
Chapter 6 Knitting Design Module

Knitting Design Module is an advanced operation feature to generate graphic data with stitches effect on screen. It is same as the Fashion Design Module, a set of drawing tools to help on knit pattern design and knitwear design. More important, it allows us to control the stitch effect with preview the actual effect on screen.

Style of the knitwear can be drawn with drawing commands under the Fashion Design Module. Realistic 3D simulation (A model with putting knitwear garment) can be done with 3D Draping Design to produce 3D effect. Knit's graphic can be made with the drawing function of Fashion Design Module (or getting actual pattern images through scanner), then switch the screen to Knit Design Module to build the graphic with stitch effect. It is also possible to start from scratch with the Knit Design Module to make your own design.

Under the pull-down menu, select the Knit Design Module, most of the commands and features in the Commands Panel are same as the Fashion Design Module. (See the Figure 6-1).

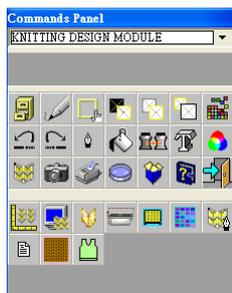


Figure 6-1 Knit Design Module Commands Panel

“To perform Knitting work with this system, it is necessary to have the following information and suitable some conditions.”

Basic operational procedures for the knits design work in this system:

1. Switch to Knit Design Module, and select the “S” mode under the Navigation Panel (it is the stitch mode), it will go into the stitch simulation mode window;
2. With this selected graphic, draw with stitch effect, edit the knits graphic and build the knitting structure;
3. Define the Stitch Tension to have a proper aspect ratio for difference knit density used;
4. Use the Sweater Design feature, it can produce the style and technical parameters of a sweater, it should be looked like the outline of a sweater;
5. After the knits graphic has been done, it can be converted the graphics to bitmap with the Stitch Bitmap command under the Knit Design Module, to keep and save the data for presentation purpose. It is also provided with stitch effect printing for the simulation of Knitting Print.

*Attention: Richpeace Knitting Design System can provide the file export of **pic**, **dac** & **pks** format. They are for circular sock, circular knits and flat-bed knit respectively. Due to there are many different knit machine types in the market, it is hard to fulfill all machine types, but normally, BMP should be commonly used for graphic data information.

6-1 “S” Window:

Under the Knit Design Module, there is a stitch simulation mode to make the stitch effect on screen with a special window mode called “S”. At first, switch to Knit Design Module, and select the “S” mode in the Navigation window. It is going to the stitch simulation mode, and the display will show the aspect ratio with stitch effect on the screen. Each pixel on the screen is representing one stitch. At the same time, the Color Panel will be changed with stitch effect instead the normal rectangular color block. After switched to “S” window mode, all graphic pixel will be shown as stitch effect.

***Attention: Within the stitch simulation window, the black color 000 is set to be transparent, it means that no stitch effect will be shown.**

6-2 Front Stitch and Reverse Stitch:

The default stitch simulation on Knitting Design Module is Front Stitch, it is the general use of stitch effect. After switching into the “S” mode, the color blocks inside the Color Panel will be changed to stitch effect accordingly. (See Figure 6-2) :



Figure 6-2 Various colors with Front Stitch

Figure 6-2 is showing the Front Stitch, to switch to Reverse Stitch, move the cursor over the selected color, press with the right click on the mouse, then that color will be changed with its stitch effect. Hit one to switch to Reverse Stitch, hit twice will be going back to its previous state, the Front Stitch effect.

After the choice of a color with Reverse Stitch or Front Stitch, move the cursor to drawing area and press the left button to start your design, stitch effect will be added to the drawing with according to the mouse click.

Front Stitch and Reverse Stitch are shown in Figure 6-3:

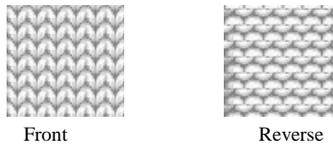


Figure 6-3 Front & Reverse Stitches

6-3 Knit Library:

Under the Stitch Simulation Window, it can recall the single stitch element from the Knit Library to construct different of knits effect.

In the Knit Library of Richpeace Knitting Design CAD, there is a rich of knit element library, putting those knit elements together can build various of knit design. By using this knit elements to instantly construct the knit design on screen, it is able to see and check the mistakes or whether there is wrongly placement of knit elements. Under certain circumstances, it can determine its feasibility.

Methodology of knit design construction:

1. Select  file Manage command, inside the file manager's knit structure library, choose the knit element and open file. Then put the knit element to the decided position of the stitch simulation window (over there, cannot be the transparency color 000), left mouse button to locate the knit element;

***Attention: It can treat the knit element as another special knit of graphic file, this file is containing knit data, and it only can be placed into stitch simulation window. It is same as graphic file data, knit element library can be stored in any other of drive or storage media.**

2. Read the knit element from the Knit Library, with the integration between differences of knit elements to make a new style of knit structure. During the construction of knit design, it may require to get back some of the placed knit element, and select part of those to construct a new combination. If it is only using the rectangular window to make the selection, it brings the operator confusion due to unclear with the knit structure of those elements. Now it allows to use the shortcut to press the “Shift” and single left mouse click to make the correct selection;

Already read in Knit Elements:

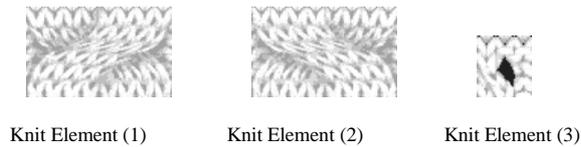


Figure 6-4 Knit Element

3. Putting those three knit elements of Figure 6-4 together, they must be the same number of stitches. The Knit Element 1 and Knit Element 2 both are “8×6”, they can be put together directly. But the Knit Element 3 is “3×4”, so that it must use the Repeat command to match with the other two Knit Elements (1 & 2);

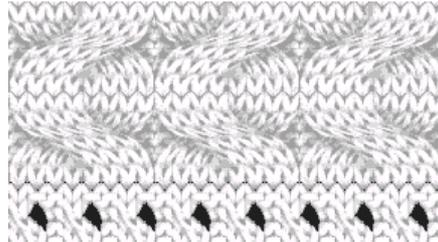


Figure 6-5 Knit Structure

*Attention: Knit Structure can only be displayed under “S” window, also accept the commands of Move, Copy and Transformation operations, with flipping functions as well.

