# Chapter 14
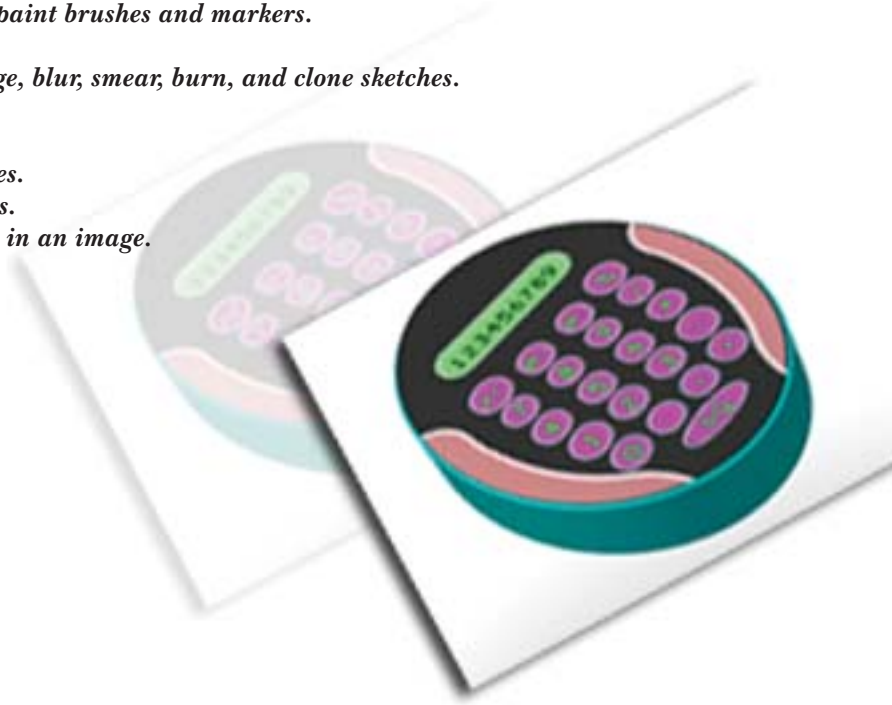
# Sketching Tools

## Learning Objectives

*After completing this chapter, you will be able to*:
• *Use different paint brushes and markers.*
• *Use erasers.*
• *Sharpen, dodge, blur, smear, burn, and clone sketches.*
• *Fill images.*
• *Mask images.*
• *Work on shapes.*
• *Work on layers.*
• *Correct colors in an image.*

# INTRODUCTION

In the previous chapter, you learned about the basics of sketching/painting features, canvas, layer and its types, layer organization, and color schemes. In this chapter, you will learn different sketching tools such as paint brushes, erasers, shapes, masks, layer editing, paint editing, and so on.

# PAINTING/SKETCHING TOOLS

In Alias Design, you can paint or sketch a drawing by using the paint and sketching tools. These tools are available in the **Paint** tab of the **Palette**. Various sketching tools available in Alias Design are shown in Figure 14-1. These tools are discussed next.



*Figure 14-1 The **Pencil, Marker, Airbrush,** and **Solid Brush** flyouts in the **Paint** tab*

## Sketching with Pencil

**Palette:**               Paint > Pencil > pencil

To sketch on the canvas with a pencil, choose the **pencil** tool from the **Pencil** flyout of the **Paint** tab in the **Palette**; the cursor will change into crosshairs with the letter **P** attached to it. Also, the preview of the pencil will be displayed with crosshairs. If you move the cursor, the preview of the pencil will also move with it. If you click on the **Paint** window, a stamp will be created, refer to Figure 14-2. If you click-drag the cursor on the **Paint** window, a stroke of paint will be created, as shown in Figure 14-3. A stroke of paint consists of closely packed stamps.
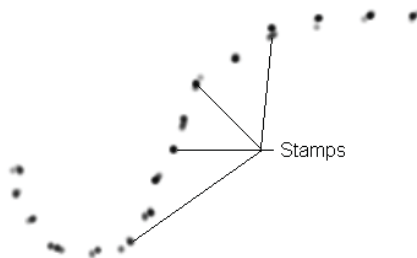


*Figure 14-2  Stamps of paint*
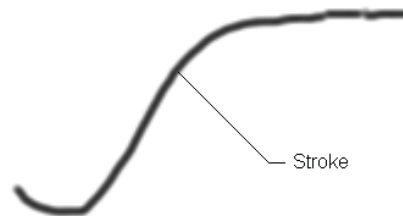


*Figure 14-3  Stroke of paint*

You can create horizontal as well as vertical stroke on a canvas. To create horizontal strokes of paint on the canvas, drag the cursor with the middle mouse button, and to create vertical strokes of paint on the canvas, drag the cursor with the right mouse button.

To set the parameters of the **Pencil** tool, double-click on the **Pencil** tool; the **Brush Options** : **PencilDefault** dialog box will be displayed, as shown in Figure 14-4. The options in this dialog box are discussed next.

## The Properties Tab

The **Properties** tab of this dialog box displays the properties of the pencil stroke such as color, opacity, radius, and so on. Various areas in this tab are discussed next.

### Brush Stroke Preview Window

The Brush Stroke Preview window displays the preview of the brush stroke. This window is common for all the tabs in the **Brush Options : PencilDefault** dialog box. If you change the properties of the pencil; the preview of the brush stroke will also change.

### Brush Preview Window

The Brush Preview window displays the preview of the pencil. This window is common for all tabs in the **Brush Options : PencilDefault** dialog box. If you change the properties of the pencil; the preview of the pencil will change accordingly.



*Figure 14-4*  *The **Brush Options: PencilDefault** dialog box*

### Brush Mode

The **Brush Mode** drop-down list specifies the application of the pencil (brush) while sketching on the canvas. You can use the brush for erasing, dodging, sharpening, and so on. To do so, press and hold the left mouse button on the **Paint** option given on the right of the **Brush Mode** drop-down list; the **Brush Mode** drop-down will be displayed, as shown in Figure 14-5. Choose a option from this flyout to perform the corresponding action. Alternatively, follow the promptline commands to perform different actions of the pencil. On doing so, you will notice that the crosshairs keeps on changing their preview on the canvas whenever the brush mode is changed.



*Figure 14-5*  *The **Brush Mode** drop-down*

### Brush Color

The **Brush Color** area is used to specify the color of the pencil (brush). By default, the brush color is black and creates the sketch in black color. To change the color of the brush, click on the **color chip** button on the right of the **Brush Color** area; the **Color** dialog box will be displayed. Choose the required color from the **Color** dialog box and then close
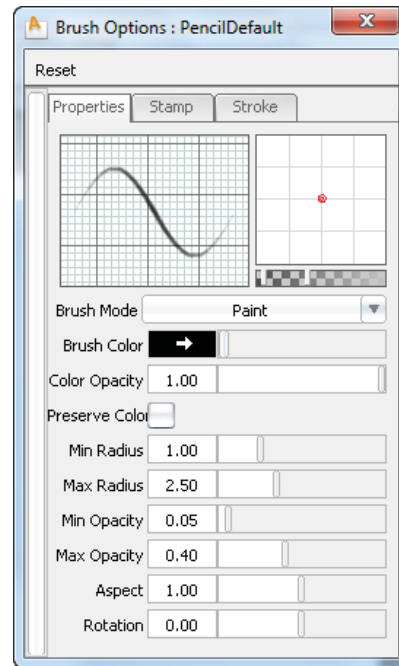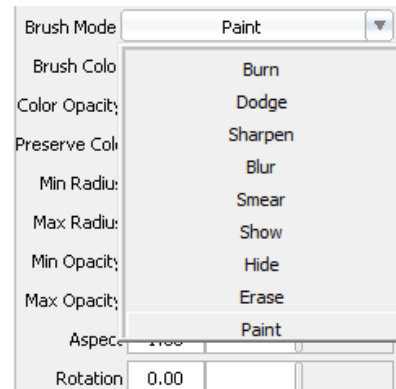
it; the color of the pencil will be changed. Alternatively, choose the **Brush Color** button located below the menu bar at the upper left corner of the interface window; the **Color** dialog box will be displayed. The **Color** dialog box will be discussed later in this chapter. You can change the intensity of the selected color by using the slider given on the right of the **Brush Color** area.

### Color Opacity

This edit box is used to specify a value to change the opacity of the paint. The range of the **Color Opacity** edit box is 0 to 1. By default, 1.00 is displayed in this edit box and therefore, the color of the paint is dark. On decreasing the color opacity, the color becomes lighter. To change the color opacity, enter a new value in this edit box. Alternatively, use the slider bar on the right of this edit box to change the opacity.

### Preserve Color

If you want to use the pencil of a particular color, set the required color in the **Brush Color** area and select the **Preserve Color** check box. Next, drag the pencil button by using the middle mouse button and then place it in the **PaintShelf**. Now, if you choose the pencil (brush) from the **PaintShelf**, the color preserved for this pencil will be used in sketching.

### Min Radius

The **Min Radius** edit box is used to specify the minimum radius of the brush. The minimum radius of the brush is represented by dotted lines in the preview of the pencil, as shown in Figure 14-6. You can also change the minimum radius of the brush by using the slider bar given on the right of this edit box.
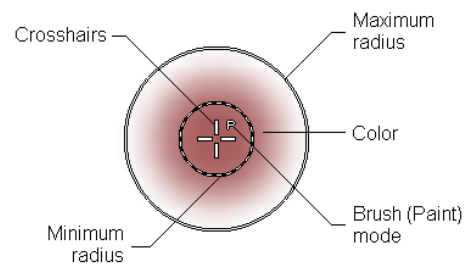
### Max Radius

The **Max Radius** edit box is used to specify the maximum radius of the brush. The maximum radius of the brush is represented by solid lines, refer to Figure 14-6. You can



*Figure 14-6  Preview of the pencil (brush)*

also change the maximum radius of the brush by using the slider bar given on the right of this edit box.

### Note
*The minimum and maximum radii are measured in terms of pixels. Also, the maximum radius is always greater than or equal to minimum radius of the pencil (brush).*

### Min Opacity

This edit box is used to specify the opacity of the stroke when the brush is pressed slightly against canvas. When the minimum opacity is less than 1, you need to click on the same spot more than once to make a dark color. The range of the **Min Opacity** edit box is 0 to 1. If the minimum opacity value is 1, the stroke will be completely opaque, but if this value is 0, the stroke will be completely transparent. You can also change the minimum

opacity of the paint by using the slider given on the left of the **Linear Opacity Scale** slider bar located below the **Brush Preview** window in the **Pencil Options : PencilDefault** dialog box.

