

NOTES FROM HELP MATIURA PROGRAM

ui-coop

Draw and grow

Motifs are partly designed, partly discovered. When you create a motif, you merely draw its seeds, such as these



These seeds are replicated upon themselves and you end up with a final pattern that can sometimes be surprising and hopefully pleasing. Various options are available to control how the pattern grows. For example, the above sample seeds may produce any of these motifs, and more





page

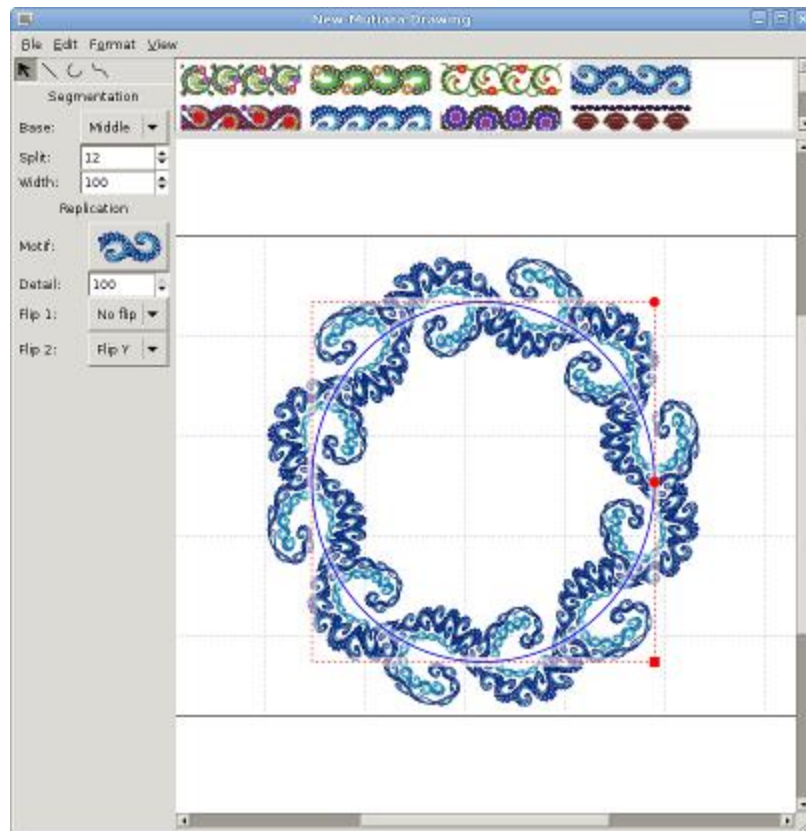
id="ui-mode"

There are two editing modes

Edit modes

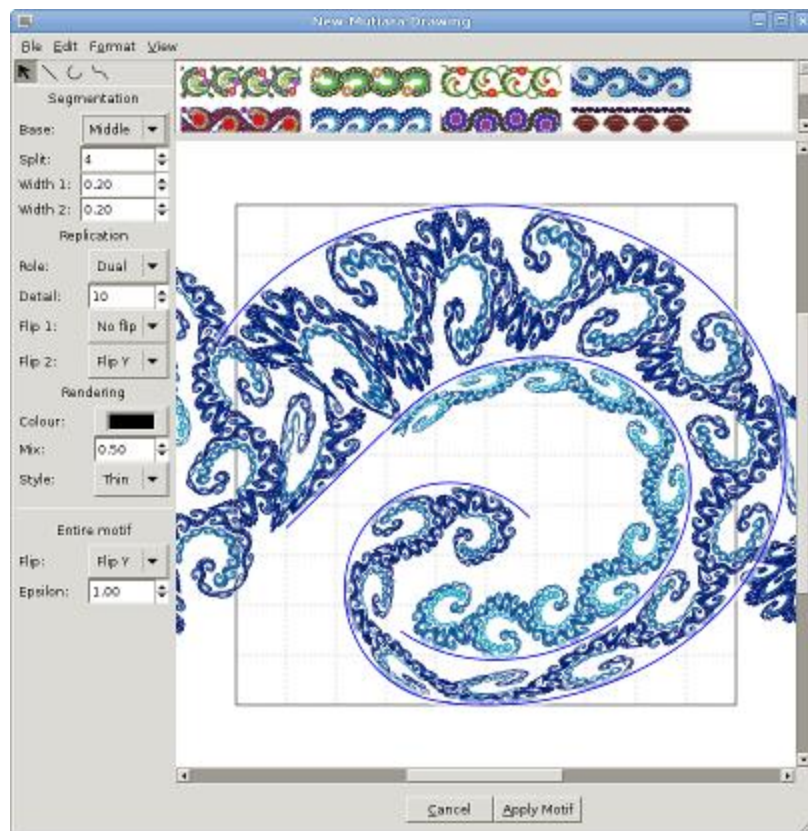
When you start Mutiara, you are put in the border edit mode. In this mode

you can create line borders ornamented with motifs, such as the one shown here



The side panel shows several formatting options, including a button showing the motif being used. Clicking this button brings you to the motif edit mode. In this mode you can modify a motif, or create a totally new one,