6-4 Knitting:

Any graphics put to the knit design, they can be displayed with stitch effect, but the graphics in the stitch mode will not be looked as their actual graphic proportion or ratio in a knit garment. Due to this reason of actual aspect ratio on knit, it can use this



Knitting command to set the graphics to a suitable knitting size on knits. There are some sub-commands, see Figure 6-6:



Figure 6-6 Knitting Sub-command Listed ICON

**Knit Tension:**

To put the graphics with a suitable knitting size, it is considered by the graphic resolution and the knit tension ratio for a knit garment. Select  the Knit Tension command, it will show the Define Knit Tension dialog box (See Figure 6-7).

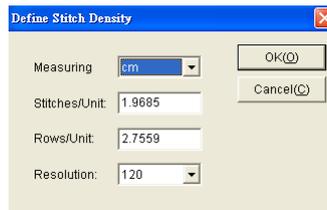


Figure 6-7 Define Knit Tension

1. Unit: Measurement unit for testing the Knit Tension (Inch / CM)
2. Stitches/Unit: Tension on the horizontal direction. See Figure 6-7. It is saying that there is 2.75 stitches/cm.

3. Rows/Unit: Tension on the vertical direction.
4. Resolution: The number of pixels within the set unit

It can be set the value in the (Stitches/Unit) & (Rows/Unit) to modify the knitting tension for both horizontal and vertical. Stitch and Row values will vary the knit structure and its graphics ratio to have different visual effect.

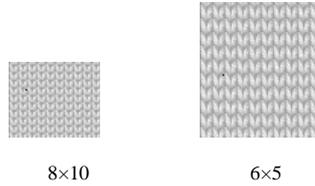


Figure 6-8 Knit Tension



Stitch to Bitmap:

Stitch to Bitmap can transfer the stitches visual effect from Stitch Simulation Window to Bitmap drawing mode.

Within the Stitch Simulation Window, after finished the knit structure work, define the rectangular window for the required stitches, select the  Stitch to Bitmap command. Then go back to drawing area, it will have a same size rectangular window as the previously defined window for the stitches, move to the suitable location and left mouse button. This will complete the transferring of stitches effect graphic into the Bitmap drawing area.



Mixed Yarn Setting:

Inside the Navigation Panel, select the “S” mode, going into the Stitch Simulation Window. Select one color box from the Color Panel, select the  Mix Yarn Setting command again, then coming up with the Mix Yarn Setting dialog

box, see Figure 6-9:

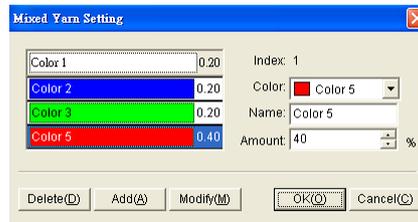


Figure 6-9 Mixed Yarn Setting Dialog Box

Finished the Mixed Yarn settings, then Color Panel will show the stitches with mixed yarn effect instead of solid color. (See Figure 6-10).



Figure 6-10 Stitches with mixed yarn effect

Using those mixed yarn to make graphics knit, the visual effect will be looked as Figure 6-11:

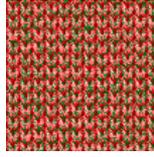


Figure 6-11 Mixed Yarn visual effect

***Attention:** For Mixed Yarn, it allows to add maximum 3 more colors, total should be 4 colors. Mixed Yarn setting can select any three of the 256 colors from the Color Panel.



Converting image file to Shima Seiki:

Click on  **File Conversion (Seiki)** to make Shima Seiki file conversion, file conversion dialog box pop-up (See Figure 6-12).

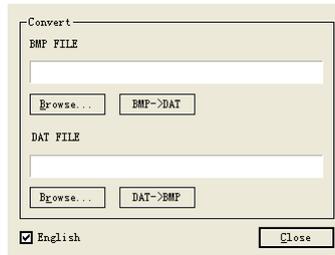


Figure 6 -12 File Conversion (Seiki) dialog box

1. BMP file format convert to DAT file format.

1) Click  to pop-up the dialog box (See Figure 6-13A), select the file which needs to be converted to DAT.

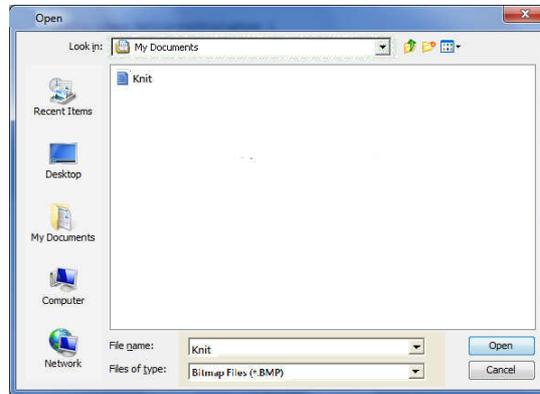


Figure 6-13A Select BMP file dialog box

- 2) Click: **BMP->DAT** to pop-up the dialog box (see Figure 6-13B), input the DAT file name which should be saved and click OK to confirm the BMP to DAT file format.



Figure 6-13B Saving DAT file dialog box

2. DAT file format convert to BMP file format

1) Click: **Browse...** pop-up dialog box (see Figure 6-13C), select the file which needs to be converted to BMP.

