

After the installation is completed and the application launched, you will see the window below:



Main HaftiX window with an image loaded.

The buttons mean the following:

"File" – open menu with loading and saving options;

"Image" – open or close window of operations which may be performed on the source image;

"Conversion" – open or close a window of conversion from the source picture to a chart;

"Printing" – open or close a print window;

"Help" – open a menu with options of opening user manual, about window or launching colour calculator;

"Zoom" slider – change scale of the visible image;

"Tools" – open/close the window with a number and types of threads that have been used as well as the set of tools used for drawing

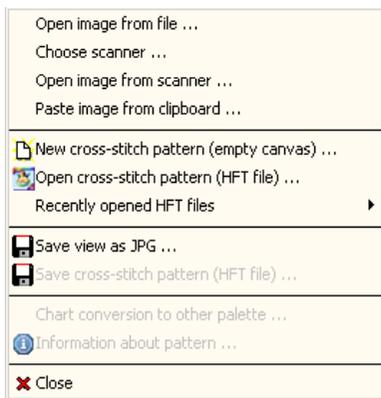
and pattern optimization;

"Thumbnail" – open/close the miniature view of the cross-stitch;

Buttons for switching the view:

| | |
|---|---|
|  | display one thread colour. In the non-registered version, it is limited to a field of 50 x 50 crosses; |
|  | simulation of cross-stitch view; |
|  | crosses as colourful, uniform squares; |
|  | crosses as colourful, uniform but greatly lighter squares; |
|  | selected colour marked black (active after selecting display of a single colour) |
|  | Draw black symbols representing a given colour; |
|  | Draw symbols representing a given colour. Colour of the symbol is selected in contrast to the colour it represents; |
|  | display a grid; |

"Register" – open a window with all the information and tools necessary to register the application.



In order to start the work, just open an image or load an image from file or a device with TWAIN driver, e.g. a scanner or a digital camera. Relevant functions can be found in the **"File"** menu.

Available functions:

- **"Open image from file..."** – for opening a photo or any other image in a JPG, BMP, GIF or TIFF file;
- **"Choose a scanner..."** – for choosing a TWAIN device, usually a scanner;
- **"Load image from scanner..."** – for

loading an image from a TWAIN device;

- **"Paste image from clipboard"** – after copying an image from any other application to the system clipboard, it may be pasted into HaftiX;
- **"New cross-stitch pattern (empty canvas)..."** – for creating a new canvas, on which you can draw a pattern;
- **"Load cross-stitch pattern (HFT file)..."** – for opening a file with a pattern created in HaftiX;
- **"Recently opened HFT files"** – for accessing a list of recently opened or created patterns;
- **"Save view as JPG..."** – for saving everything that is in the working area of the application as an image; it may be a source image or, for instance, cross-stitch simulation. This option should not be used for saving patterns on the hard disk since it will later be impossible to extract any information with regard to the cross-stitch pattern from JPG file;
- **"Save cross-stitch pattern (HFT file)..."** – used in order to save a cross-stitch pattern to a file. Use this option to save a created pattern. It is possible to open and edit HFT files without loss of indispensable information about a given pattern;
- **"Conversion of chart into other palette"** – opens a window for replacing colours of the whole pattern with a selected palette;
- **"Information about pattern"** – open a window with information about the author, number of colours etc.;
- **"Close"** – to finish work with the application.

Using commands **"Open image from file..."**, **"Paste image from clipboard"** and **"Open image from scanner..."**, you will load an image into the application which you want to transform into a cross-stitch pattern.

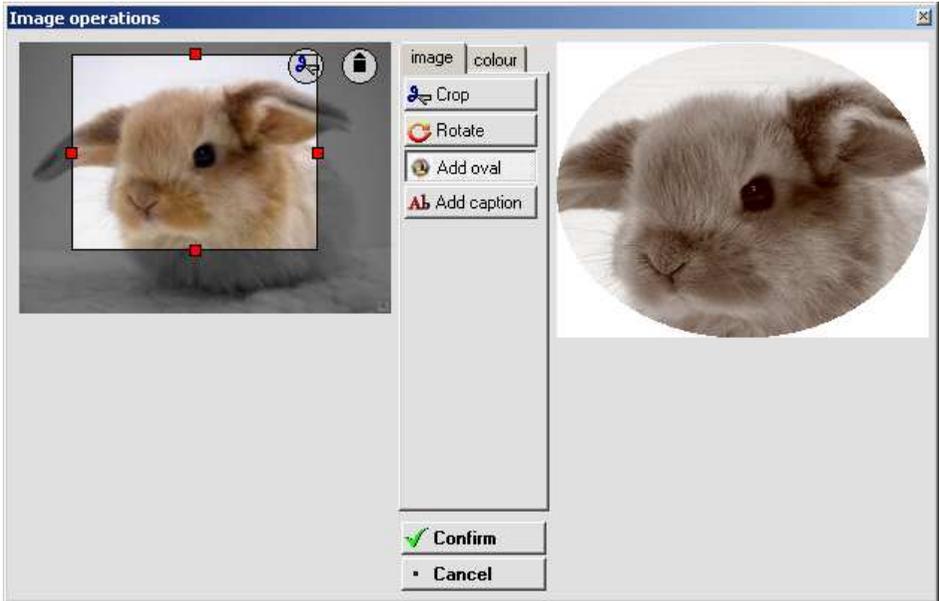
At first launch of the function for opening from a scanner or a digital camera, you will be asked to set the TWAIN source (the device from which you will open the picture). In future use, you may choose another TWAIN source by choosing **"Choose scanner..."** option from the menu.

