WEAVE Point

WEAVEPOINT®
for Windows

USER'S GUIDE

Version _____
by
Bjorn T. Myhre

WEAVEPOINT BASICS

FILE MENU

TABLE OF CONTENTS

TABLE OF CONTENTS

WEAVEPOINT LICENSE AGREEMENT AND WARRANTY

THIS IS A CONTRACT. CAREFULLY READ ALL THE TERMS AND CONDITIONS CONTAINED IN THIS AGREEMENT BEFORE OPENING THE SEALED DISKETTE BAG. IF YOU DO NOT WISH TO ACCEPT THESE TERMS, RETURN THIS PRODUCT TO **AVL LOOMS**, AND YOUR MONEY WILL BE REFUNDED UNLESS SOME OF THE COMPONENTS ARE MISSING, ALTERED, OR DAMAGED.

LICENSE

You have the non-exclusive right to use *WeavePoint* on a single computer at one time. You may not transfer *WeavePoint* electronically from one computer to another or use it over a network without AVL's express written permission. You may not modify or translate the program or related documentation in any way or manner.

BACK UP AND TRANSFER

You may make an archival copy of *WeavePoint* for the sole purpose of backing up the software, so long as you in no way tamper with or alter the introduction logo. You may sell your license rights in *WeavePoint* to another party. You may use *WeavePoint* at different times on different computers.

If you sell your license rights in *WeavePoint*, you must at the same time transfer the documentation, protection device (if any), and the backup copy or destroy the backup copy. You cannot sell your license rights in *WeavePoint* to another party unless that party also agrees to the terms and conditions of this Agreement.

TERMINATION OF LICENSE

You may terminate this license by destroying the program together with any copies. This license will also terminate if you fail to comply with any term or condition of this Agreement.

LIMITED WARRANTY

With respect to the physical diskette and physical documentation, AVL Looms, Inc., warrants that these items will be free from defect in materials and workmanship for a period of ninety (90) days from the date of purchase. In the event of notification within the warranty period of defects in materials or workmanship, the defective diskette or documentation will be replaced, so long as you mail the defective material to AVL Looms. The sole remedy for this warranty shall be limited to the replacement of the defective documentation or diskette.

EXCEPT FOR THE ABOVE LIMITED WARRANTY, THE SOFTWARE PROGRAM **WEAVEPOINT** IS PROVIDED "AS IS." THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE OF THE PROGRAM IS ASSUMED BY YOU. AVL LOOMS DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE OF, OR THE RESULTS OBTAINED WITH, THE PROGRAM IN TERMS OF CORRECTNESS AND RELIABILITY. THE ABOVE IS THE ONLY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE THAT IS MADE BY AVL LOOMS.

IN NO EVENT SHALL AVL LOOMS BE LIABLE FOR ANY LOSS OF PROFIT OR ANY OTHER COMMERCIAL DAMAGE INCLUDING, BUT NOT LIMITED TO SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES.

WEAVEPOINT LICENSE AGREEMENT AND WARRANTY

Some states do not allow limitations or exclusions of liability, so the above limitations or exclusions may not apply to you.

GOVERNING LAW

This Agreement shall be construed, interpreted, and governed by the laws of the State of California.

THIS AGREEMENT CANNOT BE MODIFIED EXCEPT BY WRITTEN AMENDMENT EXECUTED BY YOU AND AN AUTHORIZED OFFICER OF AVL LOOMS, INC.

Insert the program distribution disk.

Windows 95

The recommended way to install under Windows 95 is using Add/Remove Programs which is located in the Control Panels.

1.)   Open the **Control Panel** (this is normally located under **Settings** in the **Start Menu**).

2.)   Open **Add/Remove Programs**.

3.)   Click the **Install** button and follow the instructions.

You can also install by running Setup on the distribution disk.

Windows NT

On Windows NT systems, you install by starting Setup on the distribution disk. In File Manager, you can click on the icon of the drive containing the distribution disk, then double-click on the **SETUP.EXE** file name.

When installing, you will be asked to enter your name and company name. If you do not have a company or use the program in work for a company, just enter your name also as the company name.

WeavePoint 5 and WeavePoint Project Planner will now appear as on of the programs under Programs in the Start Menu. Double-click on WeavePoint 5 to start the software.

Note: To install this program on a network, you need a network license and special version of the program.

INTRODUCTION

Welcome to WeavePoint!

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

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

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

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

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

For general use of Windows 95 programs, please see **Windows 95 Help** which is normally available in your Start Menu.

For optimal WeavePoint display, check your display settings in the Windows Control Panel. Check the 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, graphics RAM installed, and on your monitor.

WeavePoint works best with 600 x 800 or higher resolution. Increasing the resolution is like increasing the size of your drawing paper; you can display a larger part of a pattern. Which resolution to use is a question of personal preference and eyesight. In general, with a 14" monitor, you can use 640 x 480 or 800 x 600 resolution. A 15" monitor typically goes well with 800 x 600 resolution and a 17" monitor with 1024 x 768 resolution.

To use as high resolution as possible, it is normally preferable to select Large Font. This makes text more readable on the screen while having detailed graphics.

You can typically select one of these values for color palette:

    16 Color
    256 Color
    Hi Color (16 bit / 65.000 Colors)
    True Color (24 bit / 16 Million Colors)

WeavePoint works internally in True Color. If possible, it is strongly recommended to select True Color or Hi Color. If you use 16 or 256 Color setting, most 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.

While you're looking at display settings, you can also check the refresh rate setting. This should be as high as possible (but not higher than your monitor can handle). Note that this setting has nothing to do with WeavePoint in particular. A high refresh rate simply reduces screen flickering and thus reduces eye strain.

Note: You can also increase the program display area on the screen by setting the Taskbar to Autohide and by setting the scroll bars slimmer.

GETTING STARTED

There are two ways to start your program:

Starting WeavePoint

a) from the **Start** / **Programs**
go to **Start**, select **Programs**, select **WeavePoint Folder**, click on the application program icon.
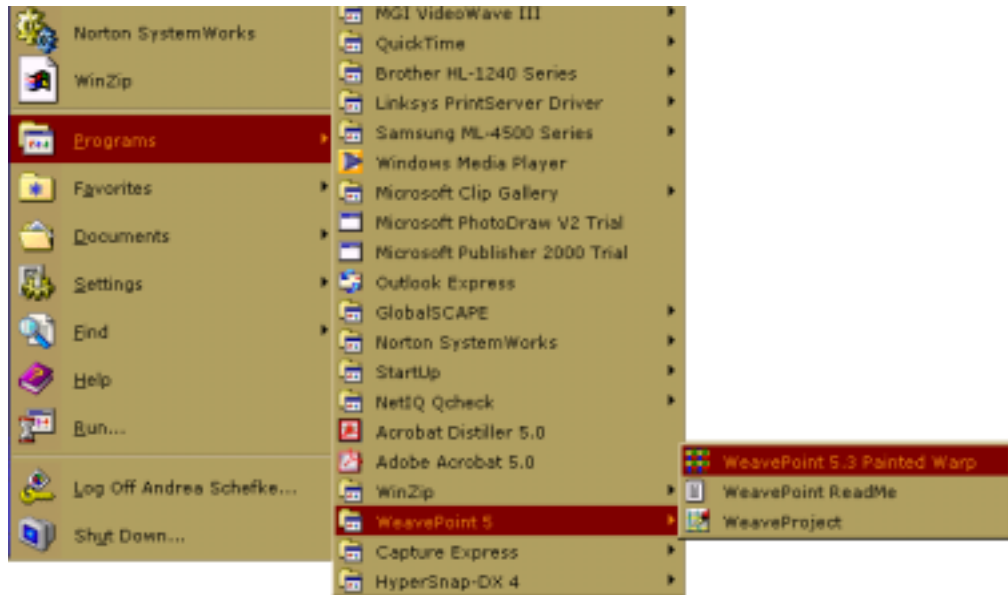
b) or by creating a **Shortcut Icon** on your **Desktop**.
To create a shortcut icon on your desktop, open My Computer icon, then your C drive, Programs Folder, locate your WeavePoint Folder, then the WeavePoint application program icon and while holding the right button of your mouse, drag the icon to your desktop. The dialog box will come up asking you if you want to create the shortcut to the desktop. Confirm. That way your WeavePoint icon will always reopen at the desktop as soon as you start Windows.

Creating Folders

To create a new folder, simply select Save As from File Menu and the Save As window will come up. There is a **Create New Folder Icon** in the top part of that window. Click on it and the new folder will appear in the window, highlighted. At this point you can name it (for example "New samples").
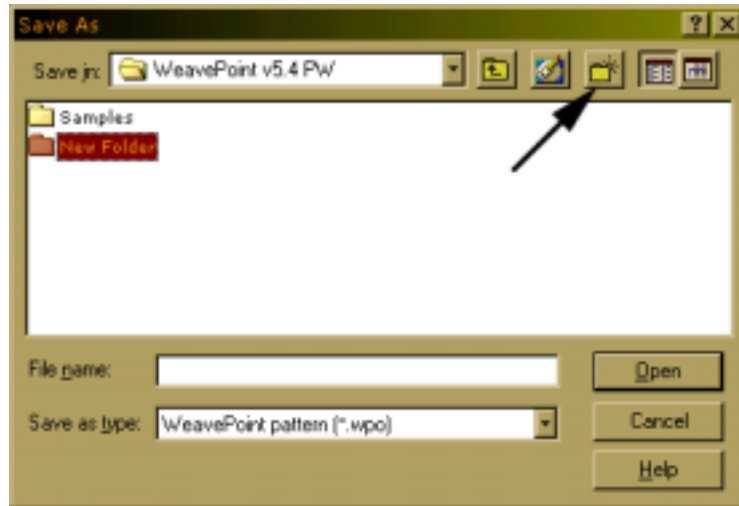
Locating Folders and Files

To be able to locate your files and folders, you have to understand the hierarchy of the computer memory: the theory of the folder in the folder in the folder, etc. To make it easy to remember, try to organize your files the way it makes sense to you.
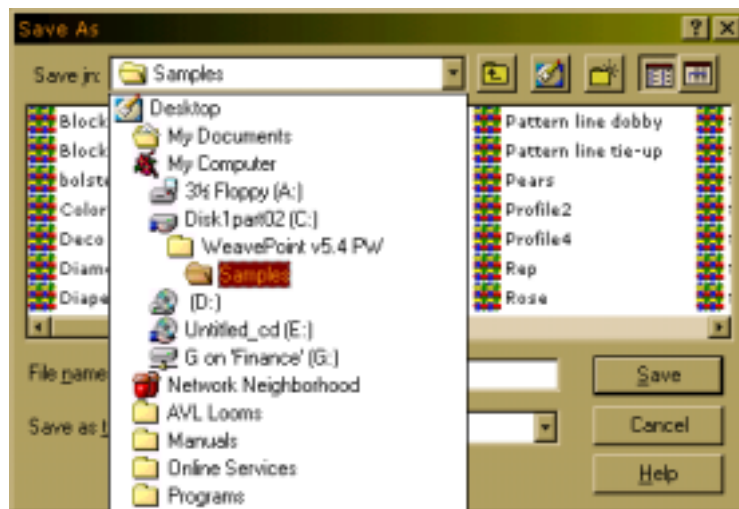
Main Window | Most of the main window is naturally used for drawing your pattern. At the top is the tool bar and at the bottom is the status bar.
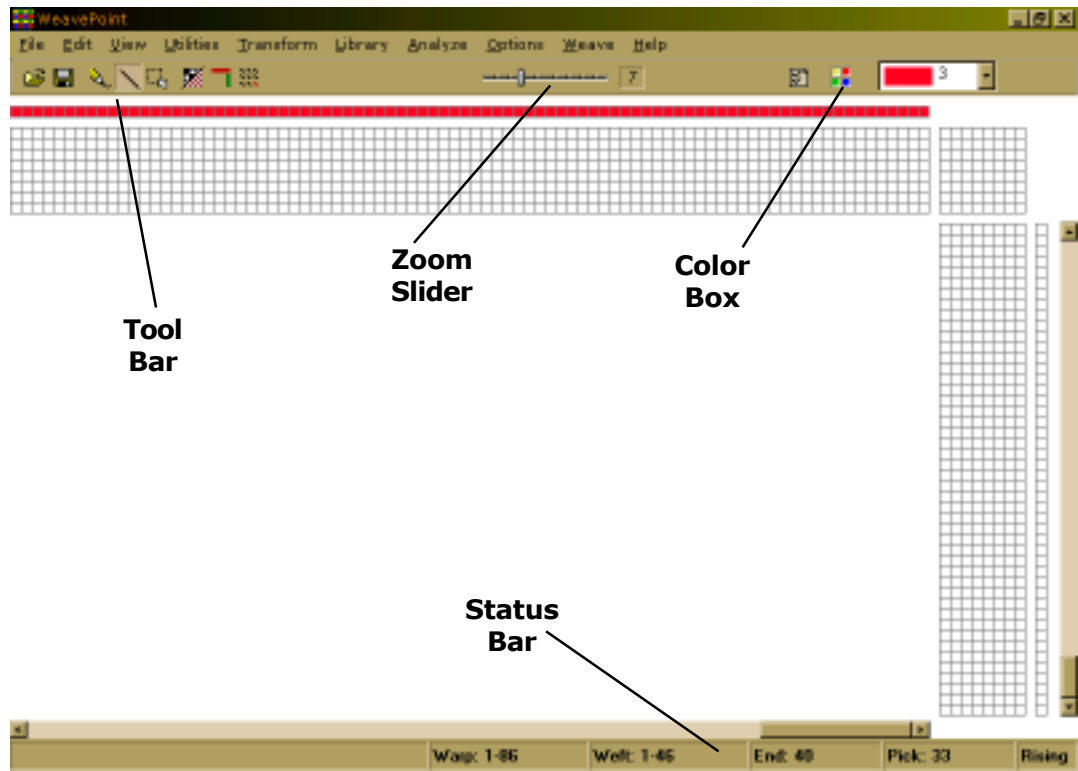
The Tool Bar | The tool bar gives quick access to frequently used commands. Speed buttons, zoom slide bar, and color selection box are located in the tool bar.

Speed Buttons | The tool bar contains speed buttons for quickly selecting some commands that are frequently used. Place the mouse cursor over a button to see a hint about its function.

Zoom | Click to the left or right of the slider to increase or decrease the zoom, or press the left or right cursor key.

Color Box | The color box shows the present selected color for drawing colors in warp color and weft color grids. Click the box to see the colors. Double-click a color to select a new one.

The Status Bar | The status bar at the bottom of the screen tells you the start and end positions of the present window in warp and weft. The position 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 speed button.

WEAVEPOINT BASICS

Program Modes

In the program, you can be 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.

First there is the normal Draft Mode, which is when the threading and other weaving grids are present on the screen. Then there is Design Mode, where only the pattern grid and the color diagrams are viewed on the screen. To enter **Design Mode**, choose **View/Design**. To enter **Draft Mode**, choose **View/Draft**.

Note that if you have a pattern in Draft Mode and change to Design Mode, the pattern will automatically be reduced to one repeat, to make it easy to work on the pattern. Choose **Repeat** with **Fill Pattern** checked to restore it.

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

Other 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, 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" or "chain draft").

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 are not available in Tie-Up Mode with multiple treadles.

You can also select rising or sinking shed and alter the layout of the screen in the Options Window.

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 4800 warp ends and 4800 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 the number of repeats. You can also use Copy and Paste Special.