[link xref="ui-coop"assisted by your computerlink.p](#)



To go back to the border edit mode, click Apply Motif or

Cancel

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id="border-draw"

Use conventional drawing tools to produce lines of motifs

Drawing ornamented lines

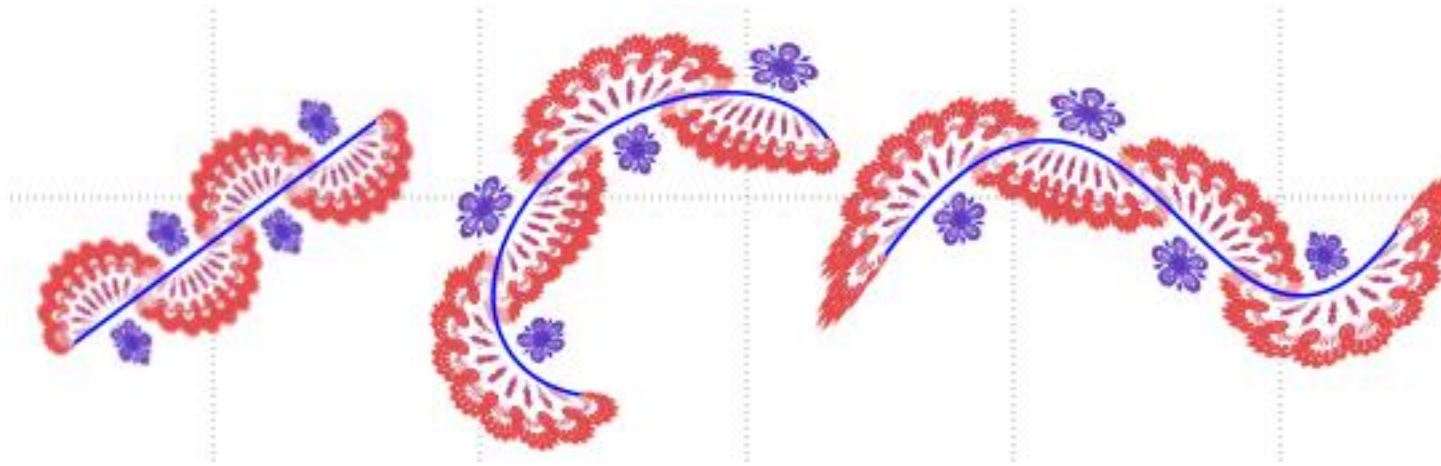
To draw lines embellished with motifs

Select one of these



Drag on the canvas

Motifs will be drawn along the lines that you have created, like this



tip"The blue lines are not parts of the drawing.

You can remove them from view by deselecting "View

Seeds

page

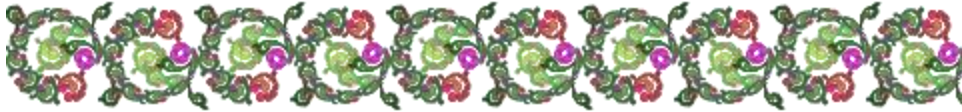
id="border-change-motif"

Choose a motif from the gallery or design your own

Changing motif

The top panel of the application window shows a gallery of motifs. To use a motif from the gallery, double-click it. The motif will be applied to the current selection. If no line is currently selected, the motif will be used on newly created lines

Here are a few examples of motifs selected from the gallery, applied to the same lines illustrated in the link [xref="border-draw"](#) section



You can also design your own motif by clicking the Motif

button on the side panel. Clicking that button will start the link `xref="ui-mode"motif`

`edit modelink`

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`"border-options"`

Control the way motifs are applied

Options

You can control the way motifs are applied by setting the options available on the side panel.