Image window

After you open an image, you may process it to some extent, if it requires so. Of course, it is not a necessary action before converting it

into a cross-stitch pattern.

In order to edit the image, open the **"Image operations"** window by clicking the **"Image"** button in the main window.



Window of image operation. The original image is on the left, the image on the right has been processed – cropped, converted to sepia, and with a frame added.

In the window, you can see two images. The one on the left is a source image, while on the right you can see the result of processing.

On the top of the left image, there are two icons: "scissors" inform that the image has been cropped (the image on the right is a part of the image on the left), the another icon shows the angle at which the given view has been rotated. Their function is solely informative.

The following tools are in the image edit window:

"Crop", **"Rotate"**, **"Add oval ..."**, **"Add caption"** and on a **"colour"** bookmark not visible in Figure above, there are:

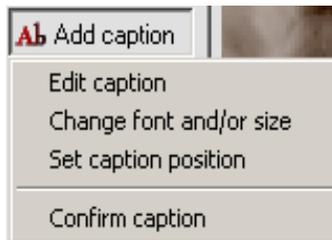
"Contrast", **"Brightness"**, **"Saturation"**, **"Automatic correction adjustment"**, **"Conversion to grey scale"**, **"Conversion to sepia"**, **„Colouring image with a single colour"**

In order to define the frame to be cropped, grab red squares on the left side of the image with mouse cursor (click on them with the left mouse button and hold it down), move them so that the visible rectangle surrounded a part of the image , which is to be transformed into a cross-stitch pattern. Next, click on the  Crop button. You will see the result on the right. The operation may be repeated if the effect is not satisfactory.

In order to rotate the image or a chosen frame by 90°, use the  Rotate button. Each click results in a 90° clockwise rotation.

The Figure above presents the result of cropping, rotating, colouring and adding an oval frame. You can add an oval frame by clicking the  Add oval button. You will be first asked to specify a colour of the frame.

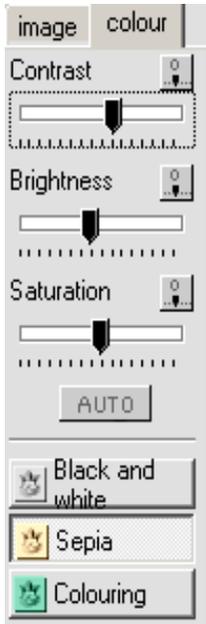
You can also add a caption. After clicking the  Add caption button, you will see a context menu, from which you can choose the next tasks.



- **“Edit caption”** – you will be asked to enter a caption
- **“Change font and/or size”** – decide about the size, colour and type of font. You may also use styles, such as underlining or bold.
- **“Set caption position”** – after selecting this option, the caption will follow the cursor. Move the cursor over the picture on the left and set its position on the image, then click in the place.
- **“Confirm caption”** – the caption will be applied on the original image

After confirming the caption, you may add next ones. Remember that the font size should be comparatively large in comparison with the size of the single cross for the caption to be legible.

Upon choosing the **"colour"** tab, you will see the following tools:



With the sliders of “**Contrast**”, “**Brightness**” and „**Saturation**” you may manually correct the relevant features of the image. There is a preview of changes on the right. The  buttons shall set all sliders in zero position. The **AUTO** button automatically adjusts the brightness and contrast but remember that this is not a perfect mechanism, which is able to predict user's intentions. Therefore, own settings are often better than the automatic settings.

Three buttons:



allow decreasing the

colour scale to two (colouring with a single colour). Clicking on the “**Colouring**” will open a dialogue window, in which you can choose a colour to be used on the image. It is best to choose dark colours since they give the best effect.

After clicking the  **Confirm** button, all operations executed in this window will be applied to the original image and become irreversible. The application does not change the image files but only own copy of the image stored in the memory. In order to return to the initial image, open it once more from file, clipboard or TWAIN device (scanner, digital camera).

Conversion window

Now you can proceed to the conversion of the opened file into a cross-stitch pattern. Open appropriate window by clicking the “**Conversion**” button in the main application window.

In the window you can choose the conversion options. You may decide to use threads produced by a single manufacturer (option “**I will use colour palette of a thread manufacturer**”) or threads which you currently have (“**I will use my own colour palette**”).

Conversion
✕

✕ Close
✓ Convert

Colours of threads and canvas

I will use my own colour palette
[Choose own colour palette](#)

I will use colour palette of a thread manufacturer
[Choose manufacturer's colour palette](#)

Canvas colour

(choose canvas colour, clicking field above)

Canvas and cross-stitch size

Cross-stitch size

×

[Choose canvas size \[canvas not selected\]](#)

Canvas size [crosses] ×

Conversion options

[Choose picture resize method \[sharpening\]](#)

Dithering





(dithering intensity)

Minimize number of colours to

(more means nicer final effect but it is more difficult to cross-stitch it)

✕ Close
✓ Convert

By clicking on the "**Canvas colour**", you may choose a colour of the background on which you will put the cross-stitch.