### Max Opacity

This edit box is used to specify the opacity of the stroke when the brush is pressed strongly against canvas. When the maximum opacity is less than 1, you need to click on the same spot more than once to make a dark color. The range of the **Max Opacity** edit box is 0 to 1. If the maximum opacity value is 1, the stroke will be completely opaque, but if this value is 0, the stroke will be completely transparent. Alternatively, you can change the maximum opacity of the stroke bar by using the slider given on the right of the **Linear Opacity Scale** slider bar given below the **Brush Preview** window in the **Pencil Options : PencilDefault** dialog box.

### Aspect

This edit box is used to determine the shape of the brush stamp. By default, 1 is displayed in this edit box and therefore, the shape of the brush stamp is circular. If the value in this edit box is less than or greater than 1, the brush stamp will acquire an elliptical shape. You can also change the aspect value by using the slider bar given on the right of this edit box.

### Rotation

This edit box is used to specify the rotation angle (degrees) of the brush stamp. If the aspect value is less than 1, the rotation value of 0-degree will make the brush stamp horizontal. If the aspect value is less than 1, the rotation value of 90-degree will make the brush stamp vertical.
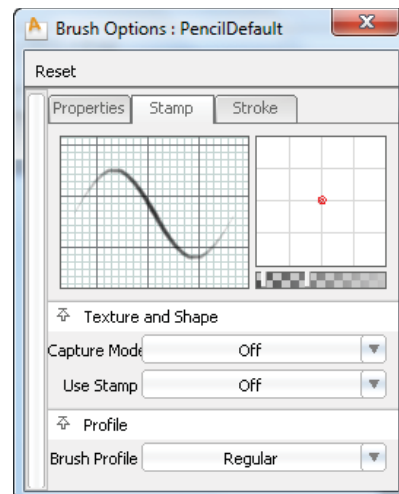
## The Stamp Tab

Choose the **Stamp** tab in the **Brush Options: PencilDefault** dialog box; different areas in this tab will be displayed, refer to Figure 14-7. The options in the **Stamp** tab are used to specify the texture and shape of the stamp as well as the profile of the brush. Different areas in this tab are discussed next.

### Texture and Shape

This area is used to specify the texture and shape of the pencil stamp. The options in this area are used to capture the image and use the captured image as stamp. The options in this area are discussed next.

### Capture Mode

This drop-down list is used to specify whether the image on the canvas will be captured or not. By default, the **Off** option is selected in this drop-down list and the image is not captured. Choose the **Shape** option from this drop-down



*Figure 14-7  The **Stamp** tab of the **Brush Options : PencilDefault** dialog box*

list to capture the shape of the image. After choosing the **Shape** button, the crosshairs will change to a camera symbol with the letter S displayed on it. Next, click on the image to be captured; the shape beneath the brush will be captured and will act as snapshot for the brush stamp. If you choose the **Shape and Texture** button from this drop-down list, the crosshairs will change to a camera symbol with the letters S and T displayed on it. Choosing this button enables you to capture the shape as well as the texture of the image. The texture of the image is captured to ensure that the transparency of the image is captured as well. The application of this mode will be understood better after discussing the **Use Stamp** drop-down list that will be given next.

**Use Stamp**
After capturing an image, you need to use the captured image as pencil (brush) stamp. By default, the **Off** option is selected in this drop-down and therefore, the captured image is not used as brush stamp. Select the **Shape** option to use the shape of the captured image as pencil (brush) stamp. Select the **Shape and Texture** option to use the shape and texture of the image as pencil stamp.

**Profile**
This area is used to specify the profile of the pencil (brush) stamp. The option in this area is discussed next.

**Brush Profile**
This drop-down list is used to specify the softness or hardness of the edges of the brush stamp. By default, the **Regular** option is selected in this drop-down list; therefore, the edges of the brush stamp are not defined, as shown in Figure 14-8. Select the **Solid** option from this drop-down list to define the edges of the brush stamp. However, the edges of the brush stamp will not be defined clearly by choosing this button, as shown in Figure 14-8. If you want to clearly define the edges of the brush stamp, as shown in Figure 14-9, selectthe **Hard Solid** option from this drop-down list. Choose the **Buzz** option to define multiple edges of the brush stamp, as shown in Figure 14-9. You can also customize the brush stamp by choose the **Custom** option from the **Brush Profile** drop-down list. You can customize the settings in the **Brush Profile** drop-down list by using different options in the **Point Menu** area and the **Profile Preview** area.
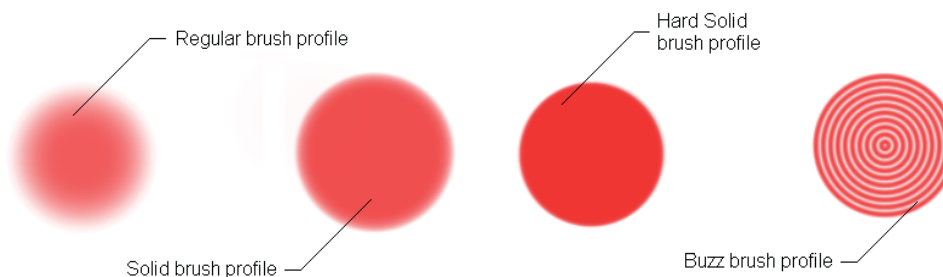


*Figure 14-8  Regular and solid brush profiles*

*Figure 14-9  Hard solid and buzz brush profiles*

## The Stroke Tab

Choose the **Stroke** tab in the **Brush Options : PencilDefault** dialog box; different areas in this tab will be displayed, as shown in Figure 14-10. The options in the **Stroke** tab are used to specify the stroke properties of the pencil. You can also specify the setting for the brush profile. The options in this tab are discussed next.

### Spacing Bias

This edit box is used to specify the spacing between stamps in a stroke. The valid range of the **Spacing Bias** edit box is 0 to 1024. If the spacing bias value is low, there will be less spacing between the stamps and if this value is more, there will be more spacing between the stamps. In other words, with the increase in the spacing bias value, the spacing between stamps also increases. The strokes will be smooth, if the spacing between the stamps is less, as shown in Figure 14-11. Otherwise, the strokes will appear dotted, as shown in Figure 14-12.

### Spacing Noise

This edit box is used to specify the random variation in the space between stamps in a stroke. The valid range of the **Spacing Noise** edit box is 0 to 1024. If the value in this edit box is 0, there will be no random variation in the space between the stamps, as shown in Figure 14-13. If the value in this edit box is 1024, there will be maximum random variation in the space between the stamps, as shown in Figure 14-14.
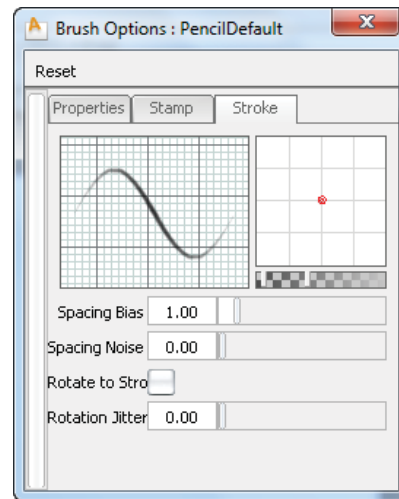


*Figure 14-10 The **Stroke** tab of the **Brush Options : PencilDefault** dialog box*



*Figure 14-11 Smooth stroke*



*Figure 14-12 Dotted stroke*

**Figure 14-13**  *Stroke with less spacing noise*          **Figure 14-14**  *Stroke with more spacing noise*

### Rotate to Stroke

This check box is cleared by default. As a result, a stroke is created without rotating the brush stamp, as shown in Figure 14-15. Select this check box to rotate the brush stamp in the direction of the brush stroke, as shown in Figure 14-16. You can notice that the stroke shown in Figure 14-15 has round corners, whereas the stroke shown in Figure 14-16 has sharp corners.



**Figure 14-15**  *Stroke created without rotating the brush stamp*          **Figure 14-16**  *Stroke created with the rotated brush stamp*

### Rotation Jitter

This edit box is used to specify the random variation in the direction of the brush stamp. The range of the **Rotation Jitter** edit box is 0 to 180.

**Note**
*You can also change the brush properties such as color, profile, mode, minimum and maximum opacity, width, and so on by using the **Brush Options** area of the **Control Panel**. If the **Control Panel** is displayed in the **Default** mode, the **Brush Options** area will not be displayed. To display this area, you need to switch the mode to the **Paint** mode. To do so, press and hold the left mouse button on the **Default** option avialable on top of the **Control Panel**; a flyout will be  displayed. Choose the **Paint** option from this flyout; the **Control Panel** will be displayed in the **Paint** mode.*

# Sketching with Round Pencil

**Palette:**          Paint > Pencil > Pencil round

You can sketch on the canvas with the round pencil to create the strokes that are less sharper than the strokes created using the **Pencil** tool. To do so, choose the **Pencil round** tool from the **Pencil** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs with the letter P displayed on it. Next, click and drag the crosshairs in the **Paint** window to create a stroke. To create horizontal strokes of paint on the canvas, drag the cursor with the middle mouse button, and to create vertical strokes of paint on the canvas, drag the cursor with the right mouse button.

To set the parameters of the **Pencil round** tool, double-click on the **Pencil round** tool; the **Brush Options : PencilRound** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

# Sketching with Marker Ink

**Palette:**          Paint > Marker > Marker ink

You can create marker strokes in the active image layer. To create a marker stroke, choose the **Marker ink** tool from the **Marker** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Next, click and drag the crosshairs in the **Paint** window to create a stroke. You can create horizontal strokes of paint on the canvas by dragging the cursor with the middle mouse button. To create vertical strokes of paint on the canvas, drag the cursor with the right mouse button.

To set the parameters of the **Marker ink** tool, double-click on the **Marker ink** tool; the **Brush Options : MarkerInk** dialog box will be displayed. Most of the options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box. The rest of the options in the dialog box are discussed next.

## Marker Properties
This area is used to specify the properties of the marker. This area is available in **Properties** tab. The option in this area is discussed next.

### Wetness
This edit box is used to specify the wetness of the marker. You can create a paint stroke with a dry or a wet marker. The marker with a wetness value of 0 acts as a very old marker. As a result, the intensity of the paint stroke will be very weak, as shown in Figure 14-17. The marker with a wetness value of 1 acts as a brand new marker. As a result, the intensity of the paint stroke will be strong, as shown in Figure 14-18.