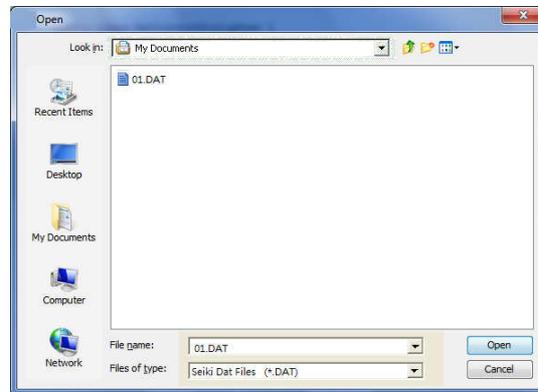


Figure 6-13C Select DAT file dialog box

2) Click: **DAT->BMP** pop-up dialog box (see Figure 6-13D), input the BMP file name which should be saved and click OK to confirm the DAT to BMP file format.

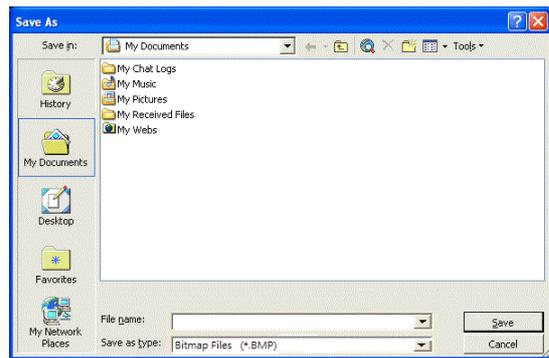


Figure 6-13D Saving BMP file dialog box

-
3. The English switch between Chinese and English interface (dialog box only).

 **Knit Simulation Parameters:**

Click on the  Knit Simulation Parameters command, then pop-up with the Knit Simulation Parameters setting dialog box (See Figure 6-14) . Knit Simulation Parameters Setting provide adjustment of Brightness, Saturation, Glossy and Mixed Yarn respectively.

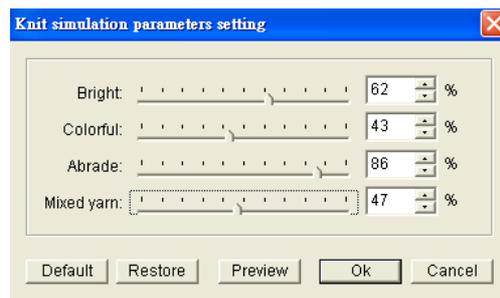


Figure 6-14 Knit Simulation Parameters Setting

After the Knit Simulation Parameters setting adjusted, the knitting piece shown on Figure 6-11 has been changed as shown as Figure 6-15 :



Figure 6-15 After adjustment on Knit Simulation Parameters setting



Mixed Yarn Management:

Click the  Mixed Yarn Management command, then it brings into the yarn management screen (Figure 6-16), it allows to set the mixed yarn for any of the color box over there. By using the cursor, it is able to drag the well-defined mixed yarn to any of the color box, press the Ctrl + cursor dragging, it will copy the mixed yarn information to any of the color box.

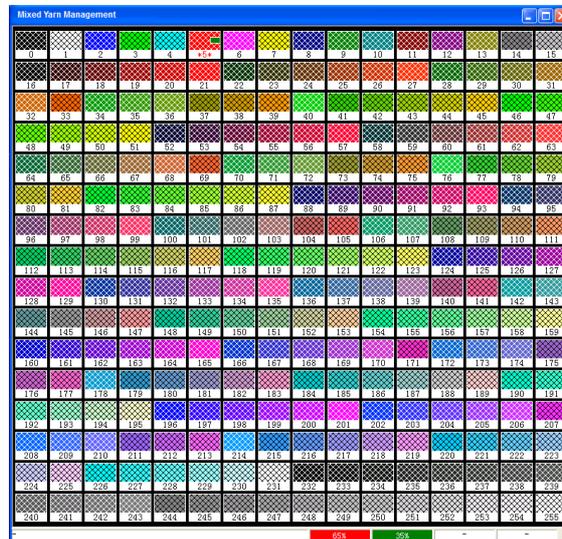


Figure 6-16 Mixed Yarn Management screen

Meanwhile there are also some commands within the Mixed Yarn

Management Group. 

 **Save Mixed Yarn:**

Click on the  Save Mixed Yarn command, the mixed yarn Save As dialog box is pop-up as Figure 6-17. It is possible to save any well-defined mixed yarn, and the file format will be “.rnc” extension.

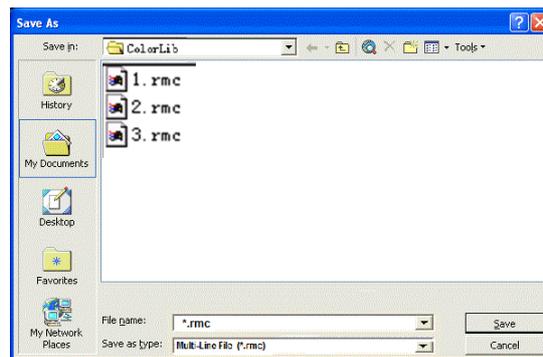


Figure 6-17 Mixed Yarn Save As dialog box

**Load Mixed Yarn:**

Click on the  Load Mixed Yarn command, the load mixed yarn dialog box is pop-up (See Figure 6-18), then it can load the mixed yarn data file, which is in “.rmc” file extension.

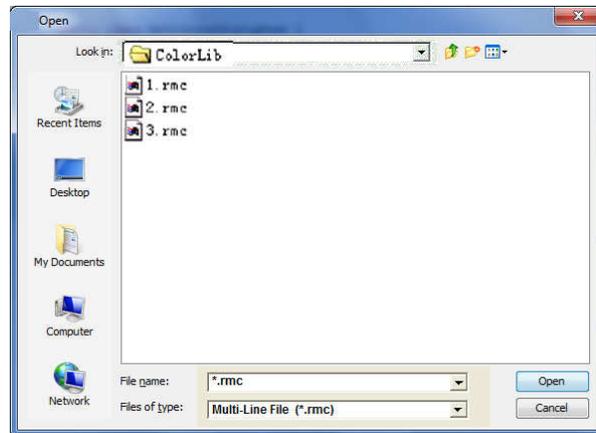


Figure 6-18 Load Mixed Yarn dialog box

***Attention:** When there is a mixed yarn pattern file reading in, the original mixed yarn color boxes will be replaced with the new reading in mixed yarn content. It will be arranged from Color 1, and the Color 0 is always not for Mixed Yarn.