The "**Dithering**" option is best to be explained on example. None of the manufacturers possesses the sufficient number of colours in order to reflect all of discernible colours. It creates a problem of the quality of pattern which has to be prepared with insufficient colour palette. Dithering is a half-measure solution. Let's assume that you have the

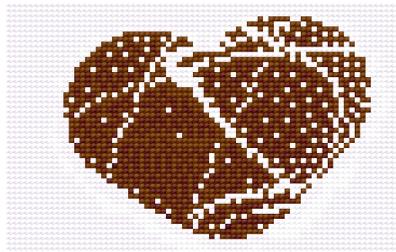
following picture:



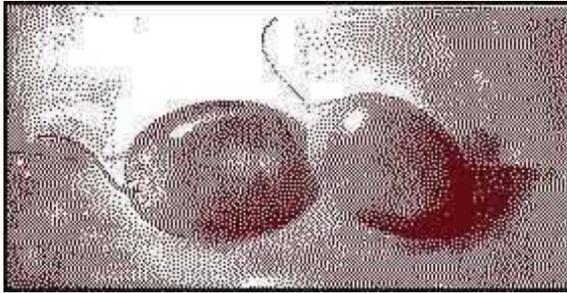
If you convert it into a cross-stitch pattern by finding the most similar colours from all of the available threads, you will get with the following result:



Dithering is also referred to as "error diffusion". It allows obtaining the effect of increasing the number of colours by their proper arrangement. With the application of this technique, the fragment shown above will be as follows (the number of thread types remains the same):



This is an example of a pattern prepared with use of dithering and with only one thread colour. A disadvantage is that such patterns look much better from a distance than from the close-up. Hence, there is a slider in the dithering option with which you may adjust the diffusion level to obtain the best possible effect:

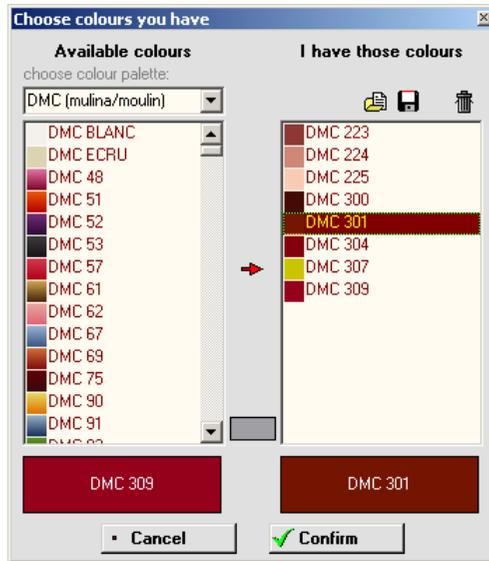


– clicking on the icon above will open a window of additional conversion options. These functions allow division the generated pattern into a few parts. Each part will be a separate file. This facilitates division of the pattern for several persons who simultaneously work on various parts of the same cross-stitch.

The application allows automatic minimization of the number of colours used. Enter their maximum number into the field in option **"Minimize number of colours to"**.

In the **"Conversion"** window, you can also define a type of canvas (number of crosses per 10 cm or per inch or size of a cross), as well as its size. The target size of the cross-stitch, expressed in crosses is presented in red.

All underlined navy blue captions are at the same time links to additional options. To enter them, just click the caption. The **"Choose own colour palette"** caption will open a window which allows defining sets of colours used later in the conversion (with the option **"I will use my own colour palette"** selected)



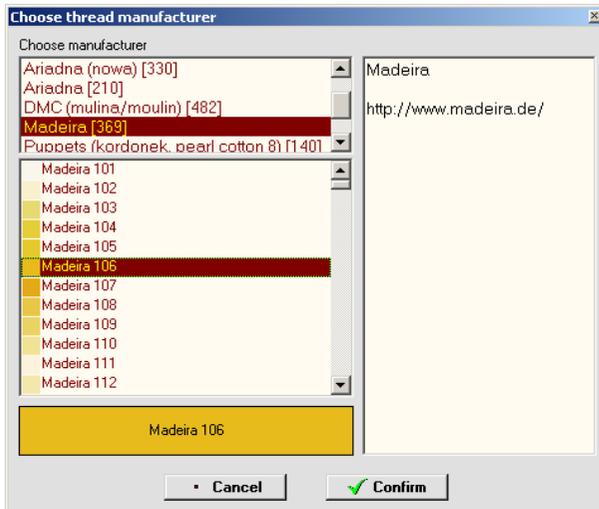
Enter appropriate threads in the left column, selecting their manufacturer. You may create a list of threads you have or which you want to use by selecting them in the left column and pressing the  button or by "dragging" them **with the right mouse button** into the right column. You may remove a thread from the list by selecting it and clicking the  button. The   buttons are used to save and open the saved colour list. If you use only one list, there is no need to save it. The application will remember it automatically.

At selecting the colours, you may use **Shift** and **Ctrl** buttons in order to select more than one item at the same time.

When you think the list is complete, press the  button to save it.

Applying specific threads may result in effects which are not necessarily realistic, but interesting. An example has been presented above in the description of the dithering method.

Clicking the "**Choose manufacturer's palette colour**" caption will open a window in which you may choose the manufacturer, whose threads you would like to use (for example, they are more easily available, cheaper or offer broader colour range).



Choose a manufacturer(s) from the list on the top and then click the  button.

