Tartan User Guide

"Tartan Designer" Window

"Colour Palette" Pane

'Tartan' is an application for designing Tartan patterns using colours from a configurable "Colour Palette". Each colour swatch in the "Colour Palette" can be selected then changed using the "Selected Colour" control. Optionally, each colour swatch can be labelled using the adjoining text field.

"Selected Colour" Pane

Colours can be defined using a number of different models. Two popular models are RGB (Red Green Blue) and HSB (Hue Saturation Brightness). The "Selected Colour" control allows colours to be defined using either of these models, in a number of ways.

The Colour Wheel allows the Hue to be selected along with the Saturation and Brightness sliders below it. Alternatively the Red, Green and Blue sliders can be used to define a colour.

However, if for example the colour "Coral" is required and the RGB triplet is given as rgb(255, 127, 80), these values can be entered into the corresponding text fields. If, instead of the decimal values, the hex values are given (FF7F50), the "Hex" check box can be selected to enter valid hexadecimal.

If HSB values are given, the "HSB" check box can be selected to enter values for Hue, Saturation and Brightness.

These values are specified within default ranges. RGB values are typically 0 to 255, Hue is 0 to 360 and Saturation and Brightness are usually 0 to 1, but here are 0 to 100 (i.e. as percentages). Any of theses values ranges can be changed to one of: 100, 255, 360 or 1000 as needed. However, note that within the colour object the resolution of the values is limited to 255, so values using higher ranges will be rounded.

Once the values have been entered, click the "Apply" button to use the defined colour.

"Layout" Pane

"Tartan" is a pattern that repeats after a specific number of threads. This pattern layout can be controlled in a number of ways. Typically the pattern is the same for the vertical and horizontal threads and the "Duplicate the Column colours for the Rows" check box controls whether this duplication is automatically performed. If this duplication is not desired, un-check the box and set the vertical and horizontal thread colours and thread counts (before repeating) independently.

"Column Repeat Count" defines the number of vertical threads.

If duplication is not being used, "Row Repeat Count" defines the number of horizontal threads.

The "Sample" window (i.e. the pattern before repeating) can be divided by guide lines into eight equal parts, vertically and horizontally. The "Show Guide Lines" check box controls whether these are displayed or not. The colour of the guide lines **AND** the colour of thread highlighting can be changed using the colour selector labelled "Guide Line Colour".

Typically multiple adjacent threads have the same colour. Up to eight adjacent threads can be set (to the currently selected colour) using the "Thread Repeat Count" spinner.

The size of the threads can be increased using the "Thread Size" control, to make life easier during the design phase, however this will effect the generated graphic when saved. The thickness of the thread border can be adjusted using the "Thread Border Thickness" control, if needed.

Pull-Down Menu

The Pull-Down Menu allows tartan designs to be loaded from and saved to the `Tartan/swatches` directory. Each tartan design is saved in it's own sub-directory as a settings file and includes a ".png" image file showing the design repeated in a 2 by 2 layout.

"Sample" Window

Colouring

Across the top edge and down the left side of the "Sample" window are extended threads which are sensitive to mouse movement and clicking. Moving the mouse pointer over these areas will cause a number of threads to be highlighted based on the current selections. Clicking on these areas will colour the highlighted threads using the currently selected colour from the "Colour Palette".

Adjusting

There are a few ways to adjust the tartan design, firstly it can be rotated as needed. **With the focus on the "Sample" window**, use the arrow keys to rotate the pattern up, down, left or right. Note that with the "Duplicate the Column colours for the Rows" check box selected, the rotation is duplicated resulting in a diagonal movement.

Additionally, threads can be inserted or deleted. **With the focus on the "Sample" window**, holding down the "Alt" or "Ctrl" key will display a helpful message in the "Sample" heading bar to indicate these functional options:

- With the "Alt" key held down, clicking on the extended threads will **delete** the highlighted threads.
- With the "Ctrl" key held down, clicking on the extended threads will **insert** the highlighted threads.