**Knit Structure Maker:**

Click on the  Knit Structure Maker command, there is coming up the Knit Structure Maker window (Figure 6-19).

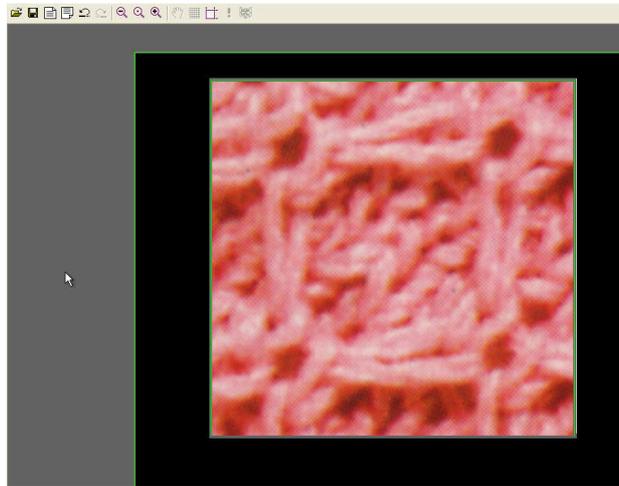


Figure 6-19 Knit Structure Maker window

And its sub-commands are available as follows (Figure 6-20):



Figure 6-20 Knit Structure Maker Sub-commands



Exit: Exit of the Knit Structure Maker window.



Open Image: Open an image file to the Knit Structure Maker window.

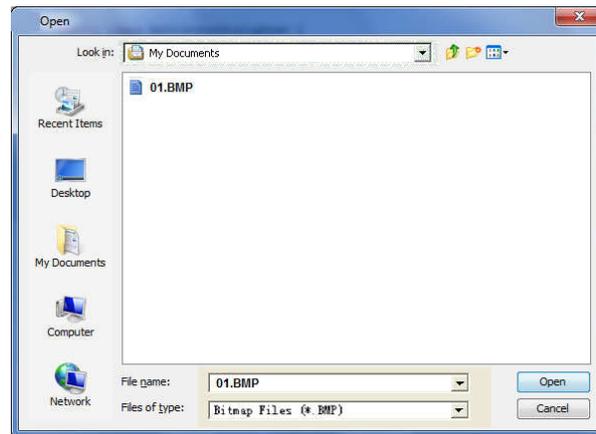


Figure 6-21 Open Image



Save Image: Save the Knit Structure Maker window image data with image file format.

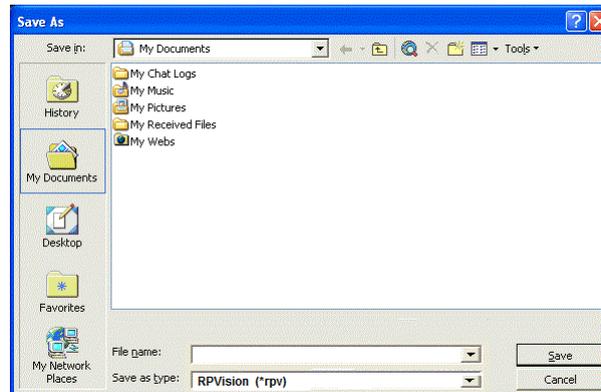


Figure 6-22 Save Image



Import Image: Reading in image pattern from Richpeace Design CAD

working area to Knit Structure Maker window.



Export Image: Transfer the pattern image from Knit Structure Maker window

to Richpeace Design CAD drawing area.



Undo: Click this command once to backward one operation in Knit

Structure Maker window.



Redo: Click this command once to forward one operation in Knit

Structure Maker window.

***Attention:** 1. Number of Undo / Redo process is not limited.

2. Shortcut key: “A” imply Redo.

3. Shortcut key: “Z” imply Undo.



Zoom Out: Knit Structure Maker window image visually reduced.



Default: Knit Structure Maker window restore to its default display size.



Zoom In: Knit Structure Maker window image visually enlarged.



Grid: Knit Structure Maker window Grid display On / Off.



Move: Moving the rectangular working window within the Knit Structure Maker window.



Knit Structure Setting:

Click on the  **Knit Structure Setting** command, then the **Knit Structure Setting** dialog box pop-up (Figure 6-23).

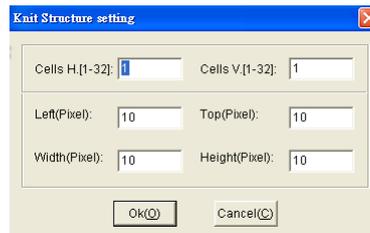


Figure 6-23 Knit Structure Setting dialog box

1. Define the Knit Structure cell's horizontal and vertical value "1~32";
2. Define Knit Structure grid's Left corner location and the grid size;
3. Completed with the settings (Figure 6-23A);

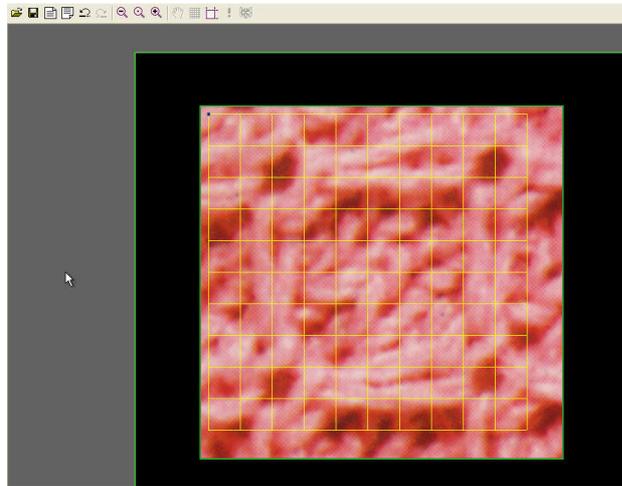


Figure 6-23A Knit Structure Adjusting Grid

4. Adjust Grid operation:

1) Adjusting point for the grid:

- i. Single click the mouse over the point to be adjusted.
- ii. Move the cursor to the new position of the grid point. (Figure 6-23B).
- iii. Single click again the mouse over the new position (Figure 6-23C).
- iv. Right click the mouse to cancel the point movement.