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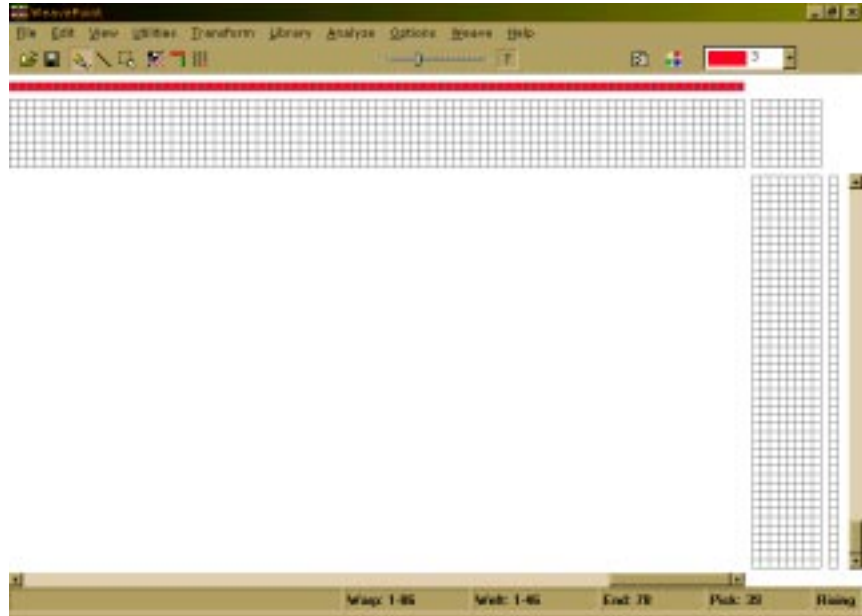
Or you can draw your pattern directly in Design Mode.
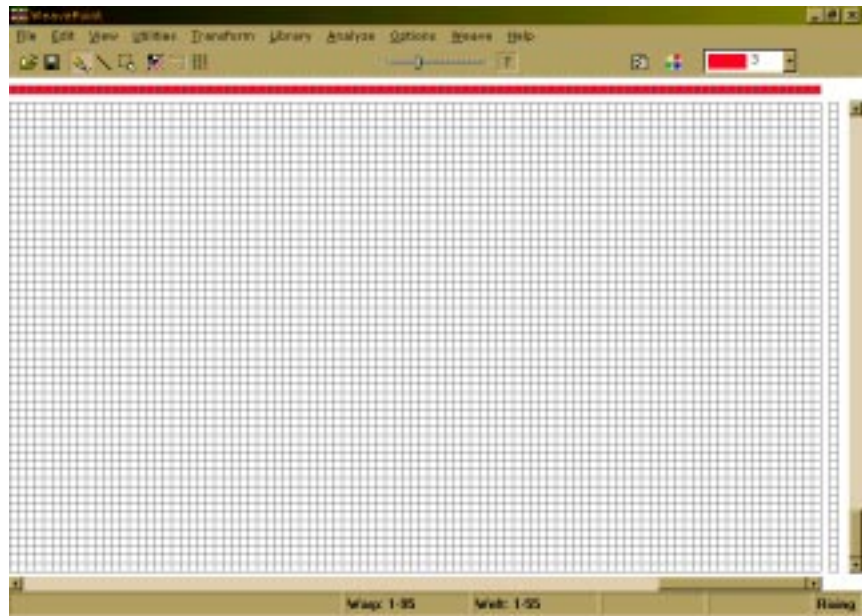
The program will then automatically construct the draft. Once a pattern is made, you can edit and modify it using any method.

You can also draw directly on the drawdown in Draft Mode, as long as the threading (and treadling in Tie-Up Mode) are 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**.

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

Quick Tutorial

This is a quick tutorial on how to make a pattern in Draft Mode.

First, pick **File/New** from the menu to start with a blank screen. In the New dialogue, you can select number of shafts and rising or sinking shed.

At start-up, the program will be either in Liftplan Mode or in Tie-Up Mode, depending on the present settings. Check that you have the right kind of 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**, select the **Loom Tab**, and select your loom system. If you have not chosen number of shafts and shed system, you can also do this in the Options Menu.

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

You can start drawing in any part of the draft, but it can be most convenient to start with the threading. In the tool bar, click the **Pen** button to draw in Freehand Mode and **Line** to draw lines. It is usually most convenient to draw with Line Mode in the threading.
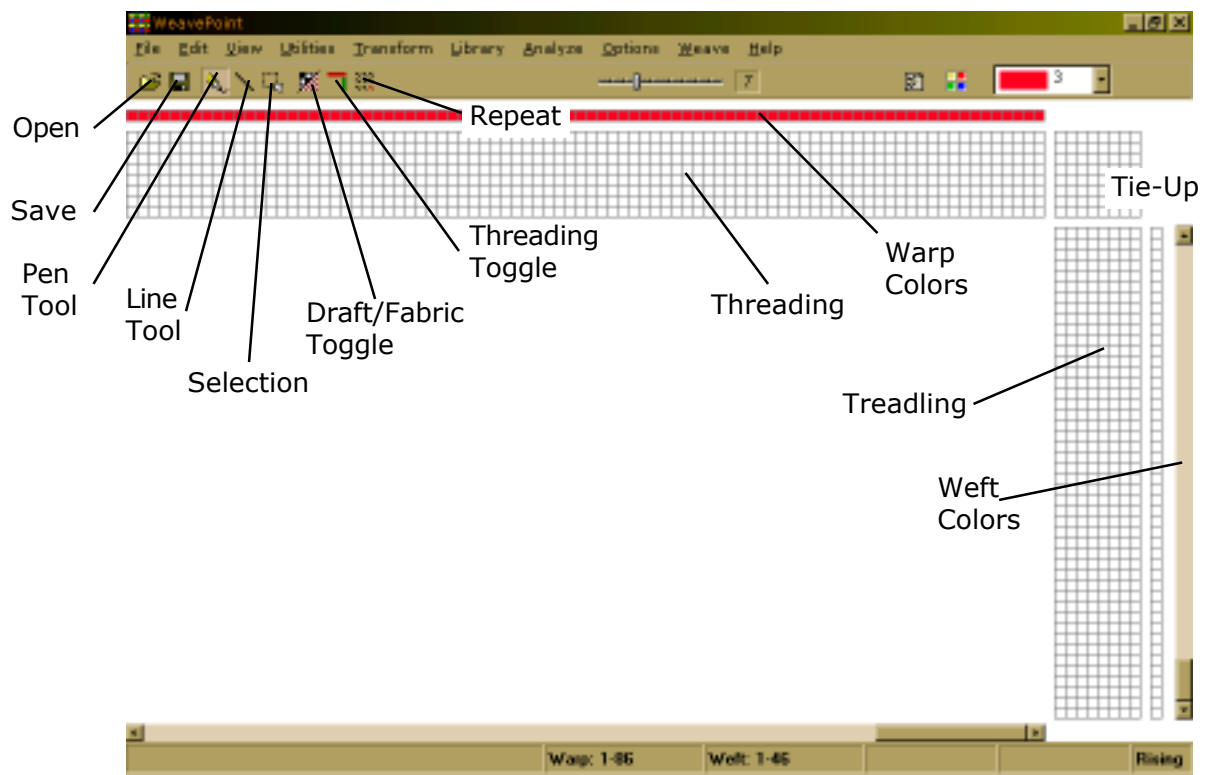
To draw, position the cursor and press the left mouse button. Then drag out your line and release the mouse button. If you want to correct warp ends, simply draw over what you already have drawn, and the filled squares will move. To undo your last drawing operation, pick **Edit/Undo** or press **Ctrl-Z**. To erase ends, click the right mouse button.

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

Now you can fill in the liftplan or tie-up, depending on the mode you work in. 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.
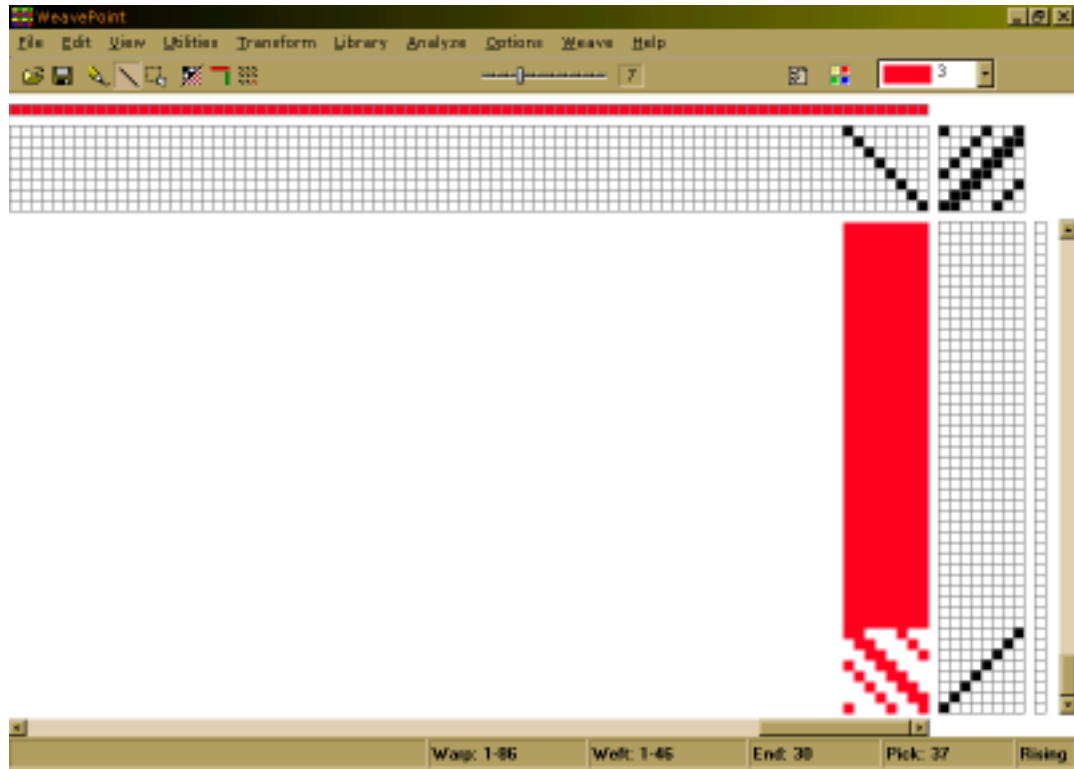
Now to fill the pattern with your repeat, click the **Repeat** button on the tool bar, check **Fill Pattern**, and click **OK**.

Then you can try to select different warp and weft colors. Pick **View/ Color Palette** to bring up the floating color palette window. Or select colors in the color box in the tool bar. Select a color and draw it in the warp or weft color grids. To repeat the colors, click **Repeat**, uncheck **Fill Pattern**, and check **Warp Colors** or **Weft Colors** and choose the part to repeat in the Repeat Source field.

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

You can also quickly create patterns by using pre-saved elements from the Library Menu. Pull down the Library Menu, select one of the three basic threadings and treadlings (if in a tie-up mode), then select either twill variation, satin, or tabby for liftplan or tie-up.

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 Copy and Paste. And check out the **How to...** section. Try out all the possibilities in the Utilities and Transform Menus.

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 dialogues.

OPEN

File
Open...
Open Components...
Save
Save As...
New...

Export

Page Setup...
Print
Print Numeric
Printer Setup...

1 C:Pattern line tie-up.wpo
2 C:Pattern line dobby.wpo
3 C:Painted Warp.wpo
4 C:Network waves.wpo
5 C:Network circles.wpo

Exit

Choose **File/Open** or click the **Open** speed button to go to the Open dialogue.

The most important thing to remember is to know the location where you saved your files (**Look In** part of the window) and to know the file type (**Files of Type** part of the window). Double click on the file to open it or click once to select it and then click on **Open**.
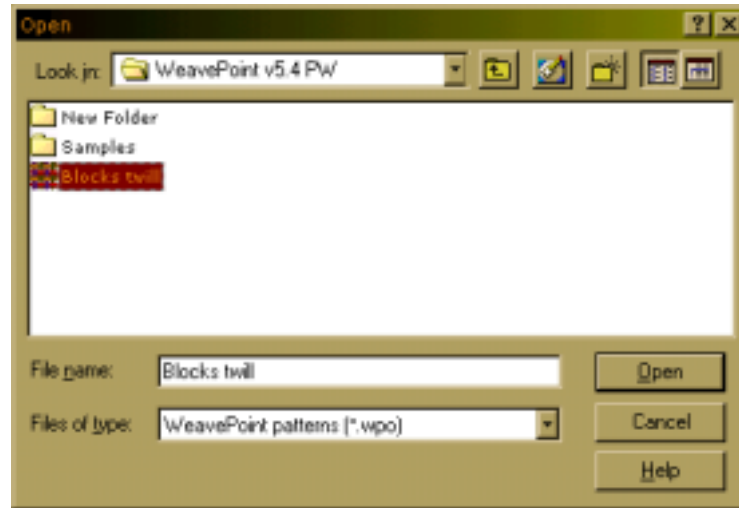
File Types

Your weave patterns and designs can be saved as different types of files: WeavePoint pattern, bitmap, or WIF file.
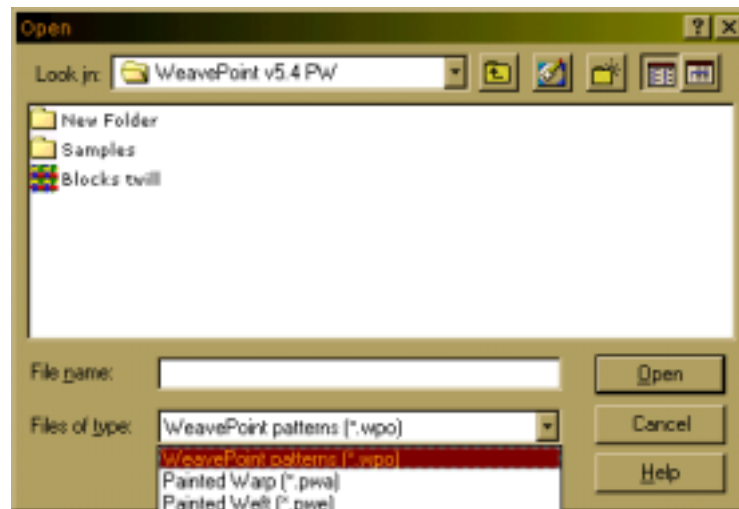
WIF Files (.wif)

How to Use WIF Files: The different weaving programs each uses its 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 dialogue, select **WIF** as file type to open. The WIF file can contain liftplan, tie-up/treadling, or both. If both, the liftplan will be loaded if you are presently in Liftplan Mode; tie-up/treadling will be loaded if you are presently in Tie-Up Mode. A WIF file can contain text information which will be placed in the note.

Note that WIF is an inefficient file format. 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 tie-up/treadling will be stored. If there is some text in note, it will also be stored in the WIF file.

Select the number of ends and picks to save. Often all you need to save is one repeat.

Bitmap Files (.bmp)

Opening Bitmap Files (.bmp): Bitmap files, both bmp-files saved with WeavePoint in Design Mode and graphics made with other programs and saved as a bitmap can be opened. 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 mono-chrome bitmap before loading it in WeavePoint.

SAVE

Choose **File/Save** or click the **Save** speed 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** dialogue 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). To save to a floppy disc, make sure you select the A drive on your computer, assuming that is the drive for floppy discs.
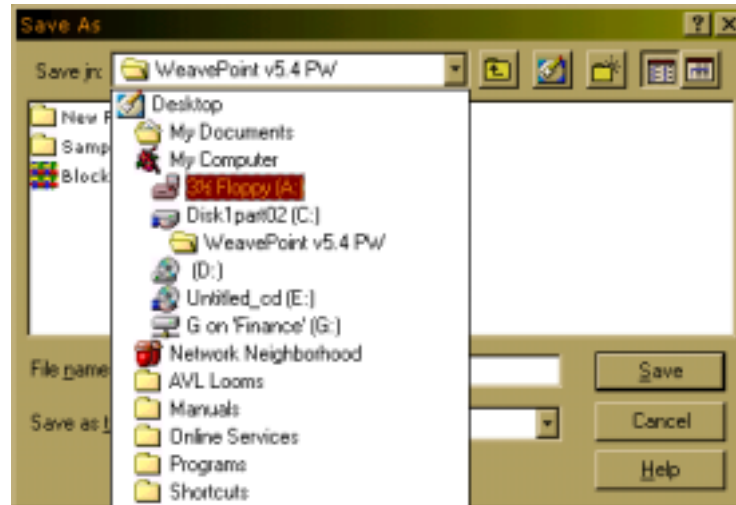
The pattern file name can be up to 255 characters long. You can even use spaces, so you can write quite descriptive file names.