These options are applicable to the currently selected seed. If no seed is currently selected, these options are the defaults for new seeds

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`"border-options-segmentation"`

Each line is divided into segments

Segmentation options

Each seed line that you draw is thickened and divided into segments. Your chosen motif is copied onto these segments

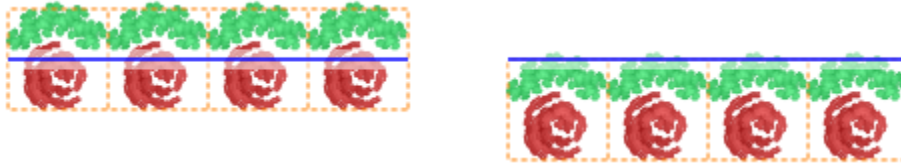
`"tip"` You can view the segments by selecting View

Segmentation

The following options are available to control the segmentation

Base

Use this to change the lateral position of the segments relative to the seed



Split

Use this to set the number of segments



Width

Use this to set the thickness of the segments



page

"border-options-replication"

The current motif is copied onto each segment

Replication options

Motif button indicates the motif that is currently operative.

You can alter the appearance of this motif through the following options

Detail

Use this to change the level of detail. Reducing the detail will speed up the rendering process and the aesthetic effect can be pleasant too



Flip

Use this to flip the motif. Alternate segments can be flipped differently



page

"motif-create-seeds"

Use conventional drawing tools to create the seeds for the motif

Creating seeds

Motifs are link [xref="ui-coop"partly designed, partly discoveredlink](#).

When you create a motif, you merely draw lines for the seeds

To create the seeds, just follow these steps



Drag on the canvas

The seeds will grow into an intricate motif. To help you visualize the motif in context, it is rendered in 3 copies. You can continue adding new seeds and editing existing ones while the computer works out the intricate detail

"tip" The rendering work may clutter the display and obscure grid lines. You can remove it from view by deselecting style="menu "View

"menu "Rendering

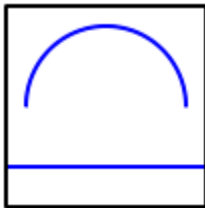
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"motif-how-the-seeds-grow"

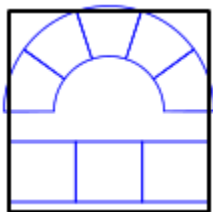
Understand how the seeds are replicated to form a detailed motif

How the seeds grow

To see how seeds grow to become an elaborate motif, let us illustrate with the following seeds



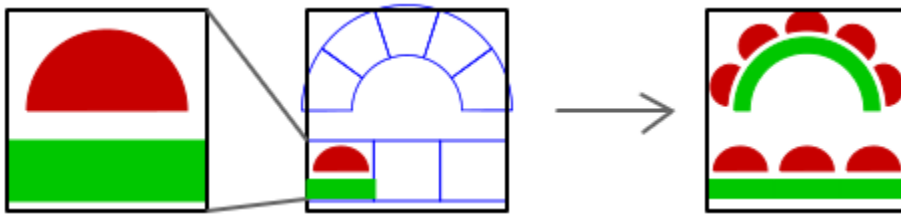
Seeds are thickened and segmented. For example, like this



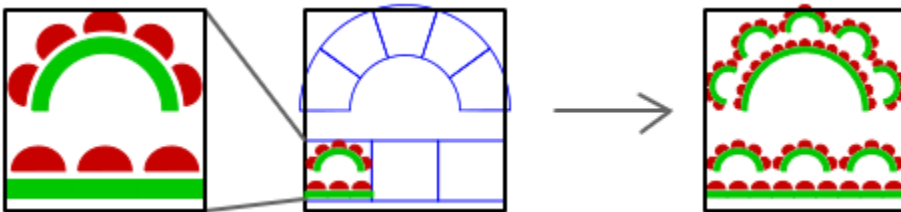
Seeds are furnished with colors and styles for rendering purpose. Without replication, they form a level-0 motif



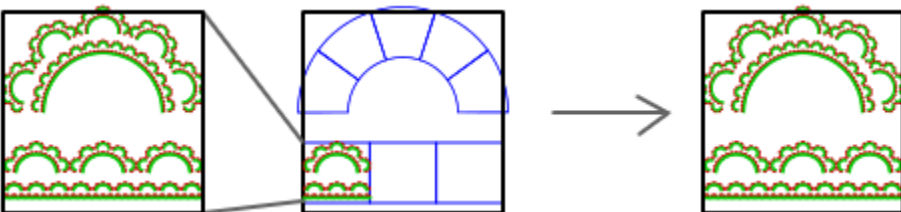
Replicating the level-0 motif onto each segment, we get a motif with finer detail at level 1



Replicating the level-1 motif, we get a motif with even finer detail at level 2



Eventually, we get to a level where replications do not produce further resolvable detail



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"motif-options"

You can control the way the motif grows by setting the options available on the side panel.

