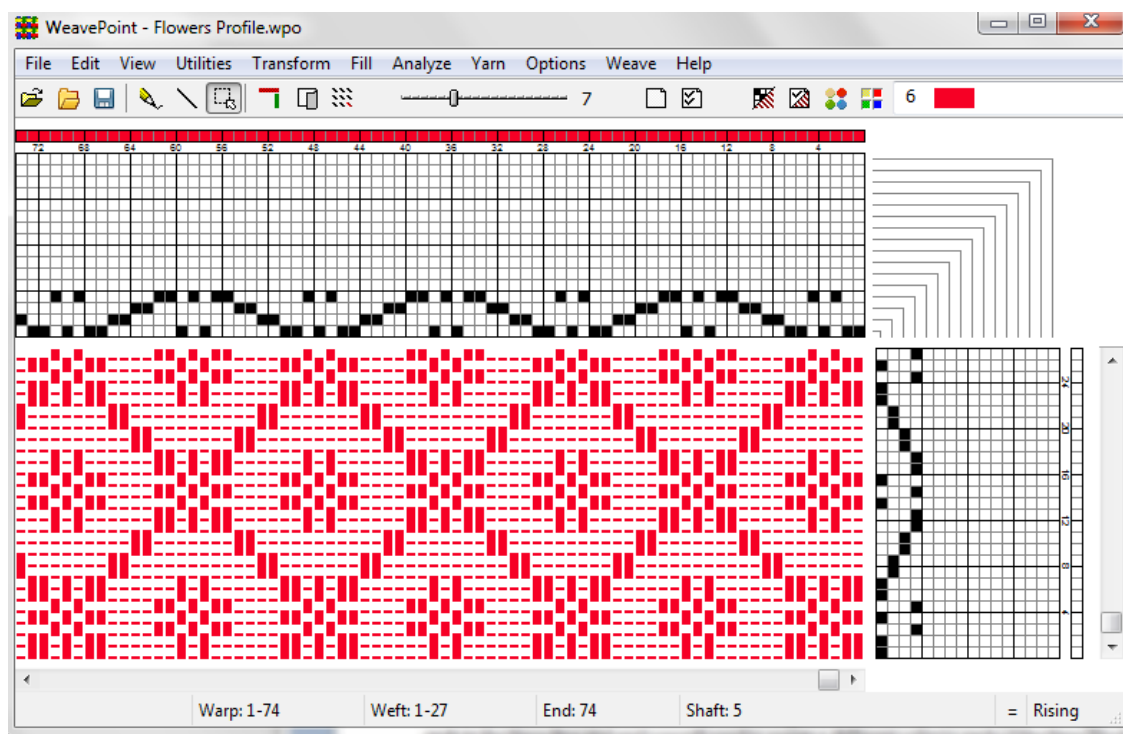
### The Color Dialog

There are various ways to open the Color Dialog. You can select Color Dialog in the Options menu to adjust the present color, or double-click a color in either the Color Palette window or the Edit Colors window. You can also click the color panels in the Yarn Info dialog and in the Fill Colors dialog.

Adjust your color and click OK. See also Color Dialog.

## Working with profile drafts

Often making a pattern starts with a profile draft. Each square in the profile draft represents a group of ends and picks.



You make a profile draft just like you make a normal pattern, except you know you will use this one as a profile. The threading grid is used for the profile threading, etc. Block one (A) = shaft one, block two (B) = shaft two, etc. Use normal edit mode or design mode, tie-up or liftplan mode. Save the profile draft when it is finished.

There are three ways to transform your profile draft to a full pattern with block weaves. The three menu items are found in the Transform menu:

- 1) Block Substitution. Use this traditional method to replace each block in the threading and treadling with blocks saved in files.
- 2) Translate. Substitute blocks with weave units directly in the pattern or «drawdown». Select weaves from a predefined library or enter your own weaves.
- 3) Overlay. Overlay weaves on the liftplan or «drawdown». This resembles overlaying weaves for jacquard patterns. Unlike 1 and 2, 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 weave.

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, and also save patterns with block details (used with the Block Substitution command) or translation grids (used with the Translate and Overlay commands) in separate folders, to easily locate them.

To increase the motif size in a profile draft, you can use Expand.

## Printing

To print images of the draft, fabric etc., choose File/Print. To print the draft with various options, pick Print Draft. To print as fabric with various options, pick Print Fabric. To print other images, pick Print Screen Image. For example, to print a fabric interlacement, first choose View/Interlacement to see the interlacement on the screen.

Before you print an image, choose File/Page Setup to set paper margins. The margin settings control both placement and size of the printed image.

Choose File/Print Numeric to print draft information in text mode as numbers only. You may find this way of printing useful for printing draft info 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. Printing warp colors numeric can be very useful when warping with many colors.

You can choose File/Printer Setup to check the selected printer and its settings.

## How to open and save pattern 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.

To load separate pattern components instead of the whole pattern, choose File/Open Components. Or use pattern components like threadings or weave units in many Transform menu commands.

To save a pattern component, you simply save the whole pattern as usual. 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. To later retrieve the palette, choose Open Components and check Color Palette.

You can easily make your own archive of various pattern elements. To organize your archive, make a separate folder for each component type. For example, name one folder Threadings, another Color Palettes, etc. Then fill in the pattern element and save to the folder where it belongs.

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 file.

Another useful thing to do is to open 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.

## **How to edit the drawdown/fabric**

In draft mode, you can edit directly in the drawdown area.

### **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 mode**

In Design mode, you can draw on the fabric as a free pattern. When later selecting Draft mode, the pattern will be completely reanalyzed to reconstruct all parts of the draft.

## How to 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 start menu, or use the desktop icon. 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 the taskbar, and select from the submenu.

## How to make patterns for a drawloom

In Options, Select 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 repeated sideways as you draw.

Print out the liftplan, to use it when lifting the pattern shafts or units at the drawloom.

Note that you can select to have shaft 1 on the left or right side of the liftplan. In Options you can select to have shaft 1 at the top or bottom of the threading, and changing this option will also change the position for shaft 1 in the liftplan.

## How to use WIF files

The different weaving programs all use their own format for storing weave information. 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 specification which was 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, 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.

### **Open WIF file**

In the standard Open dialog, select WIF as file type to open. The WIF file can contain liftplan, tieup/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 place in the Note.

Note that WIF is an inefficient file format. Thousands of ends and picks in a WIF file can take a long time to load.

### **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 tieup/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. WIF is not a very efficient file format.

### **Sending WIF-files with e-mail**

A possible problem when sending WIF-files attached to 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. In this case, you can try to restore the line endings by opening the file in a text editor like WordPad and resave it, or resend it in a zip-file. When a WIF-file is zipped, you can be certain it will not be altered in any way.

## **How to quickly make a twill in the liftplan**

- 1) Draw the first twill line in the liftplan.
- 2) Click the Selection toolbar 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 end 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.

## **How to quickly make a twill in the tie-up**

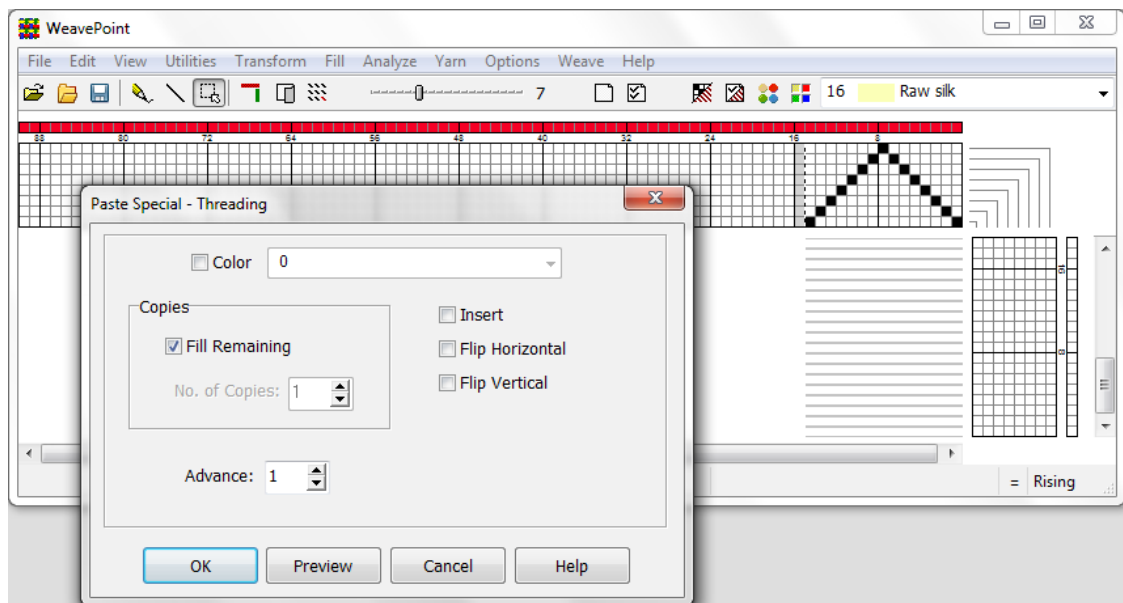
- 1) Draw first line in the tie-up.
- 2) Choose Utilities/Tie-up Special. In the dialog, select Make Twill from shaft 1.

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".

## How to create an Advancing Threading

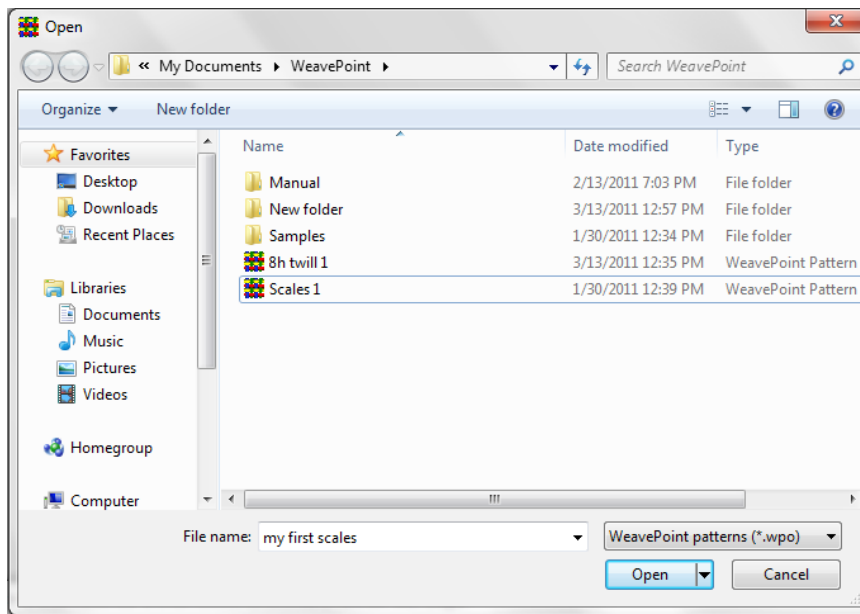
- 1.) In your threading, create the initial pattern you want to advance, Select it, and Copy.
- 2.) Using the Selection Tool, mark the end where you want your advanced part to begin. The size of that selection is not important, just the starting position. It is enough to mark just one thread.



- 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. You can always use the Preview button to be sure it is the way you want, before using the OK button. Corrections can be made by changing the options and clicking Preview again.

# FILE MENU

## Open



If you wish to open a file that you have recently opened, click on the file name from the list at the bottom of the File Menu to open it. This list contains links for the previous seven files you have opened in WeavePoint.

Choose File/Open or click the Open toolbar button to go to the Open dialog. In the dialog, you can select file type to open: WeavePoint pattern, WIF-file or bitmap/graphics file.

To load elements of a pattern file, use File/Open Components.

### Open bitmap files (.bmp)

A bitmap will be displayed 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.

Bitmaps can be monochrome, 16 color, 256 color, etc. WeavePoint treats bitmaps as monochrome. Because the colors are in the threads, the drawdown structure is essentially black/white (over/under).

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 black, 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.

## Open PNG graphic files (.png)

Works like opening BMP files. You can save in PNG format in most graphics programs, like PhotoShop. PNG is a lossless file format with good compression, well suited for weaving patterns. The image will open in Design mode.

## Browse

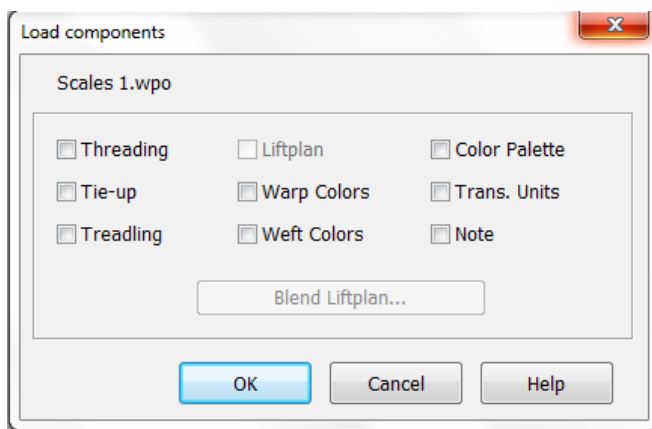
This selection will open a dialog box displaying all your WeavePoint files (.wpo) as thumbnail images. You can also access this dialog box using the Browser Speed Button on the toolbar.

In the Browse window, click the yellow folder icon to select a folder. Recently used folders can be quickly selected in the bar just below the folder icon.

The Sort drop down box will allow you to sort by Name, Date, or Number of Shafts/Harnesses. There are three Zoom levels; Three providing the largest view and One, the smallest.

Double click an image to open the pattern.

## 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.

To load separate pattern components instead of the whole pattern, choose File/Open Components. A search window will open. 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.

Select one or more components of a pattern file to load into the present pattern.

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.

Note that also some commands in the Transform menu will load a component from a pattern file when using a file is selected.

### **Blend Liftplan**

Clicking Blend Liftplan will bring you to another dialog where you can select four different ways to combine the liftplan from disk 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 before, 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 toolbar button to save the present pattern with the present name and path (folder). The name and path of the present pattern is always displayed in the program title bar.

If you have not given the present pattern a name yet, the Save As dialog will be opened automatically.

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

## **Save As**

Here you can specify a new pattern name or path, or create a new folder to save it in. Remember to choose an appropriate location (folder).

The pattern file name can be up to 255 characters long. You can even use spaces, so you

can write quite descriptive file names.

Note that the names of the recent patterns will be stored at the end of the File menu, and you will probably find that file names of this size will make the width of the file menu grow very large. So you may want to limit file names to something like 30-40 characters.

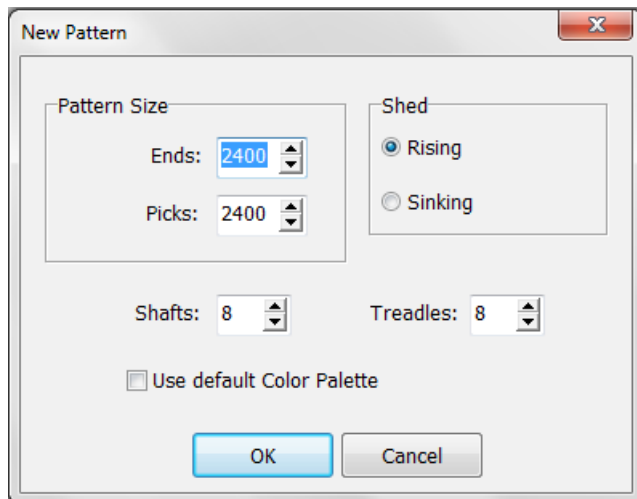
If a pattern with the name already exists, you will be prompted to verify that you wish to overwrite the existing file. So, if you want to preserve the original file and save this new one with the changes, you might want to add a number or letter (for instance, 1 or A) which will change it enough to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

To rename or delete a file, right click on the file name in the standard load and save dialogs. Then select from the popup menu.

## 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



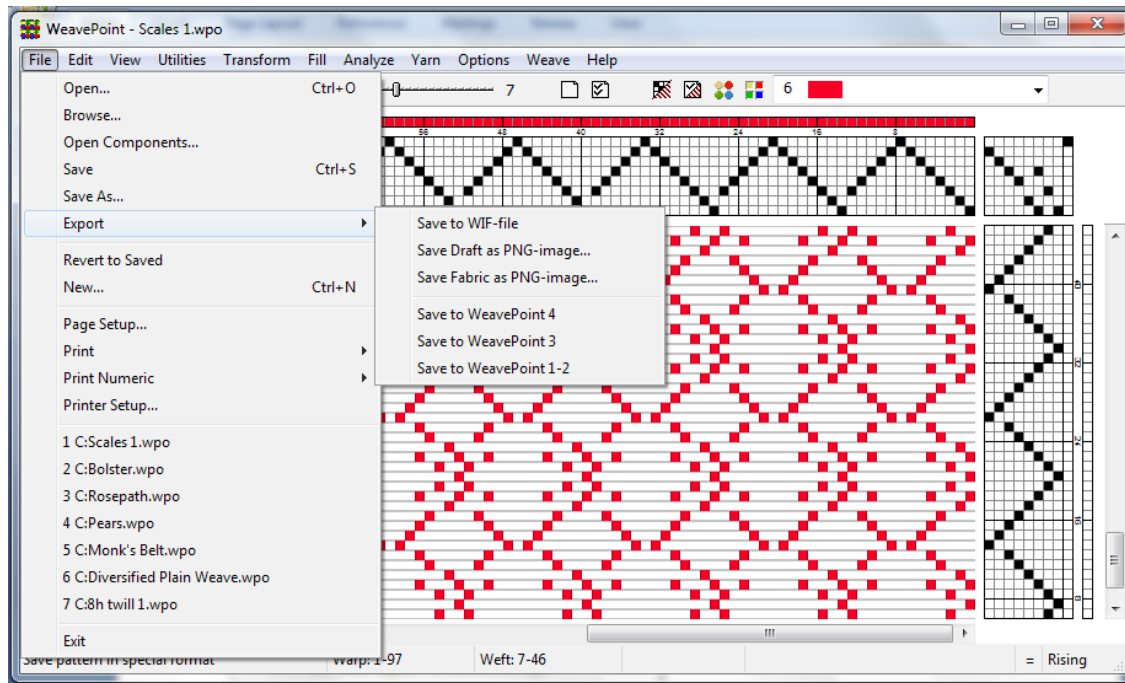
Start a new, blank pattern. The new pattern will replace the present pattern.