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 thirty to forty characters. Also note that when sending files to floppies or with e-mail, file names can be truncated to eight character DOS/Windows 3.x style name.

If a pattern with the name already exists, you will be prompted to verify that you wish to overwrite the existing file.

To rename or delete a file, right click on the file name in the standard **Load** and **Save** dialogues. Then select from the pop-up 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.

FILE MENU

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 on pages 2-1 and 2-2.
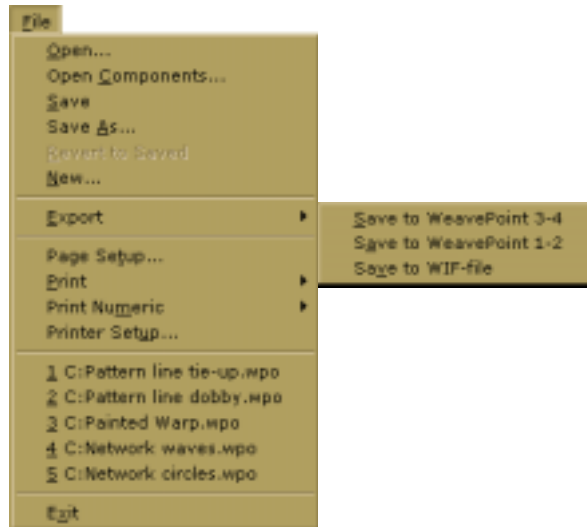
NEW

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

In the dialogue, you can select some options. Other options can be set in the **Options** dialogue.

The warp and weft colors will be reset, using color 3 and 15. The actual colors displayed depends on the current color palette. The color palette itself will not change when selecting New.

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**.
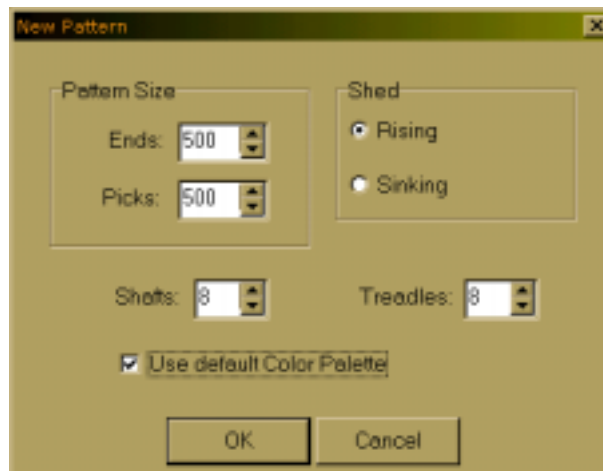
OPEN COMPONENTS

Select one or more components of a pattern file to load into the present pattern. For example, if you just want to use the color palette from another pattern, check **Palette** in the dialogue.
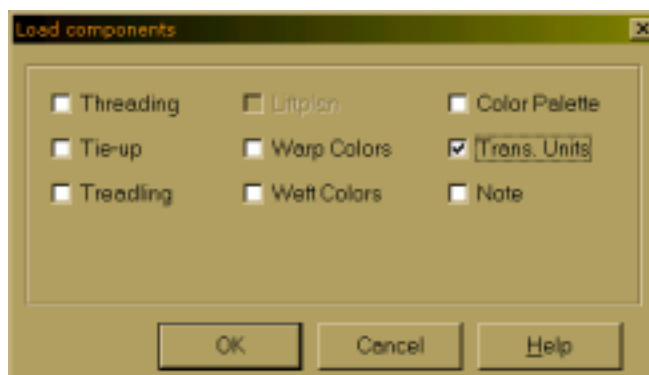
The component you load will replace the entire present component with one exception: when loading only a liftplan or tie-up, it will replace only the area of its number of shafts (and treadles). If the current number of shafts (or treadles) is greater, the remainder will be left intact. In this way, you may put two liftplans or tie-ups partly side by side.

When you're in Liftplan Mode and open a pattern saved in Tie-Up Mode, Liftplan will be disabled in the dialogue, 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 Trans. Units is selected.

Blend Liftplan

Clicking **Blend Liftplan** in the Load Components Window will bring you to another dialogue where you can select four different ways to blend 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.

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**.

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.

PAGE SET-UP

Set paper margins to select both the placement of the printed image on the paper and the size of the printed image. The margins setting affects all graphics printing, but not numeric printing.

The rectangle, on the white paper displayed, shows the selected printing area. When setting margins, you not only select the placement of the printed image, but also, in effect, its size.

To print the largest image possible, set all margins to zero. Note that because most printers cannot print on the edges, a small margin will still remain.

In Page Set-Up, you can also make other selections, like Portrait or Landscape format printing. And you can click Printer to check your printer settings.

The settings you make will remain in effect until you exit from Weave-Point. Next time you start the program, select Page Set-Up again before you print.

In most cases, the printed image will fill the selected printing area either in width or height, but not both. This is because the image to print has in itself a fixed width/height ratio and this ratio will be kept when printing. For example, if you choose to print a draft with forty ends and twenty picks, the image width will be almost double its height. If you want to print this as large as possible, choose **Landscape** format to better fit the image to the paper. Only Print Fabric in true size will normally fill the total printing area.

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.

To print images of the draft, fabric, etc., choose **File/Print**.

Print Draft

To print the draft with various print options, pick **Print Draft**. If threading is not on display in the draft on the screen (toggle threading speed button), printing the draft will not print the threading.

In the **Print Draft** dialogue, select the exact range of ends and picks to print. Note that it all will be printed on one page, so the more ends/picks you print, the smaller will each end/pick become on paper. To print large patterns, print one part at the time.
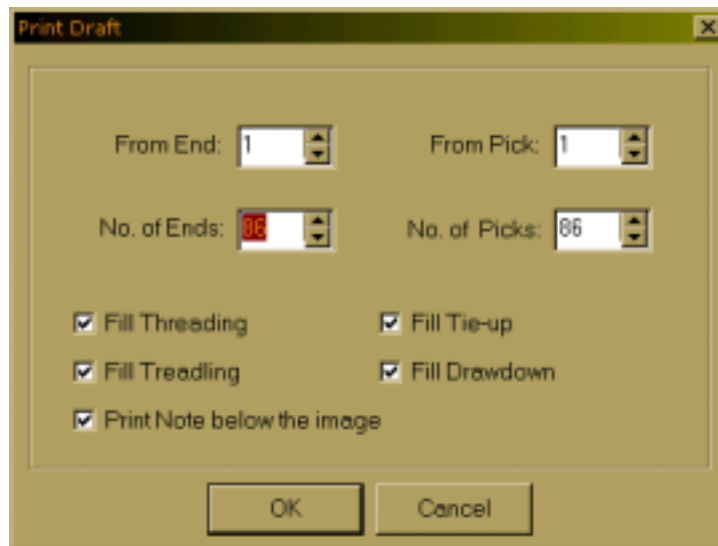
You can choose to fill threading, liftplan, tie-up, and/or drawdown.

To print threading only, set **Picks** to **0**. To print liftplan or treadling only, set **Ends** to **0**.

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

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

FILE MENU

Print Fabric

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

Choose from the following options:

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

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

Print Screen Image

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

To print completely WYSIWYG (What You See Is What You Get). Use this command to print Design, Drapery, Interlacement, and other views. It can also be useful for looking at complex liftplans as the lines between filled squares are visible.

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

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

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

PRINT NUMERIC

Choose **File/Print Numeric** to print draft information with letters and numbers. You may find this way of printing useful for printing draft information for using when setting up the loom or when weaving. Also, numeric printing lets you print long threadings, treadlings, and liftplans over several pages with one command. Printing warp colors numeric can be very useful when warping with many colors. Select how many ends or picks to print in the dialogue.

Print Numeric Threading / Example:

```
8 Shafts    Ends 1-67


        6         5         4         3
76543210987654321098765432109876543210987654321

43434343434343434343434343434343434343434343434

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

Print Numeric Liftplan / Example:

```
8 Shafts    Picks 1-18

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

Print Numeric Warp Colors / Example #1:

```
Asd16


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


Index


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


Index


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

Print Numeric Warp Colors / Example #2:

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 each section of this color.