These options are applicable to the currently selected seed. If no seed is currently selected, these options are the defaults for new seeds

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"motif-options-segmentation"

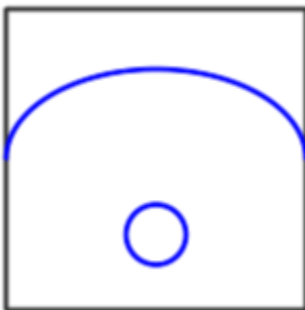
Segmentation options

Each seed line that you draw is thickened and divided into segments. The entire motif is copied onto these segments

tip" You can view the segments by selecting View

Segmentation

Options are available to control the segmentations. We will use the following seeds, a circle and a semicircular arc, to illustrate these options



Base

Use this to change the lateral position of the segments relative to the seed

The figure below shows the effect of changing the "base" value of the circle



Split

Use this to set the number of segments

The figure below shows the effect of varying the "split" value of the semicircular arc



Width

Use this to set the thickness of the segments. The thickness may vary along the length of the seed



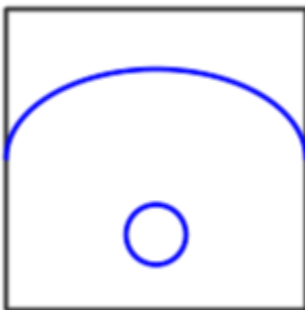
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"motif-options-replication"

Replication options

You create the seeds for the motif. The computer will take care of generating the details. It does this by replacing the motif by its very own replicas. The replicas may be bent, stretched and squeezed according to the shape of the segments along the seeds

Options are available to control the replication. We will use the following seeds, a circle and a semicircular arc, to illustrate these options.



Role

Choose Motif if you want the seed to appear in replicas. Choose

Base if you want it to be replaced with replicas. Choose Dual

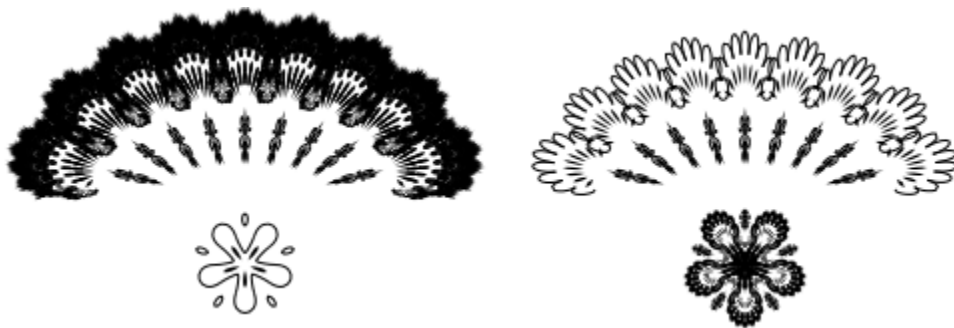
if you want both

In the figure below, the motif on the left is produced by designating the semicircular arc as "motif" and the circle as "dual". For the motif on the right, the semicircle is set to "dual" and the circle to "base"



Detail

Use this to change the level of detail. Reducing the detail will speed up the rendering process and the aesthetic effect can be pleasant too



Tweak

Use this to rotate, resize, nudge and flip the replicas. Alternate segments can be flipped differently

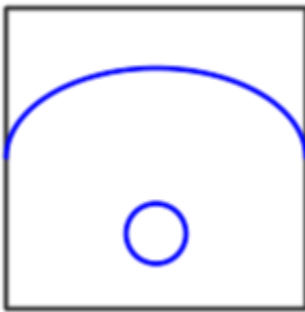


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"motif-options-rendering"

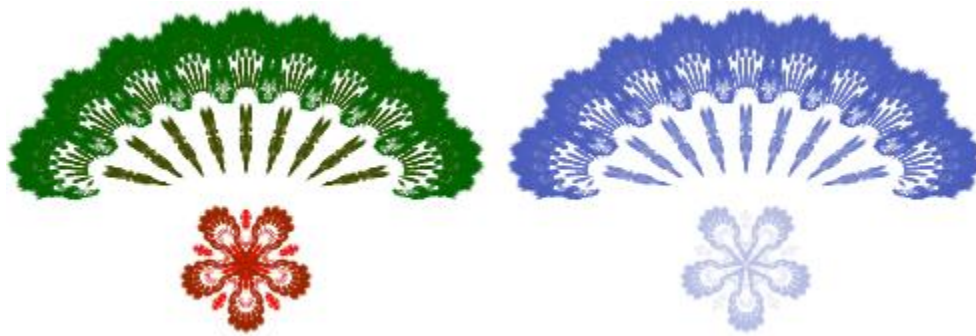
Rendering options

Options are available to control how your motifs are displayed or printed. We will use the following seeds, a circle and a semicircular arc, to illustrate these options