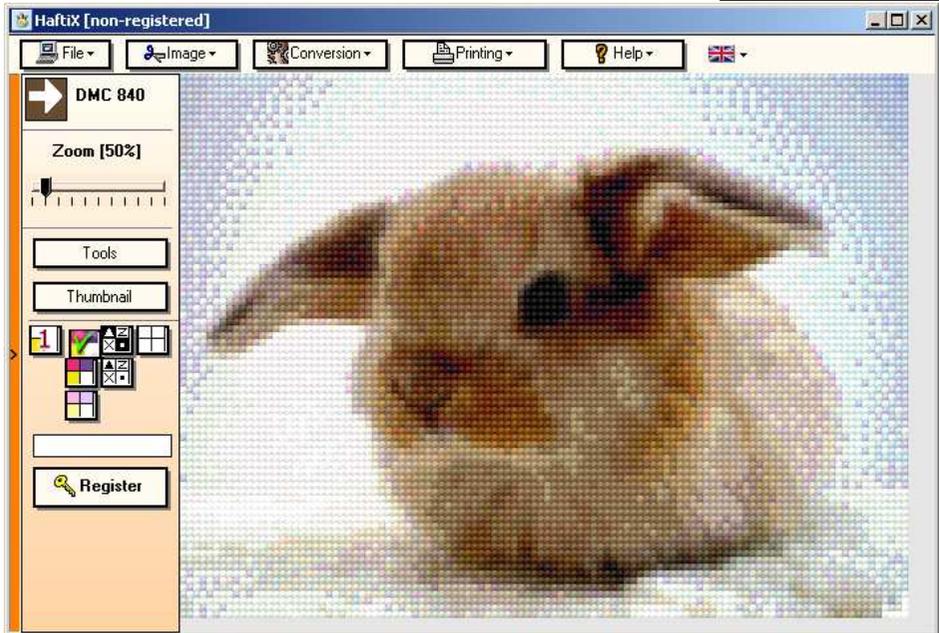
The colours which have been defined once will be used every time the application is started, until they are changed – the application does not require them to be redefined every single time.

Clicking "**Choose canvas colour**" opens a context menu where you can choose a canvas colour. If the canvas size list does not contain the desired size, choose the most similar one.

Clicking the "**Choose picture resize method**" caption allows you to choose from two available methods: smoothing and sharpening. Smoothing is the standard process. Sharpening is a method used in application version 2.x and it has been restored at the clients' request. During the conversion, try both settings to see the difference and choose the method you find better.

Clicking any of the  buttons, you will transform the image opened into a cross stitch pattern.

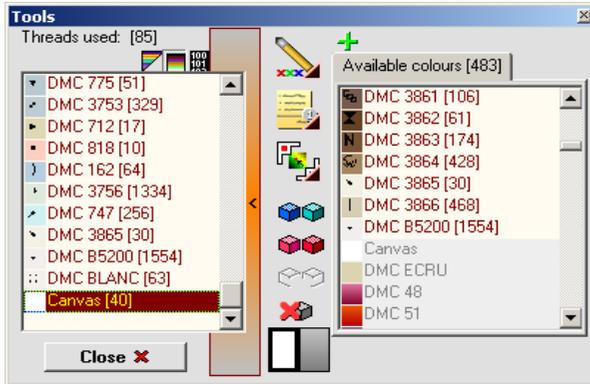
Main window



Simulation of cross-stitch view after conversion.

Tools window

Pressing the **"Tools"** button on the left side of the main window, a window will open with a number of all thread colours applied, their names as well as quantity (expressed in crosses). The list may be sorted according to the number of crosses, shade and thread number. To do it, use the three small buttons from above the list (.



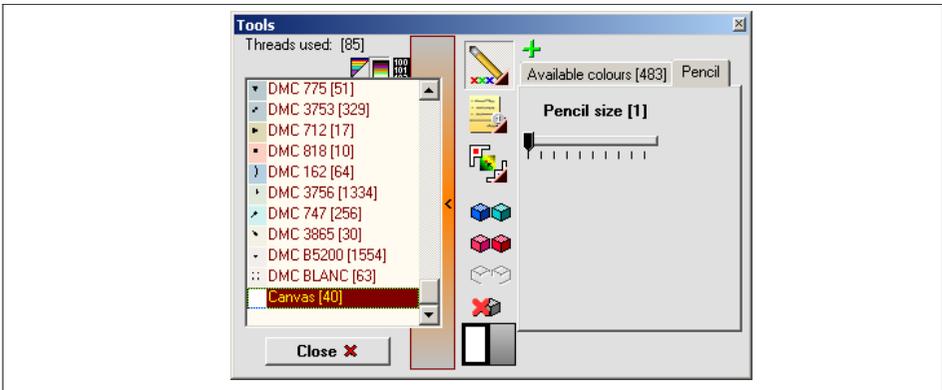
Tool window

Clicking right mouse button on one of the three buttons marked with a triangle on the bottom right side will open a menu for selection of tools located in a given group.



– after clicking on the pencil button, you may choose colours from the list and correct the cross-stitch pattern in accordance with your preferences (you can draw on a given picture). You may select this tool by pressing the **“N”** key on the keyboard. Undo the last pencil “drawing” by pressing **Ctrl+Z** keyboard shortcut. You can draw a straight line, **clicking** on the line initial cross and then, **clicking** on the final cross, keeping the **Shift** key pressed down.

If you select this type of tool as well as some of others, you will see a tab with a tool size slide. If you need to go to the right list of colours, just choose appropriate tab next to the tool size tab.