In the dialog box you can select some options. More options can be set in the Options dialog.

The warp and weft colors will be reset, using colors 6 and 0. The actual colors displayed depends on the current color palette.

If Use default Color Palette is checked, the color palette will change to the default palette. If not, the color palette will not change when selecting New.

# Export



Export the pattern to other file formats.

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 these versions of WeavePoint.

For how to use the WIF format, see Working with WIF files.

## Save Draft as PNG-image

Saves an image of the draft as a graphic file in PNG-format. Works like Print Draft, only that the result is a file instead of a printout and text is not included. Saving the draft as an image is great for when you want to use the draft image in another document.

You can also use Copy Image to copy a draft image from the screen, but the benefit of saving to a file is that you can get a larger image with much more detail. More detail means here finer grid lines. You can select how many pixels to use for each square in the grid (pixels per end). The grid lines will always have a width of one pixel. So if you select 20 pixels per end, the line width will be 1/20 of the width of the square.

If you will use several images in the same document, it will look best if you use the same value for pixels per end in all the images. The grid lines will then appear to have the same width, as long as the size of the images are not changed.

When Use Grid Colors is checked, the present grid color setting in Options will be used (partly dark gray by default). If unchecked, all grid lines will be black.

Note that the image can become very large, if including many ends and picks and using a

high value for pixels per end. A large image will also take time to render – an image with more than a few hundred ends or picks can take several minutes to render.

PNG-images can be opened in most graphic programs, photo and paint programs, word processors, etc. and is often used on web sites. Because PNG-images use lossless compression, PNG is a very good file format for draft images. If you should need the image in another file format, you can open it in a graphics/photo program and save it in the format you need. Note that graphics file formats that use lossy compression, like jpeg, are not recommended for draft images.

### **Save Fabric as PNG-image**

Saves an image of the fabric as a graphic file in PNG-format. Specify the number of ends and picks you want to include in the picture. Your settings in Fabric Options will also be used when saving the fabric as PNG-image.

Select quality level and calculate size. The size depends on the number of ends and picks and the quality level. Quality level equals zoom level on the screen. A typical full size photo taken with a standard digital camera does at the time of writing (2010) have a size of about 3000x4000 pixels. You will seldom need a larger image than this.

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 much used on the web. If you'd like to show some fabrics on your web site, you can save them as png-images and put them up on your site.

Saving as png-image is a nice option, especially for large patterns, if you want to open fabric images in other programs. 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.

## **Page Setup**

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 visually the selected printing area. When setting margins, you not only select the placement of the printed image, but also in effect it's 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 Setup, you can also make other selections, like Portrait or Landscape format printing. And you can click Printer.. to check your printer settings.

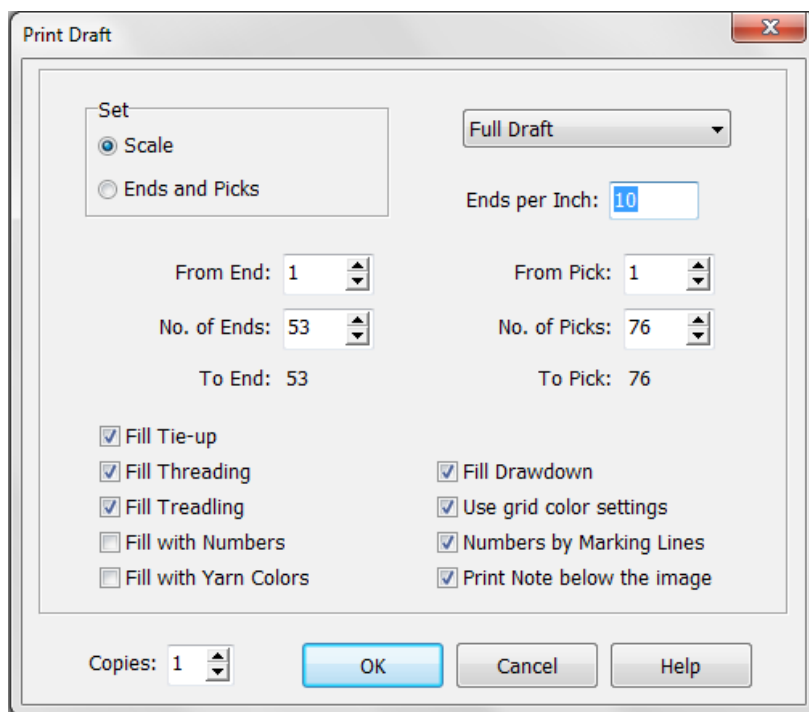


In most cases the printed image will fill the selected printing area either in width or height, but not both. This is because the image to print has in itself a fixed width/height ratio and this ratio will be kept when printing. For example, if you choose to print a draft with 40 ends and 20 picks, the image width will be almost double to it's 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 actual size will normally fill the total printing area.

## Print

Before you print an image, choose File/Page Setup to set paper margins. The margin settings control both placement and size of the printed image.

### Print Draft



To print publishing quality drafts with fine lines and with various options. In the Print Draft dialog, select to set either the grid scale or the range of ends and picks to print.

Note that the print out 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.

**Set scale:** Set ends per inch or grid square size in millimeters. The program will then show the maximum number of ends and picks within the present margins. Even after setting the

scale you can adjust the number of ends and picks to print. If you try to set more ends or picks than there are room for with the present scale, you will get a message.

**Set Ends and Picks:** The number you select will print to fit the page within the present margins and the program will select the scale accordingly. When you change the number of ends and picks, you can see the resulting scale in the grayed out scale edit box.

Select to print the full draft, the threading only or the treadling/liftplan only.

You can select not to fill grids when printing. Very useful for making exercises for students to fill in parts themselves.

**Use Grid Colors:** When this is checked, the present grid color setting in Options will be used also for printing. If unchecked, all lines will be printed black.

**Fill with Numbers:** You can select to fill the grids with numbers instead of black squares. Note that if the squares in the grid are too small, numbers cannot be printed. You will then get a message and the option to cancel the printing and adjust your settings. The grid square size and the size of the numbers will follow the grid scale.

**Fill with Colors:** When selected, the threading and treadling/liftplan will be printed in the designated colors instead of showing the colors in adjacent grids. Tip: Select both the color and number options to ensure visibility when white or a very light color is used.

**Numbers by Marking Lines:** Print numbers next to the marking lines in the threading and treadling/liftplan. See Options for how to set marking lines options.

Printing the Note below the draft image, is an easy way to add text to a draft printout. The text will use the remaining free space on the page, and will not be restricted by the right and bottom margins. If there is more text than there is room for on the page, the text will be truncated. Tip: To make room for more text lines, either reduce the number of picks to print or increase the bottom margin.

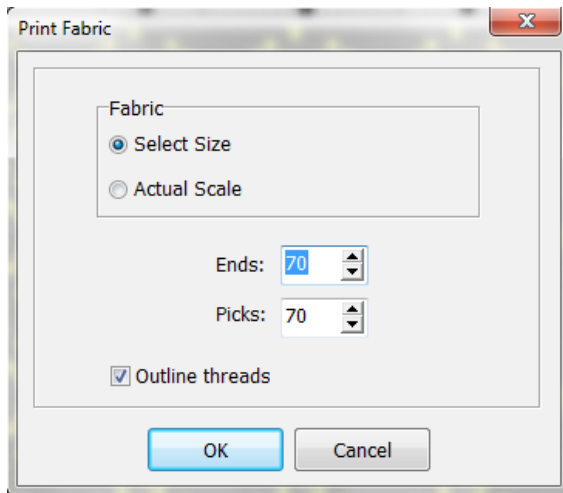
To print Threading only, for best results:

1. Go to Page Set-up and select Landscape
2. In the Print/Print Draft window:
3. Select Threading Only (in upper right corner drop down box)
4. Select Set Ends and Picks
5. 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!))
6. 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 Setup and select Portrait
2. In the Print/Print Draft Window select Liftplan Only
3. Select Set Ends and Picks
4. Enter the Picks you wish to print
5. Check the boxes for Fill Liftplan/Treadling, Fill with Numbers, Numbers by Marking Lines, and Note (if desired)

## Print Fabric



- 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) Actual Size: The fabric is printed in actual size according to your EPI and PPI settings in Fabric Options or Yarn Info. How many ends and picks that is printed depends on paper size, margins and EPI/PPI.

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 longer time.

## Print Screen Image

To print completely WYSIWYG (What You See Is What You Get). To print Design, 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.

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.

## Print Numeric

8h advancing twill 1      8 Shafts      Ends 1-45

4                      3                      2                      1  
543210987654321098765432109876543210987654321

666

8 8 8 8 8

7 7 7 7 7

6 6 6 6 6

5 5 5 5 5

4 4 4 4 4

3 3 3 3 3

2 2 2 2 2

1 1 1 1 1

Print draft info in text mode as numbers only. Select how many ends or picks to print in the dialog. The printout can fill several pages.

Select Portrait or Landscape format in Printer Setup or Page Setup.

8h advancing twill 1      8 Shafts      Picks 1-20

1#	1	2	3	-	-	6	-	-	0
2#	-	2	3	4	-	-	7	-	0
3#	-	-	3	4	5	-	-	8	0
4#	1	-	-	4	5	6	-	-	0
5#	-	2	-	-	5	6	7	-	0
6#	-	-	3	-	-	6	7	8	0
7#	1	-	-	4	-	-	7	8	0
8#	1	2	-	-	5	-	-	8	0
9#	1	2	3	-	-	6	-	-	0
10#	-	2	3	4	-	-	7	-	0
11#	-	-	3	4	5	-	-	8	0
12#	1	-	-	4	5	6	-	-	0
13#	-	2	-	-	5	6	7	-	0
14#	-	-	3	-	-	6	7	8	0
15#	1	-	-	4	-	-	7	8	0
16#	1	2	-	-	5	-	-	8	0
17#	1	2	3	-	-	6	-	-	0
18#	-	2	3	4	-	-	7	-	0
19#	-	-	3	4	5	-	-	8	0
20#	1	-	-	4	5	6	-	-	0

Prints the sequence of colors for warping, for example 4 red, 8 blue, etc. Very useful for warping with many colors or complex color repeats. One line is printed for each color used in the warp. Each line starts with the color index, then follows the number of ends in this color for section of this color.

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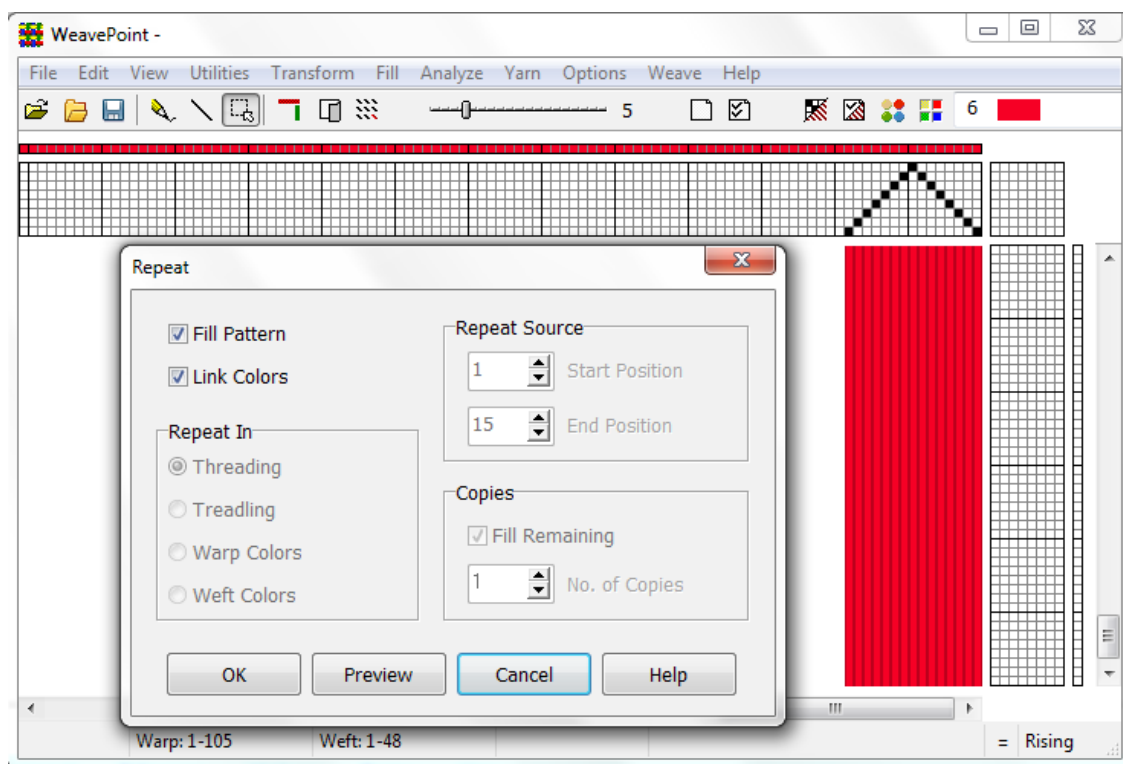
## EDIT MENU

### Undo

To undo the last drawing operation, choose Edit/Undo or press Ctrl-Z.

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.

### Repeat



Use Repeat to repeat your pattern in draft mode or design mode. 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 weft direction.

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, select start and end positions and number of copies.

If you have selected an area with the Selection tool, the area selected will be preselected in the Repeat dialog, allowing a quick and simple repeat. This way you can visually select the

area to repeat. Note that here you do not need to copy to the clipboard, it is the selected part on screen that is being used.

If you select in the liftplan, an area less than the total width of the liftplan before selecting Repeat, only the selected width will be repeated.

See also: *Copy and Paste* and *Reduce pattern to one repeat*.

## Modify

Select an area to modify. Click the buttons or arrows in the dialog to modify the selection.

**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.

## Crop

Crop to selection. This function is especially useful in Design mode. If you want to use a part of your design only 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, tie-up and yarn color grids.

## 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. The link/unlink status is displayed with a symbol in the status bar.

## 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.

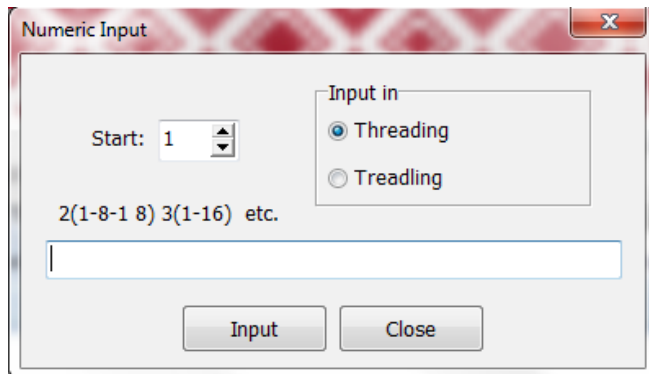
Note: For capturing the complete WeavePoint window with title bar, toolbar, status bar, etc., press Alt-PrintScreen (a standard Windows feature).

## Clear

Blank out an entire grid. Select All to clear all grids.

See also New.

## Numeric Input



Here you can input threading and treadling with numbers.

In the dialog, you can select threading or treadling and select which end/pick to start from.

Write the shaft for each end (or treadle for each pick), with a space or comma between each number, like 1 4 2 3. Or make a sequence, such as 1-8 means input end 1 on shaft 1, end 2 on shaft 2, etc. until shaft 8. You can write many sequences in combination, like 1-8-2-7 etc., and you can combine this with single ends, like 1-8-2 4 3 6-1.

Multiply a sequence by enclosing it in a paranthesis, and write the number to multiply by before the left paranthesis. It can look like this:

4(1-8-1 8) 2(1-8) 7-1 3(1-8-5)

Click Input or press Enter to make the input.



## Keyboard Input

Here you can edit by using the keyboard only. Some find this easier than using the mouse, and it is also useful if using a laptop PC without a mouse.

Move the cursor with the arrow keys, and mark the end/shaft 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 an arrow key down for repeat keypress, to move the cursor fast.

Press PageUp and PageDown keys to scroll the pattern. You can also press the Home and End keys to move the cursor quickly to the start/end of the grid.

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

To delete a mark, position the cursor on the filled square and press the space bar.