```
Asd16


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


Index


  15    128
```

FILE MENU

PRINTER SETUP

You can choose **File/Printer Setup** to check the selected printer and it's settings.

Printing Colors

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

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

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

If you are dis-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.

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

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

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

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

Printing to Laser Printers

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

Example: If your printer has 1 megabyte of memory, you can print almost a full page at 300 DPI (in black and white).

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

1. Reduce the printer resolution in the Printer Set-Up dialogue.
2. Increase the paper margins to print a smaller image.
3. Purchase more memory for your printer.

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

OPTIONS

To choose more options than are available in the New Pattern window, go to the **Options** Menu / Options submenu. There are four windows/tabs there that you can choose from to decide on specific parameters: **Pattern**, **Loom**, **Style**, **Layout**, and **Preferences**.
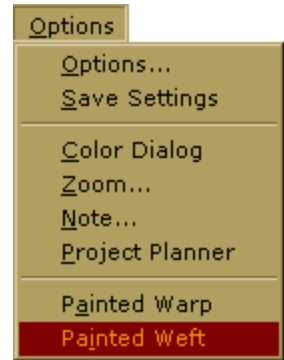
Pattern
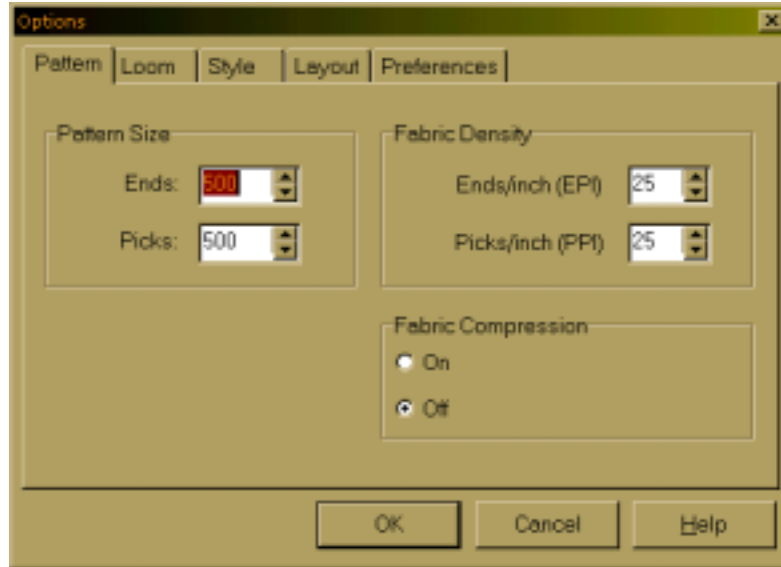
Pattern Size | Select the size of your fabric. The default size is 500 ends and 500 picks. This is the same as the maximum size in Design Mode. The maximum size in Draft Mode is 4800 ends and 4800 picks.

Fabric Density | Select EPI and PPI or Ends/cm and Picks/cm. This setting affects Fabric and Drapery display.

Fabric Compression | Compression will affect how the Plane and Drapery surface is displayed (see Fabric Compression for details, manual page 10-7).

OPTIONS MENU

Loom
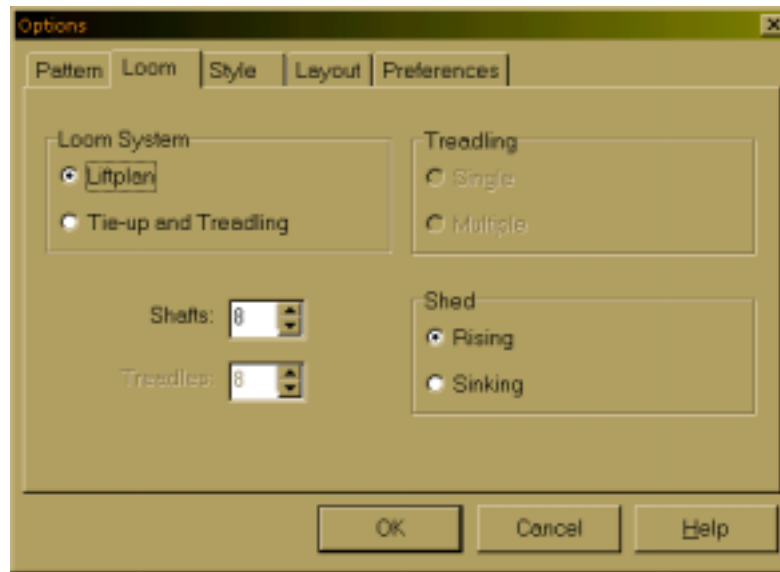
Loom System Select Liftplan or Tie-Up Mode.

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

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

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.

Treadling If you are in the Tie-Up and Treadling Mode, you can select Single or Multiple Treadling.

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.

Rising/Sinking Shed is displayed in the status line.

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

Shafts | Select number of shafts. Maximum is 80 shafts.

Treadles | Select number of treadles. Maximum is 100. If you are in a Tie-Up Mode, this option is grayed out.

Style
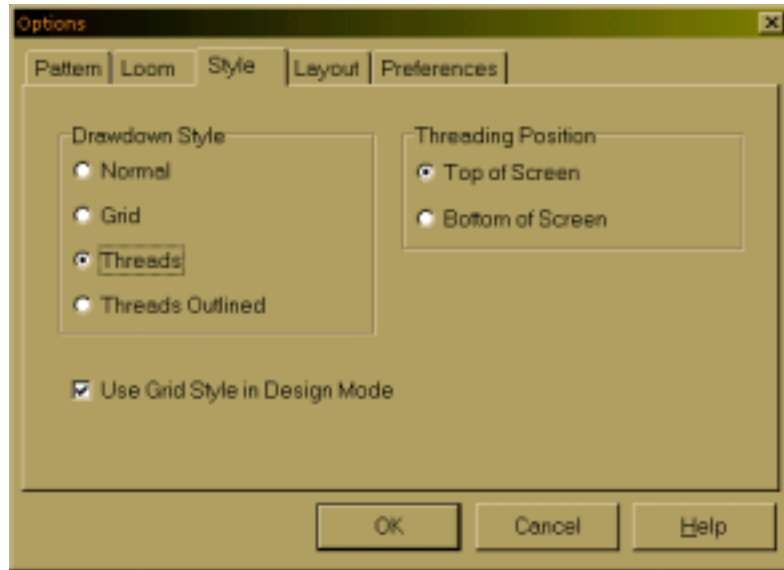
Drawdown Style | In Draft Mode, you can select to have the drawdown represented in one of three different styles. The **Normal** style is the plain style in effect when you start the program. **Grid** will display the pattern with a grid as when designing on graph paper. This style lets you see each square more clearly. **Thread** gives the image of a loosely woven cloth and lets you visualize the interlacing of warp and weft threads.

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

Use Grid Style in Design Mode | It is recommended to have this option selected. It gives you a scale reference when drawing in a Design Mode.

OPTIONS MENU
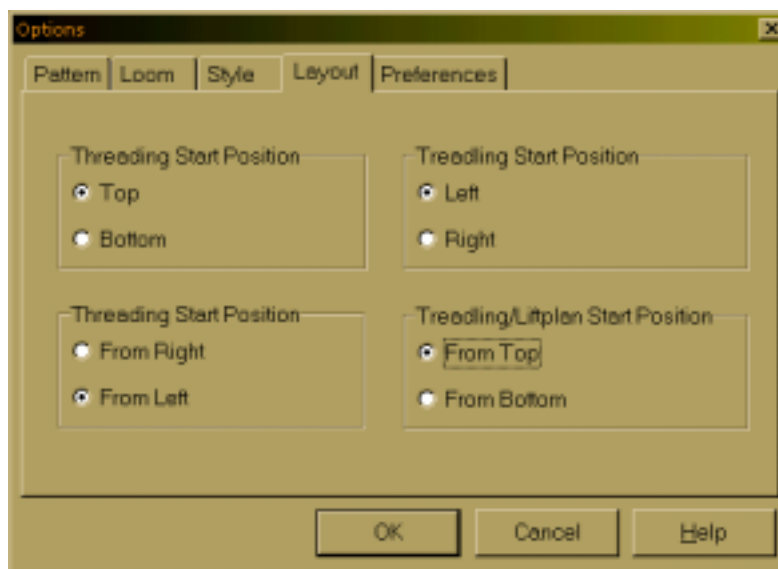
Threading Position	Select to position the threading grid at the top or bottom of the screen. When having the threading at the top, column 1 in the tie-up and treadling grids will be at the left side. With the threading at the bottom, column 1 in the tie-up and treadling grids will be at the right side - according to the European tradition. Column 1 in the liftplan is always on the left side.
Threading Start Position	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.
Treadling Start Position	Select From Right if you want your first shaft to start from the right side. Select From Left if you want your first shaft to start from the left side.
Treadling/Liftplan Start Position	Select if you want the first pick to be at the top or at the bottom. Having the first pick at the bottom is like seeing the cloth on the loom, weaving bottom up.
	The Fabric, Drapery, and Interlacement views are always displayed bottom up. If you want to see the fabric top down, you can select View/Fabric Window or just change to a low zoom level.
	You can also turn the fabric upside down with **Reverse Weft Order** from the Utilities Menu.

Preferences

Options	[x]
Pattern	Loom	Style	Layout	**Preferences**

Unit of Measure
- (•) Inches
- ( ) Cm

[ ] Background Color

[x] Show all Warning Messages
[x] Save Settings on Exit

OK   Cancel   Help
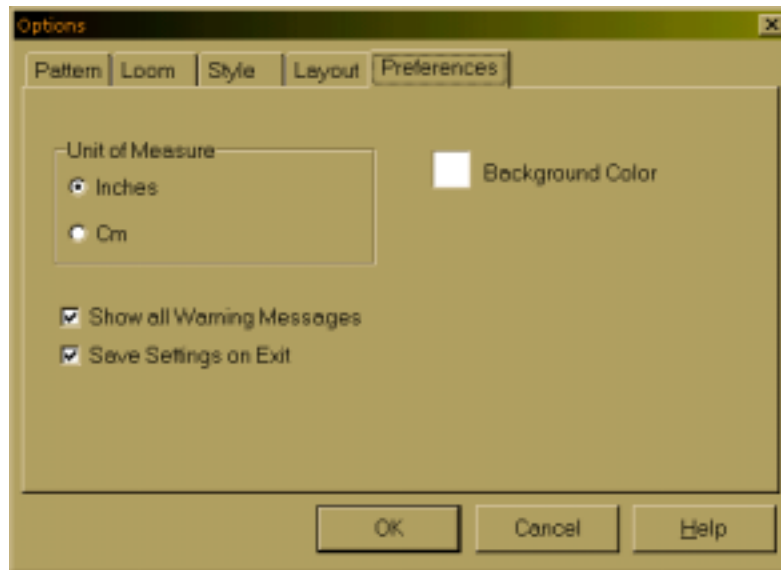
Unit of Measure	Select the unit of measure for the Fabric Density setting.
Background Color	Click the color square to bring up the Color dialogue to change the background color in the main window. Useful if you for some reason want to use a background color other than the white default. Inter-lacement view can sometimes look better with a black background.
Show All Warning Messages	Uncheck this option to display fewer warning messages.
Save Settings on Exit	Check this option to automatically save your settings when you exit from WeavePoint. Besides the settings set in the Options dialogue, also other settings like the present zoom level and fabric window display will be stored.
SAVE SETTINGS	To save your present settings now, choose **Options/Save Settings**.

Save all present options and settings, including zoom level, etc. |
| **COLOR DIALOG** | It brings up the standard Windows Color Dialog box. By selecting a color in the Dialog box, you change the color that is currently active. |
| **ZOOM** | In addition to the zoom scroll bar, there is a zoom submenu and the dialog box. It is effective to use it when you have large size designs and need to scroll from one side of the zoom scale to another. |
| **NOTE** | You can write a note to accompany your pattern. The text can be whatever you want. It will automatically be saved together with everything else.

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

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

OPTIONS MENU

PROJECT PLANNER

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.

For details on how to use Project Planner, turn to page 12-1 of this manual.

PAINTED WARP AND WEFT

The menu items **Painted Warp** and **Painted Weft** are found in the Options menu.

Warp and weft can be painted in any weave structure. You can create ikat effects as well as brocades (extra weft used for limited details) or inlay effects. Also, this new feature can be used to color a part of a design (for example, one repeat) for illustrative purposes or to make multicolored patterns for knitting.

When you are using the painted warp feature, the painted image will be displayed on all visible warp threads. When you are using the painted weft, the painted image will be displayed on all visible weft threads. You can use both functions together if you want the painted image visible on both the warp and the weft threads. To see the full image, you must make all your threads visible; do this by filling in a straight threading and whatever is necessary in the tie-up/treadling or liftplan.

Painted Warp and Painted Weft work in the same way.

When you begin a new pattern and select Painted Warp, you will get a dialog box asking if you want to add painted warp to the present pattern. Here, you will also have the option of changing the present pattern size.

Pattern Size

Pattern size is important in Painted Warp. A large pattern can require a lot of memory (RAM) and will create large files when you save the pattern to a disk. 1000 ends and 1000 picks need 1 megabyte (Mb) of RAM and are saved to a file of the same size, 2000 x 2000 = 4 Mb, 4000 x 4000 = 16 Mb and so on. Therefore, we do not recommended using a larger pattern size than is actually needed. Depending on the capacity of your PC, selecting a large pattern size could also make the program run slowly.

Numerical Painted Warp Assignment

In the Painted Warp window, select an area to paint, select a color in the color palette, and click **Apply**. Here, the same color palette is used for the warp and weft threads. Note that this means that you can change the actual color for a color index in Painted Warp, just like with normal warp and weft colors. You can also select Fuzzy or Straight edges.
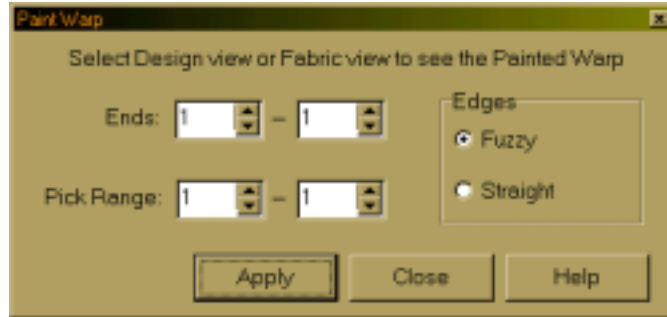
Imagine the Painted Warp as an extra color layer that you put on top of the warp. Initially, it is transparent so that you see the thread colors until you paint on the warp. Color "0" is used as a transparent color. If you want to erase, select color index 0 to paint transparent.

The Painted Warp will only be visable in **Design View** and **Fabric View**, you need to select one of these to see the paint when working with Painted Warp. Note that in Fabric View, you must have a pattern filled in to see the painted warp. Design View is normally the best mode for painting the warp.

Freehand Painted Warp Assignment

In Design View, you can also paint rectangles with the mouse directly on the pattern. To begin painting with the mouse, click the **Selection** Speed button on the tool bar on the top of the screen. Now, when you select an area in the design, it will be painted with the present color.

You can close the Painted Warp window and still paint with the mouse in **Design mode**. Also you can change the view and make other commands without closing the Painted Warp window.

When you have chosen Painted Warp for a pattern, the Design mode will function in a different way than normal; it is changed to display and draw painted warp. You cannot edit the drawdown in Design mode when working with Painted Warp.

Saving/Opening Painted Warp

Painted Warp is automatically **saved** and **opened** with a pattern. The Painted Warp for a pattern is stored in a separate file with the ending ".wpa" (weft is ".wpe").

When you select **New** or **Open a new pattern file**, the present painted warp will be erased.

OPTIONS MENU

Loading Painted Warp	You can load painted warps separately. This way, you can use the same painted warp with various weave patterns. In the Open dialog, change the file type from *WeavePoint* Patterns to Painted Warp. Then select the one you want to open. Remember that when saved, the Painted Warp file will get the same name as the pattern it is saved with (except the extension will be .pwa).
Printing Painted Warp	To print a pattern with Painted Warp, select **Print Fabric**. Also, you can select **Print Screen Image** when in Design mode.

The fastest way to get a design up on the screen is to use the Weave-Point Library. It is designed as a separate menu in the program and the menu options change according to Loom Style you are using.
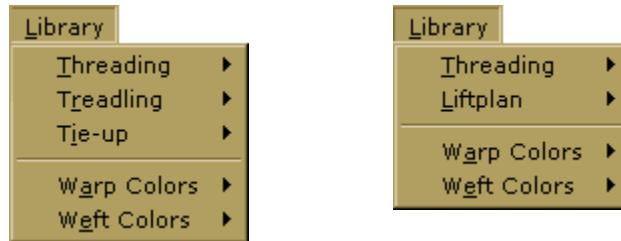
Library Menu changes according to the type of loom selected in the Options.

THREADING / TREADLING LIBRARY

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.

LIFTPLAN / TIE-UP LIBRARY

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

Twill Variations

Automatically create an endless number of twill variations. Just select this command several times to make different twills.

The twills are created in a random manner, but according to two important rules:

1.) It always makes a balanced twill. Balanced twills are those in which the warp and weft come to the surface to the same extent.

2.) No float will be longer than 5.

Satin

The satin weave produces a smooth, lustrous cloth. The points or stitches should be scattered as widely and as uniformly as possible. Use this satin 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.
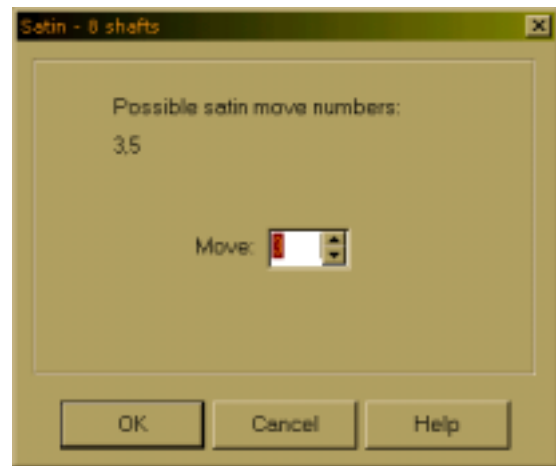
You can try out creating satins with different move numbers. You are also allowed to try move numbers that are not listed as possible, to see the different irregular satins.

The satin weave requires at least five shafts.

Plain Weave

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

WARP / WEFT COLORS LIBRARY

Use this command to quickly select colors for the complete warp or weft. By default colors A,B correspond to colors 3,16 in the color palette. You can bring up the **Color Dialog** to change the actual colors.
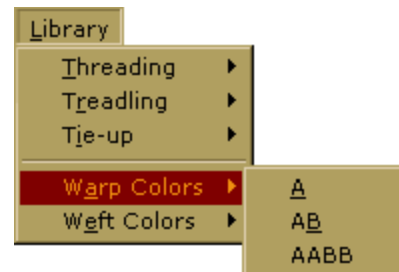
Selecting pure A and B for warp and weft will let you more easily see the structure of a multicolored cloth (remember to save your pattern first).

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

Note that this is just a quick way to select some common color schemes for the complete warp and weft. If this is not suitable, paint the warp/weft yarns directly in the warp and weft colors grids. Then use the Repeat command or Copy and Paste commands.
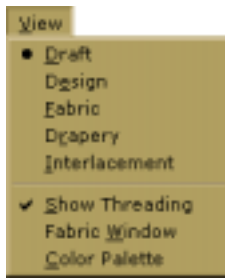
There are two parts of View Menu. The top part options (**Draft**, **Design**, **Fabric**, **Drapery**, **Interlacement**) show all the different modes you can be in within your main window. The Bullet next to the view option shows the current view.

The bottom part of the menu (**Show Threading**, **Fabric Window**, and **Color Palette Window**) is showing all the options you can have displayed on the screen simultaneously. Assigning a checkmark next to an option is going to display that window/option at the same time as the main one.

DRAFT

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

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

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

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

DESIGN

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

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. Select if you want to use grid style in the **Options** dialogue.

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 can be 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 is done to make it simple to make some changes and then repeat it. When you want to fill the pattern with the repeat, choose **Repeat**.

Design Mode uses a 500 x 500 grid. This means it can accommodate up to 500 ends and picks. If you convert a pattern with a repeat larger than 500, your pattern will be cut off when you enter Design Mode.

If you draw a large pattern in Design Mode, it could be cut off if you change to Draft Mode. In the horizontal direction, the pattern will be limited in Draft Mode by the maximum number of shafts, which is 80. This means that your pattern can not contain more than 80 different ends (columns). To be sure not to exceed this limit, you can keep the repeat within 80 columns (or within as many columns, up to 80, depending on number of harnesses you intend to use).

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 100. 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 + a monochrome bitmap file (Windows BMP-file) with the same name. Even if the pattern requires more than 80 shafts, it will all be saved in the bitmap file (not clipped to 80 shafts, as in previous versions).

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.

FABRIC

Display the pattern as a flat surface. The Fabric View can be zoomed just like the Draft.

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

DRAPERY

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

INTERLACEMENT

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

SHOW THREADING

Choose **View/Show Threading** or click the speed button in the tool bar to hide/show then 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 floats on top of the main window. While editing, you can see your changes in the fabric window. It will display your pattern at the smallest size possible (1 screen pixel per end/pick).

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

You can resize the fabric window as you like.

COLOR PALETTE WINDOW

Click a color to select it for drawing.

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

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

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 File Menu. Place the program windows side by side to compare patterns. You can also copy in one program window and then paste in another program window.

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

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

To arrange the WeavePoint windows on the screen, right-click on the taskbar, and select from the submenu. If comparing two patterns, **Tile Vertically** lets you see more weft and **Tile Horizontally** lets you see more warp.
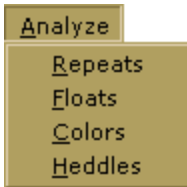
Within this menu, you can analyze **Repeats**, **Floats**, **Colors**, **Heddles**.

There is a Print option at the bottom of every Analyze window. Click Print to print the report.

ANALYZE REPEATS

A report will be displayed showing the following repeats:

• Warp: Threading, Warp Colors, and Total Repeat
• Weft: Liftplan or Treadling, Weft Colors, and Total Repeat

Total Repeat is telling the weaver what is 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.

If no repeat length within 500 is found, a length > (larger than) 500 will be reported.

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

ANALYZE FLOATS

A floats report will be displayed. The full present pattern is being analyzed.

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 and weft. It is displayed in both number of ends and picks and percentage.

ANALYZE HEDDLES

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

UNDO

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

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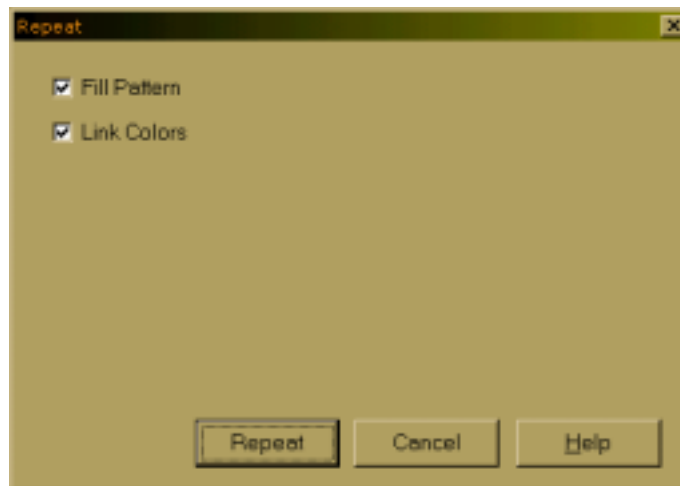
REPEAT

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

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

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

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

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

If you do not want to Fill Pattern (fill all grids) or if you have made changes to a pattern that was repeated before and now want to repeat your changes throughout, select the part to repeat. First mark what you wish to select. Threading, Warp Colors, etc., and then select start and end positions, and number of copies. When entering number of copies, keep in mind you already have one copy (the feature should be called "how many more copies?").
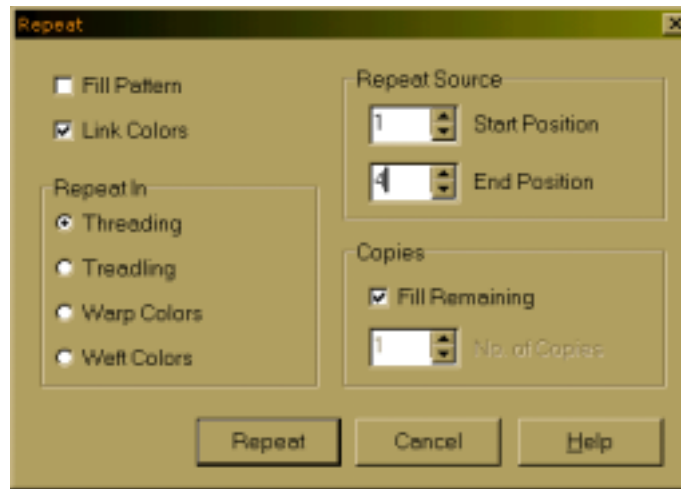
If you have selected an area with the **Selection** tool, the area selected will be preselected in the **Repeat** dialogue allowing a quick and simple repeat. This way you can visually select the area to repeat. Note that here you do not need to copy to the clipboard, it is the selected part on screen that is being used.

See also Copy and Paste.

To use Cut, Copy, or Paste, first click the **Selection** tool in the tool bar. Note that the cursor changes so that you can easily see that you are in Selection Mode.
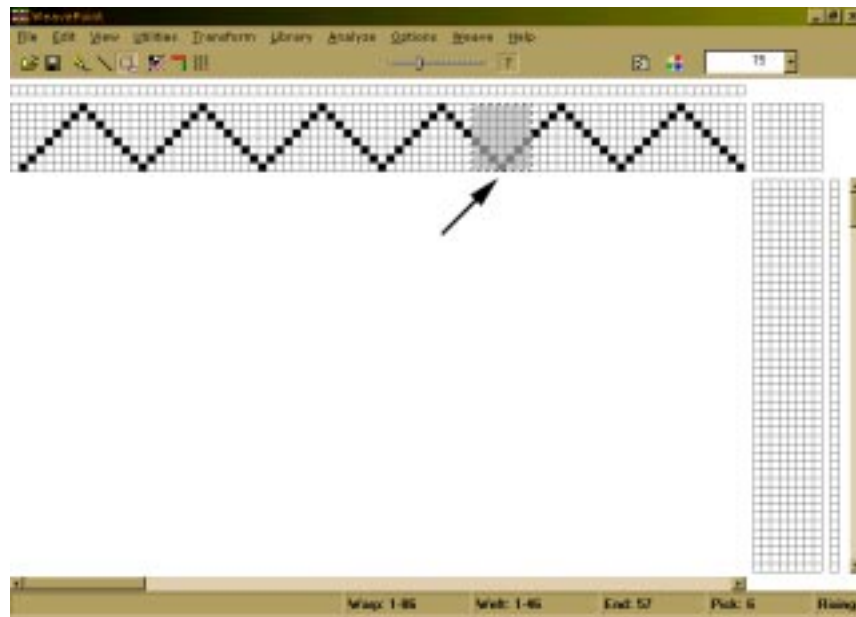
Draw a rectangle around the part you want to select. Then click **Copy** or **Cut** in the **Edit Menu**. Copy will just copy the selected part to the clipboard. Cut will do the same, but will also erase the selected area.

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

CUT	Deletes the selected area and moves it to the clipboard.
	In threading, treadling, and color grids, the selected ends/picks will be deleted. In liftplan, tie-up, and design grids, the selected area will be blanked.
COPY	Copies the selected area to the clipboard.
PASTE	When you have copied or cut a selection to the clipboard, you can select the area where you want to paste it. Note that you **DO NOT** need make this selection area equal in size to the area you copied to the clipboard. Whatever is on the clipboard will be pasted in its full size. All you need to do before pasting is to select the **starting corner** for the pasting. Selecting one square in liftplan or one end in threading will be sufficient. But it does not matter even if you select a larger area for pasting - the result will be the same.
	You can 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 other grid. 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.
	Pasting from Other Programs: You can copy part of an image in, for example, a paint program and paste it in, for example, the liftplan. Note that the image you copy from must have a white background. Note also that one pixel in the image will be one square in the liftplan.
PASTE SPECIAL	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 selection is crucial. The distance between these two points will be the distance between each copy pasted in liftplan and in Design Mode. In the threading, treadling, and color grids, following copies will always be placed next to the first copy.
	The location of the starting point depends on your layout style. The starting point will always be the corner of the selected area that is closest to original (position 1,1) of the present grid.

Liftplan / Tie-Up Paste Special

When using Paste Special in a liftplan or a tie-up grid, you can apply the following features: negative, flip horizontal, flip vertical, and rotate.
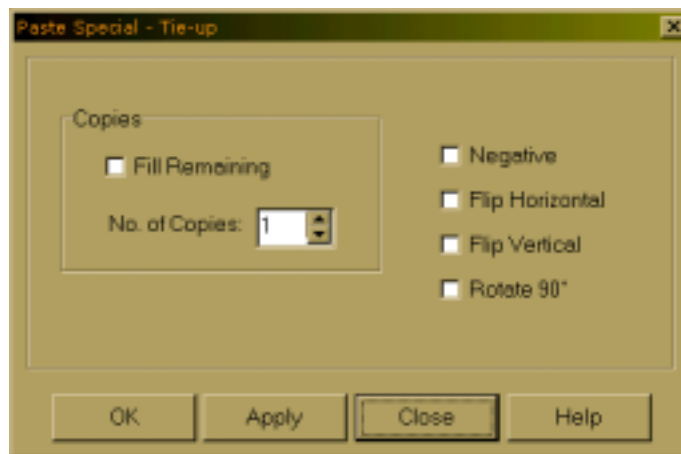
In addition, you can select various effects in combination.

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

To rotate 90 degrees counter-clockwise, check **Rotate**, **Flip Horizontal**, and **Flip Vertical**.

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

For you experienced WeavePoint users, Flip is similar to the Mirror command of WeavePoint 4.

For other Tie-Up Special Effect, see also Utilites-Tie-Up Special.

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

How to Quickly Make a Specific Twill in the Liftplan

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

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

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

4.   Choose **Edit/Copy**.

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

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

Threading/Treadling Paste Special
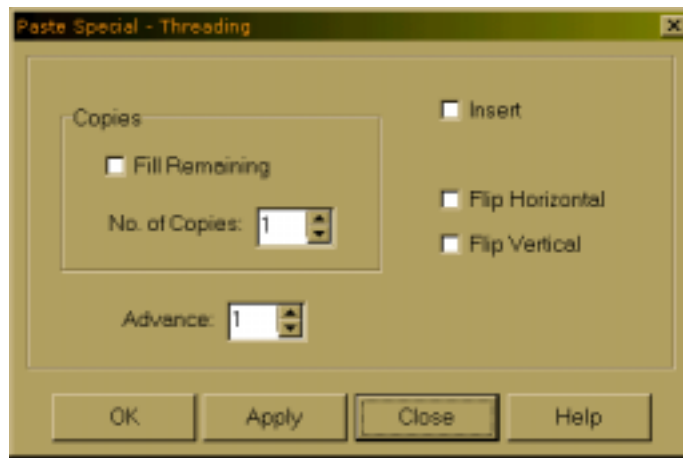
In addition to Insert, Flip Horizontal, Flip Vertical, this dialog box offers Advance features.

Advance   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.

How to Create Advanced Threading

a)   Create initial (in your threading) you want to advance, select it, and copy.
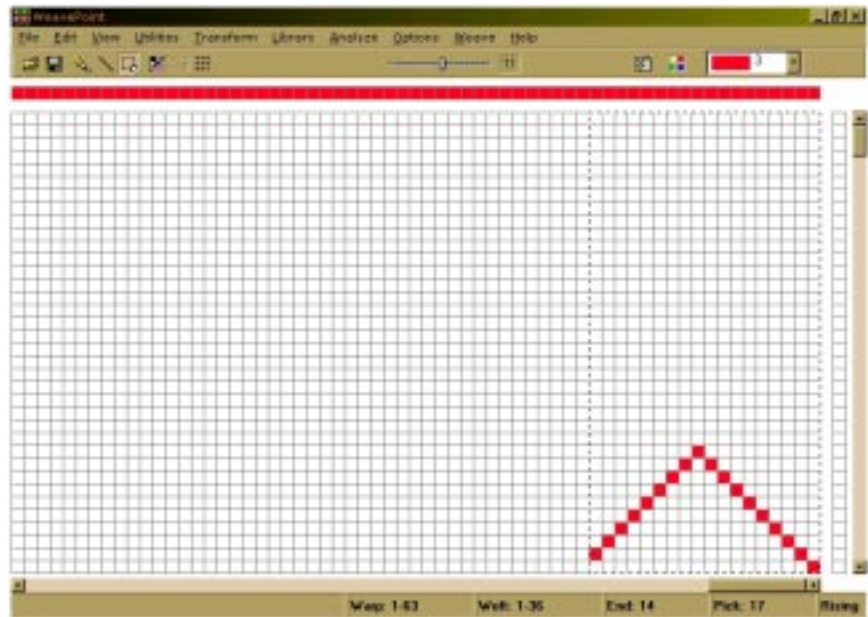
b)   Using the selection box, mark the grid where you want your pasted (advanced) part to begin. The size of that selection is not important, just the starting position. It is enough to mark just one thread.
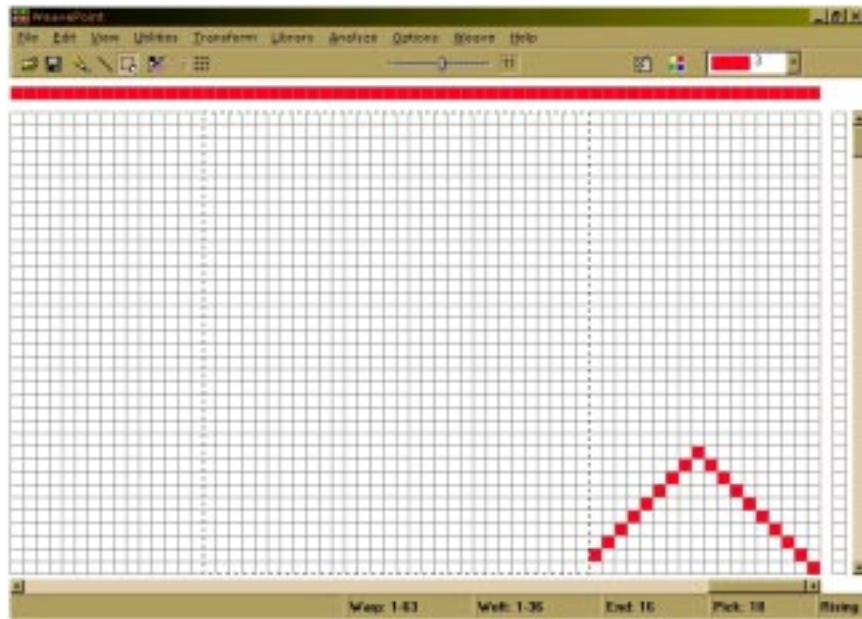
c)   Go to Edit Menu, click on Paste Special. Paste Special-Threading window comes up to enter the option of how many copies you want and the Advance step. Choose your options and click OK.