*Figure 14-17  Stroke with 0 wetness*          *Figure 14-18  Stroke with 1 wetness*

# Sketching with Fine Marker

**Palette:**          Paint > Marker > Marker fine

You can create fine marker strokes in the active image layer by using the **Marker fine** tool. To create fine strokes, choose the **Marker fine** tool from the **Marker** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create a stroke.

To set the parameters of the **Marker fine** tool, double-click on the **Marker fine** tool; the **Brush Options : MarkerFine2** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : MarkerInk** dialog box.

# Sketching with Broad Marker

**Palette:**          Paint > Marker > Marker broad

You can create broad marker strokes in the active image layer by using the **Marker broad** tool. To create broad strokes, choose the **Marker broad** tool from the **Marker** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create strokes.

To set the parameters of the **Marker broad** tool, double-click on the **Marker broad** tool; the **Brush Options : MarkerBroad** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : MarkerInk** dialog box.

# Sketching with Soft Airbrush

**Palette:**          Paint > Airbrush > Airbrush soft

You can sketch on the active image layer with soft airbrush paint of low intensity. To create a soft airbrush paint, choose the **Airbrush soft** tool from the **Airbrush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create strokes, as shown in Figure 14-19.

To set the parameters of the **Airbrush soft** tool, double-click on the **Airbrush soft** tool; the **Brush Options : AirbrushSoft** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

## Sketching with Medium Airbrush

**Palette:**          Paint > Airbrush > Airbrush medium

You can apply medium airbrush paint on an active image layer. The medium airbrush has more intensity than the soft airbrush. To apply the medium airbrush paint, choose the **Airbrush medium** tool from the **Airbrush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create a stroke, as shown in Figure 14-20.

To set the parameters of the **Airbrush medium** tool, double-click on the **Airbrush medium** tool; the **Brush Options : AirbrushMedium2** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

*Figure 14-19*  *Soft airbrush stroke*          *Figure 14-20*  *Medium airbrush stroke*

## Sketching with Pastel

**Palette:**          Paint > Pastel soft

A pastel is also known as colored chalk. You can apply the brush stroke that is identical to the stroke of the colored chalk in the active image layer by using the **Pastel soft** tool. To create the paint with the pastel soft brush, choose the **Pastel soft** tool from the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create a stroke.

To set the parameters of the **Pastel soft** tool, double-click on the **Pastel soft** tool; the **Brush Options : PastelSoft** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options: PencilDefault** dialog box.

## Sketching with Felt Brush

| **Palette:** | Paint > Solid Brush > Brush felt |
|---|---|

A felt brush consists of fibres of wool, cotton, or rayon worked by applying pressure, heat, or by chemical reaction instead of knitting or weaving. The **Brush felt** tool is used to apply the felt brush paint stroke on the active image layer. To create a paint with the felt brush, choose the **Brush felt** tool from the **Solid Brush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create a stroke, as shown in Figure 14-21.

To set the parameters of the **Brush felt** tool, double-click on the **Brush felt** tool; the **Brush Options : SolidbrushFelt** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

## Sketching with Solid Brush

| **Palette:** | Paint > Solid Brush > Brush solid |
|---|---|

You can apply solid paint strokes on an active image layer by using the **Brush solid** tool. To create solid paint strokes, choose the **Brush solid** tool from the **Solid Brush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Click and drag the crosshairs in the **Paint** window to create a stroke, as shown in Figure 14-22.

To set the parameters of the **Brush solid** tool, double-click on the **Brush solid** tool; the **Brush Options : SolidbrushLarge2** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

*Figure 14-21*  *Felt brush stroke*                    *Figure 14-22*  *Solid brush stroke*

# ERASING THE PAINT

Alias Design allows you to erase the paint or an image in a canvas. You can erase a paint in multiple strokes or in a single stroke. Different tools used to erase paint in a canvas are available in the **Eraser** flyout of the **Paint Edit** tab, shown in Figure 14-23. These tools are discussed next.

*Figure 14-23* The **Eraser** flyout of the **Paint** tab

## Erasing the Paint with Multiple Strokes

**Palette:**      Paint > Eraser > Eraser soft

You can erase paint from an active image layer in a way similar to that of erasing sketch on a paper by using an eraser. To erase paint with multiple stokes, choose the **Eraser soft** tool from the **Eraser** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs with the letter E displayed on it. Also, the preview of the eraser will be displayed in the active image. Click and drag the crosshairs on the paint with eraser stamp multiple times; the paint will be erased. Note that the paint fades away with each drag and eventually, erases entire painting.

To set the parameters of the **Eraser soft** tool, double-click on the **Eraser soft** tool; the **Brush Options : EraserSoftBrush** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

## Erasing the Paint with Single Stroke

**Palette:**      Paint > Eraser > Eraser hard

You can erase paint with single stroke by using the **Eraser hard** tool. To erase paint, choose the **Eraser hard** tool from the **Eraser** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs with the letter E displayed on it. Also, the preview of the eraser will be displayed in the active image. Click and drag the crosshairs on the paint with eraser stamp; the paint will be erased. Note that the paint gets erased with single stroke of the eraser.

To set the parameters of the **Eraser hard** tool, double-click on the **Eraser hard** tool; the **Brush Options : EraserHardBrush** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : EraserSoftBrush** dialog box.

**Note**
*If you choose the **Erase** button from the flyout that is displayed when you click on the **Brush Mode** area of any paint tool, the brush can be used to erase the paint in a single stroke.*

## Erasing the Image Layer

**Palette:**      Paint > Eraser > Clear canvas layer

You can erase the entire content of the paint from the active canvas layer at once. To erase contents from the active image layer, choose the **Clear canvas layer** tool from the **Eraser** flyout of the **Paint** tab in the **Palette**; the entire content of the active image layer will be erased.

## EDITING PAINT STROKES

You can edit a paint stroke in Alias Design by using the tools such as sharpening, blurring, smearing, dodging, and so on. These tools are available in the **Effect Brush** flyout of the **Paint** tab, as shown in Figure 14-24. These tools are discussed next.

*Figure 14-24 The **Effect Brush** flyout of the*
***Paint** tab*

# Sharpening the Paint

**Palette:**              Paint > Effect Brush > Sharpen brush

You can sharpen paint in the active canvas layer by using the Sharpen brush tool. To sharpen the paint, choose the Sharpen brush tool from the **Effect brush** flyout of the Paint tab in the Palette; the cursor will change to crosshairs. Also, the preview of the sharpener will be displayed in the active image layer. Next, click and drag the sharpener stamp on the paint; the paint will be sharpened. Note that the paint turns sharper with each drag, and eventually sharpens the entire painting, as shown in Figure 14-25.
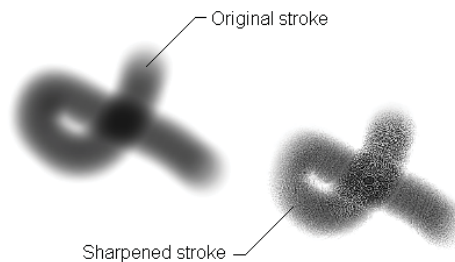


*Figure 14-25  Stroke before and after sharpening*

To set the parameters of the **Sharpen brush** tool, double-click on the **Sharpen brush** tool; the **Brush Options : Sharpenbrush** dialog box will be displayed. Most of the options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box. The rest of the options in this dialog box are discussed next.

## Sharpen Properties

This area is used to specify the properties of the sharpener. The options in this area are discussed next.

### Sharpness

This edit box is used to specify the sharpness of the marker. You can sharpen the paint stroke with a weak or strong sharpener. The sharpener with a sharpness value of 0 will act as a very weak sharpener. As a result, there will be no sharpening of the paint. The sharpener with a sharpness value of 1 will act as a strong sharpener. As a result, the paint will be strongly sharpened.

### Sharpen Strength

This edit box is used to specify the amount or degree upto which the paint will be sharpened. The sharpening strength is basically the sharpening of each pixel in the active image layer in comparison to its surrounding pixels. The range of this edit box is 0 to 4. With the sharpen strength value of 1, each pixel will be sharpened by comparing it with the surrounding pixels within a radius of 1 pixel. With the sharpen strength value of 4, each pixel will be sharpened by comparing it with the surrounding pixels within a radius of 4 pixels.

# Blurring the Paint

**Palette:**          Paint > Effect Brush > Blur brush

In Alias Design, you can blur paint in an active image layer by using the **Blur brush** tool. To blur paint, choose the **Blur brush** tool from the **Effect Brush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs. Also, the preview of the blur stamp will be displayed in the active image layer. Click and drag the blur stamp on the paint; the paint will be blurred, as shown in Figure 14-26. Note that the paint gets blurred with each drag.
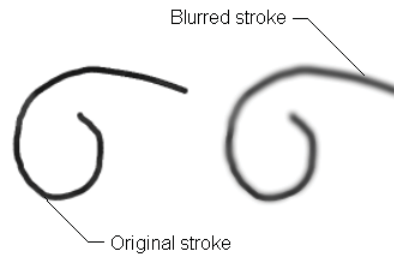


*Figure 14-26  Stroke before and after blurring*

To set the parameters of the **Blur brush** tool, double-click on the **Blur brush** tool; the **Brush Options: Blurbrush** dialog box will be displayed. Most of the options in this dialog box are the same as those discussed in the **Brush Options: Sharpenbrush** dialog box. The rest of the options in this dialog box are discussed next.

## Blur Properties

This area is used to specify the properties of the blur stamp. The option in this area is discussed next.

### Blur Strength

This edit box is used to specify the amount or degree upto which the paint will be blurred. The range of this edit box is 0 to 32. Higher the blur strength, more blurred is the paint stroke.