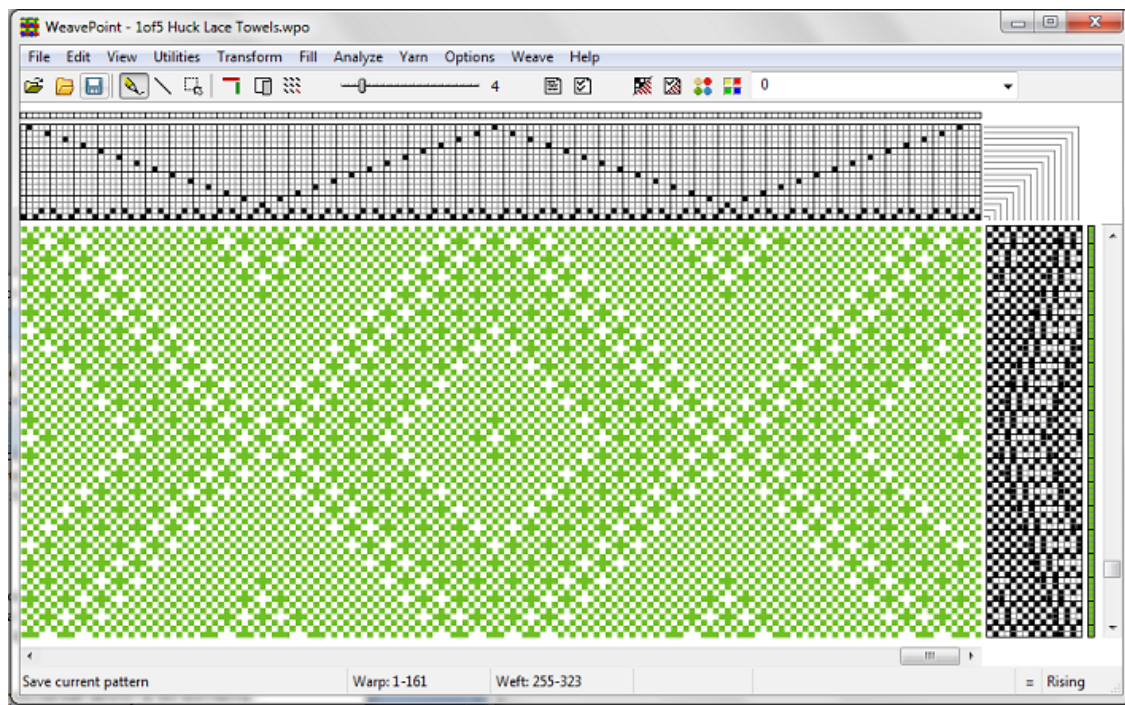
In keyboard input, in threading/treadling, you can also press the number key for the shaft or treadle you want to mark. If the cursor is at end one, press '1', and end one will be marked at shaft one. The cursor advances automatically to end two. Then press '4' to mark end two at shaft 4, etc. (Note: 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...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 a small window. Click the Close button or press Esc to exit from Keyboard Input.

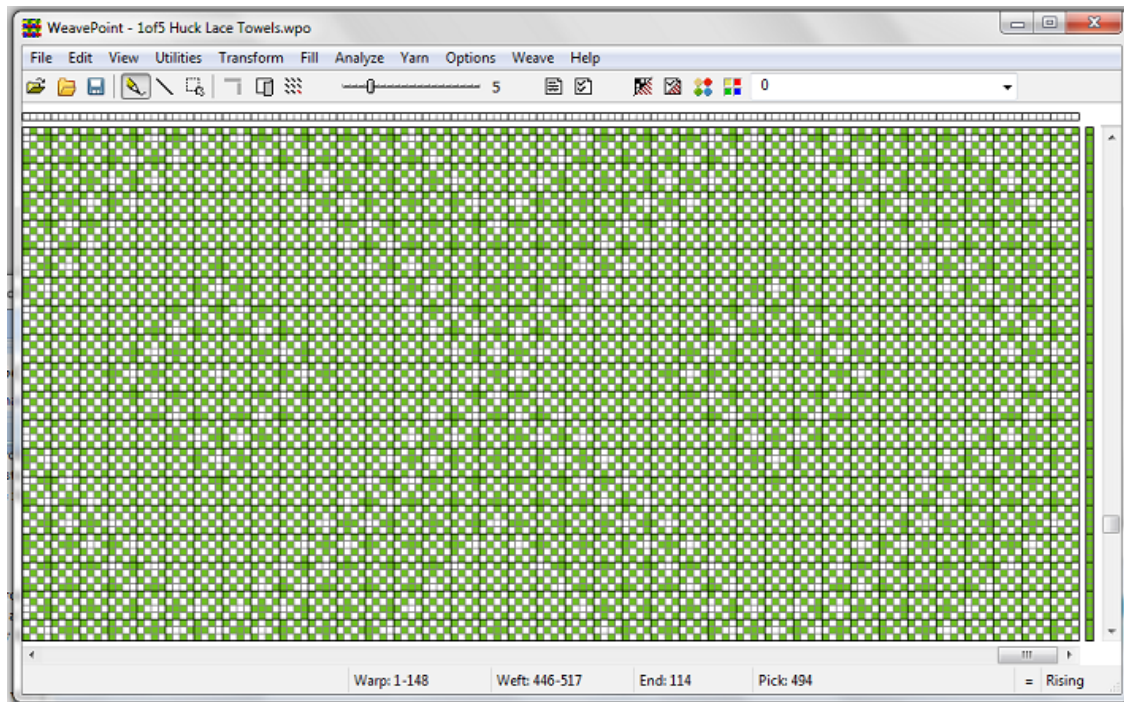
# VIEW MENU

## Draft



Draft Mode is the standard mode to draw and edit weaving patterns, allowing you to make choices in the Threading, Liftplan or Tie-up/Treadling, and Drawdown areas.

# Design



In Design Mode, you can create the look of the fabric, drawing the pattern directly “from the fabric”, or creating a design in freehand. It will appear as in a Drawdown, without the Threading or Treadling/Liftplan. To turn your pattern into a weave design, just select View/Draft, and the draft will automatically be constructed, automatically opening into the Draft View.

Select if you want to use grid style in the Options dialog. If grid style in design mode is not checked, the same style will be used as for the drawdown in draft mode.

You can move between draft mode and design mode while making a pattern. Be aware that some changes to your pattern can take place, so it is recommended to save your pattern 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 way it is simple to make changes and then later repeat them. When you want to fill the pattern with the repeat, choose Repeat.

Design mode uses a 2400x2400 grid. This means it can accommodate up to 2400 ends and picks. If you convert a pattern with a repeat larger than 2400, your pattern will be truncated when you enter design mode.

If you draw a large pattern in design mode, it could be truncated if you change to draft mode. In the horizontal direction the pattern will be limited in draft mode by the maximum number of shafts, which is 128. This means that your pattern can not contain more than 128 *different* ends (columns). To be sure not to exceed this limit, you can keep the repeat

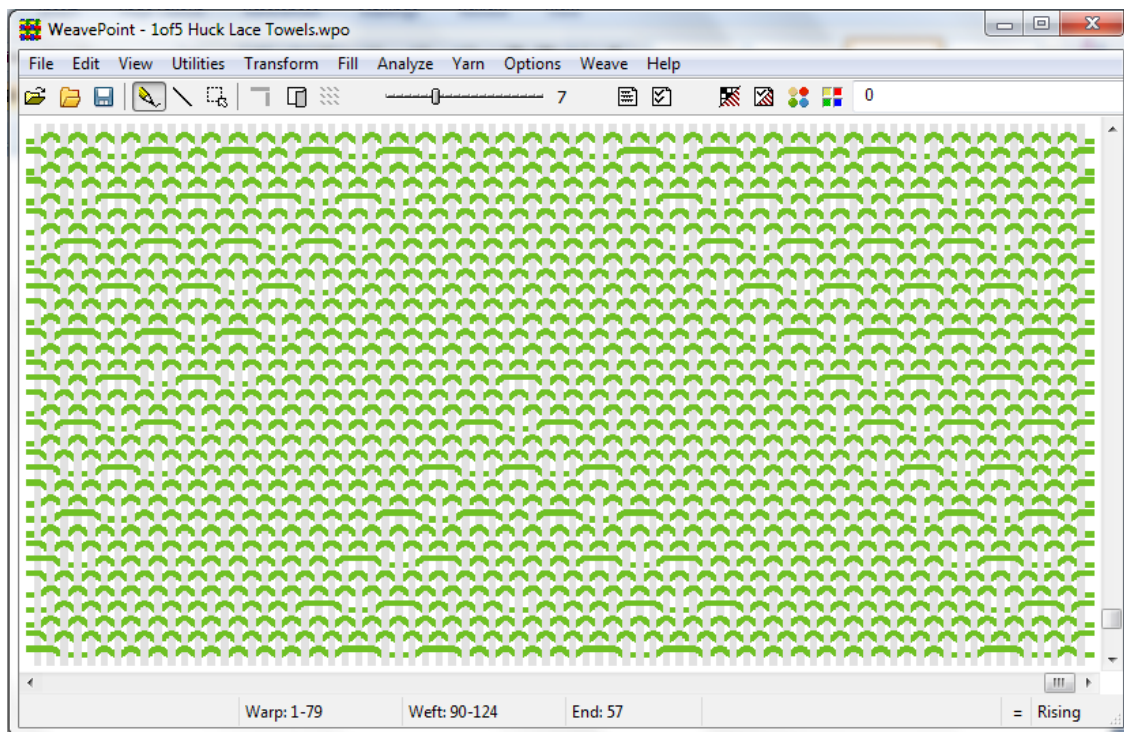
within 128 columns. In the vertical direction, there is no limit if you use dobby mode. If you are in tie-up mode, it will be limited by the maximum number of treadles, which is 128. As long as you stay in design mode, including saving and opening design mode patterns, no limitation can take place.

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. 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 for backup or sending patterns to others, you should include any wpb-files with the same names as your wpo pattern files.

You can also use design mode to design patterns in general - patterns for knitting, embroidery or whatever else you like. It works much like a specialized paint program. Note: For general surface design, use Liftplan mode for optimal pattern display and performance.

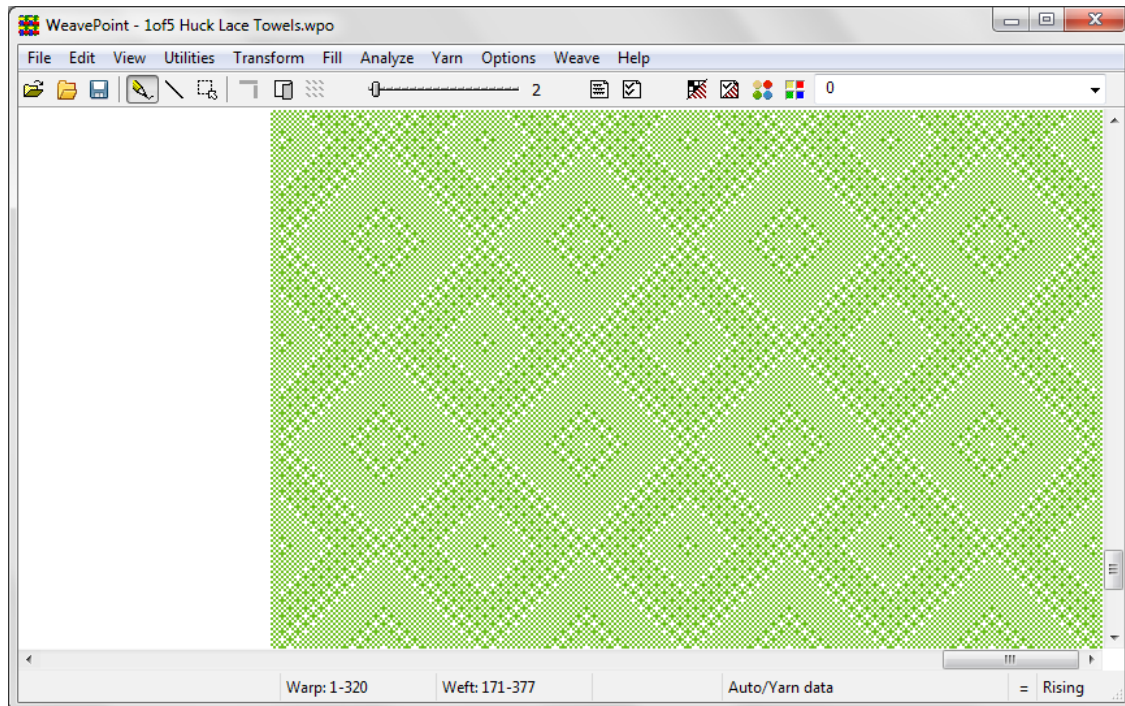
All Tools will have the same function in Design View as in Draft View. When using the Selection Tool in Design Mode, the selected area will be darkened to more easily see the selection (only when Grid style is selected for Design mode in Options).

## Interlacement



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

# Fabric



Select an appropriate fabric view mode in the Fabric Options dialog box. The fabric view can be zoomed larger and smaller just like the draft. The relative size of warp/weft yarn is displayed according to your settings in Fabric Options and in the Yarn Density settings in the yarn dialog.

Zoom in fabric view is not the same for all fabrics, but relative for each fabric. This is to ensure that zoom level one can display details in the fabric. When you change yarn data, the size of the fabric displayed at the present zoom may change.

The simplest and quickest way to set up a fabric simulation is to enter the desired density (EPI or ends/cm and PPI or picks/cm) and select a fabric mode in Fabric Options.

All fabric simulation modes support combining thick and thin yarns, when you select Use Density from Yarn Info. Yarn size that is smaller than its space, allowing some room between threads, is supported in Auto and Balanced mode.

## Auto/Yarn Data

In Auto mode, the program will determine from the yarn data whether or not the weave is balanced. If no special yarn density is set, Auto mode will give the same result as Balanced.

## Balanced

Select Balanced for balanced weaves like plain weave, twill and satin.

## Warp/Weft faced

For weaves that are warp or weft dominant or have more than one warp or weft, like rep,



taquete, samitum, select warp faced or weft faced.

### **Double weave**

In double weave simulation, the layers should be ABAB or ABBA. The sequence AABB will not work, you can change it to ABBA by deleting the first thread. This simulation works best when both layers are 1:1.

### **Density from Yarn Info**

Set up thick and thin threads for a rep weave, for diversified plain weave or other weaves, in the yarn dialog. Check the Use Density from Yarn Info box in Fabric Options, to use the individual yarn settings instead of the general density setting in Fabric Options. The size and spacing depends on the yarn, the sett and type of weave. Suggestion: Wind an inch/cm on a ruler to help decide the yarn size/grist to enter.

### **Supplementary yarn**

For weaves that use supplementary yarn, check a yarn as supplementary in the yarn dialog. A supplementary thread is a thread that floats over and under ground threads, it does not have a space of its own and does not add to the width or length of the cloth. To enable supplementary yarn, select Auto mode in Fabric Options. Set the density for the ground weave in Fabric Options and the supplementary threads will float over and under the ground weave. You can use a supplementary yarn in parts of the fabric, as opposed to selecting warp faced or weft faced which works best for fabrics that are uniform throughout. Weaves such as overshot and Summer & Winter work well with threads set as supplementary.

### **Open-spaced or transparent fabrics**

To create space between the threads, to simulate a fabric with an open or transparent weave, check Use Density from Yarn Info and select Auto or Balanced fabric mode. Next select size and spacing for each yarn in use in the yarn dialog. To show space between the threads, set the yarn space a little wider than the yarn diameter. The background color may then show through the fabric.

### **Auto/Yarn Data**

You can let the program decide the packing of threads based on your individual yarn settings in the yarn dialog. If you set the space for a yarn smaller than its diameter, the yarn will alternate with a neighbouring thread and also share its space in order to be visible. One benefit of Auto mode is that it will work for various sections of the fabric, and it also can be combined with depicting space between threads. To make two specific yarns pack together, set the space for both to half of the diameter (or set the diameter to double the space). If you want to show some space around the threads, you can set the space to maximum 2/3 of the diameter (or set the diameter to minimum 150% of the space).

### **Limitations of fabric simulation**

The simulation of packing of threads in a fabric is limited to two warp and/or weft threads packing into one.

The thread on which the warp or weft sequence starts can sometimes influence the simulation of warp faced, weft faced and double weaves. As standard, the simulation starts on pick 1 and end 1 (or any odd numbered threads if scrolled up). You can select the option "Start simulation on even pick/end". The simulation will then start on pick 2 and end 2 (or

even threads if scrolled up) and will show an alternative and sometimes better simulation for some weaves.

When threads are packed, floats may appear to be longer than they really are if the packed threads are the same color. To improve the visual result, enter yarns with slightly different colors.

### **How to use Yarns and Fabric view**

In addition to designating the EPI and PPI (or ends/cm and picks/cm) in Fabric Density in the Fabric Options menu, you can enter a value for the yarn size/grist/diameter and the spacing for each yarn used in the yarn dialog. If the yarn size and the spacing are the same, let the Yarn Space = Yarn Diameter box be checked, and enter the yarn size only. If you do not enter a value for yarn size or spacing, the density designated in Fabric Options will be used for the yarn. Note that to enable the individual yarn settings, select Use Density from Yarn Info in Fabric Options.

There are two situations where you need to set the spacing different from the yarn size: For open-spaced or transparent fabrics, set the space larger than the diameter. For double weave or to have only one of two threads show in a specific place, set the space to about half of its diameter, then two and two threads will pack together.

To find the yarn diameters/inch or diameters/cm, you can wind an inch or cm on a ruler to help decide the size to use. You will then find the wraps/inch (WPI) or diameters/cm. Depending on the weave, yarns/inch can be the same number or a different number. Yarns/inch should be entered for the finished cloth, rather than the values (sett) on the loom. If you do not want to see any space between threads, set the size to the same as the spacing.

Although a yarn has a specific size/diameter, it may be woven with different spacing in warp and weft in a fabric. If you use the same yarn for warp and weft with different spacing, enter the same yarn twice in the yarn dialog (differentiate the two entries—add A and B or 'warp' and 'weft' to the descriptions). The same yarn at different spacing, tighter or looser, can appear very different.

If two different yarns with the same size are used in the warp or weft, and a single weft or warp density is desired, enter a single value of the total density for each yarn. For example, your desired weft density is 20 PPI or yarns/cm; enter 20 for each yarn, not 10 for one and 10 for the other.