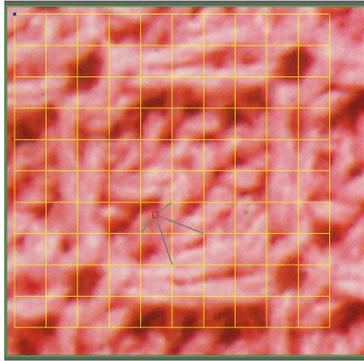


Figure 6-23B Select the moving point

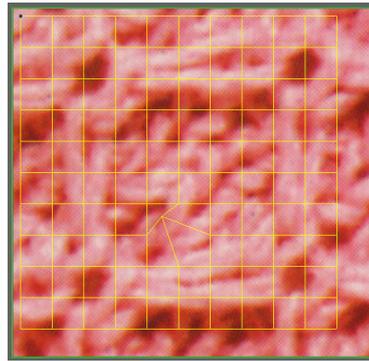


Figure 6-23C Confirm the new position

2) Line adjustment:

- i. Single click the mouse over the line to be adjusted.
- ii. Move the cursor to the new position of the line. (Figure 6-23D).
- iii. Single click again the mouse over the new position (Figure 6-23E).
- iv. Right click the mouse to cancel the line movement.

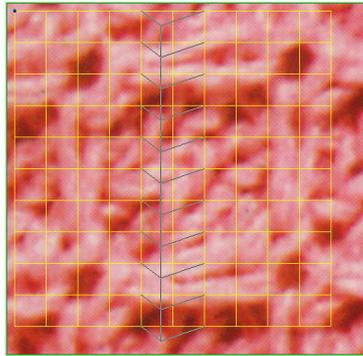


Figure 6-23D Select line to adjust

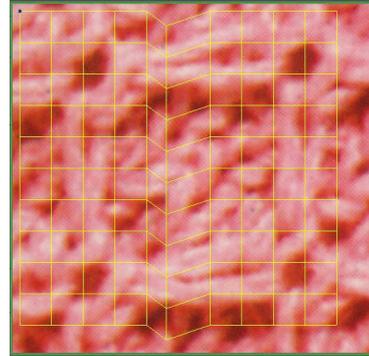


Figure 6-23E Confirm the new position

3) Delete Grid:

- i. During the moment of point or line selection
- ii. Press keyboard Delete key to delete the grid.

Slide Display, Hidden Knit Structure Library Operation:

1. The root directory for Knit Structure Library: All Knit Structure files should be saved under the folder “Knitstruct”. Within this folder only files with .RPV or its sub-directory can be displayed.
2. Operation in Library:
 - i. Folder Operation:
 - 1) New Folder: Within the empty area of the library, right click and select the New Folder, then make a new folder within that directory;
 - 2) Delete Folder:
 - a. Move cursor over a folder which will be deleted, then right click and select the Delete, it will delete the folder accordingly;
 - b. Use the Cursor to select one or more folders (folder can be containing file/files), then click the Delete command to delete all selected folders (files).
 - 3) Rename Folder:
 - a. Move cursor over a folder which is required to rename, then right click and select the Rename. The folder name will be ready for editing to a new name.

b. Use the cursor over a folder, and press the “F2” key on the keyboard, it also makes the folder name to be editing state;

c. Under the editing state, input the new name then completed the rename folder process;

4) Open Folder:

a. Double Click on top of a folder to open, then this folder will be opened;

b. Move cursor over a folder and right click to have the menu option list, and select the Open, it also open the folder;

c. Hit Enter key on the keyboard when the cursor is on a folder, that fold can also be opened.

5) Upper Folder:

a. Over the blank space, right click to have the menu option list, and select the Upper Folder option, then it will bring one level up of the current folder;

b. Hit the key on the keyboard will also bring one lever up of the current folder.

ii. File Manager:

1) Save Knit Structure file

Only under the knit structure working pattern will be saving with knit structure data. It is simple to right click on the pattern icon and select the Save File command from the pop-up to execute saving file process. Or it is available at the toolbar button command;

2) Delete (same apply to folder);

3) Rename (same apply to folder);

4) Open file (same apply to folder);

iii. Refresh:

1) Move cursor over an empty area and right click to select the Refresh command, it will re-draw the current file and folder display screen;

2) Press the shortcut key “F5” can also refresh the screen of file and folder;

iv. Display the selected folder:

1) Within the file directory, there are many folders displayed, single click on anyone of the folders, the right side will be changed to the folder as current location;

2) Press the Backspace button on the folder will put back to the previous folder location;

v. Panel display and hiding:

1) Panel display: cursor moved to right border of working area, it shows scrolling of the panel;

2) Panel hiding: cursor moved away from the panel, the panel will be hid;

vi. Additional pop-up menu display:

1) Cursor over a folder with right click will show the pop-up menu as below (Figure 6-24A);

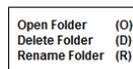


Figure 6-24A Folder Menu

2) Cursor over a file with right click will show the pop-up menu as below (Figure 6-24B);

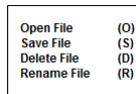


Figure 6-24B File Menu

3) Cursor over an empty area with right click will show the pop-up menu as below (Figure 6-24C);



Figure 6-24C Menu Operation

 **Adjust Grid:** Adjustment of the grid for image operation.

 **Save Knit Structure:** Save the image within the grid adjustment to Knit Structure file (Figure 6-25).

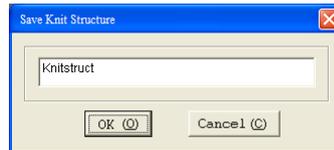


Figure 6-25 Input the file name of the Knit Structure pattern

***Attention:** Current possible operation:

1. Initial ready;
2. Open image;
3. Create a new grid;
4. Point (row or column) movement;
5. Delete grid;
6. Adjust image within grid.