# Smearing the Paint

**Palette:**          Paint > Effect Brush > Smear brush

The **Smear brush** tool is used to smear or distort the paint in the active image layer. To distort paint, choose the **Smear brush** tool from the **Effect Brush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs and the preview of the blur stamp will be displayed in the active image. Click and drag the smear stamp on the paint; the paint will smear or distort, as shown in Figure 14-27.
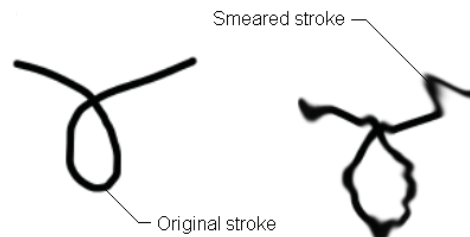


*Figure 14-27  Stroke before and after smearing*

To set the parameters of the **Smear brush** tool, double-click on the **Smear brush** tool; the
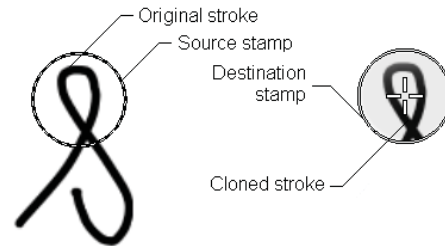
**Brush Options : Smearbrush** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

## Cloning the Paint

**Palette:**              Paint > Effect Brush > Clone brush

The **Clone brush** tool is used to create a clone or copy a region of paint from the active image layer. To create a clone of the paint region, choose the **Clone brush** tool from the **Effect Brush** flyout of the **Paint** tab in the **Palette**; you will be prompted to click the paint region to be used as source texture. Also, the cursor will change to crosshairs and the preview of the clone stamp will be displayed in the active image layer. Next, click on paint region to be cloned; you will be prompted to click or drag anywhere on the image layer to apply source texture. Click on the active image plane at the required position; the paint region



*Figure 14-28  Stroke and its clone*

selected as source texture will be cloned. If you drag the clone stamp in the paint direction, whole painting will be cloned, as shown in Figure 14-28. When you click or drag the crosshairs, two stamps, the source and the destination, will be displayed on the active image layer, refer to Figure 14-28. When you move the cursor, both stamps will move.

To set the parameters of the **Clone brush** tool, double-click on the **Clone brush** tool; the **Brush Options : Clonebrush** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box.

## Dodging (Lightening) the Paint

**Palette:**              Paint > Effect Brush > Dodge brush

In Alias Design, you can dodge or lighten the color of the paint in the active image layer. The lightening of paint occurs when the bright light of the selected brush color is projected on it. To lighten paint, choose the **Dodge brush** tool from the **Effect Brush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs and the preview of the dodge stamp will be displayed in the active image layer. Click and drag the dodge stamp on the paint; the paint lying beneath the dodge stamp will be lightened. If you continue to dodge the image with the same brush color, the current brush color will be assigned to the paint instead of lightening the image.

To set the parameters of the **Dodge brush** tool, double-click on the **Dodge brush** tool; the **Brush Options : Dodgebrush** dialog box will be displayed. Most of the options in this dialog box are the same as those discussed in the **Brush Options : PencilDefault** dialog box. The rest of the options in this dialog box are discussed next.

## Dodge Properties
This area is used to specify the properties of the dodge stamp. The options in this area are discussed next.

### Selection
This drop-down list is used to specify the range of color values to be dodged. By default, the **Midtone** option is selected in this drop-down list which dodge the image with the brightness that lies in between the shadows and highlights. Choose the **All** option to dodge both the brighter and darker parts of the image. Choose the **Highlight** option that lightens the highlights (brighter parts) of the image without affecting the shadows (darker parts), as shown in Figure 14-29. Choose the **Shadows** option to lighten shadows (darker parts) without affecting the highlights (brighter parts), as shown in Figure 14-30.

### Dodge Strength
This edit box is used to specify the amount or degree upto which the image will be dodged. The range of this edit box is 0 to 1.



Image before dodging        Dodged image (Highlights)

Dodged image
(Shadows)

*Figure 14-29* *Dodged image (Highlights)*        *Figure 14-30* *Dodged image (Shadows)*

# Burning (Darkening) the Paint

| **Palette:** | Paint > Effect Brush > Burn brush |
|---|---|

The **Burn brush** tool is used to darken the color of the paint in the active image layer. Darkening of the paint occurs due to the addition of the selected brush color on it. To darken paint, choose the **Burn brush** tool from the **Effect Brush** flyout of the **Paint** tab in the **Palette**; the cursor will change to crosshairs and the preview of the burn stamp will be displayed in the active image layer. Click and drag the burn stamp on the image to be darkened; the paint lying beneath the burn stamp will be darkened. Note that the color of the current brush is used to darken the paint. If you continue to burn the image with the same brush color, the brush color will be assigned to the image instead of darkening the image.

To set the parameters of the **Burn brush** tool, double-click on the **Burn brush** tool; the **Brush Options: Burnbrush** dialog box will be displayed. Most of the options in this dialog box are the same as those discussed in the **Brush Options: Dodgebrush** dialog box. The other options in this dialog box are discussed next.

## Burn Properties

This area is used to specify the properties of the burn stamp. The options in this area are discussed next.

### Selection

This drop-down list is used to specify the areas of the image to be darkened. By default, the **Midtone** option is selected in this drop-down list which burns the image with the darkness that lies in between the shadows and highlights. Select the **Shadows** option to darken the shadows (darker parts) without affecting the highlights (brighter parts), as shown in Figure 14-32. Select the **All** option to burn both the brighter and darker parts of the image. Select the **Highlight** option which darkens the highlights (brighter parts) of the image without affecting the shadows (darker parts), as shown in Figure 14-31.

### Burn Strength

This edit box is used to specify the amount or degree upto which the image will be darkened. The value in this edit box ranges from 0 to 1.



*Figure 14-31*  *Burn image (highlights)*



*Figure 14-32*  *Burn image (shadows)*

## Filling a Color in Canvas

**Palette:**          Paint > Flood fill

The **Flood fill** tool is used to fill an active image layer with paint. To do so, choose the **Flood fill** tool from the **Paint** tab in the **Palette**; the cursor will change to a paint bucket symbol. Also, you will be prompted to click the regions of the image to fill. Click the required region of the image; the image will get filled with paint. You can also fill the areas whose boundaries can be specified by different paint brushes, as shown in Figure 14-33.



*Figure 14-33*  *Filled areas defined by boundaries*

To set the parameters of the **Flood fill** tool, double-click on the **Flood fill** tool; the **Brush**

**Options : FloodFill** dialog box will be displayed. The options in this dialog box are discussed next.

### Reset
Choose this button to reset all brush parameters or options to their default values.

### The Properties Tab
The **Properties** tab displays floodfill properties such as color, opacity, and tolerance. These properties are discussed next.

#### Brush Color
The **Brush Color** area is used to specify the color of the floodfill paint bucket.

#### Color Opacity
This edit box is used to change the opacity of the color of the floodfill paint bucket.

#### Tolerance
This edit box is used to control the range of colors to be filled. The value in this edit box ranges from 0 to 255. Specifying a low value fills the pixels having the same color that you picked, whereas specifying a high value fills the pixels having a broad range of colors.

# SELECTING AN AREA IN PAINT/IMAGE
Aliasdesign allows you to select an area that can be used to create mask, create and edit the image layer, and so on. You can do so by using different area selection tools. These tools available in the **Select** flyout of the **Paint** tab, as shown in Figure 14-34. These tools are discussed next.



*Figure 14-34  The **Select** flyout of the **Paint** tab*

## Selecting an Area by Magic Wand

**Palette:**          Paint > Select > Magic wand

You can select the colored area of the image layer that is used to create masks. Masks are used for erasing unwanted regions, creating brush with required shape and texture, creating new image layers, and so on. To select an area, choose the **Magic wand** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the cursor will change to magicwand symbol and you will be prompted to click the region of image to select. Click on the region on an image to be selected; the regions that are not selected turn pink, whereas the remaining region remains unchanged. The selected region is known as unmasked region, and the remaining region is known as masked regions. You can modify the selected regions by painting, erasing, copying, and so on. Note that the masked regions cannot be modified.

To set the parameters of the **Magic wand** tool, double-click on the **Magic wand** tool; the **Magic Wand Options** dialog box will be displayed, as shown in Figure 14-35.  The options in this dialog box are discussed next.
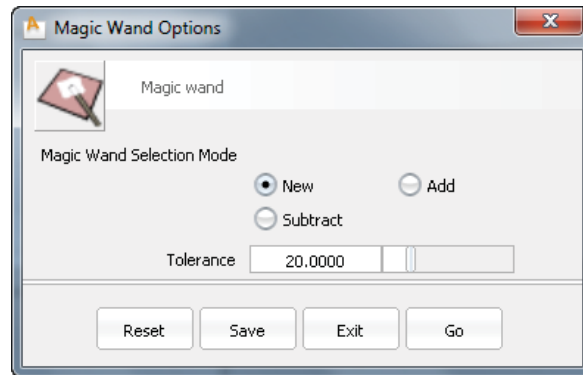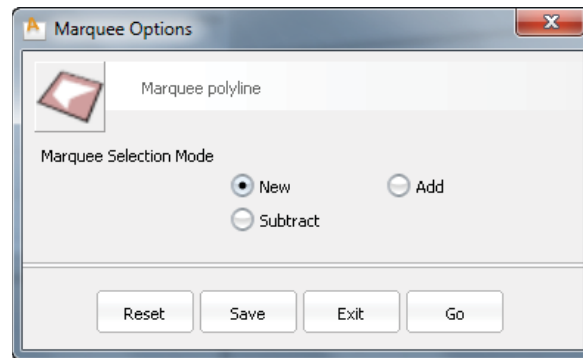
*Figure 14-35* *The* **Magic Wand Options** *dialog box*

## Magic Wand Selection Mode

This area is used to specify the selection of regions. The radio buttons in this area are discussed next.

### New

This radio button is selected by default and is used to select a new area.

### Add

Select this radio button to add new areas to the existing area.

### Subtract

Select this radio button to subtract the selected areas from the existing area.

## Tolerance

This edit box is used to control the range of colors to be selected. The value in this edit box ranges from 0 to 255. Specifying a lower value selects the pixels having the same color that you picked, whereas a higher value selects the pixels having a broad range of colors.

## Selecting an Area by Polyline Marquee

| **Palette:** | Paint > Select > Marquee polyline |
|---|---|

You can select the colored area by using polyline marquee. To do so, choose the **Marquee polyline** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the cursor will change to marquee symbol and you will be prompted to click to define a region. Click on the image in different positions to create a polyline that defines the region and then double-click to accept selection; the region outside the defined region will turn pink, whereas the region inside it will remain unchanged. The selected region is known as unmasked region, whereas the regions that are not selected are known as masked regions. You can modify the selected regions by painting, erasing, copying, and so on. Note that the masked regions cannot be modified.

To set the parameters of the **Marquee polyline** tool, double-click on the **Marquee polyline** tool; the **Marquee Options** dialog box will be displayed, as shown in Figure 14-36. The options in this dialog box are discussed next.



*Figure 14-36  The **Marquee Options** dialog box*

## Marquee Selection Mode
This area is used to specify the selection of regions. The radio buttons in this area are discussed next.