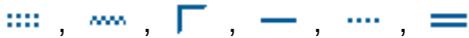
– filling in a group of single-colour crosses with a required colour. Select the tool may by pressing the '**K**' key on the keyboard. To undo the last “filling in”, press **Ctrl+Z** keyboard shortcut. Holding the **Ctrl** key pressed, you may move the picture without filling it with a colour. If you hold the **Ctrl+Alt** keys and **click** on the pattern, the colour from the left column will be spilled on all of the adjacent crosses, stopping only at the the colour chosen in the right column.



– press it to introduce backstitches on the cross-stitch pattern.



– a tool used to delete backstitches.



– they support the process of drawing frames. First, choose a colour, and next, choose one of frames. At the end, it is enough to click on a given place on the pattern, where the corner of the frame is to be placed.



– enables a tool for eliminating single crosses. After clicking on a cross, in closest surrounding of which (equal to the distance of two crosses) there is no cross of exactly the same colour, it will be changed to the most similar colour “in the surrounding”.



– enables a tool for the colour pattern change. Choose a colour on the thread lists and next click on the cross that you want to take this colour on. Then, colours of the whole image will be changed in such a way that the image in the place you clicked corresponds to the selected colour to the largest degree. It is impossible to undo the operation and it also influences the image loaded. It is possible to restore the original image again by opening it from file, clipboard or scanner.



– contains a submenu with cross-stitch resize options (adding or removing columns and rows of crosses). For example  – add rows at the bottom,  – delete rows at the bottom. After you click them, you will see a window with a question how many rows or columns should be deleted or added.



– open a window in which you can calculate an estimated number of threads used and costs of purchase. There is also a function of preparing a printout useful in a shop (a list of all threads used). Please refer to the description below.



– if you have a calibration pattern of a given manufacturer, you may easily add its threads to the database or update them. The calibration patterns may be found at the HaftiX website. Calibration pattern is a simple HFT file, which contains all colours of a given manufacturer.



– activates the "Screen cross-stitching" window. Description below.



– opens a "Clock Project" window. Description below.



– searches and selects such crosses on the pattern, that have no cross of the same colour in the surrounding. After executing this operation, you may edit only selected crosses .



– searches and selects crosses of the same colour on the pattern. First choose a colour by selecting it on the colour list on the left in the tools window. After executing this operation, you may edit only selected crosses.



– replaces colours of the crosses selected with tools referred to above with the most similar colour in the surrounding of each cross. After the replacement, the crosses are deselected and the whole pattern can be edited.



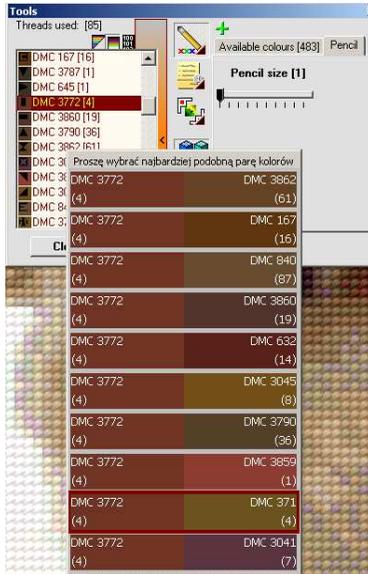
– deselects selection created with the above mentioned tools of the same group.

Other tools between colour lists include:



– two buttons used to search for the most similar colours. The upper one searches the closest colour to the one selected on the list on the left. The lower one finds two most similar colours. Hold the **Shift** key on the keyboard and click one of the buttons to get a list of available suggestions. If you press the **Shift** key with any of the above mentioned buttons, you will see a list of ten colours most similar to the given one. If you click the second button, you will see a list of the most similar pairs of colours sorted according to their similarity.

Along with the name of the colour you can see a number of crosses in brackets .



 – if you select the colour which is currently being used (the left column) and one of the available colours (the right column), you will be able to replace the current colour with a different one in the whole pattern. If you replace a given colour with any other colour which is already used in the cross-stitch, the number of colours used will decrease by one. A set of colours is created from threads selected to the image conversion, which means that if you use all threads of one manufacturer, and the pattern consists of 20 colours, then you can still introduce changes with use of the whole palette of that manufacturer.

 It decreases the number of used colours by one, choosing the colour which is the least frequent and replacing it with another one from the others.



- displays and hides all the additional edit options.



– colourful fields show the currently selected colours on both lists. If you click on one of them, you will choose a given colour to use.



– opens windows which allows adding thread colours from other palettes to a given palette.

You can also perform the following actions with a keyboard:

- **Ctrl+Z** shortcut – undo the last change;
- **Ctrl+Shift+Z** shortcut – redo the undone change;
- **Ctrl+Tab** shortcut – swap the colour selection (the colour selected in the left column will be selected in the right one and vice versa, provided that the given colours are on both lists at the same time);
- if you press **Alt** and **click** on the pattern, a thread colour will be selected. If you **click with the left mouse button** this colour will be selected in the left column, if you click with **the right mouse button** – in the right one.