For yarns with different sizes, imagine yarns/inch or yarns/cm like the EPI (or ends/cm) or PPI (or picks/cm) for the yarns as if there were only one yarn in warp or weft. Or imagine the yarn wound on a ruler and think wraps per inch or cm. The yarn count number (like 10/2 cotton) is another expression of the thickness of the yarn. Look at the yarn diameter and space in the yarn dialog to better understand how it works. Even if you enter diameters/unit and yarns/unit, the resulting diameter and space are the actual size values. Note that to set a diameter or space larger, you enter a smaller value (lower number). The less wraps or threads per unit, the thicker the yarn.

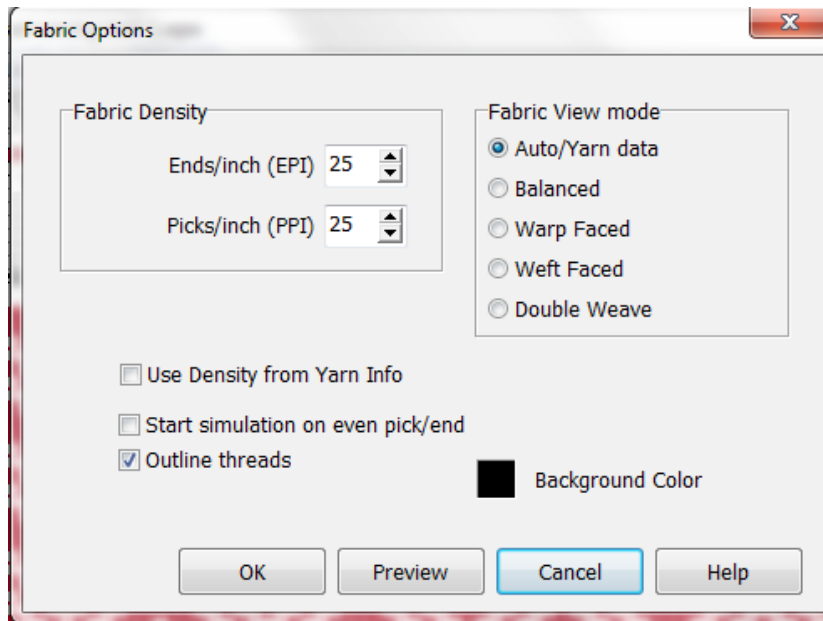
In Print/Fabric, one option is to print the fabric to actual size. To enable this, enter the yarn settings appropriately. If using the density settings in Fabric Options, set EPI (or ends/cm)

and PPI (or picks/cm). If your sett is 25 ends per inch or cm, this will be the scale on the printout. If using variable yarn settings, note that it is the space setting for a yarn that determines the size of a cloth, not the diameter (if different).

If you are not using variable yarn size or space, use the fabric density setting in Fabric Options. You don't need to fill in either size or spacing for the yarns.

Check out the newest sample patterns to better understand yarn settings.

## Fabric Options



Set Fabric Options for simulating Fabric in the View menu. These options are also used for Print Fabric and Export Fabric to PNG-image.

Shortcut: Click F on the keyboard. If you don't change anything, you can close the dialog by pressing the same key.

Set the fabric density for warp and weft. Or check Use Yarn Density from Yarn Info and set individual yarn size and/or spacing in the yarn dialog. After using either method of setting warp and weft density, you can check the proportions of your pattern in Fabric view. Select fabric view mode to show different types of weave structures.

For fabrics that you can look through, you can set the background color that will show through the fabric. See Fabric view for how to select settings for a transparent fabric.

### Summary:

Thick and thin yarns: Use Density from yarn info + all fabric modes

Supplementary yarn : Auto mode

Space between threads (diameter<space): Use Density from yarn info + Auto or Balanced



mode

Packing of threads based on yarn info: Use Density from yarn info + Auto mode.

## Show Threading

Choose View/Show Threading or click the toolbar button to hide/show the threading and warp colors grids in draft mode.

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

## Fabric Window

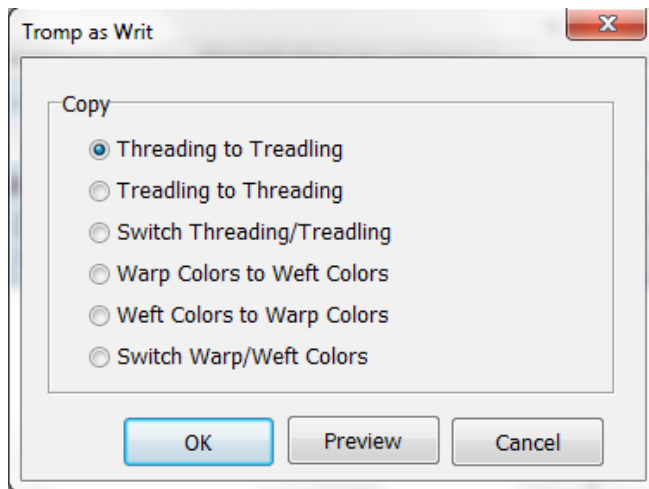
Show/hide the fabric window. This is a separate window that can float on top of the main window. While editing, you can see your changes in the fabric window. It will display your pattern at the smallest size possible (1 screen pixel per end/pick).

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.

## UTILITIES MENU

### Tromp as Writ



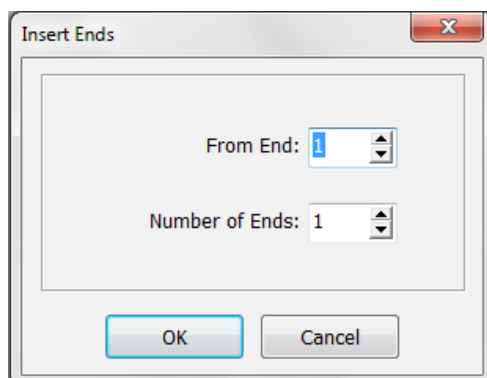
This function is also called "As drawn in". Here you can copy threading to treading or vice versa (in tie-up mode only), copy warp colors to weft colors or weft colors to warp colors, or switch warp/weft colors.

### Mirror Warp/Weft

Select Warp or Weft in the submenu, to quickly make the warp or weft symmetrical. The warp or weft 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



**Insert ends**

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

**Insert picks**

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

**Insert shafts**

Select the shaft to insert from and number of shafts to insert.

**Insert treadles**

Select the treadle to insert from and number of treadles to insert. Available only in tie-up mode.

**Delete**

Select to delete ends, picks, shafts or treadles. Select what part to delete in the Delete dialog.

Note that when deleting shafts or treadles, the corresponding parts in the liftplan/tie-up will also be deleted. Deleting shafts or treadles is a quick way to delete ie. a tabby that was inserted in the treading or treadling.

**Change Face**

Change Face will quickly let you see the back side of the cloth – reverses and flips the cloth. There is also a Change Face toolbar button. Note that Change Face will flip the threading, to show the cloth as if you have turned it over like a page in a book. If you do not want the threading to flip, use Reverse Tie-up/Liftplan instead.

**Reverse**

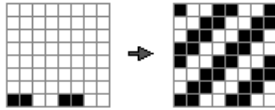
Reverse the liftplan or tie-up, depending on which loom system is in use. In effect, you will turn to see the reverse side of the pattern. To go back, select Reverse again.

In tie-up mode with multiple treadles, reversing the tie-up will not make you see the reverse side of the cloth. To see the reverse side in this mode, you can instead change the shed system in Options. Changing shed system will in effect turn the cloth to the reverse side.

## Tie-up Special

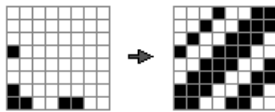
Make Twill or apply Flip and Rotate to the Tie-up.

### 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.

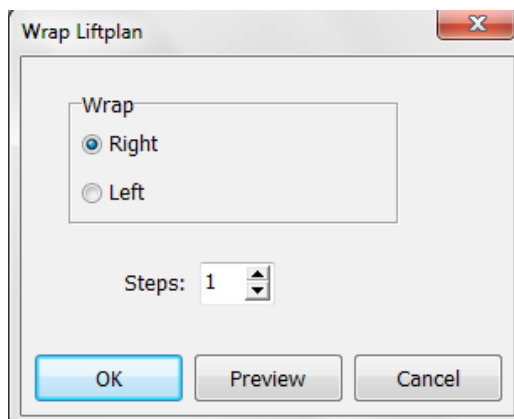
### Make Twill from shaft 1 and treadle 1



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.

See also How to quickly make a twill in the tie-up.

## Wrap Liftplan



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. It could be useful in many weaves, for instance, in networked patterns.

## Flip Liftplan

Flip Liftplan will flip the full liftplan left/right. Can be useful when pasting liftplans copied from other programs, when changing layout options and more.

## 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: Some times 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 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.

## Reverse Warp Order

Reverse the order of ends left/right, so that the first end becomes the last end and vice versa.

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

## **Reduce pattern to one repeat**

Use this to reduce the pattern to one repeat. You can use this to "undo" repeats made by Repeat and 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 can not 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

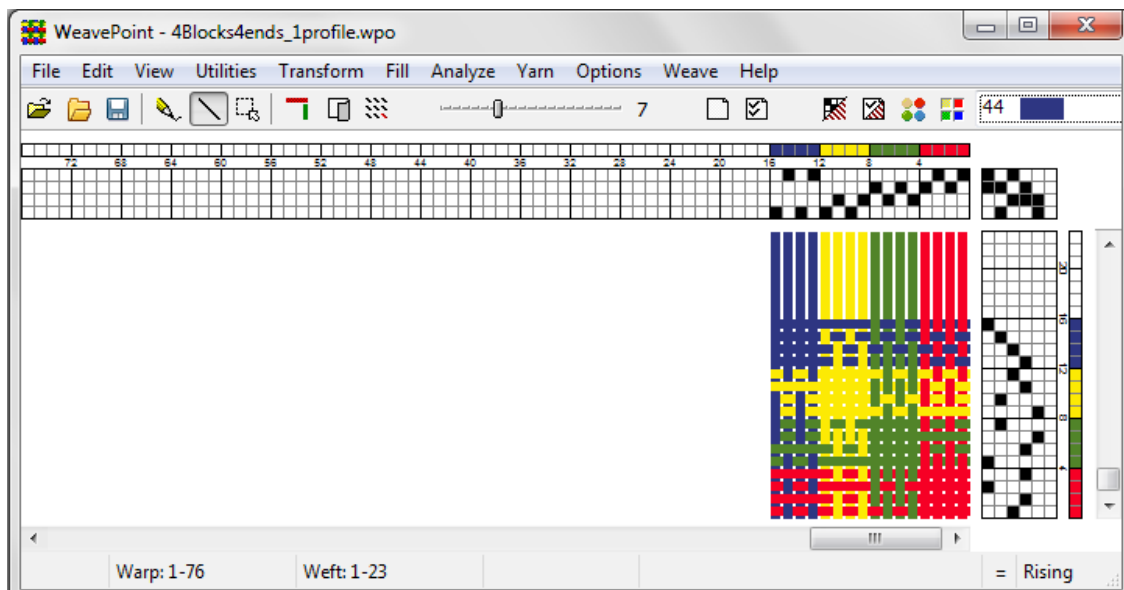
## Block Substitution

During Block Substitution, the weave structure of each block will be, literally, substituted for each square in the profile draft. Make a profile just like you 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. If in tie-up mode, you can make a profile the same way in the treadling.

Save the profile, and select File/New.

Define blocks in a normal threading (and treadling) grid, just like you draw a normal pattern, except you know you will use this to define blocks. Save it with a name to remember it contains blocks, like 'Blocks1' or similar.

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, 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.

With a profile draft on the screen, Select Transform\Block Substitution to expand the profile draft. Select your blocks file. Select 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, that is to use new shafts - in effect expanding the number of shafts.

If the profile also has a treadling profile, the treadling blocks drawn in the blocks file will

be used for the treadling. If no treadling blocks are drawn in the blocks file, the threading blocks will automatically be used also for the treadling profile.

Note that you can also put a tie-up in the 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). Any tie-up in the profile pattern will then be erased.

Note also that you can open sample profile and blocks files from the Samples folder.

Once you have made and saved a blocks file, you can reuse it any time you want for new profiles.



## Translate

This command is used to quickly translate a profile draft into a full weaving draft. It is an alternative to traditional block substitution, which is done by entering threading units for block A, B, C, etc. (and the same for treadling) in the draft. The Translate command works in a new and different way: Here blocks are substituted directly in the profile pattern (or profile "drawdown"). Only two weave units need to be entered regardless of how many blocks the profile draft contains. This method could be too laborious by paper and pencil, but is easily used with the computer.

First, make a profile draft. The profile draft is entered in the same way as any other pattern - the threading grid is used for profile threading, etc. Use Draft mode or Design mode, tie-up or liftplan mode.

Then you need to decide the weave units to use. There are three ways to do this: Select from the weave Library, load units from file or enter new units.

### Library

The weave unit library contains many weaves often used. When selecting a weave from the library, the units will be displayed. 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 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 a WeavePoint pattern. The weave units stored in the pattern file 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 yourself and load them as needed.

### Drawing your own weave units

The challenge 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 width and height for the weave unit grids, for drawing your own units. It is not necessary to set width and height when selecting from the Library.

### Clear

Clear the present units to begin drawing new units.

### Construct Double Weave

Automatically construct a double weave. First, fill in the two layers as two single layers, one in each unit grid. For example, use 4x4 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 8x8) 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 8x8 grids (equals 16x16 when doubled).

## **Translate**

When you translate, each square in the drawdown will be replaced by a full weave unit - one for the pattern areas and the other for the background areas. The left unit will replace all filled squares and the unit on the right side will replace all empty squares (a filled square means here that the corresponding square in the profile tie-up or liftplan is filled).

When translating, the colors used in the profile will expand like the pattern. After translating, you may need to adjust the warp and weft colors, like making alternating colors for ground and pattern threads.

Translation can be done both in Draft mode and in Design mode, but works internally in slightly different ways. In Draft mode, the pattern is expanded in the threading before it is reanalyzed. If this requires more than maximum shafts (128), you will get a message that you need to turn to Design mode to translate.

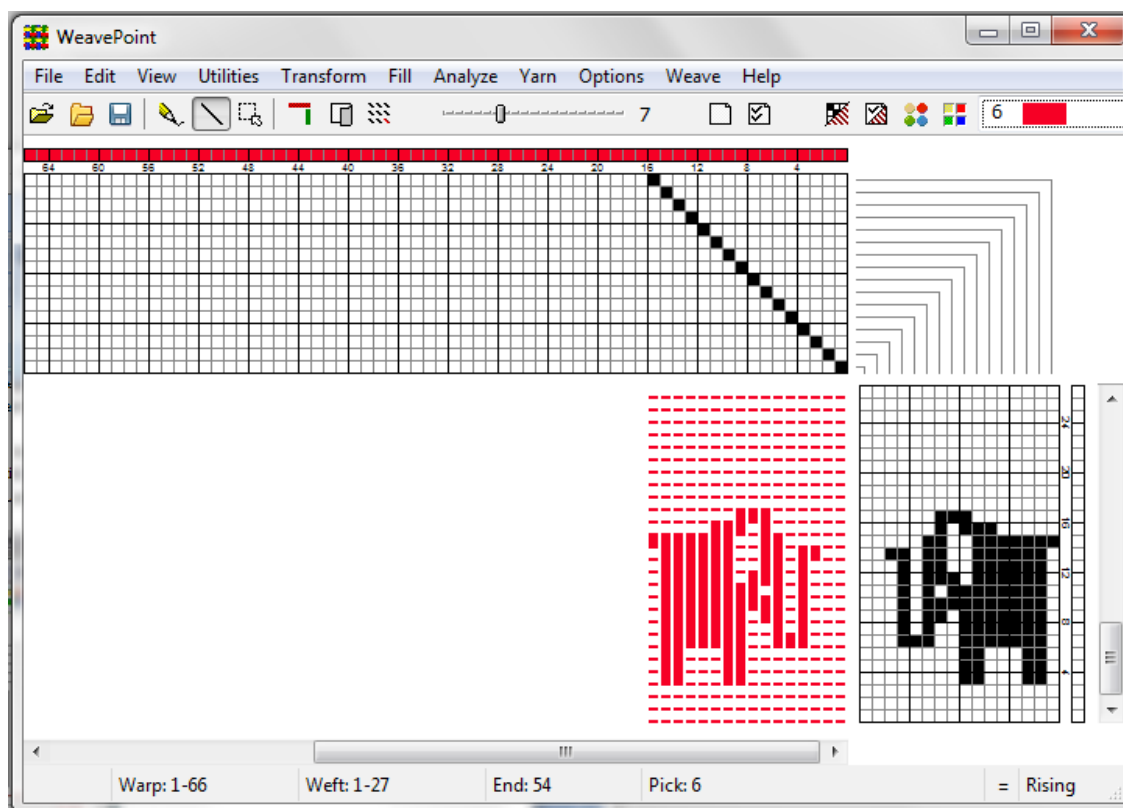
After translation, you can rearrange shafts and treadles with Utilities/Switch Shafts and Switch Treadles if needed.

If Reanalyze is checked, the threading will automatically be completely reanalyzed after translation. Reanalyzing means minimizing the number of shafts. In tie-up mode, the tie-up and treadling will always be reanalyzed after translation.