### New
This radio button is selected by default and is used to select a new area by defining polyline.

### Add
Select this radio button to add new areas to the existing area.

### Subtract
Select this radio button to subtract the selected areas from the existing area.

## Selecting an Area by Lasso Marquee

**Palette:**        Paint > Select > Marquee lasso

You can select a colored area from an image by using a lasso marquee. To do so, choose the **Marquee lasso** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the cursor will change to marquee symbol and you will be prompted to drag to select a region. Drag the cursor to create a lasso; the region outside the lasso will turn pink, whereas the region inside the lasso will remain unchanged.

To set the parameters of the **Marquee lasso** tool, double-click on the **Marquee lasso** tool; the **Marquee Options** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Marquee Options** dialog box of the **Marquee polyline** tool.
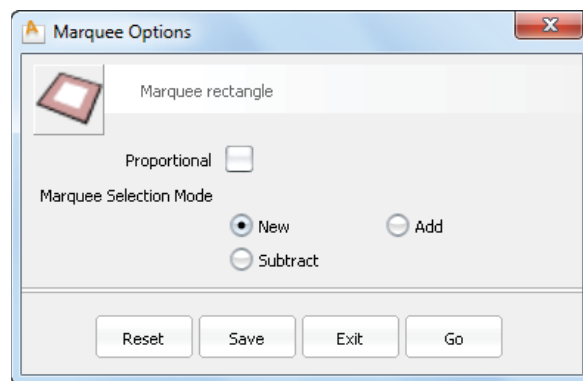
## Selecting an Area by Rectangular Marquee

You can select the colored area by using a rectangular marquee. To do so, choose the **Marquee rectangle** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the cursor will change to marquee symbol and you will be prompted to drag to select the region. Drag the marquee to create a rectangular box; the region outside the box will turn pink, whereas the region inside the box will remain unchanged.

To set the parameters of the **Marquee rectangle** tool, double-click on the **Marquee rectangle** tool; the **Marquee Options** dialog box will be displayed, as shown in Figure 14-37.



*Figure 14-37* *The **Marquee Options** dialog box*

Most of the options in this dialog box are the same as those discussed in the **Marquee Options** dialog box of the **Marquee polyline** tool. The other options in this dialog box are discussed next.

### Proportional

This check box is cleared by default. As a result, the region selected in the canvas will be rectangular when you drag the cursor on it. If you select this check box, the region selected will be square.

## Selecting an Area by Elliptical Marquee

You can select the colored area by using an elliptical marquee. To do so, choose the **Marquee ellipse** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the cursor will change to marquee symbol and you will be prompted to drag to select the region. Drag the marquee to create an ellipse; the region outside the ellipse will turn pink, whereas the region inside the ellipse will remain unchanged.

To set the parameters of the **Marquee ellipse** tool, double-click on the **Marquee ellipse** tool; the **Marquee Options** dialog box will be displayed. Most of the options in this dialog box are

the same as those discussed in the **Marquee Options** dialog box of the **Marquee polyline** tool. The other option in this dialog box is discussed next.

## Proportional
This check box is cleared by default. As a result, the region selected in the canvas will be elliptical when you drag the cursor on it. If you select this check box, the region selected in the canvas will be circular.

# Toggling the Marquee

**Palette:**          Paint > Select > Toggle marquee

You can toggle the marquee between the visible and invisible modes. If you have created a marquee with any of the marquee tools, you can toggle its visibility on or off. To do so, choose the **Toggle marquee** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the visibility of marquee will turn on or off, depending on its initial condition.

# Inverting the Marquee

**Palette:**          Paint > Select > Invert marquee

You can invert the marquee so that the masked area of the image is converted into an unmasked area and vice versa. To do so, choose the **Invert marquee** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the marquee will be inverted, depending on its initial condition.

# Clearing the Marquee

**Palette:**          Paint > Select > Clear marquee

You can clear the marquee in the active image layer. To do so, choose the **Clear marquee** tool from the **Select** flyout of the **Paint** tab in the **Palette**; the marquee will be cleared. Next, you can create a new marquee by using different marquee tools.

# Transforming the Marquee

**Palette:**          Paint > Select > Transform marquee

You can transform (move, rotate, and scale) the selected area defined by the marquee. To transform the defined region, choose the **Transform marquee** tool from the **Select** flyout of the **Paint** tab in the **Palette**; a manipulator will be displayed on the marquee in the image layer and you will be prompted to transform the image. Figure 14-38 shows different handles on marquee. Click and drag the handles located at corners or midpoints on the sides of the manipulator to
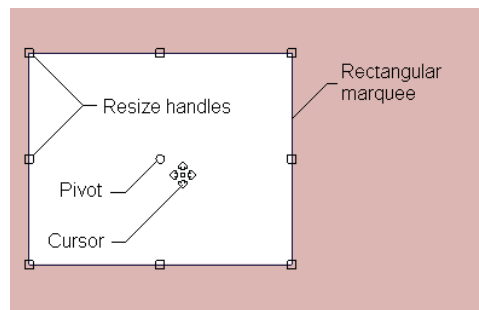
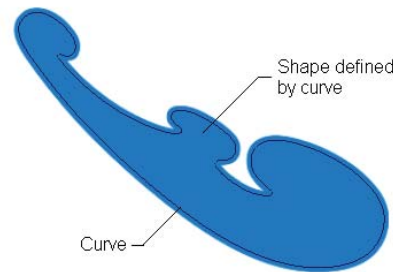*Figure 14-38  Manipulator handles displayed on the marquee*

scale the marquee; the three buttons, **Accept, Reset Pivot**, and **Reset All** will be displayed at the lower right corner of the active window. Choose the **Accept** button to accept the new size of the marquee. Choose the **Reset Pivot** button to reset the pivot point to its default position. Choose the **Reset All** button to reset the entire marquee to its default size. You can move the selected marquee by dragging it with the middle mouse button and can rotate the selected marquee by dragging it from the sides. You can also change the position of the pivot point by placing the cursor on it so that the cursor changes to crosshairs and then dragging it.

# Creating Image Shapes

| **Palette:** | Paint > Shape > Make image shape |
|---|---|

You can create shapes from curves or a set of curves and fill the areas defined by these curves. These shapes are used for painting, masking, and so on. Also, these shapes are used to create the precise images. You can modify these images by modifying the curves. To create a shape, first you need to create curves by using any curve tool. Next, choose the **Make image shape** tool from the **Shape** flyout of the **Paint** tab in the **Palette**; you will be prompted to select the curve. Select the curve from the image layer; you will be prompted to select more curves. Also, the **Accept** button will be displayed at the lower right corner of the



*Figure 14-39  Filled shape defined by curve*

active window. Select other curves or choose the **Accept** button; the shape defined by the curve will be filled, as shown in Figure 14-39. You can also control the display settings of the required shape and its outline by using the **Shape Options** area of the **Control Panel**. By default, the **Shape Outline** check box is selected in the **Shape Options** area. As a result, the outline of the shape along with the filled shape will be displayed, refer to Figure 14-39. Clear this check box to view only the filled shape, as shown in Figure 14-40. Clear the **Shape Fill** check box and select the **Shape Outline** check box to display only the outline of the shape, as shown in Figure 14-41. These options are also available in the **Shape Edit** dialog box, which will be discussed in the next topic.



*Figure 14-40  Filled shape*
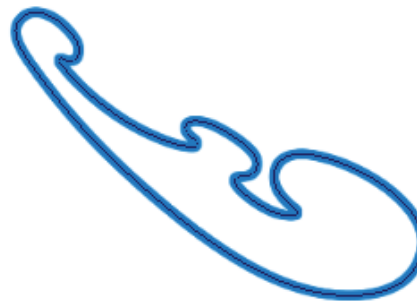
*Figure 14-41  Outline of the shape*

You can view only the shape fill. If the curve selected for creating shape is not closed, the endpoints of the curve will be connected by a straight line. This straight line will not have any outline properties.

**Note**
*You can select multiple curves by dragging a box around them. However, it is not recommended as you may not get the required shape. Therefore, you are advised to select the curves one by one.*

To set the parameters of the **make image shape** tool, double-click on the **make image shape** tool; the **Shape Edit** dialog box will be displayed, as shown in Figure 14-42. The options in this dialog box are discussed next.

## Shape Options
The **Shape Options** area is used to set the parameters associated with the shape. The options in this area are discussed next.

### Shape Outline
The **Shape Outline** check box is selected by default and is used to display the outline of the shape as well as the filled shape.

*Figure 14-42 The **Shape Edit** dialog box*

### Style
The **Style** drop-down list is used to specify the outline of the
shape. By default, the **SolidBrush** option is selected in this drop-down list and therefore, a well-defined shape outline is created. If you choose the **AirBrush** option from this drop-down list, the shape outline will not be defined properly.

### RGB Color
The **RGB Color** swatch is used to select the color for the shape outline. You can adjust the brightness of the selected color by using the slider bar given on the right of the **RGB Color** swatch.
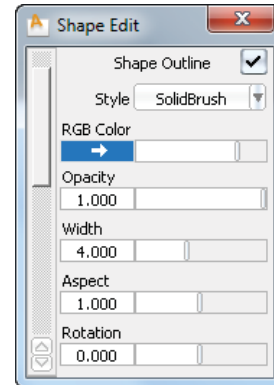
### Opacity
This edit box is used to specify the opacity of the color or the texture used for shape outline.

### Width
This edit box is used to specify the width of the brush in pixels.

### Aspect
This edit box is used to specify the shape of the brush stamp. If the aspect value is 1, the shape of the brush will be circular. If the aspect value is less than 1, the shape of the brush will tend to be flat.

### Rotation

This edit box is used to specify the angle of rotation in degrees for the brush stamp. If the aspect value is less than 1, changing the rotation angle will result in the brush stamp to be more horizontal or vertical.

### Spacing

This edit box is used to specify the distance between the stamps of a brush stroke while creating a shape.

### Shape Fill

This check box is used to control the display settings of the interior of the shape formed by curve.