 **Knit Statistics:**

Click on  Knit Statistics command, it is going to the knit statistics display, see figure 6-27, there are data of the selected image color index, colors, number of color yarns change for row knits. Percentage of yarns usage, color code, loop

length, total yarn length used, loop weight and total yarn weight, as well as the bottom status bar.



Figure 6-26 Knit Statistics Pattern Image

Index	Color	Rate (%)	ColorLib	ColorCode	Loop Length (mm)	Yarn Length (m)	Loop Weight (g)	Yarn Weight (g)
0		13.0056	black.sp	black 3001	1.00	33.55	1.00	33554.00
1		42.7876	default.sp	Color 26	1.00	110.37	1.00	110369.00
2		23.2398	default.sp	Color 45	1.00	59.94	1.00	59944.00
3		20.9640	blue.sp	Color 34	1.00	54.07	1.00	54074.00

Figure 6-27 Knit Statistics Table

It allows to define the loop length and loop weight in the Knit Statistics Table. The bottom status bar shows the number of colors used, number of page, current page number, total yarn length and total yarn weight as well.

Meanwhile, its sub-commands are same as following Figure 6-28:



Figure 6-28 Knit Statistics Sub-commands

 **Exit:** Exit the Knit Statistics operation.

 **Cell Setting / Yarn Setting:**

Select  the Cell Setting command, it shows the cell setting dialog box as Figure 6-29.

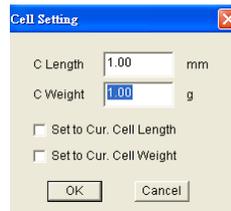


Figure 6-29 Cell Setting Dialog Box

1. Define the loop length and loop weight values with the Cell Setting dialog box. It can be set from 1-999. With the defined value of loop length and loop weight, it can calculate the total loop length and total loop weight of the knits, good for material preparation and management work;
2. Cursor over individual loop length or loop weight, single click on it, then the value is able to be edited;
3. Set to Cur. Loop Length (Set to Cur. Loop Weight):
 - 1) Select: for all the selected loop length (loop weight), restore to their previous value;
 - 2) Unselect: for all not being selected loop length (loop weight), restore to

their previous value;



Previous Page: Move one page up of the Knit Statistics Table.



Next Page: Move one page down of the Knit Statistics Table.



First Page: Go to the first page of the Knit Statistics Table.



Last Page: Go to the last page of the Knit Statistics Table.



Sort: Sorting Command

When first going into the Knit Statistics Table, colors are listed base on the index, sorting can change the colors arrangement. Select  the Sort command, the list will be sorted with the color percentage used in ascending order, click the Sorting command again will make the sorting in descending order. Click again will give back with the index order.



Print: Print the Knit Statistics table

***Attention:** As Figure 6-26 and Figure 6-27:

1. Knit direction:

- 1) Y: From bottom to top;
- 2) X: From left to right, and right to left repeat;

2. Total time of Exchange Color:

Refer to the knit direction: it is not count with Color 0, only there are non-color 0 and when the color is changed, the counter will be increased with ONE. Until the pattern is completed.

3. Total Times of Deleting Stitch and Total Times of Adding Stitch.

- 1) Color 0 is a hole (empty stitch), non-color 0 are stitches.
- 2) Knit from Stitch to Hole is Deleting Stitch, knit from Hole to Stitch is Adding Stitch.
- 3) Refer to the knitting direction:
 - ① Stitch to Hole: Deleting Stitch is increased by ONE.
 - ② Hole to Stitch: Adding Stitch is increased by ONE.



Tension Image:

Click  on Tension Image command, it will go into tension image window,

it allows the preview of full pattern with stitch effect. (See Figure 6-30)



Figure 6-30 Tension Image Window

Through the button to enlarge or reduce the stitch pattern display, preview the stitch effect with a suitable row density/stitch density of entire pattern. It is also able to capture this stitch effect image to the normal drawing area for other application.



Sweater Design:

Shenzhen Richforever CAD/CAM CO., LTD.

Click on  the Sweater Design command, going to the Sweater Design window

(Figure 6-31) .

Within the Sweater Library window:

“Delete” key to delete sweater style file (or right click to use the Delete)

Single click on the style name to rename (or right click to use the Rename)

Double click to read in the style file.

In the knit instruction editing window:

Insert a Row (Insert Key), Insert key to add instruction, Delete key to delete the row of instruction (Delete Key) .

It is able to key in numbers to change the parameter directly, or click on the number to go into the editing mode.