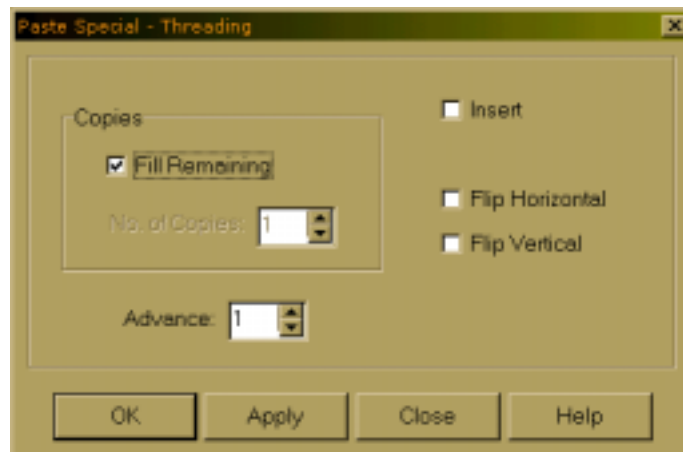
d)   Your threading is advanced by the desired advanced step from your chosen initial. The same procedure can be used for Treadling.
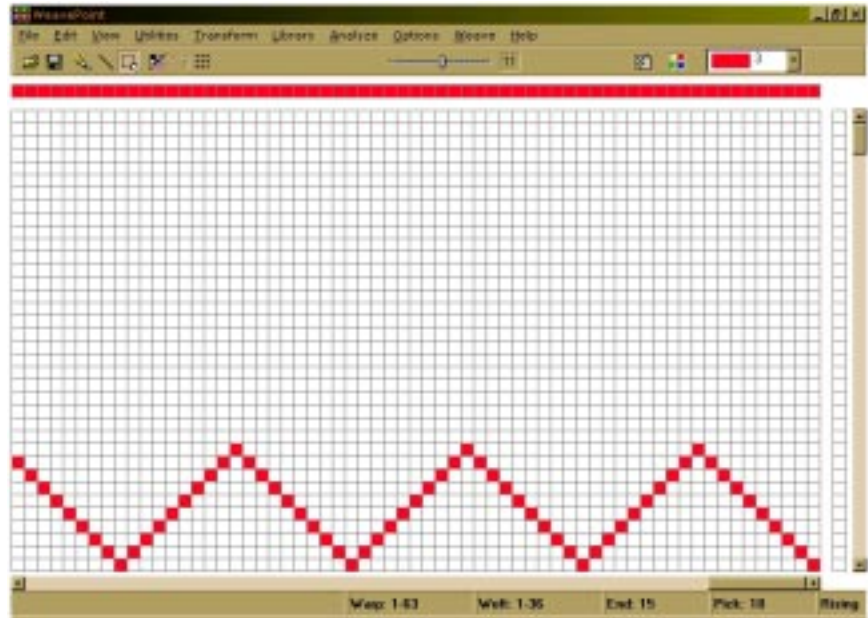
SELECT AND COPY
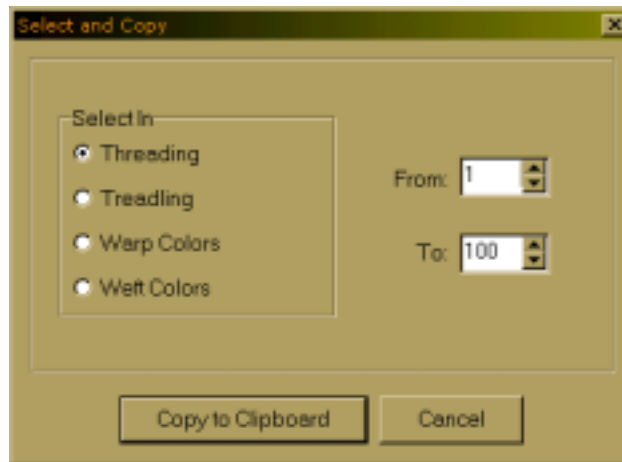
This command is found in the Edit Menu. You can select and copy an area with Select and Copy. This method is especially useful if you want to copy an area larger than visible on the screen. Select and Copy works the same selecting an area with the Selection tool and choosing Edit/Copy. Simply choose the area you wish to select (Threading, Lift, Warp or Weft colors) and then the number, say from 5 to 20.

EDIT MENU

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

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

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

Clipboard Viewer | In the Windows 95 Start Menu, under Accessories, you can start the Clipboard Viewer. This lets you see the present clipboard contents. You can also delete the contents.

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

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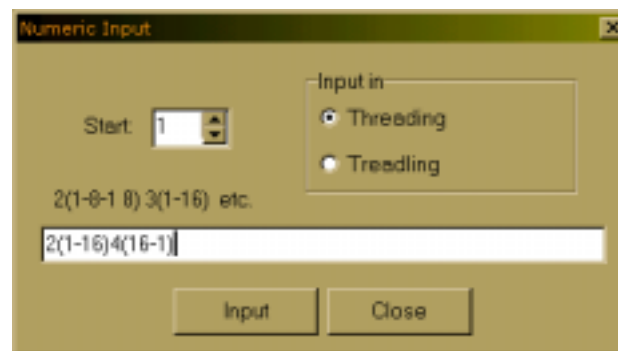
Write the shaft number for each end (or treadle number for each pick) with a comma or space between each number.

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

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

Click Input or press Enter to make the input.

KEYBOARD INPUT

You can use keyboard entering in all three draft grids.

When you select Keyboard Input form the Edit Menu, the window will appear with the information which grid you are entering and also the position of your cursor. During the entering process, the window will update the cursor position.
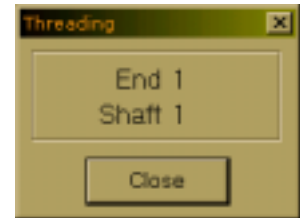
To move the cursor, use the arrow keys and Home/End keys. To fill the end/shaft, use the space bar or "+". When you mark one end, the cursor automatically advances to the next end.

Use Insert and Delete keys to insert or delete end/pick.

In threading and treadling keyboard entering, you can also press number keys. You must use the number keys above the letters on the keyboard; the numeric keypad at the right does not work for this. 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.

Colors from the Library

There is a very fast way to assign one or two colors to your warp and/ or weft using Library Menu.
(Manual Page 4-2)

Palettes

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

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

Yarn colors are set in the warp color and weft color grids along the threading and liftplan or treadling. You can use up to 256 colors in one pattern. Each color has a color index number, ranging from 0 to 255. Each color index can be adjusted to any color you wish within a range of more than 16 million hues and shades. You adjust a color in the Color dialogue.

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

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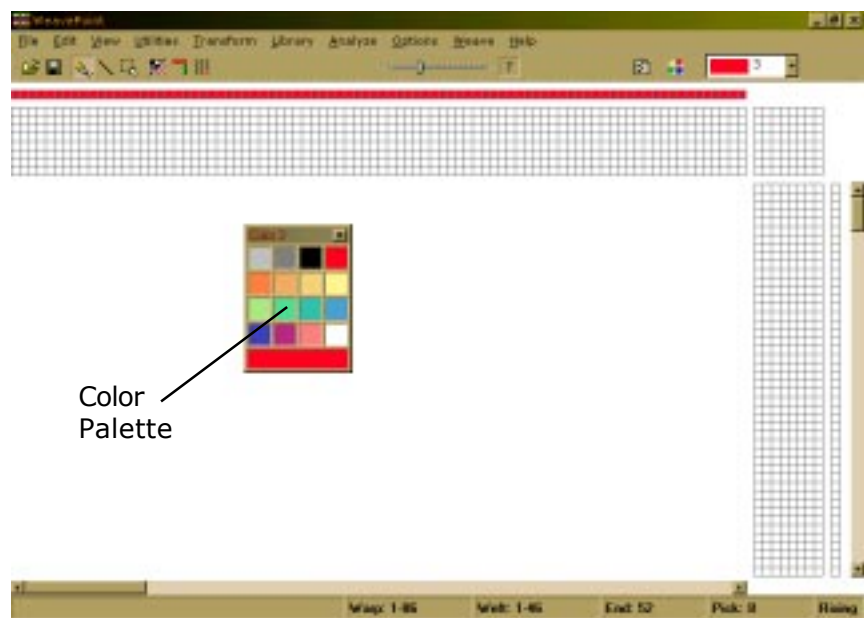
Color
Palette

WORKING WITH COLORS

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.

The Color Dialogue

Double-click a color in the **Color Palette** or **Edit Colors** window to bring up the Color dialogue to adjust the color.
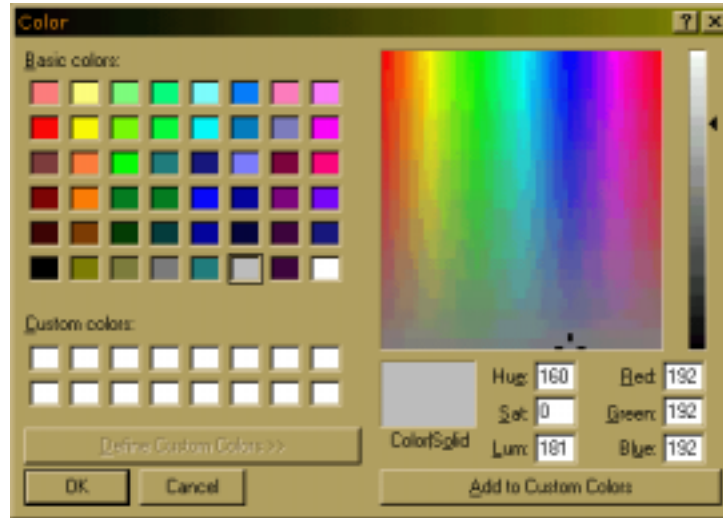
This is the standard Windows Color dialogue. Adjust your color and click **OK**.

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 dialogue. So, there is no need to click the Add to Custom Colors button. To use the adjusted color, just click **OK**.

Edit Colors / from the Utilites Menu

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

Click a color to select it. Double-click a color to bring up the Color dialogue to adjust the color.

At the left side of the color grid, there are seven 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. This way you can make up to eight colorways, each up to eight colors in a 64 colo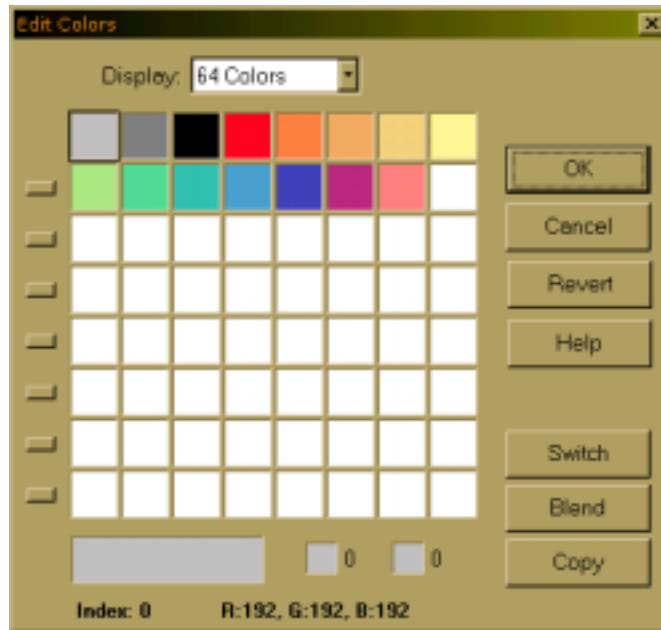r display or up to sixteen colors with a 256 color display. To set up several colorways, first fill in the warp and weft colors with colors from the top row of the palette, using color index 0-7 (15 with 256 color display). Then fill the second row with a new colorway, etc. Click the small buttons to switch quickly between colorways.

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

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

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

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

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

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

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

See also Working with Colors.
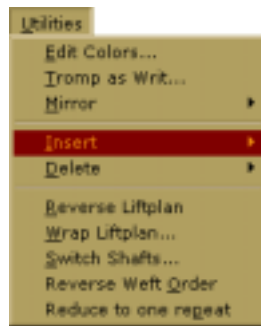
EDIT COLOR   (Manual pages 8-3 to 8-4)

TROMP AS WRIT
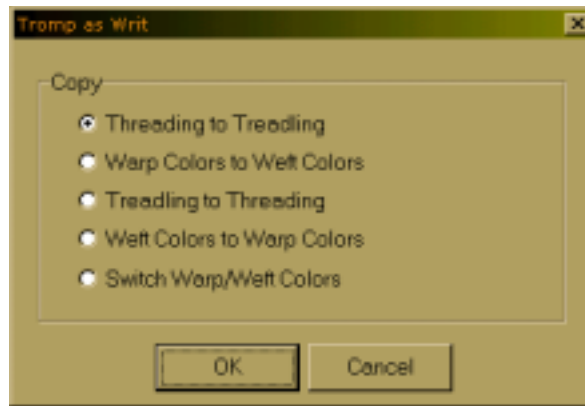
This function is also called "As drawn in".

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

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

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

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

See also Copy and Paste.

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

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

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

UTILITIES MENU

Using Insert/Delete Dialogues	Choose **Utilities/Insert** or **Utilities/Delete** to reveal a dialogue box. Pick the first number and last number of the sequence and hit OK.
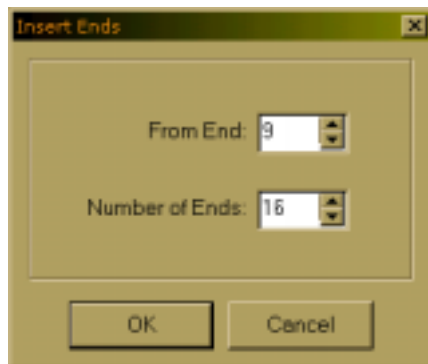
Insert/Delete Ends	Select the end to insert from and number of ends to insert.
Insert/Delete Picks	Select the pick to insert from and number of picks to insert.
Insert/Delete Shafts	Select the shaft to insert from and number of shafts to insert.
Insert/ Delete Treadles	Select the treadle to insert from and number of treadles to insert (available only in Tie-Up Mode).
	Deleting shafts or treadles is a quick way to delete, for example, a tabby inserted in the treading or treadling.
Using Edit/Cut to Delete	Select the area to delete with the Selection tool, then choose **Edit/ Cut**.
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 dialogue box.
	5. Now you can edit the inserted ends/picks as you like. This is a great method to do limited repeats.
	See also Copy and Paste.
REVERSE TIE-UP/ LIFTPLAN	Reverse the liftplan or tie-up, depending on which loom system is in use. In effect, you will turn to see the reverse side of the pattern. 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.

LIFTPLAN/TIE-UP SPECIAL	Make **Twill** or apply **Flip** and **Rotate** to the Tie-Up.

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

How to Quickly Make a Twill in the Tie-Up

1. Draw first line in the tie-up.

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

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

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

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

UTILITIES MENU

SWITCH SHAFTS	Use this command to rearrange the shafts.
	When shafts are switched, the corresponding liftplan or tie-up area will also move and your drawdown pattern will not change.
	Hint: Sometimes it will be easier to rearrange shafts if you increase the number of shafts to one more than actually needed. You will then get an empty shaft to switch to, which eliminates the need to swap with an already used shaft.
SWITCH TREADLES	Use this command to rearrange the treadles.
	When treadles are switched, the corresponding tie-up area will also move so that your drawdown pattern will not change.
	See also Switch Shafts.
REVERSE WEFT ORDER	Reverse the order of picks, so that the first pick becomes the last pick and vice versa.
	This command can be especially useful when changing display style between top and bottom start position in treadling/liftplan. See **Options**.
REDUCE TO ONE REPEAT	Use this to reduce the pattern to one repeat. You can use this to "undo" repeats made by Repeat with Fill Pattern.
	The threading and liftplan (or treadling in Tie-Up Mode) will be reduced to one repeat, if a repeat is found. Warp and weft colors will not change.
	Before the reduction takes place, you will be asked if you want to use the color repeat. If the warp colors repeat is longer than the threading repeat or the weft colors repeat is longer than the liftplan/treadling repeat, the result depends on your answer. If **Yes**, the color repeat will be used. If **No**, the color repeat will be ignored. Note that in both cases, the color grids will remain unchanged. To not reduce the pattern, click **Cancel**.
Patterns with Borders	If you have borders in your pattern, you 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 has all the most complex features of WeavePoint.

BLOCK SUBSTITUTION

Creating a Profile Draft

Enter a profile draft just like you would make a normal pattern, except you know you will use this one as a profile. Block one (A) = shaft one, block two (B) = shaft two, etc. If you are in tie-up mode, you can make a profile for your treadling the same way.
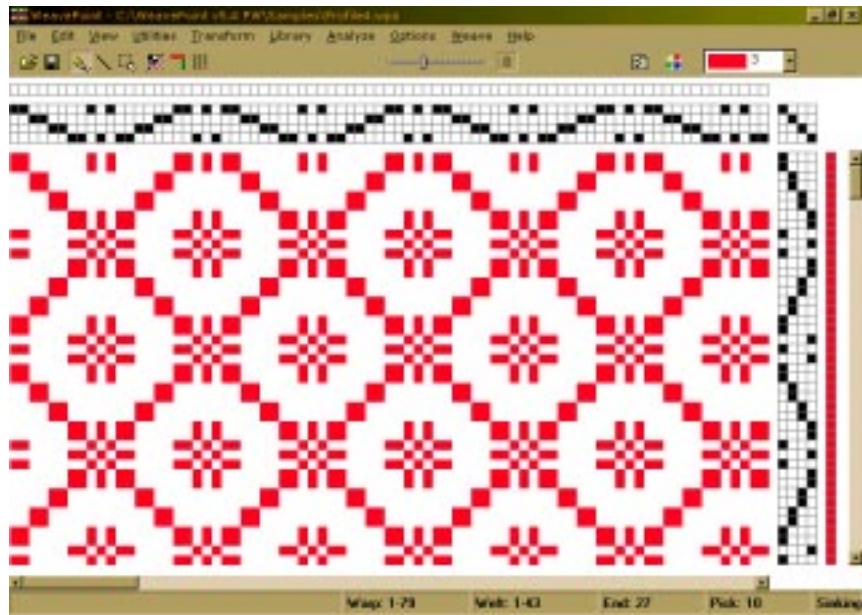
Save the profile and select File/New.

Creating Blocks

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

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).

The blocks are separated by coloring them with different colors. If you have four blocks of six ends each, they will all together occupy the first twenty-four ends in the threading grid. Fill in four different colors in the warp colors grid, a different color along each block, maybe four red, four green, four yellow, four blue.
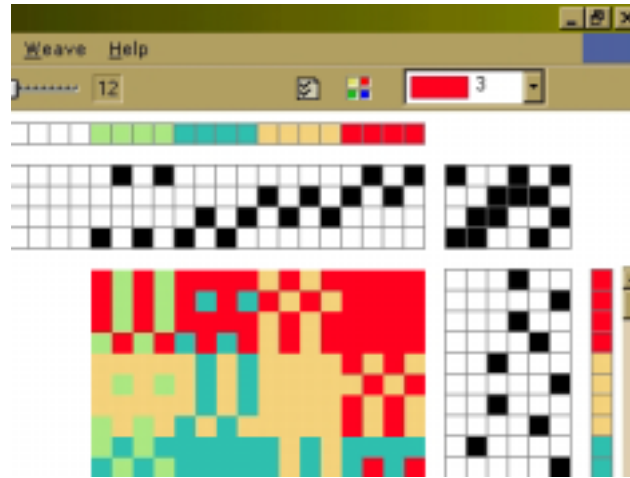
Note that you can also put a tie-up in the blocks file. The tie-up in the blocks file will automatically be used in the resulting expanded pattern (if both the blocks file and the profile are tie-up files). Any tie-up in the profile pattern will then be erased.

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

Substitution

Open your profile draft on the screen and select Transform\Block Substitution to expand the profile draft. The window will appear in which you will be able to select desired block file. In the same window, you will be selecting if you want the blocks to be placed at an absolute position - on the same shafts as drawn or if you want each block to be placed relative, that is to use new shafts - in effect expanding the number of shafts.
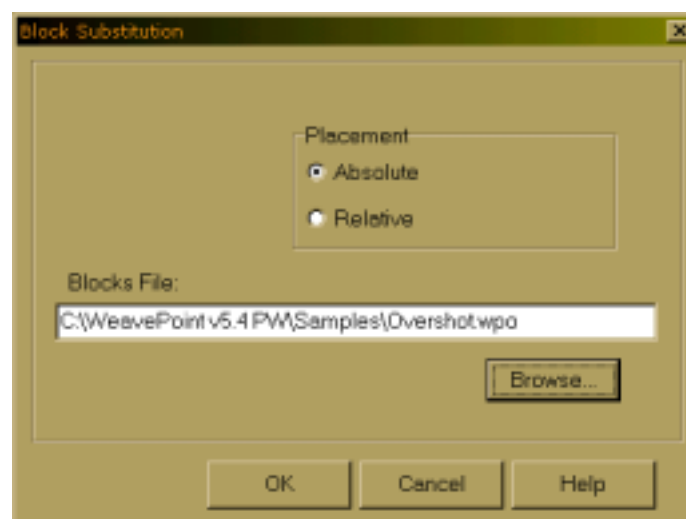
If the profile also has a treadling profile, the treadling blocks drawn in the blocks file will be used for the treadling. If no treadling blocks are drawn in the profile, the threading blocks will be used also for the treadling (if the profile has a treadling).
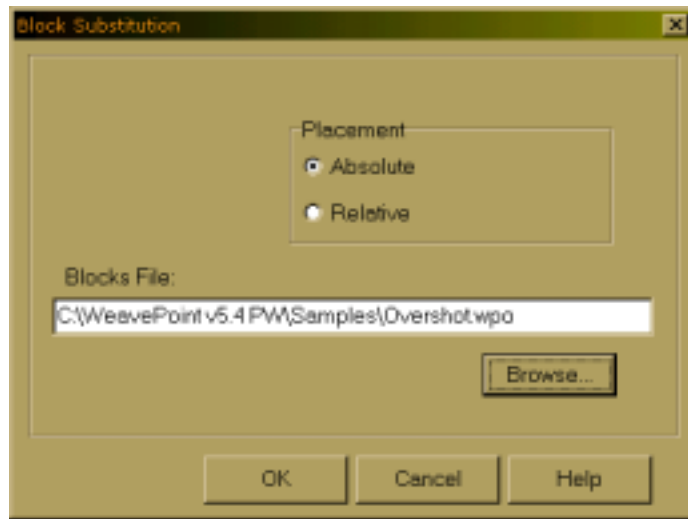
**TRANSLATE
FUNCTION**

This command is used to quickly translate a profile draft into a full weaving draft. Traditional block substitution is done by entering threading units for block A, B, C, etc., and then treadling/tie-up or liftplan units for blocks A, B, C, etc. - requiring individual specification of all blocks used in warp and weft. 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 to laborious by paper and pencil, but is easily used with the computer.
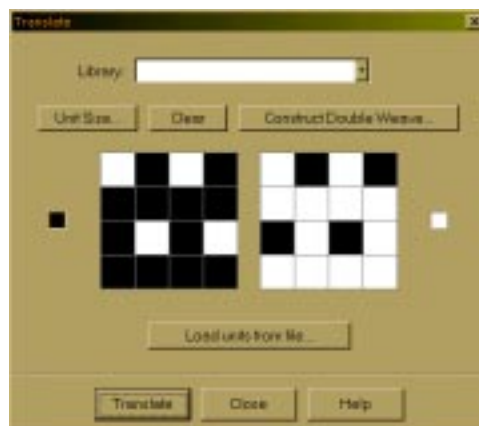