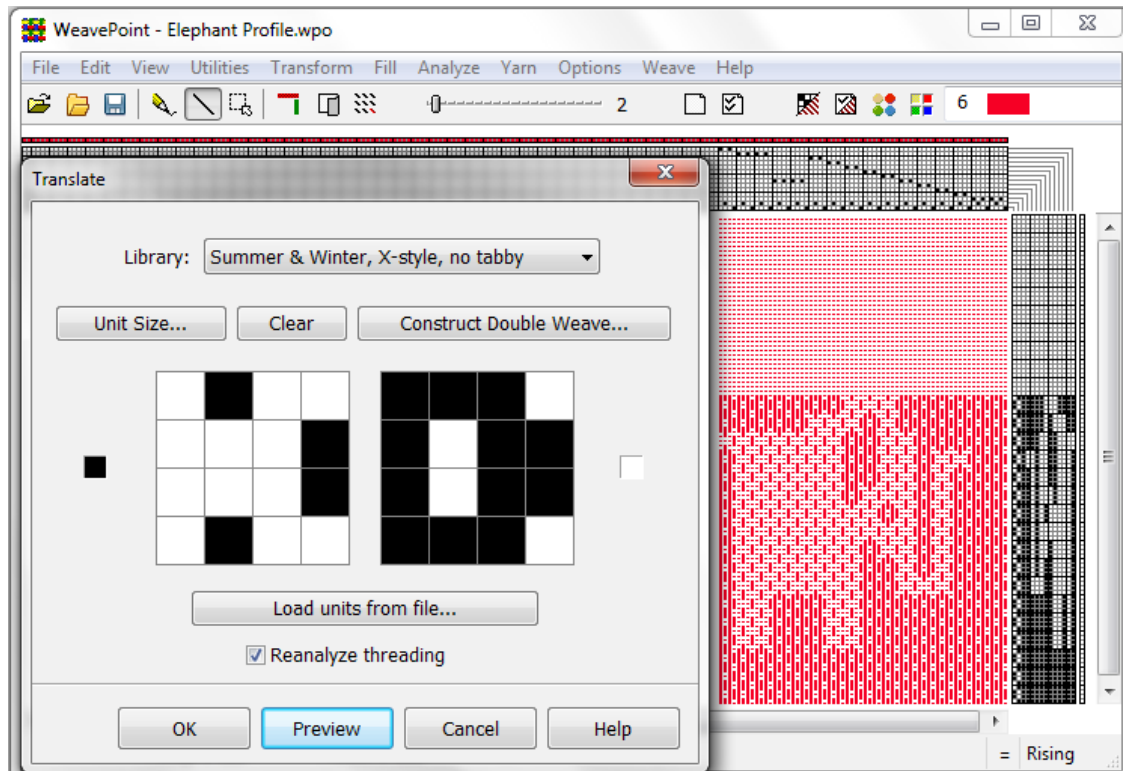
Note that the largest pattern that can be reanalyzed is 2400 x 2400 threads. If repeats are found within this size, the pattern will automatically be repeated throughout the full length after translation. This means that if the weave unit has a width of 4, you can have a repeat up to 600 in the profile threading ( $600 \times 4 = 2400$ ) and get automatic repeat. The same applies in weft-direction. If your repeats exceeds this size limit, 2400 ends/picks will be translated, and you may then need to adjust the pattern manually afterwards. For weaves that do not change by reanalysis, like satins and twills, or if you don't use reanalysis, your repeat can be any length when translating in Draft mode. Note that you can also use Transform/Reanalyze Threading later.

You can also use translation in two steps. For example, if you want to use a figure motif repeated on a background, you could first make a profile for the arrangement of the motif images, such as tabby or satin. Then you could fill in the motif, which could be some stylized picture, in the translation grids and do the first translation. Then you could use the result as a new profile, fill in the weave structure units, for example for taquete, and translate once more.

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



*Step 1 – Create the Profile Draft*



*Step 2 – Create the Unit Blocks and Translate!*

## Overlay

Blend in two weaves over your present liftplan or design in one operation. Overlay is in many ways similar to Translate, but will not expand the pattern and works only in liftplan mode and design mode. The same weave units are used as in Translate.

First, make your pattern with a "motif" or "profile". Then select your weave units. You can either use units from the Library, draw your own units, load units from a pattern file or use complete liftplans from two pattern files.

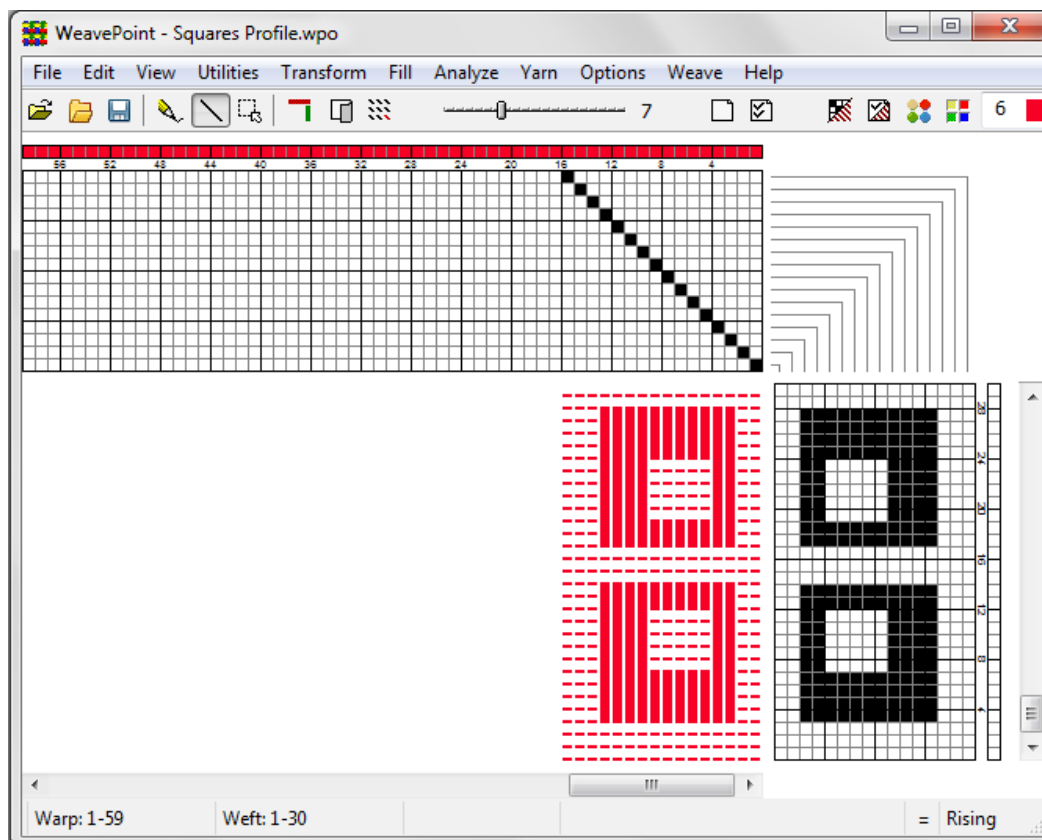
Many options in the Overlay window are the same as in the Translate window. See Translate for a description.

### **Use liftplans from files**

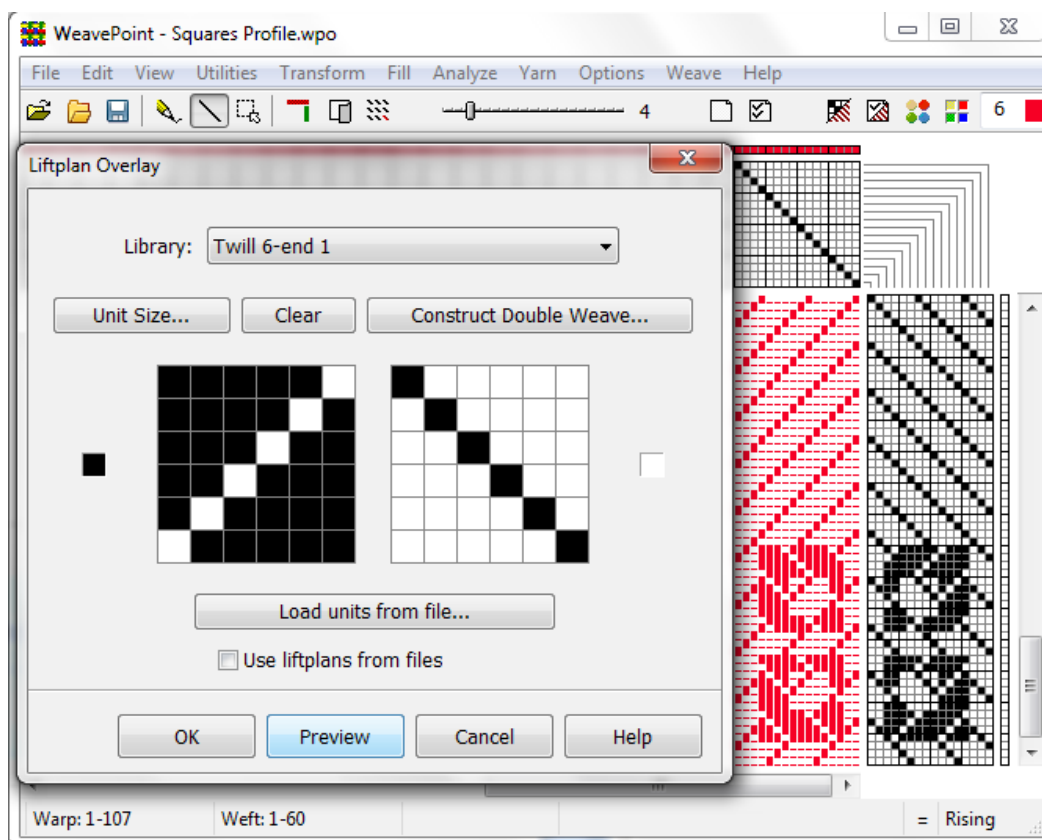
First, you need to have made and saved two liftplan patterns. Make the liftplans as complex as you like. Make sure they are sufficiently long and wide to cover your present liftplan. Note that you are now not really using units but complete liftplans. Each liftplan can contain many types of weaves, for example it could start with 16 picks of twill, then continue with 8 picks of tabby, etc.

### **Overlay**

The units or liftplans will be pasted over your present liftplan or design. The left unit (or liftplan A if using files) will be pasted over all filled squares. The right unit (or liftplan B) will be pasted over all empty squares.



*Profile for Overlay*



*After Overlay Command*

## Network

Network drafting is a special technique for making large curved motifs on a standard loom - without draw devices or jacquard attachments. It originated in France, and was brought to light by Masson/Russel 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 the classic "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 functions in WeavePoint lets you network patterns in a quick and simple way.

Before networking, fill in a "pattern line" in the threading. The pattern line is typically some kind of curved line(s). Then choose Transform/Network and select the "initial" to use. Either select one of the predefined initials or select a file.

### Using Initial from File

First, fill in your initial in the threading grid and save. The initial can be anything you like - a common initial is a 3-5 shaft straight or pointed threading. You can even mix different combinations of threadings in one initial, if you like. Repeat the initial throughout the threading before saving, so it will fit any pattern length. Also fill in a treadling initial if you will network a treadling. Then you select the pattern as your initial file.

### Network

In tie-up mode, select to network the threading, treadling or both. The present pattern line in threading/treadling will be networked, based on the selected initial.

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 basic weaves or "key liftplans" over the resulting ribbon, use Overlay. To move the liftplan sideways, use Wrap Liftplan.

### 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

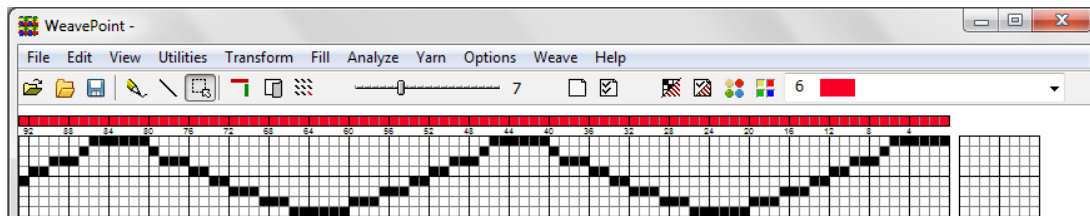
Telescoping, or telescopic reduction, is often used together with networking when creating a pattern line. Telescoping is not a separate command, but a feature which can take place when changing the number of shafts (or treadles) in Options. If you have a pattern with a threading and/or treadling using many shafts, you can reduce the amount of shafts/treadles

and still retain much of the pattern image and besides 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.

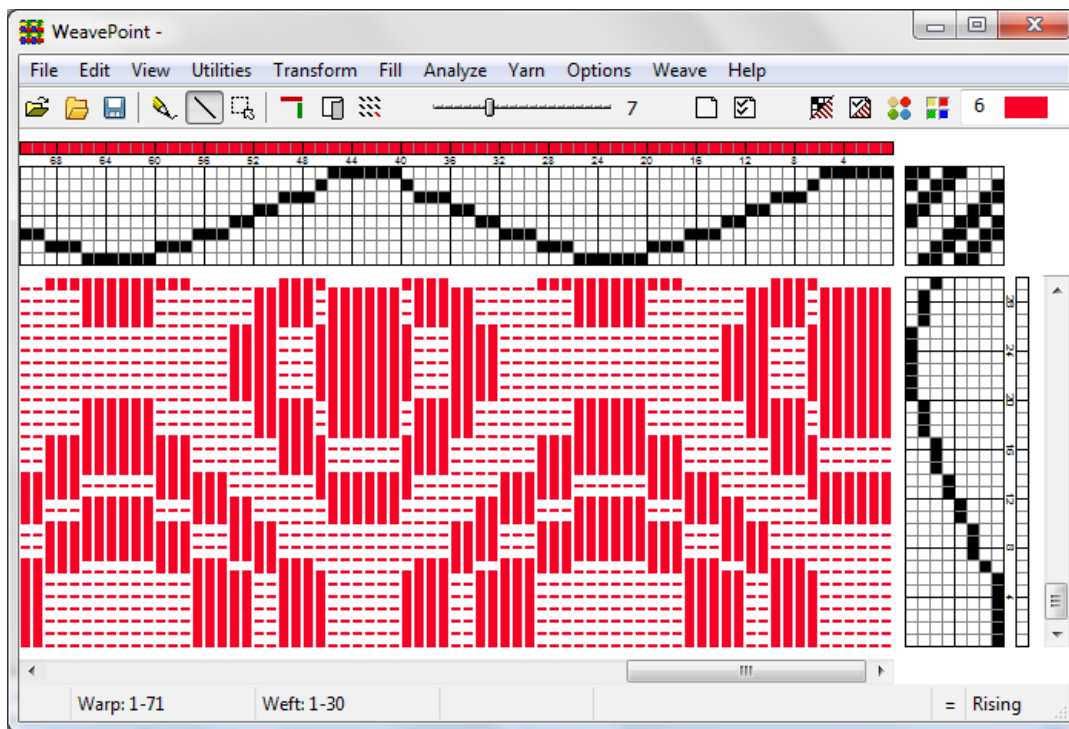
As networking involves options at various steps, it is a good idea to save at different stages so that you have the possibility to go back to the last stage. Note that you also can mix and match by saving and loading single pattern elements, use Tromp as Writ, switch between tie-up and liftplan mode, etc.

To create a network drafted design, follow these steps:

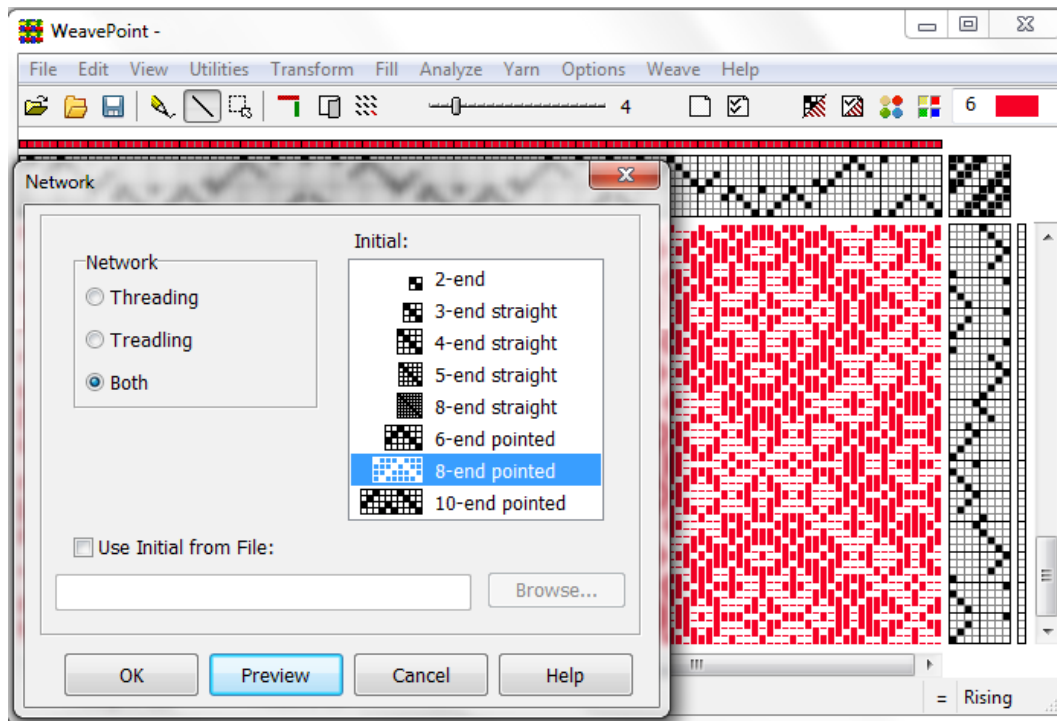
- 1.) Create desired curved shapes in your threading.