Report

Number of strands to be used in cross-stitch

1 strand
 2 strands
 3 strands
 4 - 6 strands

Type of cross

half-cross (/) full cross (X)

Price per embroidery floss (8m: 8.7 yd)

/ embroidery floss

Calculate

| | | |
|-------------|---|---|
| DMC 775 - | 1 | |
| DMC 3753 - | | 1 |
| DMC 712 - | 1 | |
| DMC 818 - | 1 | |
| DMC 162 - | 1 | |
| DMC 3756 - | | 2 |
| DMC 747 - | 1 | |
| DMC 3865 - | | 1 |
| DMC B5200 - | | 3 |
| DMC BLANC - | | 1 |

The „Report” window which allows calculating the threads used and their costs, looks as follows:

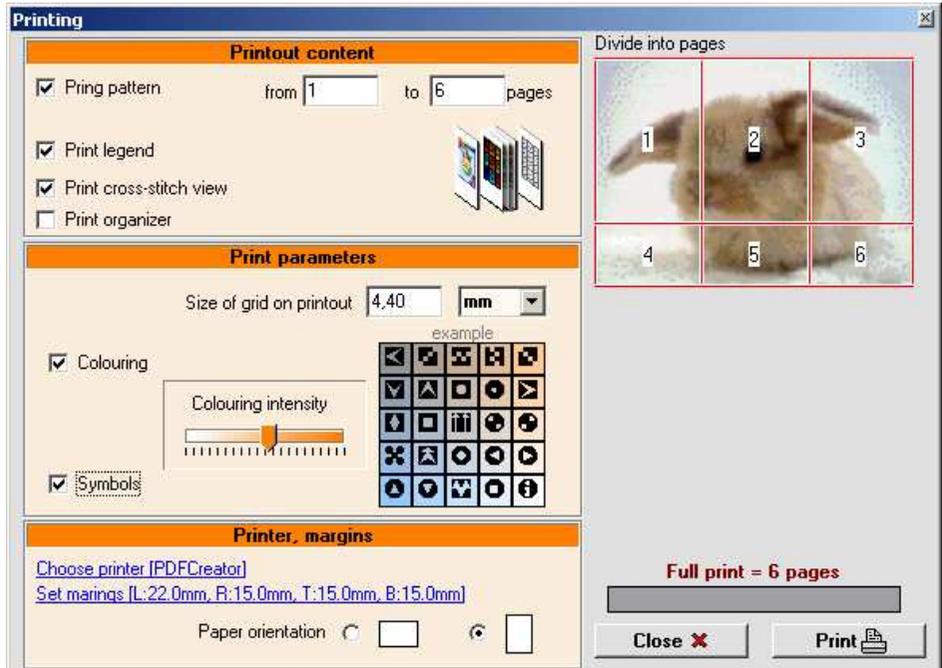
It is a default setting at the calculations that each embroidery floss consists of six strands and is 8 m (8,7 yd) long. Choose the number of threads used to cross-stitch the pattern, type of cross (full cross resembles X, semi-cross is half of X, i.e. /) as well as the price per embroidery floss. You may also define a currency next to the price after a space.

It is useful to prepare a list of threads when going to the shop. The application treats the canvas as one of the threads, and it depends on you, whether you leave it unstitched

or fill it in with embroidery floss of the same colour as the canvas.

Print window

After you finish the work you may print the pattern out (press **"Printing"** in the main application window).



Print window.

The application allows for a few types of print ("**Print parameters**" section). For black and white printers, it is best to select **"Symbols"** only, since colours on the printout may darken the image. From the technical point of view it will also be a good solution in case of weaker printers, or those which print in eco mode.

Selecting the **"Colouring"** option may facilitate cross-stitching. Deselecting both options will result in printing a grid.

The **"Colouring intensity"** slide is used to determine the intensity of printout colours. If they are too intensive, they may darken the picture since the symbols on very dark grids will be printed as white and on light grids – as black. There is a preview next to the slide which shows in real time how the pattern grid may look like.

In the **"Size of grid on printout"** edit field you may choose size of a single grid on the printout. The larger the "cross" is, the more legible the pattern, then it consumes more pages.

You can choose a by clicking **"Choose printer"**. If it turns out that a part of the printout does not fit the given page, you may set printout margins on your own (**"Set margins"**).

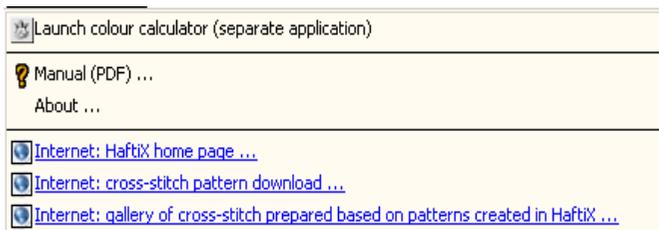
Before printing, it is recommended to try to change the paper orientation to check at what settings the pattern consumes the smallest number of pages. You may change the number of pages by changing the size of grid. The smaller the grid, the less pages will be necessary, but on the other hand, it will be more difficult to 'read' the pattern.

A caption on the right gives the number of pieces of paper which is necessary to print the whole pattern (pages with a legend are not included).

The non-registered application version allows printing one page only (if the given pattern is to be distributed on a several pages, it will be the last one which contains the legend).

Help window

The last of the buttons in the main window (**"Help"**) opens menu where you can choose a several functions.



"Launch colour calculator (separate application)" – launches the "HaftiX – colour calculator" application.

"Manual (PDF) ..." – opens this instruction.

"About..." – basic information concerning HaftiX (version, author, contact etc.).

"Internet: ..." - links to web pages connected with HaftiX.