### RGB Color

The **RGB Color** swatch is used to select the color to be filled in a shape. You can also assign map textures to the filled shapes. To do so, click on the **Map** button given on the right of the **RGB Color** slider bar; the **Shape Texture** window will be displayed, as shown in Figure 14-43. Click on the required texture; the **Shape Texture** dialog box of the selected texture will be displayed. You can change the properties of the selected texture by using the **Shape Texture** dialog box. This dialog box can also be invoked by clicking on the arrow given on the right of the **Map** button.
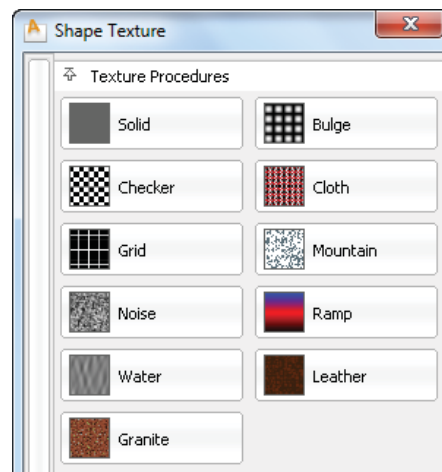


*Figure 14-43  The* ***Shape Texture*** *window*

### Opacity

This edit box is used to specify the opacity of the color or the texture used for filling shape.

### Quality

This options in the drop-down list are used to define the quality (high, low, or medium) of the texture that is used for filling shape. By default, the **Medium** option is select in this drop-down. If you select the **High** option, the texture will take more time to display, whereas if you select the **Low** option, the texture will take less time to display.

### Fill

This options in the drop-down list are used to specify the region to be filled. By default, the **Inside** option is selected in this drop-down list and fills the region defined inside the shape. Select the **Outside** option to fill the region defined outside the shape.

## Copy Parameters

This area is used to copy the parameters of a shape fill and its outline and then paste them on other shape fill and outline. The only option in this area is discussed next.

**Option**

This options in the drop-down list are used to specify the component of the shape to be copied and pasted. By default, the **Outline and Fill** option is selected in this drop-down and is used to copy and paste the parameters of both the outline and shape fill. Select the **Outline** option to copy and paste the parameters of the outline only. Select the **Fill** option to copy and paste the parameters of the shape fill only. To copy the parameters of outline and shape, select the curve whose outline and shape fill need to be copied and then select the **Copy** option. Next, select the curve to which the copied outline and shape fill need to be pasted and select the **Paste** option; the parameters of outline and shape fill will be pasted.

# Masking a Shape

**Palette:**       Paint > Shape > Make mask shape

The **Make mask shape** tool is used to create a mask using curves. This tool cannot work on shape layers. To create masks using curves, choose the **Make mask shape** tool from the **Shape** flyout of the **Paint** tab in the **Palette**; you will be prompted to select a curve. Select the required curve; you will be prompted to select another curve and the **Accept** button will be displayed at the lower right corner of the active window. Select the other curve or choose the **Accept** button; the mask will be created on the selected curves. You can also create masks from text. In this case, you need to select the curves of the text one by one.

To set the parameters of the **Make mask shape** tool, double-click on the **Make mask shape** tool; the **Shape Edit** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Shape Edit** dialog box of the **Make image shape** tool.

# Creating Invisible Masks

**Palette:**       Paint > Shape > Make invisibility mask shape

The **Make invisibility mask shape** tool is used to work on a specified area in an image layer. This tool cannot work on shape layers. To create an invisible mask from curves, choose the **Make invisibility mask shape** tool from the **Shape** flyout of the **Paint** tab in the **Palette**; you will be prompted to select a curve. Select the curve; you will be prompted to select another curve and the **Accept** button will be displayed at the lower right corner of the active window. Select the other curve or choose the **Accept** button; the area enclosed by the curves will be visible. You can specify the area inside or outside  the curves to work upon by setting the options in the **Shape Fill** area of the **Shape Edit** dialog box. After creating invisibility mask, if you transform (move or scale) the curve, the area will get updated accordingly.

To set the parameters of the **Make invisibility mask shape** tool, double-click on the **Make invisibility mask shape** tool; the **Shape Edit** dialog box will be displayed. The options in this dialog box are the same as those discussed in the **Shape Edit** dialog box of the **make image shape** tool.

# Creating Text Images

**Palette:**          Paint > Text Image

Alias Design allows you to create text images in the **Paint** workflow. You can use the text thus created to annotate images. Alias Design allows you to work with the text in a particular layer without affecting the underlying layers. To create a text image, choose the **Text Image** tool from the **Paint** tab in the **Palette** and click on the canvas where you want the text to be created; the cursor will change to the text cursor and you will be prompted to enter the text string. Enter the text; the text image will be created, as shown in Figure 14-44. Note that when you create a text image, a new text layer is created.



*Figure 14-44  Text image*

**Note**
*After creating the text, if you click outside the text box, a new text box will be displayed in which you can write a new text. Also, a new text layer will be created.*

To set the parameters of the **Text image** tool, double-click on the **Text image** tool; the **Text Options** dialog box will be displayed, as shown in Figure 14-45. Most of the options in this dialog box are the same as those discussed in the **Text Options** dialog box of the **Text** tool. The **Text** tool has been discussed in Chapter 2. The rest of the options in this dialog box are discussed next.

## Brush Color
The **Brush Color** area is used to specify the color of the text.

## Point Size
The **Point Size** edit box is used to specify the font size. You can also change the font size by using the slider bar given on right of this edit box.

## Tracking
The **Tracking** edit box is used to specify the average space between the letters of the text. You can also change the spacing between the letters by using the slider bar given on the right of this edit box.
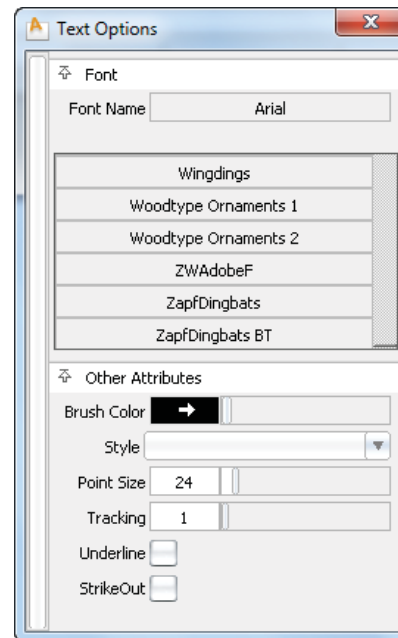


*Figure 14-45  The **Text Options** dialog box*

## Underline
Select this check box to underline the text.

## StrikeOut
Select this check box to create a horizontal line that cuts through the text.

# Creating Mirror Images

**Palette:**          Paint > Paint Symmetry > Modify canvas brush symmetry

You can create a sketch and then mirror it on an active image layer by setting the canvas symmetry bilaterally or radially. To set the canvas symmetry, choose the **Modify canvas brush symmetry** tool from the **Paint Symmetry** flyout of the **Paint** tab in the **Palette**; the symmetry axis along with drag handles will be displayed on the image layer, as shown in Figure 14-46. Also, the **Reset** button will be displayed at the lower right corner of the active image layer and you will be prompted to drag handles to adjust the canvas symmetry. Drag the red dot at the center to move the axis and the red double arrow to change the orientation of the axis. When you drag the red double arrow, the axis will rotate around the other double arrow. If you move the red double arrow along the axis, the rotation pivot will be changed. If you choose the **Reset** button, the symmetry axis will be restored to its default or original position. After setting canvas symmetry, choose any paint brush and create sketch; the mirror image of the sketch will be created automatically.
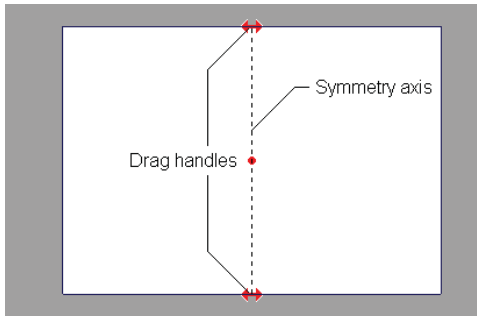
*Figure 14-46*  *Symmetry axis with drag handles*

To set the parameters of the **Modify canvas brush symmetry** tool, double-click on the **Modify canvas brush symmetry** tool; the **Canvas Brush Symmetry Control** dialog box will be displayed, as shown in Figure 14-47. The options in this dialog box are discussed next.
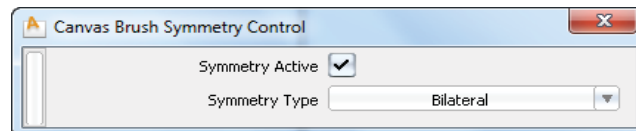
*Figure 14-47*   *The* ***Canvas  Brush  Symmetry  Control*** *dialog box*

## Symmetry Active
This check box is selected by default and is used to turn on the symmetrical sketching. If you clear this check box, the symmetrical sketching will be turned off and you cannot create mirror images of the sketch.
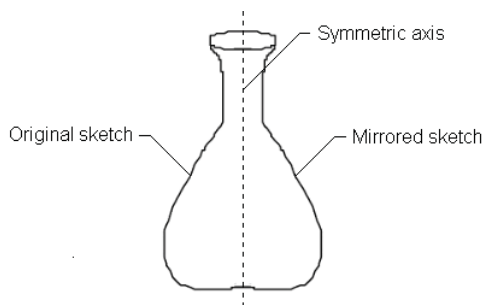
## Symmetry Type

This drop-down list is used to specify the type of symmetry for mirroring the sketched image. The options in this drop-down list are discussed next.

### Bilateral

This option is chosen by default. As a result, a single symmetry axis is defined in the canvas. This axis acts as a mirror line to create a mirror image, as shown in Figure 14-48.

### Radial

Select this option to radially arrange multiple mirror lines from the center point of the canvas. These mirror lines divide the canvas into a number of sections. If you create a sketch in any one of the sections, its mirror images will also be created automatically in other sections, as shown in Figure 14-49.



*Figure 14-48  Image mirrored bilaterally*
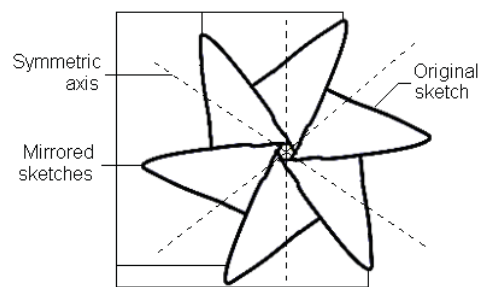


*Figure 14-49  Image mirrored radially*

### Num Radial Sections

This edit box will be available only when you choose the **Radial** option from the **Symmetry Type** drop-down list. This edit box is used to specify the number of symmetric sections defined by radial lines.