- 2.) Select Tromp as Writ from Threading to Treadling or draw other curved shapes in your Treadling.

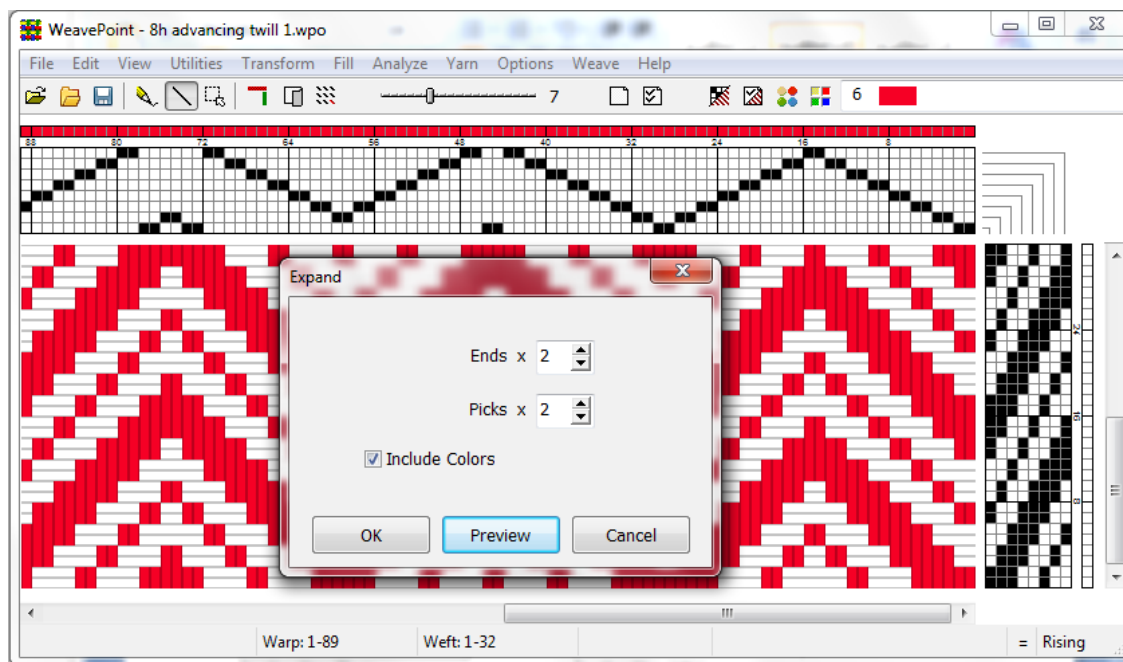


- 3.) Input some structure in your Tie-up.



4.) Go to Transform, Network, and select a Network Initial from the offered library or from one of your own files.

## Expand

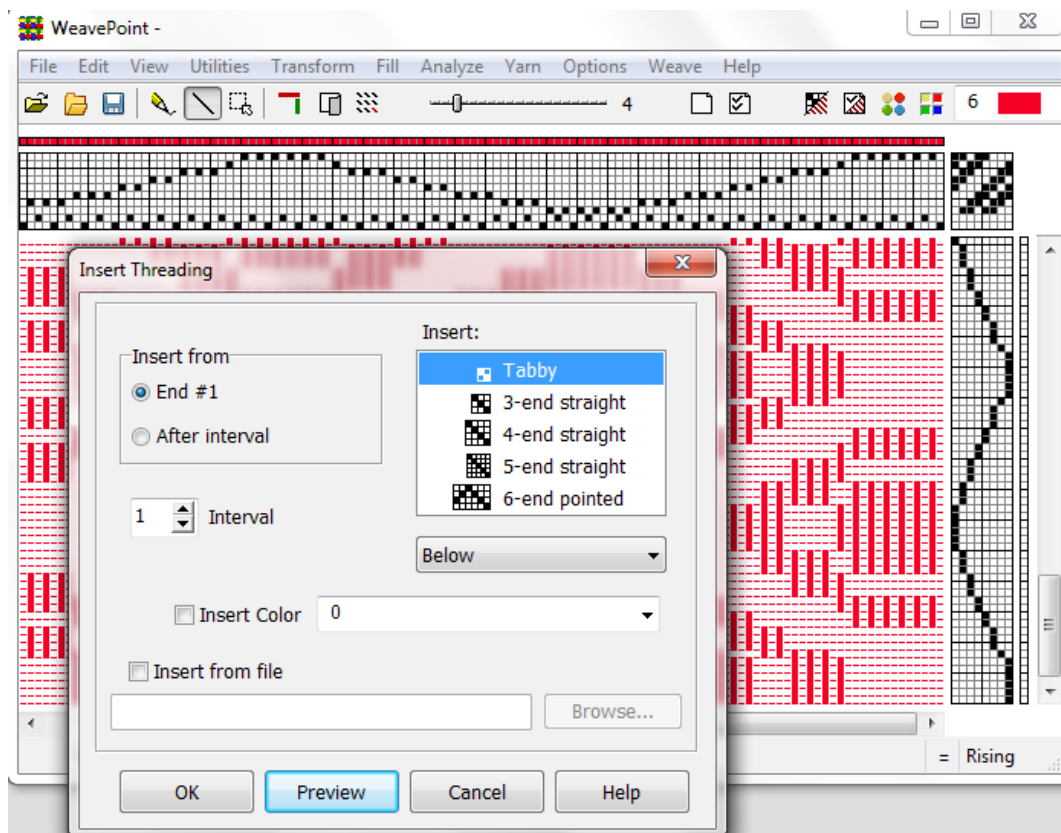


Enlarge the pattern by a selectable scale factor in warp and weft. Typically used to enlarge a profile draft or to multiply the lines in a liftplan.



# 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.

Select if you want to place the inserted threading above, below or overlapping the present threading. "Below" means inserting the threading on new shafts below the present threading. You will typically select this when inserting a tabby. "Above" means inserting the threading on new shafts above the present threading.

Both with "Below" and "Above", the resulting number of shafts will be the sum of the shafts used by the present threading and the inserted threading. With the "Overlap" option, no new shafts will be added and the resulting number of shafts will be the same as before.

## 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. To later delete what you have inserted, you can use Utilities/Delete Shafts.

# Insert Treadling

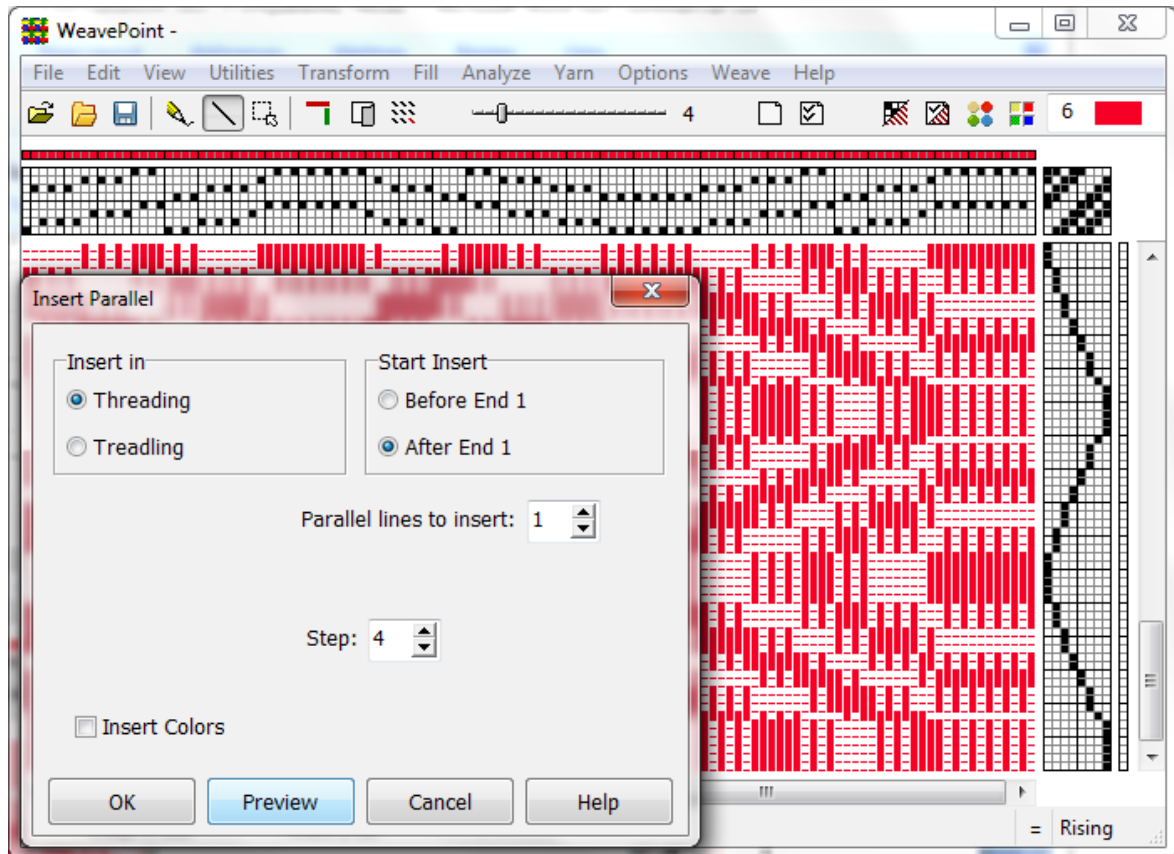
This works like Insert Threading.

## Insert Parallel

### Parallel Threading

A parallel threading, a form of interleave, is also known as "threading on opposites." It 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.

Using the options on the "Insert Parallel" menu you can insert more than one set of warp threads (lines) at a time and indicate the "step" and "color" for each set (line) individually.



### Parallel Lines to Insert

To increase the number of parallel lines, use the "Parallel Lines to Insert" box.

### Step

Set the distance between the lines. The default steps are set according to the present number of shafts and the number of parallel lines selected to insert. With one line, the first step will be half the total number of shafts, as this is usual for an insertion of one line.

When selecting multiple lines, the default steps will be set to spread the lines out evenly. After selecting the number of lines to insert, you can adjust each step individually. This function will not change the total number of shafts.

Note that to just double the threading or treadling, set step to 0.

## Color

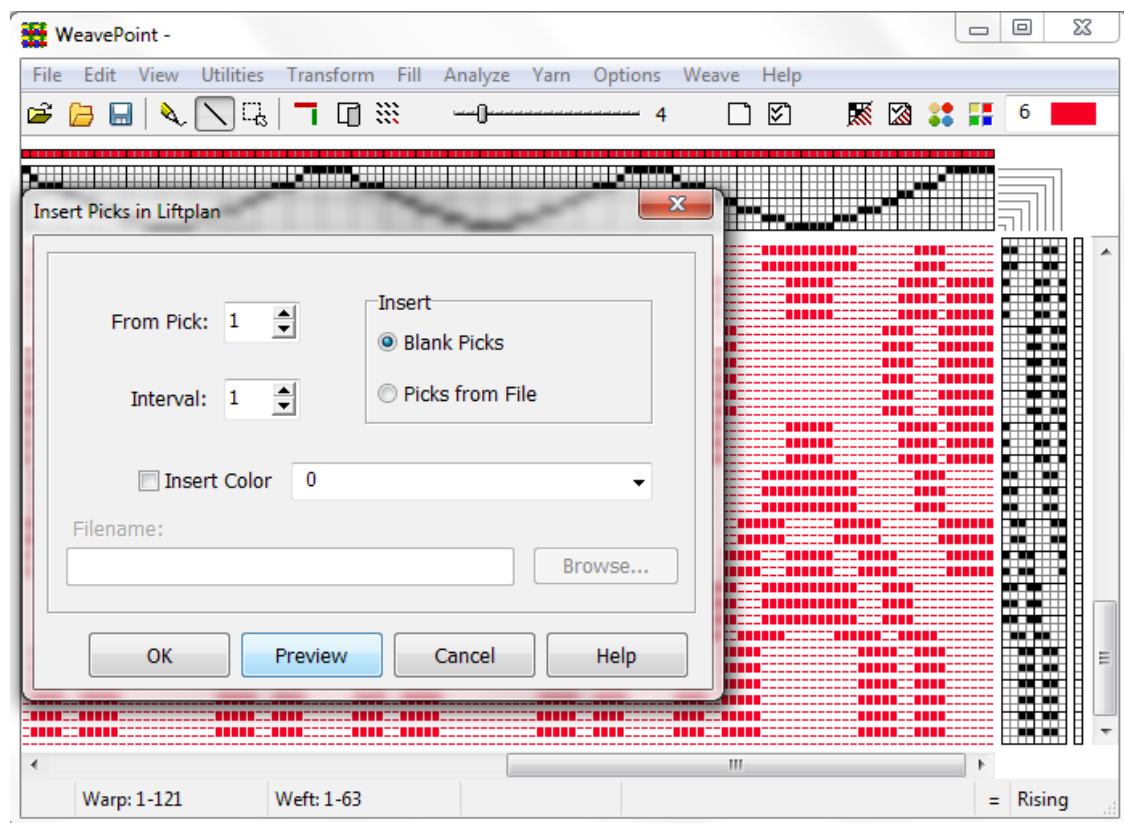
By checking the "Insert Color" box, you can select a color for each line to be inserted. Note that the original line will keep the present color (the color at end 1, if inserting lines after end 1).

## Tie-up Mode

When in tie-up mode, "Insert Parallel" also works in the treadling. This is good for a treadling that alternates left and right, called "walking order", and for creating treadling sequences for shadow weave, warp rep, bound weave, and other structures treadled on opposites.

## Insert in Liftplan

Use this to insert for example a tabby in the liftplan. 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.

To delete inserted picks, choose Delete in Liftplan.

## **Delete in Liftplan**

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

## **Reanalyze Shafts/Treadles**

Use these commands to reanalyze the pattern (fabric). The threading or treadling/tie-up will be entirely reconstructed, using as few shafts or treadles as possible. These commands are useful to check if a pattern can be woven with less shafts or treadles. When using the Translate command or when going from Design mode to Draft mode, full reanalysis will take place automatically.

Reanalyze Treadles is only available in Tie-up mode. The liftplan will be reanalyzed together with the threading in liftplan mode.

The threading (or treadling) will be adjusted so that tabby/twill is placed on the first shafts, as custom is. If the new arrangement of shafts and treadles is still not exactly like you want it, choose Utilities/Switch Shafts/Treadles to rearrange.

Up to 2400 ends and picks can be reanalyzed, but if there is a regular repeat within this limit, also larger patterns will automatically be correct throughout the entire width/height. If the pattern is wider/longer than 2400 ends/picks, and no regular repeat is found, 2400 ends/picks will be analyzed and reconstructed.

## **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.

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 = maximum number of shafts = 128.

## **Turn Draft**

Turn the draft 90 degrees. All warp/weft threads will be swapped.

# FILL MENU

## Fill Threading/Treadling

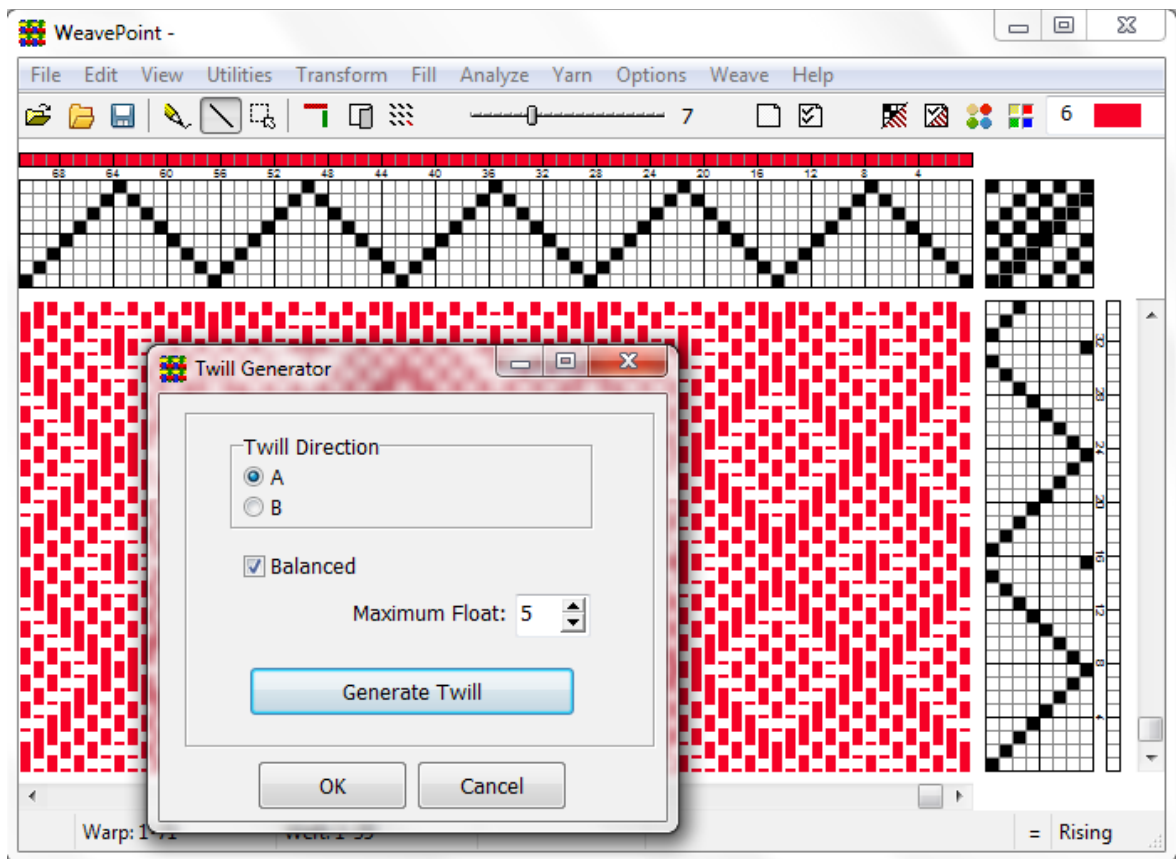
Use the Library menu to quickly fill the threading or treadling with a straight draw, pointed threading or rosepath threading.