Cross-stitch on Screen

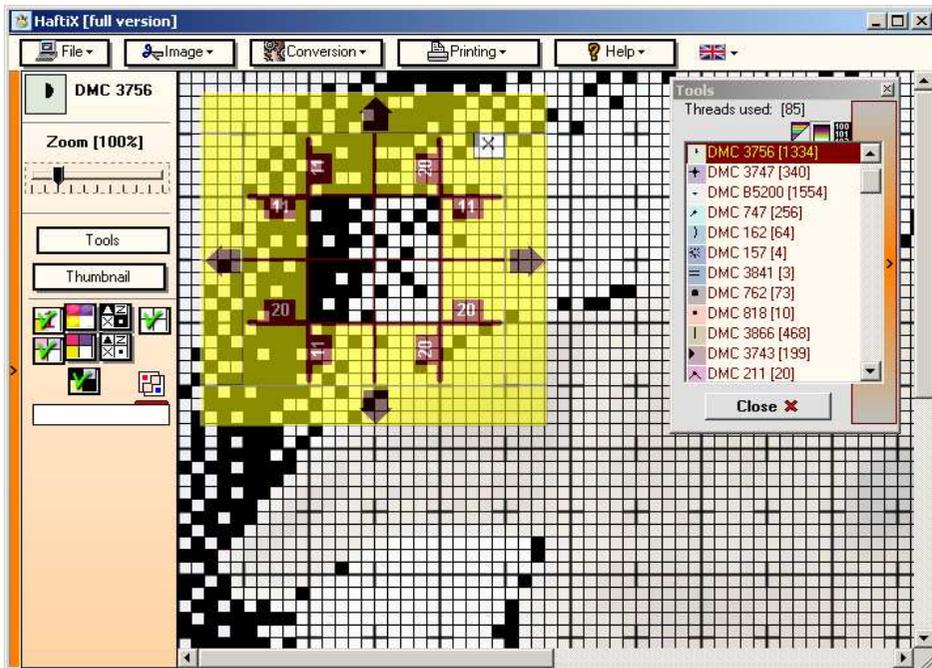
If you select the “**Cross-stitch on Screen ...**” function in the tools window, the application will react the following way:

- it will fade all colours...
- ...with the exception of the colour selected on the left list of the tools window, which will be drawn in black;
- it will show a grid;
- it will show a slightly transparent field with a window in the middle, 10x10 crosses large and guidelines with numbers of columns and rows;

You may grab the cross-stitch window by clicking with the left mouse button on the yellowish area (does not apply to arrows) and move against the pattern.

If you click one of the four arrows, the window will move in a given direction by 10 crosses. You may also use the arrows on the keyboard at the same time – pressing them will result in the same action.

Selecting the colour which is to be drawn in black consists in selecting an appropriate entry on the colour list in the tools window.

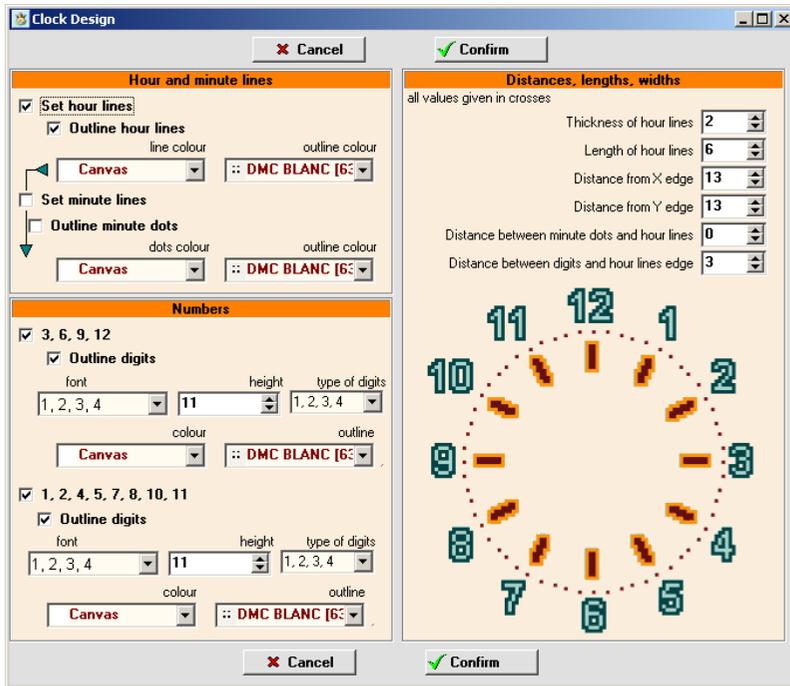


Clock Project

If you select the **“Clock Project ...”** function in the tools window, a window with a clock project will open.

Before you start designing, you need to know what size is the clock face where you wish to insert the cross-stitched background and on what canvas the pattern will be made. It is recommended to check whether declaration of the canvas manufacturer is true, i.e. to measure actually how many crosses corresponds to a unit of length. Generally, it is best to determine the size of the cross-stitch in crosses, which may be counted by putting the canvas against the clock face. The size is determined as early as at the stage of conversion and the clock project function adds only a clock face on the existing pattern.

The clock project window consists of three parts. You can define colours of lines and dots indicating hours and minutes in the left top part. Below – colours and types of digits. In the right part you can set distances and sizes of the individual elements.