First, make a profile draft. The profile draft is entered in the same way as any other pattern - the threading grid is used for profile threading, etc. Use **Normal Edit Mode** or **Pattern Mode**, **Tie-Up** or **Liftplan Mode**.

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 make **new units**.

TRANSFORM MENU

Weave Library	The weave unit library contains many weaves often used. When selecting a weave from the library, the units will be displayed. 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 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
Unit Size	Set width and height for the weave unit grids, for drawing your own units.
Clear	Clear the present units to begin drawing new units.
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 in different ways: when in Draft Mode, each square in the tie-up or liftplan will be replaced by the contents of the translation grids and the full length of the threading (and treadling) will be expanded by the size of the units - a profile with five blocks (using five profile shafts) translated with weave units four squares wide makes 5 x 4 = 20 shafts. Use **Normal Edit Mode** for weaves that actually will need this many shafts, like weaves that uses a grouped straight threading, such as diaper twill, satin, and many double weaves.
	In Design Mode, the pattern will be completely reanalyzed after translation and then automatically use a minimum number of shafts which is useful for weaves such as summer and winter, overshot, and taquete. Note that you can equally translate these weaves in Draft Mode and then choose **Transform/Reanalyze** to reduce shafts. After reanalysis, you can rearrange shafts and treadles with **Utilities/Switch Shafts** and **Switch Treadles** if needed.

Note that when using Reanalyze (or when in Design Mode), the largest pattern that can be reanalyzed is 500 x 500 threads. If repeats are found within this size, the pattern will automatically be repeated throughout the full length after translation. This means that if the weave unit has a width of four, you can have a repeat up to 125 in the profile threading (125 x 4 = 500) and get automatic repeat. The same applies in weft-direction. If your repeats exceeds this size limit, 500 ends/picks will be translated and you will then need to adjust the pattern manually afterwards.

You can also use translation in two steps. For example, if you want to use a figure motif repeated on a background, you 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 adjust the pattern after translation, by adding or removing threads, or by altering the tie-up or liftplan.

You can also simply expand the profile draft without altering it, by using one completely filled (black) and one completely empty (white) translation grid. The profile will then just be expanded by the size of the grids in each direction. To expand a profile in one direction only, use translation grids with a width or a height of 1. The **Translate** function can thus be used in various ways and when you understand how it works, you may even find new ways to use it.

Construct Double Weave

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

To construct a double weave, follow these steps:

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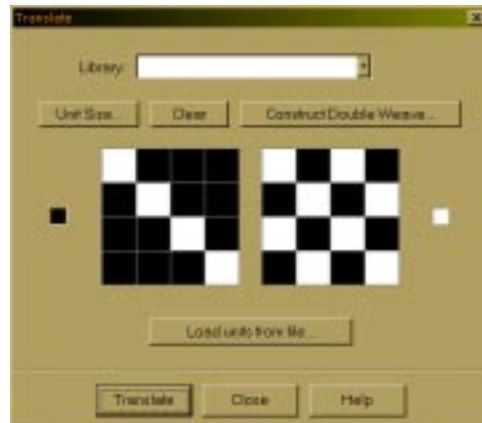
b)   Click on Construct Double Weave. The window with layer position comes up. Make your selection. Click OK.
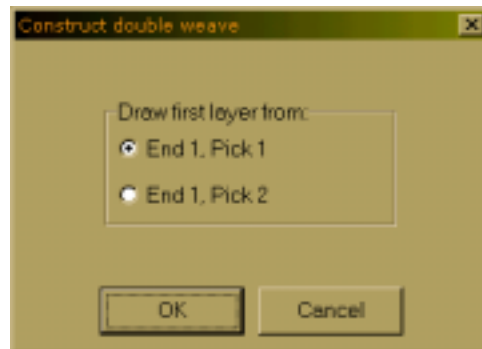
c)   Units become constructed double weaves. The first unit (on the left) has the first layer on the top and the second one (on the right) has the second layer on the top. At this point, you are ready to apply those double weave units into double weave block interlacing designs.

Fabric Compression

You can select this feature in the Options Menu, Options submenu, Pattern Window.

When Fabric Compression is set on, it will affect the Fabric and Drapery views.

The fabric compression function will improve the visualization of a lot of weaves, from weft-faced rep weave to double cloths, compound and complex weaves, summer and winter, weft backed fabrics - all kinds of structures with two wefts. It will let you see how your design actually will look when woven and beaten in. This is normally quite a problem with these techniques because the image of the drawdown will be very different from the image of the woven fabric, where parts of the threads will move out of view to the reverse side of the cloth. The fabric compression function simulates this, hiding the pieces of thread that will disappear behind neighboring threads. The function is based on hiding parts of the weft threads, packing two weft rows into one visible row, and will compress the pattern vertically by 50%. It will actually work with any weave where two picks will pack into one row when woven and will also give a good representation of many plain weft-faced weaves (see also the sample patterns that comes with the program).

In some cases, if the program is in doubt as to which thread will be visible at a certain point, even numbered picks will have preference over odd numbered picks. You may influence the result in this case by inserting or deleting the first pick in the liftplan or treadling. If one weft forms the main pattern, this should be placed on even numbered picks.

This function can be a great help in visualizing a woven cloth and will give a good representation with common double-weft and other pack-able structures, though it cannot be guaranteed to work 100% correct in any possible case. Warp thread spacing, yarn sizes, etc., will also influence the actual result at the loom. Use your own skills to determine how and when to use it. Combine with the fabric density setting to obtain a result as close to the woven cloth as possible. If you are designing a warp-faced structure, you may use the **Rotate** command to turn the design before visualizing it.

OVERLAY

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

First, make your pattern with a "motif" or "profile" liftplan. Then select your weave units and click the **Overlay** button. 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).

TRANSFORM MENU

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 Network Drafting - An Introduction (1994) by Alice Schlein. She has also written many articles on the subject in Weaver's Magazine (U.S.A.). You can find this magazine at the web site www.xrx-inc.com.

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.

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 in 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 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:

a) Create desired curved shapes in your threading.

b) Select Tromp as Writ from Threading to Treadling or draw other curved shapes in your Treadling.
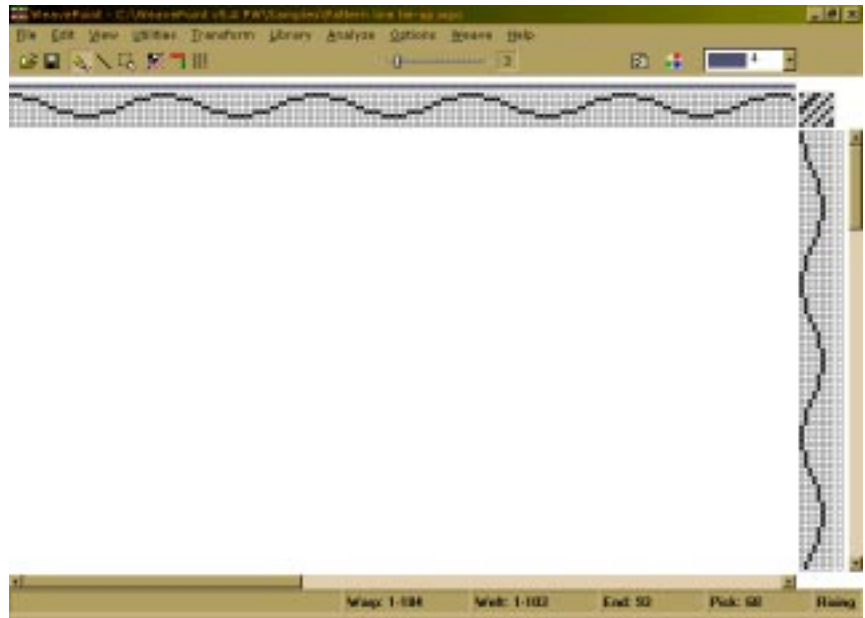
c) Input some structure in your Tie-up.

d) Go to Transform, Network, and select Network initial from offered library or your own from the file.

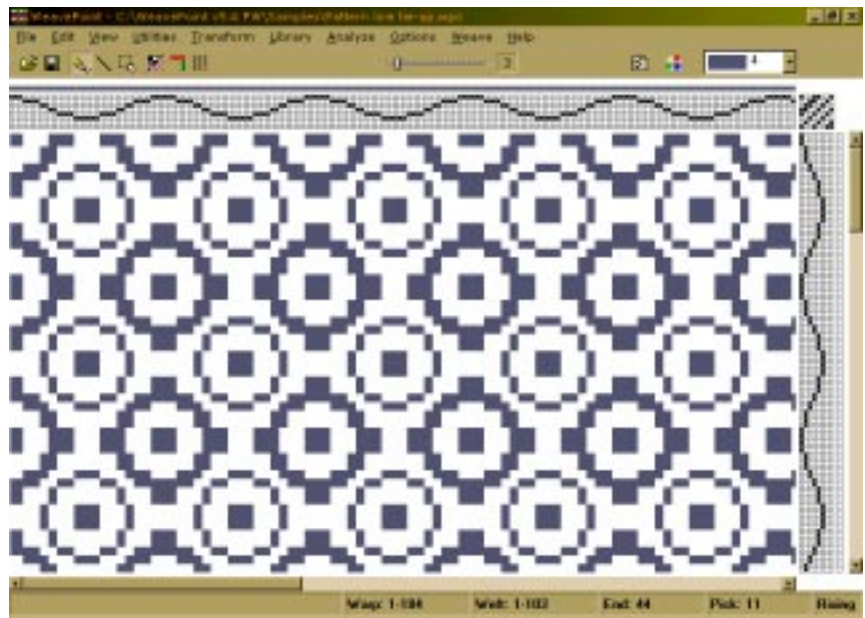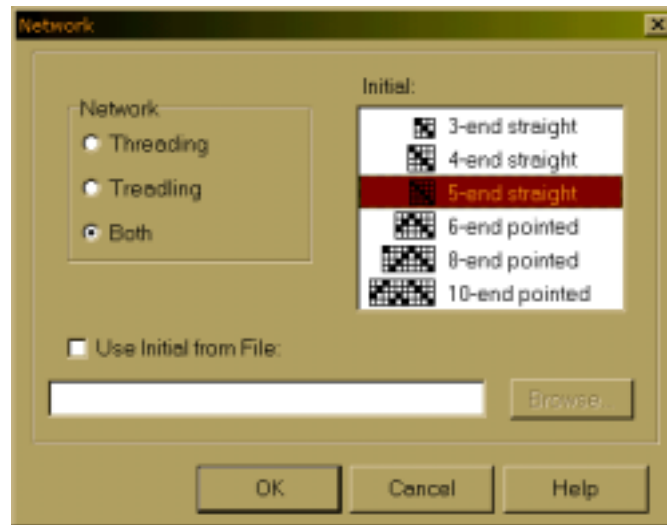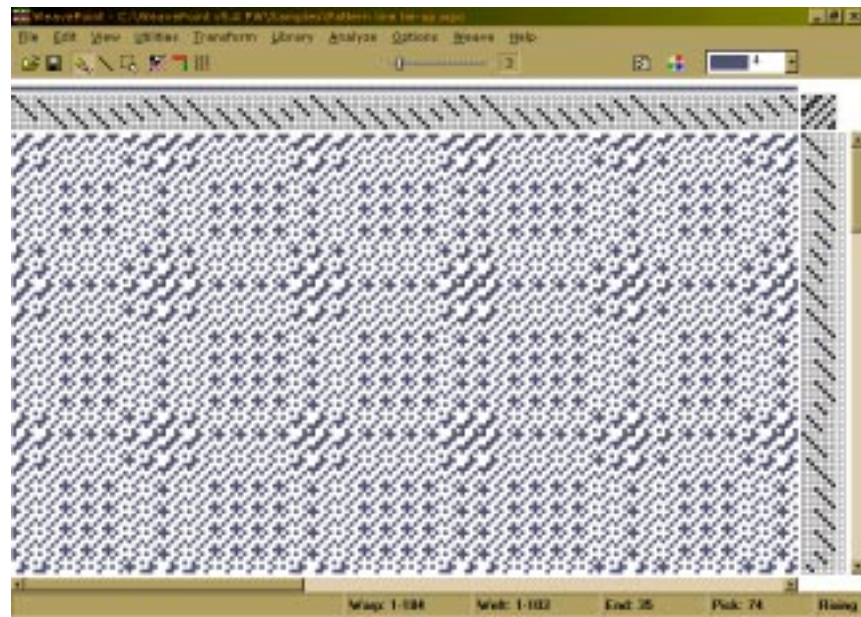e) You have a network drafted design.

INSERT THREADING
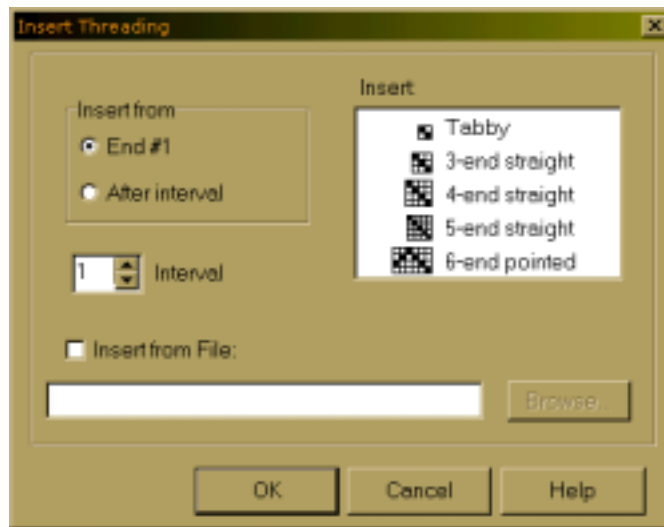
This is a powerful command for inserting a ground weave, like a tabby or twill, into a threading.

Select one of the predefined threadings or load a threading to insert from file. To insert from file, first draw and save the threading to insert.

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

Interval

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, use **Utilities/Delete Shafts**.

INSERT TREADLING

This works like Insert Threading.

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

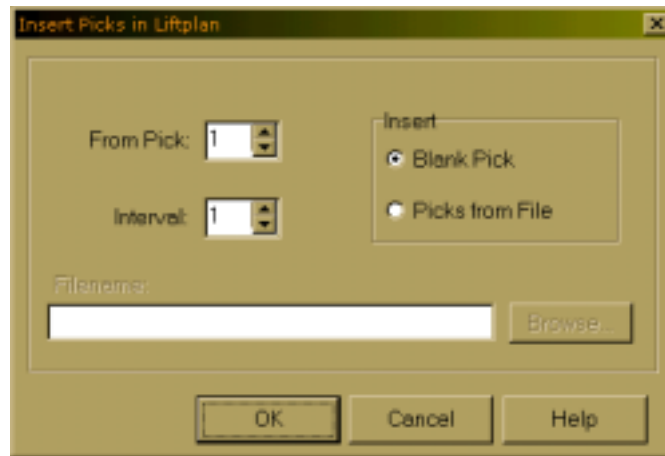Select the desired interval between inserting picks. An interval of 1 will insert a pick after each present pick, an interval of 2 will insert a pick after every two present picks, etc.

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

DELETE IN LIFTPLAN

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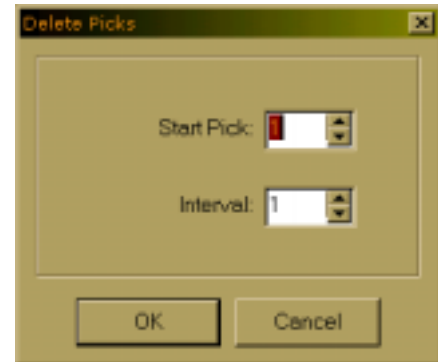
REANALYZE

Use this command to reanalyze the pattern (drawdown). The threading and tie-up/treadling or liftplan will be entirely reconstructed, using as few shafts (harnesses) as possible (and as few treadles as possible in tie-up mode). This command is useful to check if a pattern can be woven with less shafts (and treadles).

The threading (and 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 500 ends and picks will be reanalyzed, but if a regular repeat is found within this limit, the pattern will automatically be correct throughout the entire width/height. If the pattern is wider/longer than 500 ends/picks, and no regular repeat is found, 500 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 = 80.
ROTATE PATTERN	Swap warp and weft, in effect turning the pattern 90 degrees. All warp/weft threads will be swapped.
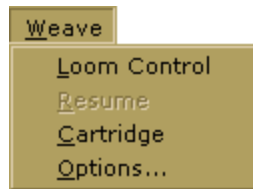
OPTIONS
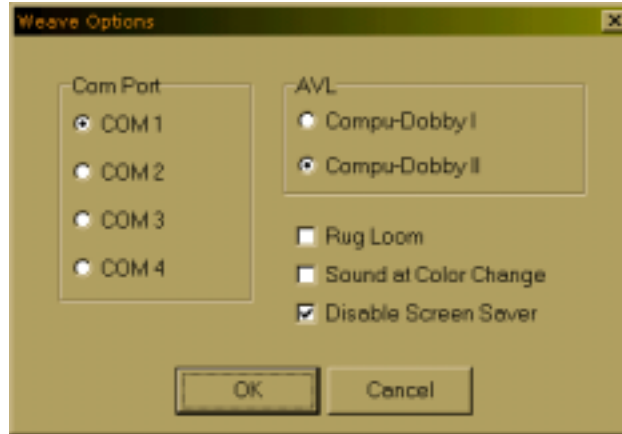
Set your options for the Weave Menu items. These give you access to the AVL Compu-Dobby, if you have this equipment attached to your loom.

Com Port

Select the Com Port where you attached the cable from the Compu-Dobby box.

Compu-Dobby I or II

Select Compu-Dobby I or Compu-Dobby II, depending on which version you use. Compu-Dobby II was introduced in 1996. If you have any problems with Compu-Dobby communication, see Error Recovery.

Sound at Color Change

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

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

Then make sure that the volume is turned up.

Screen Saver

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

AVL LOOM CONTROL

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

It is important to select Total Repeat if you work with complex color sequences and especially if their repeat is not matching with the liftplan repeat. Since your computer will give you a sound signal when to change the weft color, it is important to have an accurate repeat according to both color and structure. Total Repeat is the minimual repeat one has to select to get the design repeated completely.
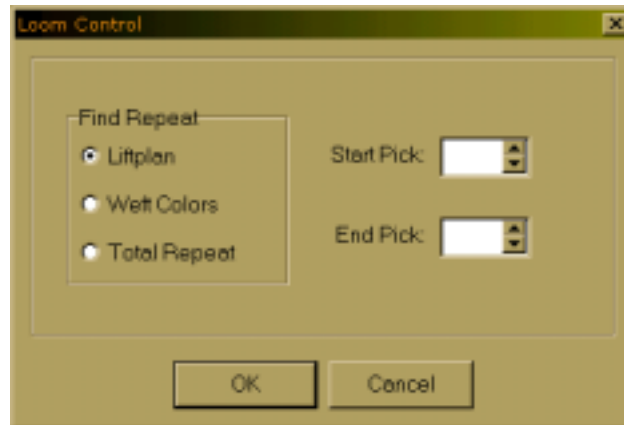
For example, if the liftplan is eight and the weft color repeat is twelve, the total repeat will be 24. The selected range will repeat automatically when weaving.

When weaving, your pattern will be displayed in a special weaving mode in an enlarged scrolling grid. This makes it easy to follow the pattern on the screen, even from a distance. The color field below shows the present yarn color to weave.

To the left you can see the pattern repeat as fabric. A horizontal line indicates the present pick.

In the status bar, you can see the selected repeat to weave, the total number of picks you have woven since you started the present weaving session and the next, present, and last pick. The arrow at the right side of the scrolling grid points to the last pick - the pick about to be woven.

Arrow Buttons

Click the arrow buttons at top left to change the next pick to weave. You can see the next pick to be sent to the loom in the status bar. The four buttons represent up, down, page up, and page down. You can also press the page up and page down keys on the keyboard. Please note, though, that the screen won't update until the next time you treadle.

To issue most of the following commands, you can either click the screen button or the button on the loom control box.