# Toggling the Canvas Symmetry

**Palette:**          Paint > Paint Symmetry > Toggle canvas brush symmetry

You can toggle the canvas symmetry on or off. To do so, choose the **Toggle canvas brush  symmetry** tool from the **Paint Symmetry** flyout of the **Paint** tab in the **Palette**; the canvas symmetry will be turned on or off, depending on its initial condition. This tool works similar to the **Symmetry Active** check box in the **Symmetry Tool Control** dialog box of the **Modify canvas brush symmetry** tool.

# Editing Colors

**Palette:**          Paint > Color editor

You can change the color of a paint brush by using the **Brush Color** swatch available below the menu bar. This swatch will be available only when you choose any brush,

pencil, or marker tool from the **Paint** tab in the **Palette**. You can also change the color of paint brush by using the **Color editor** tool. To change the color of an active paint brush, click on the **Color editor** tool; the **Color Swatch Option Box** window will be displayed, as shown in Figure 14-50. Select the required color from this window; the color will be assigned to the brush. There are three tabs in this window, **Wheel**, **Blend**, and **Palette**. The options that are common in these tabs are discussed next.
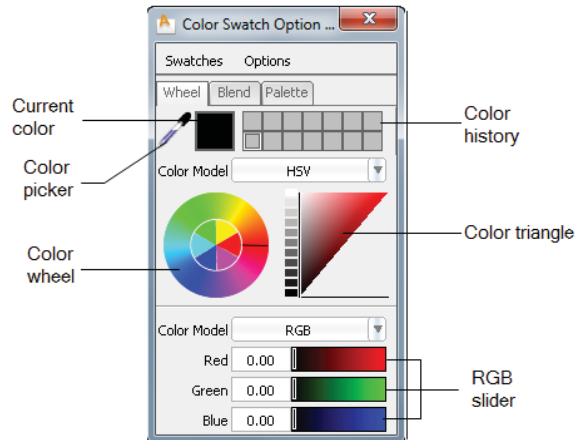


*Figure 14-50  The **Color Swatch Option Box** window*

## Swatches

The **Swatches** area is used to customize a color or a collection of different color swatches. You can customize these swatches by using different options that will be displayed when you click on this area. The options in the **Swatches** area will work only when you choose the **Palette** tab from the **Color Swatch Option Box** window. The options in this area are discussed next.

### Lock Selected

This option is used to lock the selected color swatches. To lock a color swatch, select the required color swatch from the swatch box that is displayed when you choose the **Palette** tab in the **Color Swatch Option Bo**x. Next, choose the **Lock Selected** option from the **Swatches** area to lock the selected color swatch. You can select several colors by dragging a box around them. The locked swatch will be represented by a white triangle at the upper right corner of the selected color. A locked swatch cannot be deleted or restored to its original condition.

### Unlock Selected

Choose this option to unlock the selected locked color swatches.

### Ramp Selected

If you select several color swatches and then choose the **Ramp Selected** option, a ramp of swatches will be created. The colors of these swatches will be a blend of the first and last selected swatches.

### Compress Swatches
Choose this button to rearrange color swatches such that the empty swatches and ramp swatches are placed at the bottom of these swatches.

### Reset to Default
Choose this button to reset swatches to their original conditions. This option does not affect the locked swatches.

## Options
This area is used to set the range of the RGB, HSL, HSV, or CMY slider.

## Color Picker
The **Color Picker** icon is used to grab a color from the screen for the current paint brush.

## Current Color
This field displays the color of the current color swatch.

## Color History
This area displays the recently used colors. You can select any color from the **Color History** area to set it as the color of the current brush.

## The Wheel Tab
This tab is chosen by default and is used to select the color from the color wheel or the color triangle. This tab also enables you to specify the color of the paint brush by specifying the **RGB** (red, blue, green) values. The **Wheel** tab has the **Color Model** area, color wheel, and color triangle to select colors.

## The Blend Tab
The **Blend** tab is used to select a blend of different colors.

## The Palette Tab
The **Palette** tab is used to select colors from the swatch box. You can even customize (lock, unlock, or compress) these swatches, as discussed earlier.

# EDITING THE PAINT
The **Paint Edit** tab in the **Palette** provides you with different tools to edit paint. Editing includes transforming, deforming, merging, duplicating, sharpening, blurring the images, and so on. This tab is also used to adjust HSL, HSV, brightness, and contrast values of the painting. Different editing operations and tools available in the **Modify Layer** flyout are shown in Figure 14-51. These tools are discussed next.
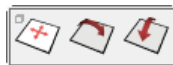


*Figure 14-51 The **Modify Layer** flyout of the **Paint Edit** tab*

# Transforming Image Layers

| **Palette:** | Paint Edit > Modify Layer > Transform layer |
|---|---|

You can transform (move, resize, or rotate) the contents of an image layer. To do so, choose the **Transform layer** tool; the contents of the image layer will be enclosed in a box, known as manipulator, and you will be prompted to transform the image. The image can be transformed in a way similar to transforming of the marquee that has been discussed earlier in the **Transform marquee** topic.

To set the parameters of the **Transform layer** tool, double-click on the **Transform layer** tool; the **Transform Image Control** dialog box will be displayed, as shown in Figure 14-52. The options in this dialog box are discussed next.
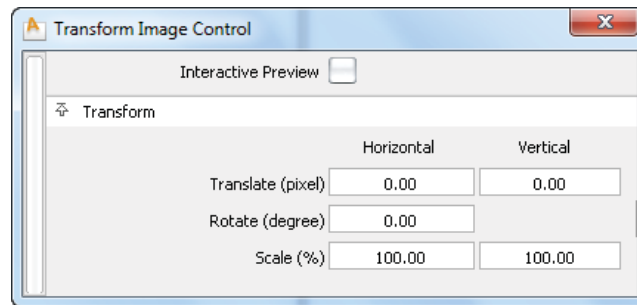
*Figure 14-52  The **Transform Image Control** dialog box*

## Interactive Preview
Select this check box to update the sketch interactively as you transform the image layer.

## Transform
This area is used to specify the transformation values of the image.

### Translate (pixel)
The **Translate (pixel)** edit boxes are used to specify the value by which the image will be translated/moved in horizontal and vertical directions.

### Rotate (degree)
The **Rotate (degree)** edit box is used to specify the rotation angle of the image in degrees. Enter a positive value in this edit box to rotate the image counter-clockwise around the rotation pivot.

### Scale (%)
The **Scale (%)** edit boxes are used to specify the horizontal and vertical scale factors of the original image in percentage.

## Flipping the Image Horizontally

**Palette:**          Paint Edit > Modify Layer > Horizontal flip

You can flip an image layer from left to right and vice versa. To do so, choose the **Horizontal flip** tool from the **Modify Layer** flyout of the **Paint Edit** tab in the **Palette**; the image layer will be flipped from right to left. To restore the image to its original position, choose this button again.

## Flipping the Image Vertically

**Palette:**          Paint Edit > Modify Layer > Vertical flip

You can flip an image layer from top to bottom and vice versa. To do so, choose the **Vertical flip** tool from the **Modify Layer** flyout of the **Paint Edit** tab in the **Palette**; the image layer will be flipped from top to bottom. To restore the image to its original position, choose this button again.

> **Note**
> *A text image cannot be flipped with the **Horizontal flip** or **Vertical flip** tool.*

## Deforming the Image

**Palette:**          Paint Edit > Deform image layer

The **Deform image layer** tool is used to deform or warp an image layer. To do so, choose the **Deform image layer** tool from the **Paint Edit** tab in the **Palette**; the manipulator handles will be displayed on the image and you will be prompted to drag manipulator handles. Drag one of the manipulator handles at corner or sides; the image will be deformed and the **Accept** button will be displayed at the lower right corner of the active window. Choose the **Accept** button to accept the new shape of the image. To deform an image by moving it, drag the handle located at the center of the image. To deform an image by rotation, drag any handle with the SHIFT key pressed.

To set the parameters of the **Deform image layer** tool, double-click on the **Deform image layer** tool; the **Image Deform Control** dialog box will be displayed, as shown in Figure 14-53. The options in this dialog box are discussed next.
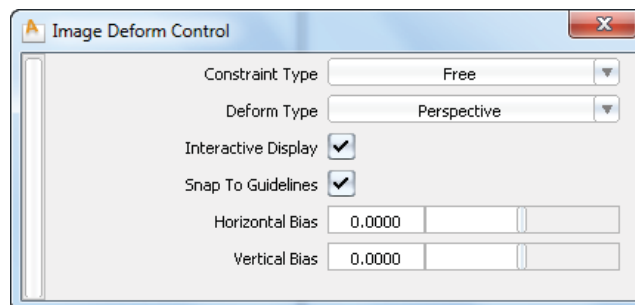


*Figure 14-53  The **Image Deform Control** dialog box*

## Constraint Type

This drop-down list is used to specify the type of constraint to be used for deforming an image. The options in this drop-down list are discussed next.

### Free

This option is selected by default and is used to deform the image on the side or corner being dragged.

### Skew

If you select this option and then deform the image on one side or at corner, the image will be deformed on the opposite side or at the opposite corner.

## Deform Type

This drop-down list will be available only when you select the **Free** option from the **Constraint Type** drop-down list. This area is used to specify the deformed look of the image. The options in this drop-down list are discussed next.

### Perspective

This option is selected by default and is used to change the midpoint of the image as you modify image. The image obtained after deforming it by selecting the **Perspective** option will appear tilted, thus giving it a perspective look.

### Distort

Select this option to distort the image without forcing a perspective look on it.

## Interactive Display

Select this check box to update the image interactively as you deform the image layer.

## Snap to Guidelines

Guidelines are created along the border of the image when you drag the image to deform. The **Snap to Guidelines** check box is selected by default and is used to control the changes made in the image by using guidelines. Clear this check box, if you do not want the image to be controlled by guidelines.

## Horizontal Bias

This edit box is used to pull or push the center of the image horizontally toward or away from the perspective point.

## Vertical Bias

This edit box is used to pull or push the center of the image vertically toward or away from the perspective point.

## Warping an Image by Using a Shape

| **Palette:** | Paint Edit > Make warp shape |
|---|---|

You can distort or warp an image by changing the shape of the region of interest by using the **Make warp shape** tool. Before using this tool, you need to create curves. After creating curves, choose the **Make warp shape** tool from the **Paint Edit** tab in the **Palette**; you will be prompted to select a curve. Select the curve; you will be prompted to select more curves. Also, the **Accept** button will be displayed at the lower right corner of the active window. Select other curves or choose the **Accept** button; a deformable warp shape will be created, as shown in Figure 14-54. Next, drag CVs or edit points, scale curves, or perform any other operation on the curve; the shape of the image will get updated interactively, as shown in Figure 14-55. The warping of a shape can be controlled by using the **Shape Warp Options** area that will be displayed in the **Control Panel**. The options in the **Shape Warp Options** area are discussed next.