Defining the hour lines and clicking on the arrow on the left:

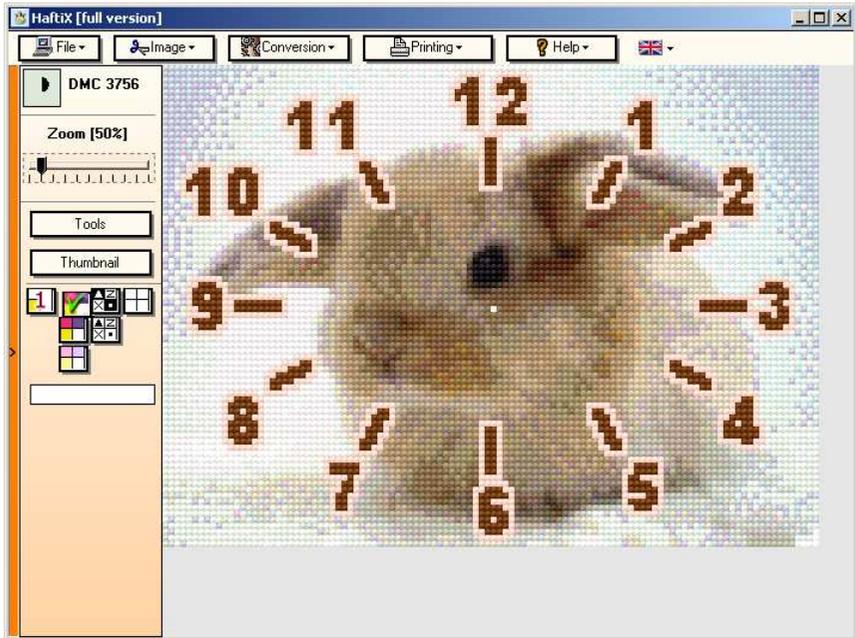


will transfer the chosen colours to all of the remaining elements. All changes have immediate effect on the pattern, so it is best to experiment first. The centre of the clock face will be marked with one cross or a few crosses without colour definition (canvas) on the pattern.

Remember:

- you will fit clock hands in the middle, so you will have to make a hole in the canvas. That is why you do not need to cross-stitch the central part. The size of the hole depends on the thickness of clock hands axes;

- if you want to apply a frame on the clock face, it may happen that it covers a part of the pattern, so you need to leave an appropriate gap between digits and the edge. If you are going to hang the clock high on the wall, the lower part of the frame may cover the digit indicating the position of 6 o'clock.



Important:

- The application is only a tool. The quality of the pattern to a large extent depends on the user;
- HaftiX does not have its taste. It uses mathematical transformations and tries to mirror in a precise manner, what it finds in the source image. If you open an image of a face, which is too violet, the application will select threads with a dominating violet colour and not in skin colour;
- images scanned from papers are not a good source material for a pattern. Images in books and magazines are usually of poor quality. If you still want to use them, choose the smoothing option during conversion;
- The same colour looks different displayed on almost every display. If you want to be sure of the result, compare the chosen thread colours on the display with real threads;
- Thread colours in bulb light look different than in sunlight. If you compare colours, try to do it during daytime;
- When converting an image, try to do it a few times using various settings of dithering and method of the image resize (in the **“Conversion”** window) and then choose the best one;
- It is also recommended to enter the **“Image”** window, then choose the **“Auto”** function and check whether the picture does not look better thereafter;
- The more time you spend working on the process of pattern creation, the less time you will spend cross-stitching it. Try to use tools which allow decreasing the number of colours in the pattern. Sort the list of the threads used in accordance with the number of crosses. Check if there are any colours at the bottom of the list which could be replaced with other, more frequent colours. Use the tool for searching the most similar colour – maybe there are colour pairs, which may be replaced with one of them;
- Create the pattern starting with conversion limiting the number of colours to an amount 30% larger than you expect. Next, remove selected colours, using the available minimizing tools. The effect achieved is quite often better in comparison with the effect obtained after conversion with colours limited to the expected number;

- When you remove colours which are not very frequent, make sure that they are not present in the crucial elements of the pattern (the function of displaying a single colour highlighted may be useful). Sometimes you will need to leave the colour used only in several crosses because it is important (for example, the colour of lips, which takes little space but is unique and different from the rest);
- It is your task to find a compromise between pattern quality and pattern complexity. The more colours in the pattern, the finer it will usually be but you will have to do more work at its cross-stitching. It is similar in case of dithering options – the stronger it is, the harder it is to cross-stitch and the nicer it is to admire; similarly in the situation with the size expressed in crosses - the larger it is, the better the result;
- The following tools are useful at the process of final corrections of the pattern: the tool for eliminating single crosses () and change of display method. If you set displaying of one colour () highlighted () and black colouring () of the chosen colour, you will be able to check whether there are single crosses which later cause problems during cross-stitching. If there is a single cross which is not an important element of the pattern process, click it with the tool for elimination. The application will replace it with a different colour. It is good to check all colours in that way, selecting them from the list of used colours in the “Tools” window;
- The cross-stitch pattern showing a face presented on a uniform background does not usually require more than 30-35 colours;
- If you create a pattern from a black and white image, remember that the offer of each manufacturer includes only several or a dozen neutral colours (grey shades). In case of such a small number, the application may use bluish, greenish or other shades;
- Do not forget to save the ready pattern on your hard drive. If you introduce any changes, it is recommended to save changes from time to time. You may use the **Ctrl+S** keyboard shortcut;
 - The number of pages to be printed depends only on your settings. If you think that there are too many pages, you may decrease the size of the cross-stitch or decrease the size of the grid on the printout, but

in such case it will be much more difficult to read it, since the symbols will be smaller. Before printing, check the number of pages for vertical and horizontal page setting in the **"Print"** window. Results can vary – choose the best option;

- The pattern is good the moment you like it.