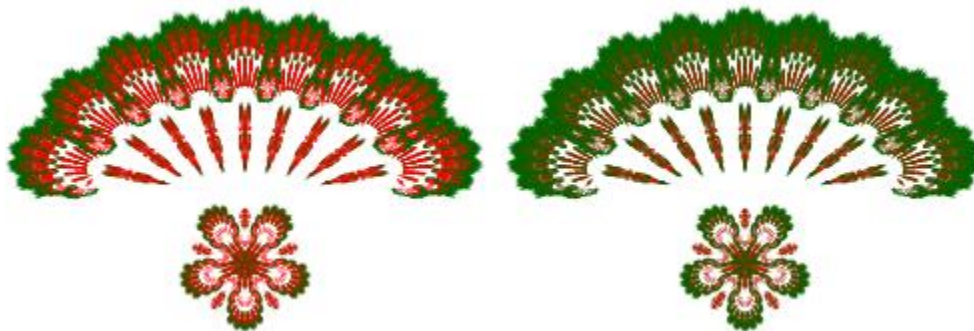
Color

Use this to assign colors to individual seeds.



Mix

A motif is created by replacing each seed with copies of the motif itself. The color of a copied seed is mixed with the color of the seed it is copied onto. Use the "mix" option to specify the amount to mix

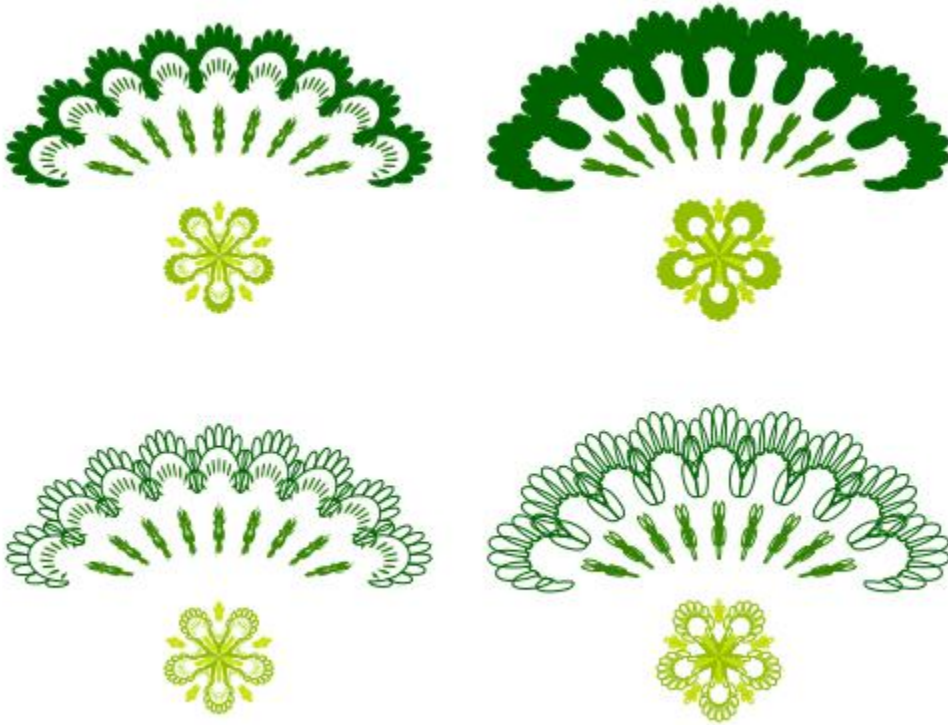


Style

Choose Thin to render the seed as a thin line, Thick to paint its entire segments, Hollow to outline its segments, Filled to join its two endpoints and paint the interior, Closed to join its two end points, or None to suppress

The differences between these styles are best illustrated using motifs with "detail" set to a small value. In the figure below, "detail" is set to 2.

For the top left motif, both seeds are set to "filled". For the top right motif, the semicircular arc is set to "thick" and the circle is set to "none". For the bottom left motif, both seeds are set to "closed". For the bottom right motif, the arc is set to "hollow" and the circle is set to "none"



When the level of detail is high the differences are not so obvious