The present number of shafts (or treadles) will be filled in. If you already have a threading or treadling, it will be replaced.

## Fill Liftplan/Tie-up

Weaves are divided into three primary classes: Plain, Twill and Satin.

### Twill Variations

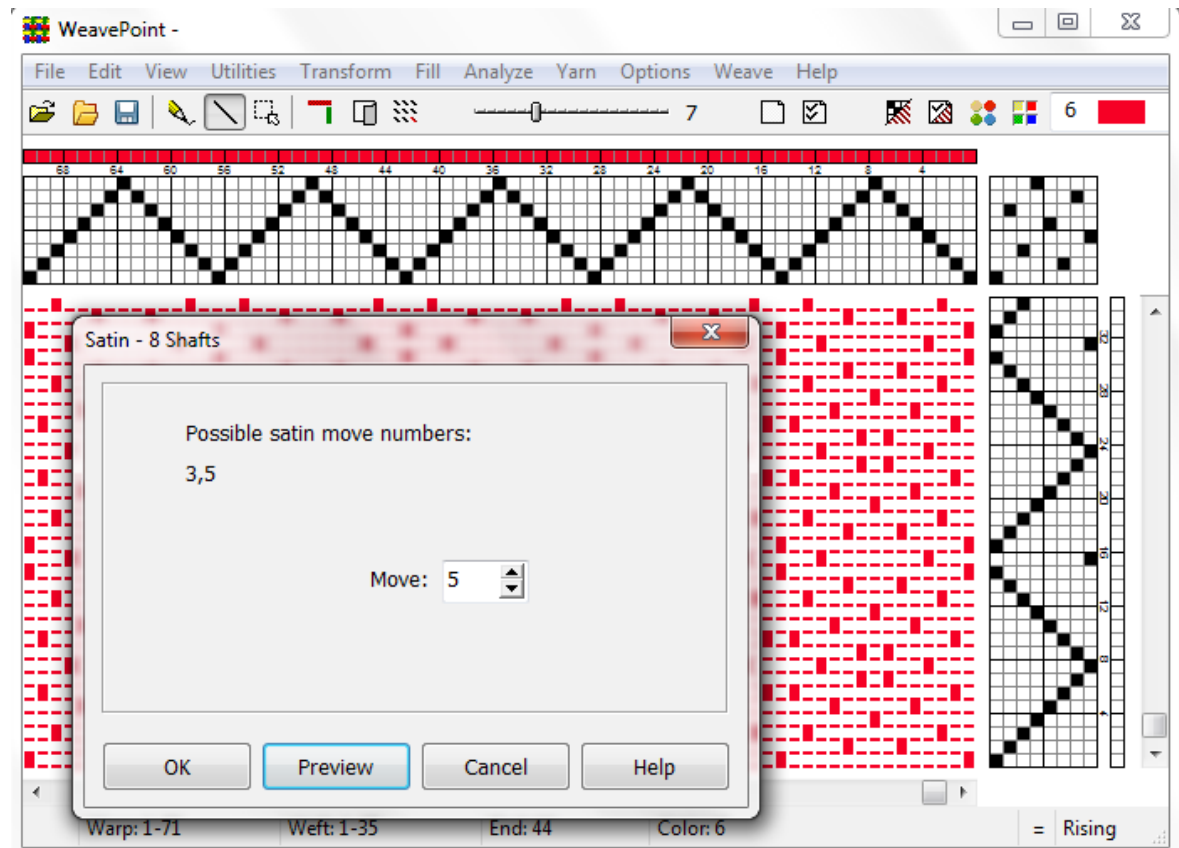


Automatically create a nearly endless number of twill variations. This selection opens the Twill Generator window. This tool will allow you to create twills on a random basis. First, from the Fill Menu, select a Threading and a Treadling. Next, select Twill Variations from the Tie-up drop menu. Click 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. Each time you click the Generate Twills button, a new twill will be generated.

The twills are created in a random manner, but you can choose some rules:

- 1) Select balanced twill. Balanced twills are those in which the warp and weft come to the surface to the same extent.
- 2) Select maximum float length.
- 3) Select twill direction.

## Satin



The satin weave produces a smooth, lustrous cloth. The points or stitchers should be scattered as widely and as uniformly as possible. Use this satin expert dialog to understand and create satins.

A satin is constructed by filling in one square for each pick. Starting with the first pick and then proceeding to the next pick, progressing the position sideways by a certain 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. 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.

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 difference.

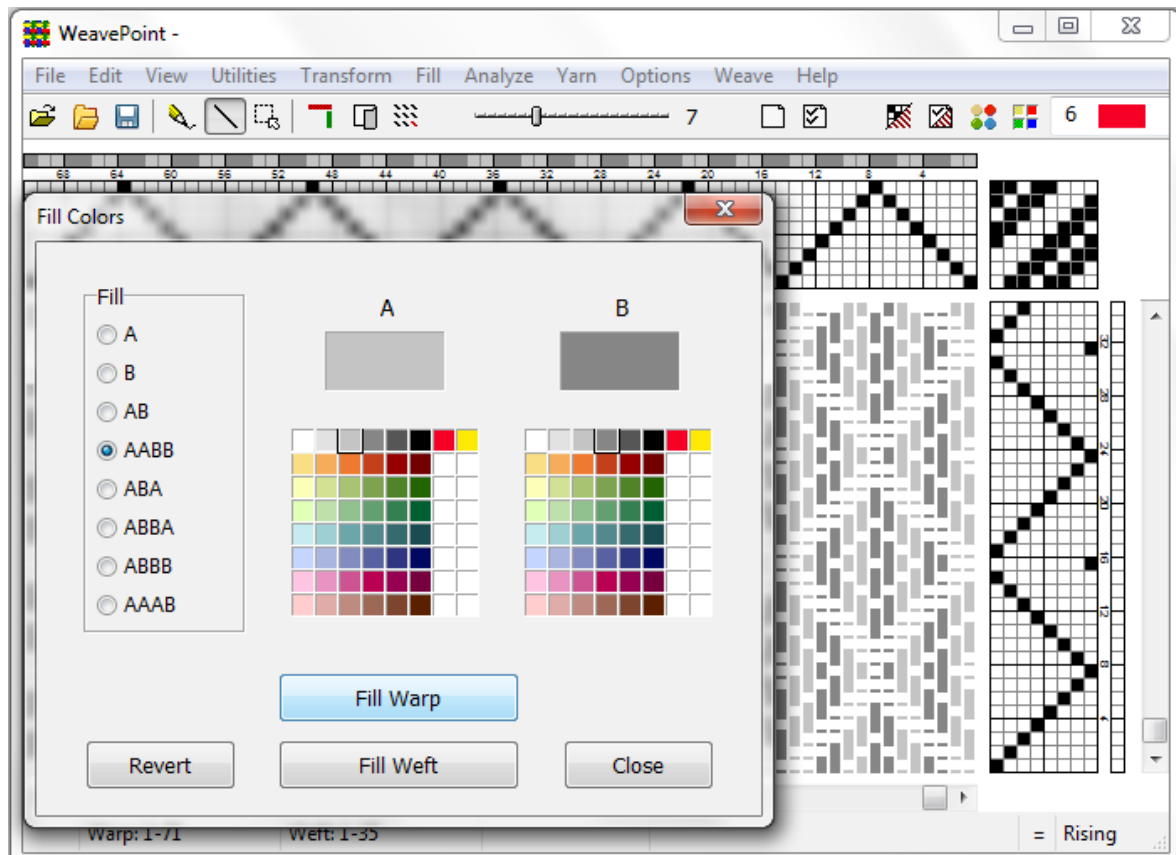
The satin weave requires at least five shafts.

## Plain Weave

Fill the present Tie-up or Liftplan with plain weave.

## Fill Warp/Weft Colors

Under Fill, select Colors. Quickly fill in colors in warp and weft. Select A and/or B sequence. Click color A or B to bring up the Color Dialog Box. Select color; click on warp or weft.



You can use AB and AABB for color & weave effects. You can use AB for double weaves, shadow weave, taqueté, and many others.

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. Tip: Select the part you want to repeat with the selection tool before clicking Repeat.

## **ANALYZE MENU**

### **Analyze Repeats**

A report will be displayed showing the repeats found in warp or weft. Click Print to print the report.

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.

### **Floats**

A floats report will be displayed. The full present pattern is being analysed. The float window remains open and can be moved around the screen while you locate a specific float. After making a change, the window will remain open, and you may click the Update button to update the float information. Click File/Print to print the report.

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

### **Analyze Colors**

A report will be displayed showing the use of colors in warp or weft. Click Print to print the report.

### **Heddles**

A heddles report will be displayed. The numbers shown are the exact number of heddles used throughout the full length of the threading.



# YARN MENU

## Yarn Information

In the Yarn Info dialog, in addition to color, you can enter a name, description, and a symbol for use in the threading and treadling or liftplan for each yarn. The lower part of the dialog box has settings which will affect Fabric View. You can select thick and thin yarns and more. See the chapter on Fabric View for further information on fabric simulation

Shortcut: Click G on the keyboard. If you don't change anything, you can close the dialog by pressing the same key.

The screenshot shows the 'Yarn' dialog box with the 'Tools' menu open. The dialog contains the following elements:

- Yarn List:** A list with one entry, '1 X Dove Grey', which is selected.
- Name:** A text field containing 'Dove Grey'.
- Description:** Two empty text fields.
- Symbol:** A group box containing six radio buttons: 'Standard', '/', '\', 'X' (which is selected), 'o', and '.'.
- Yarn Density for Fabric View:** A section with two sub-sections:
  - Yarn Size/Grist:** Includes 'Diameters/inch' and 'Yarn Diameter' text fields.
  - Yarn Spacing:** Includes 'Yarns/inch' and 'Yarn Space' text fields.
- Supplementary yarn:** An unchecked checkbox.
- Yarn Space=Yarn Diameter:** A checked checkbox.
- Buttons:** 'OK', 'Preview', 'Cancel', and 'Help' at the bottom.

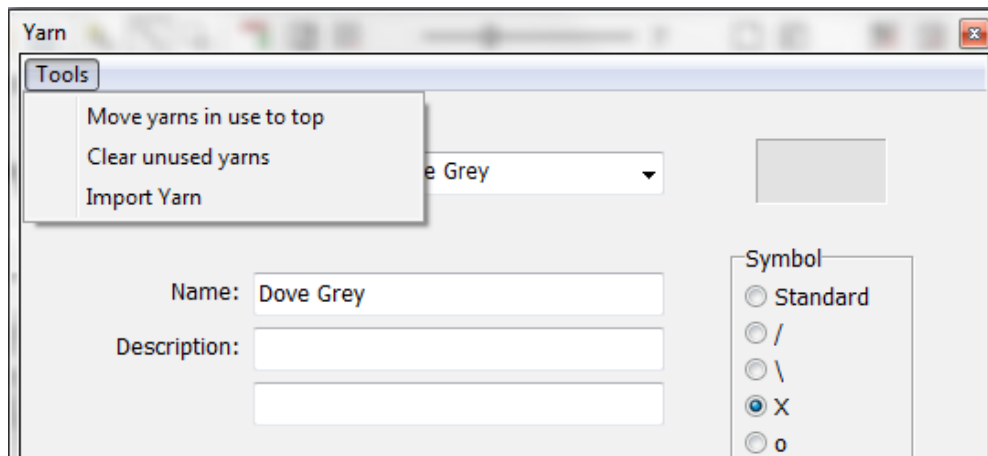
## Symbols

Instead of the standard filled square, symbols can be used in threading and treadling or liftplan. The symbols can also be used with Print Draft and Export Draft to PNG image. If you combine circle symbols with Fill Grids with Yarn Colors in Options, the circles will be filled with the yarn colors.

## Tools

In the Yarn Info dialog box, there is a Tools menu. In the menu you can move all yarns in

use in the current draft to the top, and you can clear all yarns not used in the current draft. Numbers will remain, but colors will be removed from cleared yarns. Colors are considered to be used only where the threading and treadling/liftplan is filled in. You can also import yarns from other WeavePoint pattern files (.wpo files).



### Import Yarn

Import yarns from other WeavePoint pattern files (.wpo files). First, select a file to import from. In the Import Yarn dialog, you can see all the yarns in the import file by color and name. Select one of three ways to import yarn:

**One by one:** Select the yarn to import and the index location/number to import it to in your present palette. Click Import. Repeat for each yarn to import. The index will automatically advance one step for each import.

**All named yarns:** Imports all yarns in the import file that have a name. The yarns will be placed in your present palette starting at the index chosen.

**All yarns:** Imports the full yarn palette from the import file to your present palette.

Note: Yarns imported will overwrite present yarns at the indexes they are imported to. If you do not want to overwrite the current palette, select an index number below the index numbers already in use.

### Yarn Density

Values entered here will have bearing on the Fabric View. For fabric simulation on the screen, the ratio between the numbers is important. You may prefer to enter the values for the finished cloth, rather than the values (sett) on the loom. For printing the fabric to actual scale, the numbers must be correct for the spacing in the cloth to obtain the scale.

Set up thick and thin threads for a repp weave, for diversified plain weave, or other weaves. Check the Use Density from the Yarn Info box in View/Fabric Options, to use these individual yarn settings instead of the general density settings in View/Fabric Options. The size and spacing depends on the yarn, the sett and type of weave. Suggestion: Wind yarn to cover an inch/cm on a ruler to help decide the Yarn size/grist to enter.

## Yarn Space = Yarn Diameter

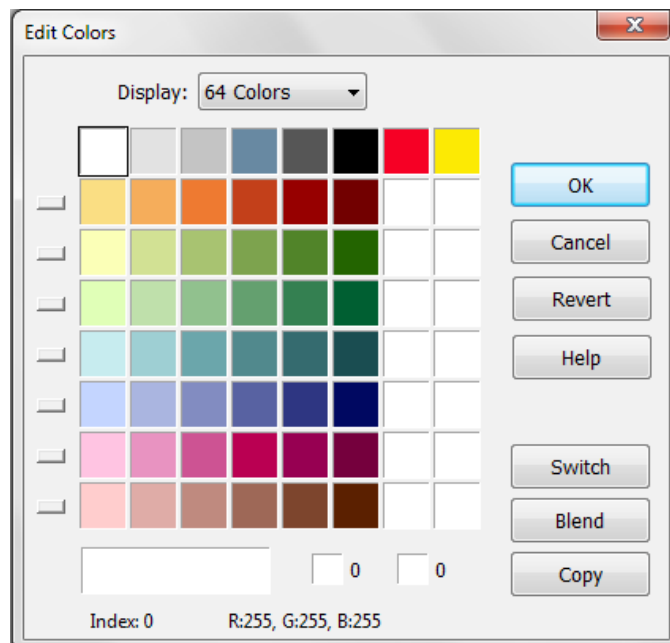
Do not enter the number of ends per inch or the denier or gauge of your yarn, but rather the amount of space it will occupy. This number relates more to the sett, or the number of ends/picks as will be in the finished textile

## Supplementary Yarn

A supplementary thread is a thread that floats over, and under, ground threads. It does not have a space of its own and does not add to the width or length of the cloth. For weaves that use supplementary yarns, check the Supplementary Yarn box in the Yarn Dialog while entering the other information for the specific yarn.

To enable the Supplementary Yarn feature, select Auto mode in View/Fabric Options/Fabric View Mode/Auto Yarn Data. Set the Ends and Picks density for the ground weave in View/ Fabric Options. This will allow the Supplementary Threads to float over and under the ground weave. Do not select the Use Density from Yarn Info box. You can use a Supplementary Yarn in parts of the fabric, as opposed to selecting Warp Faced or Weft Faced, which works best for fabrics that are uniform throughout. Weaves with overshots and Summer & Winter show well when the Supplementary Yarn feature is utilized.

## Edit Colors



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 16 colors on display.

Click a color to select it. Double-click a color to bring up the Color Dialog to adjust the 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 or used as start and end colors for blending when clicking Blend. Copy will copy the color in the left panel to the index in the right panel.

Click Revert to revert your changes to the palette.

Click OK to close the dialog and use your changes.

Click Cancel to close the dialog and discard any changes.

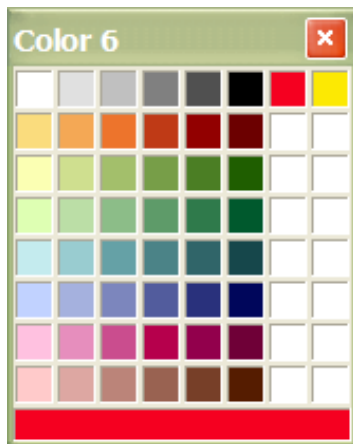
See also Working with Colors.

## Colorways

At the left side of the color grid are 7 small buttons. Clicking a button will switch the row of colors to the top row. This can be used to let each row be a colorway for your fabric. You can this way make up to 8 colorways, each of up to eight colors in 64 color display, or up to 16 colors with 256 color display. To set up several colorways, first fill in 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 Copy function can be useful when making a new colorway, to copy colors from the first colorway and then change them.

## Color Palette window



Click a color to select it for drawing.

Double-click a color to bring up the Color Dialog to adjust the color.