Knit Parameter Explanation: (Refer to the following diagram)

1. 0+285+1 Horizontal add 285 stitches one time
2. 16-0-1 Knit 16 Rows one time
3. 18-1-2 Knit 18 Rows then minus 1 stitch for two times
6. 4+1+13 Knit 4 Rows then add 1 stitch for thirteen times
9. 0-12-1 Horizontally minus 12 stitches (close) one time
18. 0-0-0 Change Direction

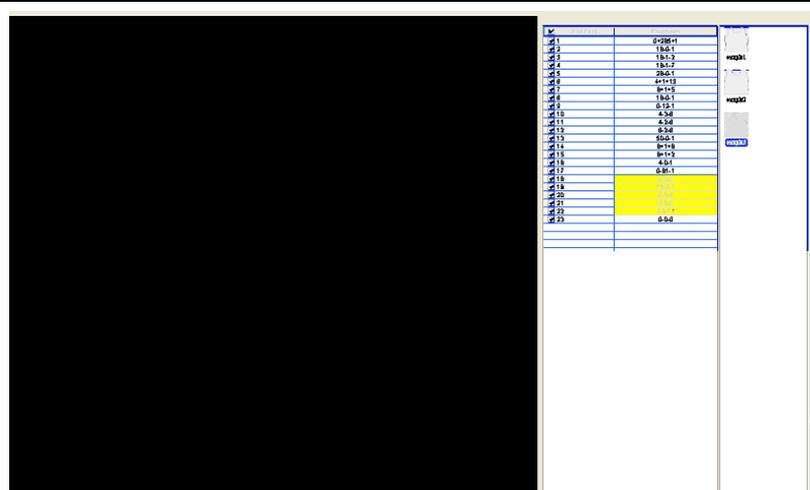


Figure 6-31 Sweater Design Window

§6-5 Color Ratio:

With the Knitting Design Module, select the  Color Ratio, if the colors are used more than 256 colors, it will take longer time to process the calculation, confirm to go into the Color Ratio window. (See Figure 6-32)

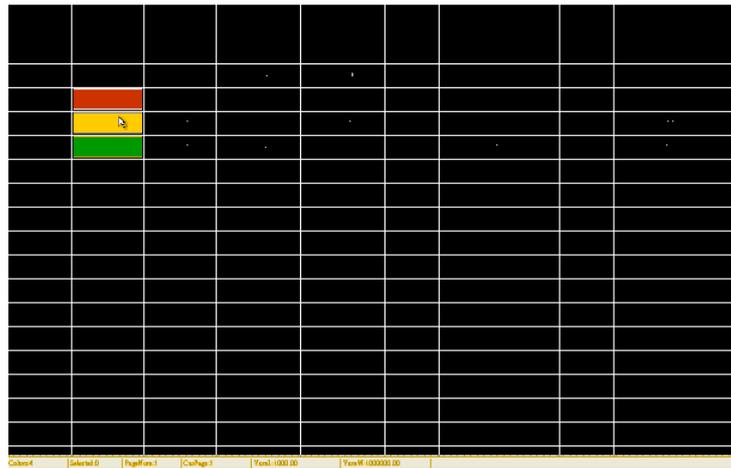


Figure 6-32 Color Ratio

Within the Color Ratio window, the Loop Length and Loop Weight can be defined there. Under the status bar, there are information of Total Colors Used, Total Page No., Current Page, Yarn Length and Yarn Weight.

Meanwhile, there are some sub-commands also available as shown below Figure 6-33:



Figure 6-33 Color Ratio available sub-commands

-  Exit: Exit the Color Ratio operation

-  Cell Setting / Yarn Setting:

Select  the Cell Setting command, it shows the cell setting dialog box as Figure 6-34.

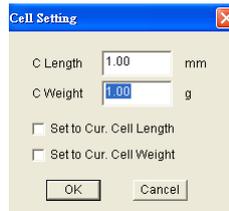


Figure 6-34 Cell Setting Dialog Box

1. Define the loop length and loop weight values with the Cell Setting dialog box. It can be set from 1-999. With the defined value of loop length and loop weight, it can calculate the total loop length and total loop weight of the knits, good for material preparation and management work;
2. Cursor over individual loop length or loop weight, single click on it, then the value is able to be edited;
3. Set to Cur. Loop Length (Set to Cur. Loop Weight):
 - 1) Select: for all the selected loop length (loop weight), restore to their previous value;
 - 2) Unselect: for all not being selected loop length (loop weight), restore to their previous value;



Previous Page: Move one page up of the Knit Statistics Table.



Next Page: Move one page down of the Knit Statistics Table.



First Page: Go to the first page of the Knit Statistics Table.



Last Page: Go to the last page of the Knit Statistics Table.



Sort: Sorting Command

When first going into the Knit Statistics Table, colors are listed base on the index, sorting can change the colors arrangement. Select  the Sort command, the list will be sorted with the color percentage used in ascending order, click the Sorting command again will make the sorting in descending order. Click again will give back with the index order.



Set to Palette:

Click on  Set to Palette command, selected colors will be put to the current position of the Color Panel.



Select Current Page:

Select all colors from the current page.



Select All:

Select all colors used in the pattern.

***Attention: Purpose of the Selection:**

1. Put the selected colors to the Color Panel.
2. Print the selected colors usage for statistic purpose.



Print:

Select  the Print Command:

1. Option available, this is the dialog box for print (Figure 6-35)

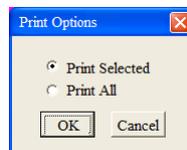


Figure 6-35 Print available options

- 1) Print Selected: Print with those are selected;
 - 2) Print All: Print All Colors information available in the pattern.
2. If none of any selected, by default, it will print all.

***Attention:**

1. Within the Color Ratio window, over the Color Index, press Ctrl key with Left mouse button:
 - 1) Switch the Color selection status;
 - 2) Color selected, it will have White Frame with the Index number.
2. Within the Color Ratio window, over the Color Index, press the Shift key with

the Left mouse button:

- 1) Switch the Color to be counted with the statistic;
- 2) If the Color is counted with the color statistic, there is a white “x” marked with the Index number;
3. Press Ctrl key with the right mouse button, it will cancel all selections.

§6-6 Print:

Within the Knitting Design Module, select the print  command, the system provides Knitting Print, Knit Print (Simulation the stitch effect), Symbol Print and Bitmap Print, all these four kinds of printings. The Symbol Print and Bitmap Print are same as the printing function on Fashion Design Module, it will not go through in this chapter.

Knitting Print

Knitting Print command is to print knit design within the Knitting Design Module. Click this  Knitting Print command, it will be going into its dialog box(See Figure 6-36) .