Reverse	Change Reverse/Forward weaving direction.
Pattern	Click this to start weaving your pattern from the first pick. Weaving direction is set to forward and tabby weaving is turned off.
Tabby (Plain Weave)	Change to tabby (plain weave) weaving. Click tabby again to leave tabby weaving.
	When weaving tabby, the two tabby lags are called A and B in the status bar.
Save	Save your present pattern and weaving position. When saved, you can later choose **Resume** to continue weaving the same pattern. The present position, repeat range, and weaving direction will be stored.
	Note that the present pattern will be saved to disk like an ordinary WeavePoint pattern. You can open and edit this pattern also when not weaving. Any changes you make to the pattern will be used when you resume.
Skip	Skip one pick. This command is only available at the loom control box.
Close	Click Close to quit loom control.
RESUME	When weaving, before closing the Loom Control window you can click **Save** to store the present pattern and weaving position. Later, you can then just click **Resume** to open the same pattern and resume weaving where you left off last time.
	Note: For weaving a pattern with weft borders with loom control, you can select **Start Pick** to be the first pick above the border.
CARTRIDGE	You can store patterns in the cartridge inserted in the Compu-Dobby box. Then you can weave without having the PC connected to the loom.
	The Cartridge dialogue will show the present patterns stored in the cartridge by index number, name, and number of picks. You can put your present liftplan in the cartridge or load a liftplan from the cartridge.
	With Compu-Dobby II, you can store ten patterns. With Compu-Dobby I, you can store five patterns.
	If the cartridge memory for some reason is corrupted, you will get a message and the option to erase the cartridge contents. It is then recommended to click **Yes** to erase the cartridge and reset the cartridge memory. If it is important to access any pattern stored in the cartridge, you can click **No** and then try to load the pattern from the cartridge.
Put Liftplan	Select the pattern index where you want the liftplan to be stored. If choosing an index where a liftplan is already stored, the new liftplan will replace the old one.

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

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

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

Get Liftplan

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

Error Recovery

When communicating with the loom controller box, errors may occur. If you ever get an error message, you can just try to proceed if possible.

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

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

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

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

STEP BY STEP PROCESS OF WEAVING ON-LINE AND WITH A USE OF CARTRIDGE

First five steps are the same for both Weaving On-Line or with the cartridge. After step 5, go to the appropriate part.

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

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

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

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

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

Weaving "On Line"
(without the use of cartridge)

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

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

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

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

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

Weaving with a Cartridge

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

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

8) From the **Weave** menu, select **Cartridge**. An AVL Cartridge window appears on the screen. You have 10 possible positions. Each liftplan will be displayed with it's index number, name, and the number of picks in that liftplan. This is an information window. From this point you can:

a) **Put Liftplan** to transfer your liftplan to the cartridge.
b) **Get Liftplan** to transfer liftplan from the cartridge back to the computer.
c) **Close** if you just wanted to see positions, index numbers, names or number of pick in each design, but did not want to make any changes.

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

   a) **Put as Liftplan** #_____. Here you decide in which position on your cartridge do you want to put this liftplan.
   b) Size of your design by entering your end pick. Start pick is always 1.
   c) Enter the name of your design. If your design does not have a name, you can name it here; if it does, it has to be exactly the same. If you change the name of your design, it might not save it correctly. Click OK.

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

Quick Tutorial

There are two ways to access Project Planner. One is from the Options Menu and the other is from the separate icon in the WeavePoint folder. Either way, information calculated and inputed in Project Planner are saved as separate Project Planner files, not WeavePoint files.

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

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

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

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

or

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

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

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

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

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

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

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

Glossary

Project Name	Type in a name or description of your project. This will be the heading on the printout. Tip: Include the name of your WeavePoint pattern file, to remember which pattern belongs to the project.
Date	The current date is inserted automatically. You can edit and format the date as you like.
Notes	Press the notes button to write a free text description of the project. Here you can write information about yarn types and colors used, technical weaving issues, etc. The notes will be printed or copied to the clipboard with the project data.
Finished Length	Finished, final length of fabric in warp direction (all items summed up), after making allowance for take-up and shrinkage.
Shrinkage	How much the fabric will shrink after it is washed.
Woven Length	Length of fabric as woven, making allowance for take-up.
Test Samples	Here you can add additional woven length for test weaving.
Take-Up	Picks for the test samples length will be included in Total Picks. The difference between the length of the warp before weaving begins and the length of the woven textile.
Fringes and Extras	Here you can add extra warp length for fringes and other extra warp that will not be woven. No weft will be calculated for the length entered here.
Loom Waste	The part of the warp that is never woven, but is needed to attach the warp to the loom at the front and back.
On-Loom Length	The length of the warp before weaving begins, including loom waste and fringe.
Sett (E.P.I.) or Ends/cm	Sett or ends per inch is the number of warp ends per inch on the reed. If metric, ends/cm is the number of warp ends per cm on the reed.

Ends	Number of warp ends used across the width of the fabric
Total Warp Length	Total yarn length needed for the warp.
Finished Width	Finished, final width of fabric, after making allowance for draw-in and shrinkage.
Woven Width	Width of fabric as woven, making allowance for draw-in.
Draw-In	The reduction of the width of the warp setting during weaving.
Width in Reed	The width of the warp in the reed, warp width before weaving begins.
P.P.I. or Picks/cm	Picks per inch or cm in the fabric as woven.
	P.P.I. (or Picks/cm) is calculated from the Woven Width value.
Picks	Number of picks used in Woven Length.
Total Picks	Number of picks used by Woven Length + Test Samples length.
Weft Waste	Here you can add weft yarn waste.
Total Weft Length	Total yarn length needed for the weft.
Yards/lb or Meter/ kg	Enter number of yards per pound or meter per kg for the yarn used. Or enter the Tex count number or Denier count number for the yarn (see **Yarn Count**).
$/lb or $/kg	Enter $ per pound or kg for the yarn used.
Total Cost	Shows total cost for the fabric (warp and weft).
Yarn Count	To calculate the amount of yarn needed in pounds or kilogram, yards per pound or meter per kg must be known. You can input this directly or you can input the yarn count system number in the Tex or Denier system. In the input dialog, conversion is done automatically when entering a number. The yarn count number indicates the length of yarn in relation to the weight.
	If you have yarn in a different system, you should work out yards per pound or meter per kg, and then enter this in the program.
Tex	The Tex count represents the weight in grams per 1 kilometer (1000 meters) of yarn. For example, a yarn numbered 10 Tex weighs 10 grams per kilometer. The Tex number increases with the size of the yarn.
	When the yarn count is not known, it can be established by measuring a length of 10, 50, or 100 meters. For example, if 50 meters of yarn weighs 2 grams, 1000 meters will weigh 40 grams and the count is, therefore, 40 Tex.

WEAVEPOINT PROJECT PLANNER

Denier	The Denier system in used to number continuous filament yarns, like reeled silk and man-made extruded yarns such as rayon. The denier count of a yarn states the weight in grams per 9000 meters. The coarser the yarn, the higher the denier count number becomes. Thus: 9000 meters of 30 denier yarn weighs 30 grams.
Calculation Details	Here you can check the calculation formulas used in the WeavePoint Project Planner. Not all formulas will be used in a project. When you input some values, other values will automatically be calculated by the program.
	Note that a few of the results can be calculated in alternative ways, depending on what is already filled in. This makes the Project Planner very flexible. Also, some value names depend on if inches or cm is used.
	All calculations are in inches or cm. If a value is displayed in yards or meter, the result is divided by 36 for yards or 100 for meter.

Warp Calculation Formulas

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

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

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

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

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

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

Weft Calculation Formulas

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

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

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

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

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

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

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

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

Sectional Beam Calculations

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

Sectional Warping

Section Size: 1"

Number of Sections: 40

Number of Spools: 16

Length per Spool: 512 yards

OK