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

The palette always contains 256 colors, even if you actually use only a few of these in your

pattern. Many colors are white at startup. To fill it with your own color, double-click it to bring up the Color Dialog and select your color.

Note: When you open the Color Dialog on a white color, the grey scale slider will be at the top. Place it somewhere down on the gray scale before selecting a hue. As long as the color is pure white, there will be no difference in hue.

## **Color Dialog**

There are various ways to open the Color Dialog. You can select Color Dialog in the Yarn menu to adjust the present color, or double-click a color in either the Color Palette window or the Edit Colors window. You can also click the color panel in the Yarn Info dialog.

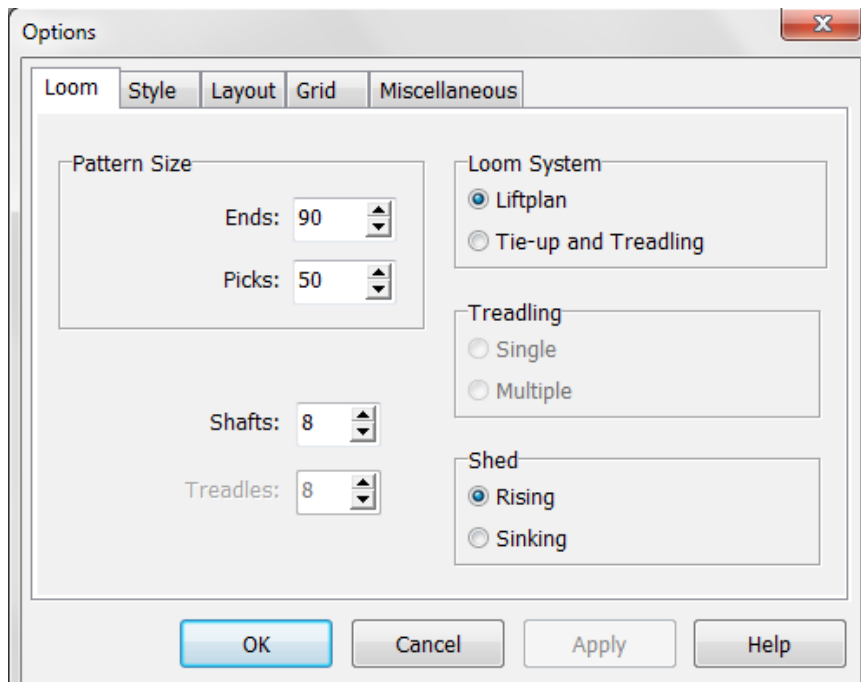
Adjust your color and click OK.

This is the standard Windows Color Dialog. Note that 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 Dialog. So there is no need to click the Add to Custom Colors button. To use the adjusted color, just click OK.

# OPTIONS MENU

## Options

Select your options and click OK. Apply works like OK, but without closing the dialog box, so that you can continue to change settings. Clicking Cancel will cancel all changes since you last clicked Apply.



### Fabric 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.

### Loom System

Select Liftplan or Tie-up mode. In Tie-up mode, you can select Single or Multiple treadling.

If you have a pattern on screen, this will automatically be converted. If changing from liftplan to tie-up and the pattern contains more than 128 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.

Note that 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.

## 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 drawdown. With sinking shed, a filled square indicates a weft thread passing over a warp thread.

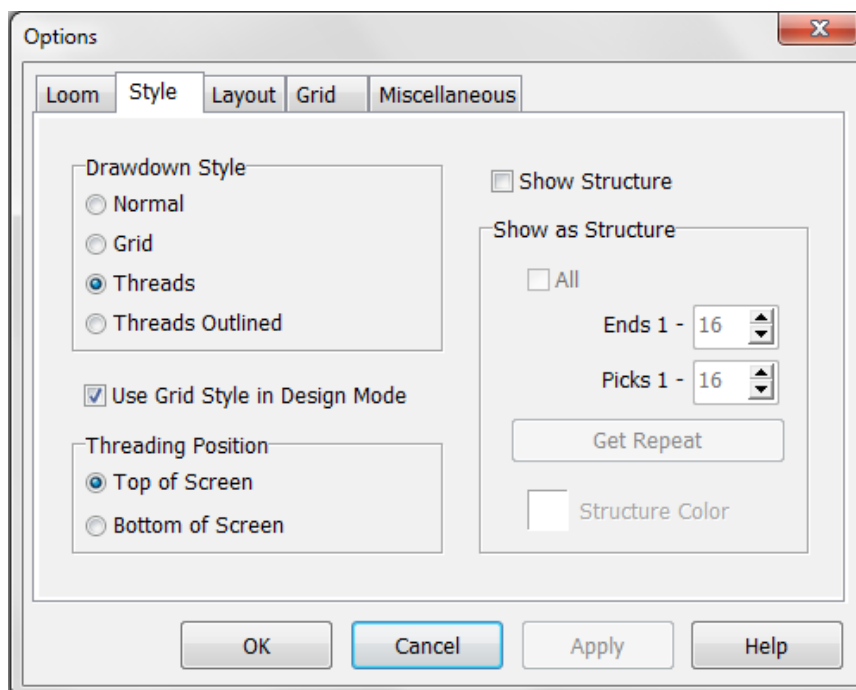
Normally sinking shed is used with countermarch (tie-up) looms and rising shed with dobby looms and table looms. Patterns are saved with information about the shed system used, and when retrieved, the shed system will be set accordingly.

## Shafts

Select number of shafts. Maximum is 128 shafts.

## Treadles

Select number of treadles. Maximum is 128.



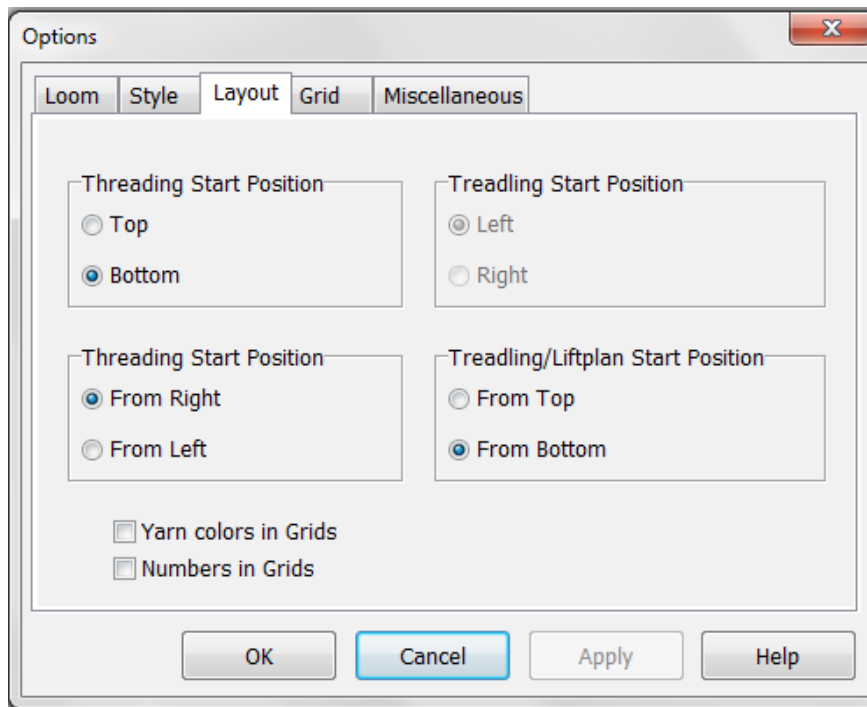
## Drawdown Style

You can select to have the drawdown represented in one of various styles. The Normal style is the plain style in effect when you start the program. Grid will display the pattern with a grid as when designing on graph paper. This style lets you see each square more clearly. Thread gives the image of a loosely woven cloth, and lets you visualize the interlacing of warp and weft threads. Threads Outlined shows the interlacement by outlining the threads with a darker shade of the thread color.

## Structure

You can select to show the structure instead of actual yarn colors in part of the drawdown.

You can select all, a specific area of the cloth, or a repeat (up to 255 ends and picks). 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 to change the color.



### Threading Position

Select to position the threading grid at the top or bottom of the screen.

### Threading Start Position

There are two selections to make for your Threading layout:

1. Top or Bottom: Select Top if you want your first Harness to be the uppermost line in the Threading Grid. Select Bottom if you want your first Harness to be the lowermost line in the Threading Grid.
2. From Right or From Left: Select From Right if you want your first warp thread (end 1) to start from the right side. Select From Left if you want your first warp thread (end 1) to start from the left side.

### Treading Start Position

Select to have the first treadle at left or right side.

### Treading/Liftplan Start Position

Select if you want the first pick to be at the Top or at the Bottom of your liftplan/treading. Having the first pick at the bottom is like seeing the cloth on the loom, with the first weft placed accordingly.

The Fabric 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 in draft view.



## Yarn colors in grids

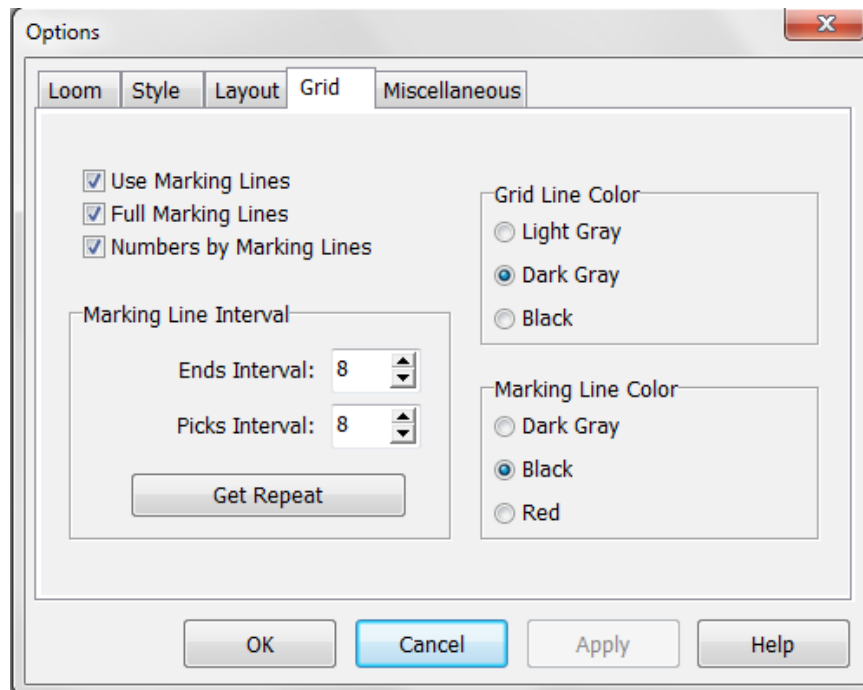
Threading, treadling and liftplan are filled with yarn colored squares instead of black squares. Colors and symbols (see Yarn Info dialog box) can be combined. If the Circle Symbol is being utilized, the color will fill the little circle, otherwise the Symbol will be surrounded by the color. This option is saved with the pattern to file.

## Numbers in grids

Threading, treadling and tie-up/liftplan are filled with numbers. Colors and numbers can be combined, but not numbers and symbols. Numbers will only be displayed at zoom 7 and above. This option is not saved with the pattern to file.

## Grid

Select marking lines options for the grids. Full Marking Lines means both horizontal and vertical marking lines in all grids. Choose interval and colors. You can use this also to visually mark a repeat, by setting the intervals equal to the repeat size. A button is included to quickly set the marking lines to the repeat size.



## Numbers

You can include numbers next to the marking lines in the threading and treadling/liftplan. The numbers 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 include the numbers.

## Unit of Measure

Select the unit of measure for the Fabric Density setting.

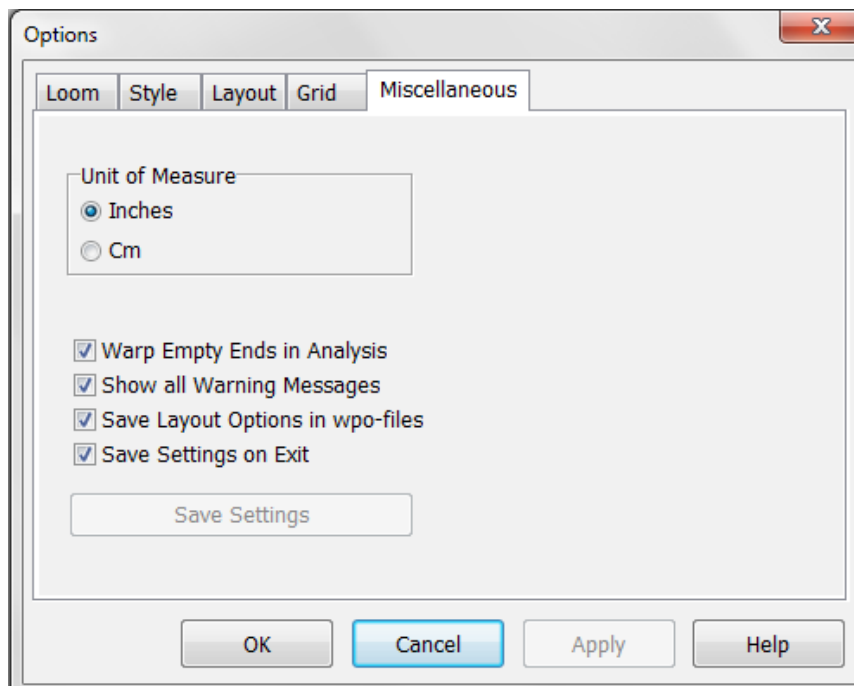
## Warp Empty Ends in Analysis

Fill empty ends and picks in the threading grid (and also 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 Reanalyze Shafts or Reanalyze Treadles. Empty

ends and picks are threads that do not form any interlacement with other threads. They will occur if you in Design mode draw a motif on a plain background.

### Show all Warning Messages

Uncheck this option to display less warning messages.



### Save Layout options in WPO-files

When this option is checked, layout positions will be saved in the file. 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 WeavePoint.

### Save settings

Save all present options and settings.

## 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. You can keep the note window open while editing your draft, to make notes along the way. The Note toolbar button will be blank if no information is entered and will show lines if information has been entered.

The text in Note will be printed below the draft image when you print the draft, if this option is checked in the Print Draft dialog box.

## Project Planner

The Project Planner is a separate calculation utility included with WeavePoint. 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. 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 lets you easily calculate yarn weights and costs for a project. The 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.

The screenshot shows the 'WeavePoint Project Planner' window. It has a menu bar with 'File', 'Special', and 'Help'. Below the menu bar, there is a 'Project:' text box, a 'Notes..' button, and a 'Date:' field set to 'May 30, 2011'. The main area is divided into four sections: 'Warp', 'Weft', 'Warp Cost', and 'Weft Cost'. Each section contains several input fields with numerical values and units. At the bottom, there is a 'Total Cost:' label.

Warp	Weft
Finished length: <input type="text"/> yards	Finished width: <input type="text"/> inches
Shrinkage: <input type="text"/> 8 %	Shrinkage: <input type="text"/> 8 %
Woven length: <input type="text"/>	Woven width: <input type="text"/>
Test Samples: <input type="text"/> 0 inches	Draw-in: <input type="text"/> 7 %
Take-up: <input type="text"/> 7 %	Width in reed: <input type="text"/> inches
Fringes and Extras: <input type="text"/> 0 inches	P.P.I.: <input type="text"/>
Loom waste: <input type="text"/> 27 inches	Number of picks: <input type="text"/>
On-loom length: <input type="text"/>	Total picks: <input type="text"/>
Sett (E.P.I.): <input type="text"/>	
Number of ends: <input type="text"/>	
Total Yarn Length: <input type="text"/>	Total Yarn Length: <input type="text"/>

Warp Cost	Weft Cost
Yards/lb: <input type="text"/> Total lb: <input type="text"/>	Yards/lb: <input type="text"/> Total lb: <input type="text"/>
\$/lb: <input type="text"/> Cost: <input type="text"/>	\$/lb: <input type="text"/> Cost: <input type="text"/>

Total Cost:

See Help in the Project Planner for details on how to use it.

## Weave - Loom Control

For info on WeavePoint loom control, see separate manual for your loom type.

# Troubleshooting

## 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. The modern printer drivers normally produce good results, but sometimes far from perfect compared to what you saw 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 display colors more or less correctly. Many monitors have menus for adjusting colors and color temperature. And the light condition in your room can influence how you perceive the colors.

If you are not satisfied 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.

Using Windows Image Color Matching standard (ICM), in combination with information about your monitor, can improve the color matching.

Note that colors varies with different types of paper. Make sure to select the paper type you load in the Printer Setup dialog for your printer.

## Using the mouse

Using the mouse intensively for long periods is known to sometimes cause arm and shoulder problems. A good advice to avoid this, is to rest your elbow and lower part of the arm on the table while moving the mouse, so that you only move your hand and wrist. Use a desk or table sufficiently deep to allow room for resting your arm. If necessary, move the screen further back to make more room in front of the screen.

# Display Settings

For optimal WeavePoint display, check your display settings in the Windows control panel. Check the display settings for screen Resolution, Font Size and Color Palette. These settings are not always set optimally when your computer was delivered. Note that available settings depends on your PC's graphics card and your monitor. Select the resolution which best fits your monitor. With a larger monitor with higher resolution, you can see a larger part of your pattern.

WeavePoint works internally in True Color (24 bit / 16 Million Colors). If possible, it is strongly recommended to select True Color (24 bit or 32 bit). If you use a lower setting, colors will be dithered on the screen. Although this can have a textural effect, it will be hard to distinguish details in your pattern at low zoom levels and fabric displays.

Note: You can increase the program display area on the screen by setting the Taskbar to Autohide.