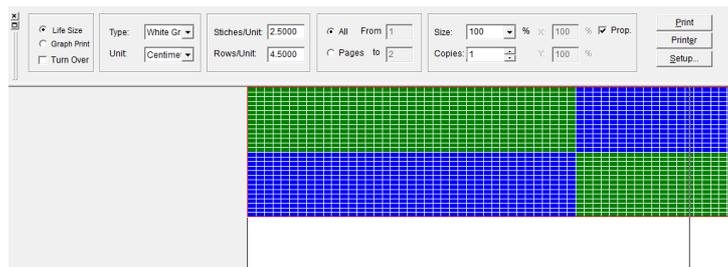


Figure 6-36 Knitting Life Size Print dialog box

■Type of Printing under Knit Design Module:

1. Life Size: Select the Life Size Print, with this Print option, there are some parameter should be defined:
 - A. Print Format:
 - No Grid: Print with the actual size, and without the grid line on the graphics;
 - White Grid: Print with the actual size, and leave white the grid line on graphics;
 - Black Grid: Print with the actual size, and print black grid line on the graphics;
 - No Marks: Print with the actual size, but without the vertical and horizontal stitches index marked aside;
 - Intarsia: Print with Intarsia print format with actual size, graphics center point is marked "0", and stitches index are printed;
 - Handknit: Print with manual knitting format in actual size, stitches marked are from left to right and bottom to top printing with graphics.
 - B. Unit: Inch / Centimeter;
 - C. Stitches/Unit Rows/Unit: Tension gauge (or density) of knitwear on horizontal stitches and rows stitches;
 - D. Size and Copies: Print Ratio of size and number of print to be made. (Prop.: keep X and Y the same proportion);
 - E. Turn Over: Print with flip the graphic in Y-Axis, normally Knit Work is looked from the back side;
 - F. Pages: Select the number of pages to be printed.

2. Graph Print: Print knit graphics with graph effect (grid line), available settings are shown on Figure 6-37:

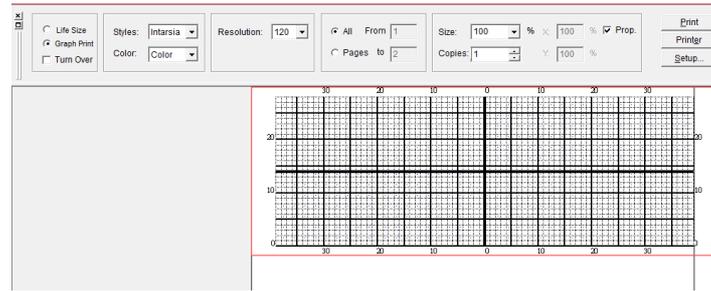


Figure 6-37 Graph Print dialog box

- A. Color: B/W, print the graph print with Black and White print only, no color ink used from the printer;
 Color, print the graph print with color effect, require color printer for it;
- B. Resolution: There are 60, 120, 180 & 360 available, it is number of pixels per unit. The greater number will have better display, and the screen display will be larger as well. Here the print resolution setting should be same as the resolution set under the Knitting Design Module;
- C. Symbol: When it is selected with B/W printing, it is allowed to have option to print the colors content with defined symbol instead of actual colors, it is easier for knit worker to understand the actual graphics on the knitwear;
- D. Symbol Setting: It is to define the colors with symbols, see Figure 6-38, color 1 has the RGB color value R000/G128/B000, number of stitches 1092, it is defined with "G", click on the symbol column, it will go to edit mode for changing of the defined symbol. It is freely to define any symbol text upon the habit and understanding of knit technicians. The comments can be added with the actual description of colors;
- E. Size and Copies: Print Ratio of size and number of print to be made. (Prop.: keep X and Y the same proportion);

- F. Turn Over: Print with flip the graphic in Y-Axis, normally Knit Work is looked from the back side;
- G. Pages: Select the number of pages to be printed.

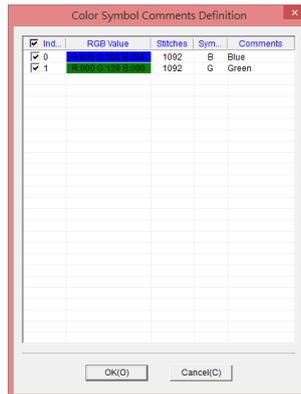


Figure 6-38 Color Symbol Print Setting

After completed the Color Symbol setting, it is able to print:

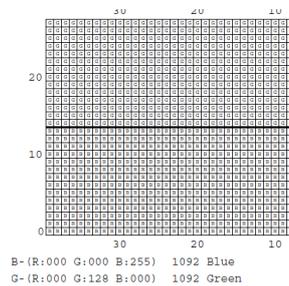


Figure 6-39 Symbol Print



Knitting Print (Stitch Simulation Print):

With the Navigation Window under “S” mode, the display will be set to simulation of stitch effect on screen. Select the  Knitting Print for Stitch

Simulation Print effect, see Figure 6-40:

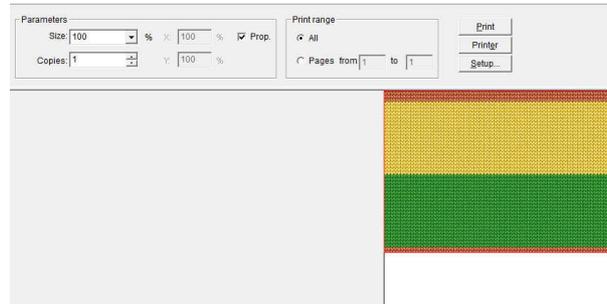


Figure 6-40 Knitting Simulation Print

- A. Size and Copies: Print Ratio of size and number of print to be made. (Prop.: keep X and Y the same proportion);
- B. Pages: Select the number of pages to be printed.

***Attention:** General Commands under Print:

Print: Execute the printing work;

Printer: Select the printer from the available printers, it is under MS Windows condition;

Setup: General Setup for printer, it is similar to MS Window Printer Setup.