*Figure 14-54  Warp shape*
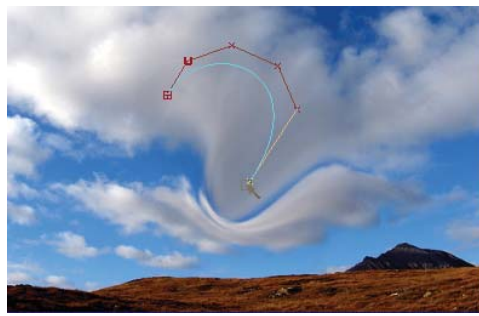


*Figure 14-55  Warp shape deformed by moving a CV*

### Influence

This edit box is used to specify the image area to be distorted. This edit box is used to control the number of pixels that will be affected by warping the image.

### Feedback

Select this check box to view the modification/distortion done into the image visually. When you select this check box, the blue colored grids showing the warped regions will be displayed on the image, as shown in Figure 14-56.

## CORRECTING THE COLORS OF A SKETCH

After completing the sketch, you may need to modify the properties of its color such as brightness, contrast, hue, saturation, and so on. Alias Design provides you with various



*Figure 14-56  Warp feedback displayed in the form of grids*

color correction tools that are used to modify these properties. These color correction tools available in the **Color Correction** flyout are shown in Figure 14-57.



*Figure 14-57 The **Color Correction** flyout*

# Manipulating Colors

**Palette:**          Paint Edit > Color Correction > Color manipulation

You can manipulate the colors of an image or a sketch by using the **Color manipulation** tool. This tool includes the functions of different color correction tools. To manipulate the color of an image, choose the **Color manipulation** tool from the **Color Correction** flyout of the **Paint Edit** tab in the **Palette**; the **Color Manipulation Editor** window will be displayed, as shown in Figure 14-58. Set hue, saturation, luminance, brightness, and so on as per your requirement and then choose the **Apply** button from the **Color Manipulation Editor** window; the colors of the image will be manipulated. The tabs in this dialog box are discussed next.

## The AllColors Tab

This tab is chosen by default and is used to manipulate all colors in an image. You can also control hue, saturation, luminance, brightness, contrast, and so on for all colors in an image. The options in this tab are discussed next.



*Figure 14-58 The **AllColors** tab of the **Color Manipulation Editor** window*

### PreView
This check box is selected by default and is used to preview the changes made in the image. This check box is available in all tabs of the **Color Manipulation Editor** dialog box.

### Adjust Color Balance
This area is used to adjust the colors of an image. The **Hue**, **Saturation**, and **Luminance** sliders are used to control the hue, saturation, and luminance of the image, respectively. The options in the **Hue Adjustment** area are used to adjust hue under different conditions. By default, the **Shift Hues** option is chosen in this area and this option is used to adjust all colors by the same hue value. If you choose the **Colorize Hues** option from
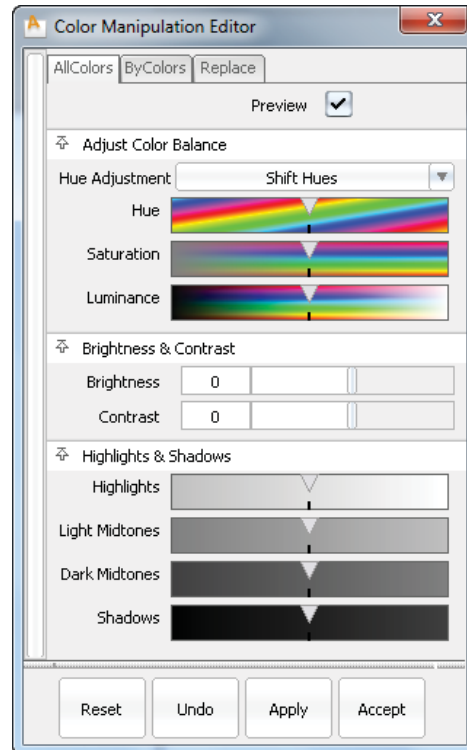
the **Hue Adjustment** area; the hue of all colors excluding gray areas will be changed. If you choose the **Colorize Hues and Grays** option from this area; all colors including gray areas will be adjusted to the selected hue value. You can specify hue in the **Hue Strength** edit box that is displayed when the **Colorize Hues** or **Colorize Hues and Grays** option is chosen in the **Hue Adjustment** area.

### Brightness & Contrast
This area has two edit boxes, **Brightness** and **Contrast**, to control brightness and contrast of the entire image.

### Highlights & Shadows
This area is used to adjust the brightness or darkness of highlights or shadows in the image. You can change the brightness/darkness of highlights, midtones, and shadows by using the corresponding sliders.

## The ByColors Tab
Choose the **ByColors** tab to display various options, as shown in Figure 14-59. These options are used to adjust the hue, saturation, and luminance of the required colors. There are eight overlapping colors available in this tab. To change the hue, saturation, and luminance of a color individually, you can use the slider bars corresponding to that particular color.

## Replace
Choose the **Replace** tab to display various options, as shown in Figure 14-60. These options are used to replace one color with other selected color. The **Dropoff** edit box in this tab is used to specify the tolerance of the selected colors. The **Replace From** area is used to specify the colors to be replaced from image and the **Replace To** area is used to specify the replacement color. To replace a color from an image, click on the color picker icon in the **Replace From** area and then select the color to be replaced from the image. You can add more colors to the selected color or subtract color from the selected color by using the respective color picker icons in this area. After specifying the color to be replaced, click on the color picker icon in the **Replace To** area and then select the required replacement color from the image. You can also specify the replacement color in the **Color** editor that will be displayed when you click on the color wheel icon in the **Replace To** area. You can reset, undo, apply, or accept color manipulations by choosing the **Reset**, **Undo**, **Apply**, or **Accept** button, respectively from the **Color Manipulation Editor** window.
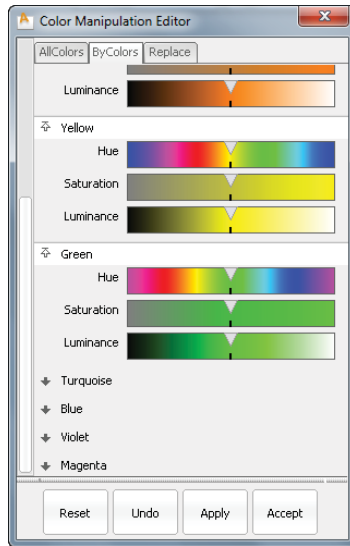
*Figure 14-59  The **ByColors** tab of the*
***Color Manipulation Editor** window*
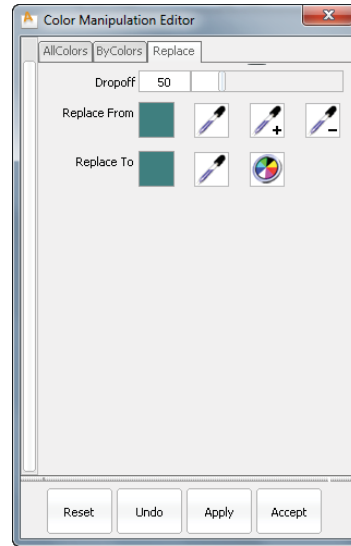


*Figure 14-60   The **Replace** tab of the*
***Color Manipulation Editor** window*

# Correcting the Brightness and Contrast of an Image

| **Palette:** | Paint Edit > Color Correction > Brightness/contrast |
|---|---|

You can adjust the appearance of an image layer by modifying its brightness and contrast. To modify the brightness and contrast settings of the image, choose the **Brightness/contrast** tool from the **Color Correction** flyout of the **Paint Edit** tab in the **Palette**; the **Brightness and Contrast Tool** window will be displayed, as shown in Figure 14-61. Adjust the view, range of colors, brightness, and contrast  of the image as required in this window. Next, choose the **Accept** button; the brightness and contrast settings of the image will be modified. Different options in this window are discussed next.

## Zoom In
The **Zoom In** button is used to magnify the view of the image layer.

## Zoom Out
The **Zoom Out** button is used to reduce the view of the image layer.

## Fit All
Choose this button to fit the image to the size of the **Brightness and Contrast Tool** window.

## 1:1
The **1:1** button is used to enlarge the image to its true scale.

## Original Window
The **Original** window displays the original state of the image layer.
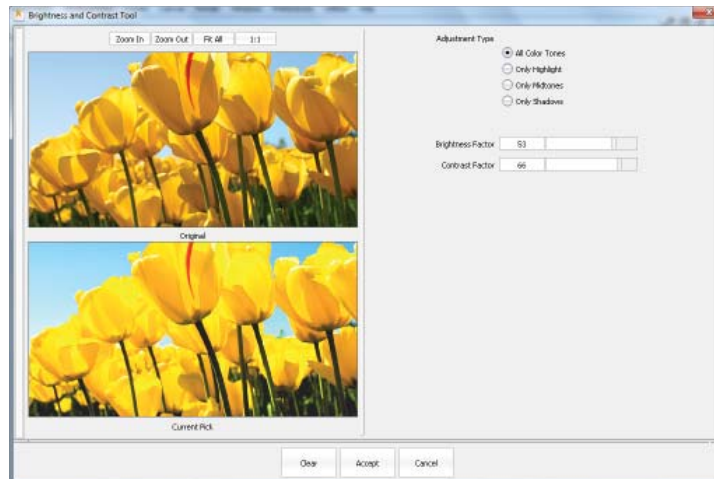
*Figure 14-61 The* **Brightness and Contrast Tool** *window*

## Current Pick

The **Current Pick** window displays the current state, which is, the modified state of the image layer.

## Adjustment Type

This area is used to specify the range of color values to be modified. The radio buttons in this area are discussed next.

### All Color Tones

This radio button is selected by default and is used to modify the brightness and contrast settings of the entire range of colors in image.

### Only Highlight

Select this radio button to modify the brightness and contrast of highlights (brighter parts) in the image without affecting shadows (darker parts).

### Only Midtones

Select this radio button to modify the image with the brightness that lies in between shadows and highlights.

### Only Shadows

Select this radio button to modify the brightness and contrast properties of shadows (darker parts) in the image without affecting the highlights (brighter parts).

## Brightness Factor

This edit box is used to specify the brightness value of the image. You can also specify the brightness value of image by using the slider bar given on the right of this edit box. When you change the brightness factor, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

## Contrast Factor

This edit box is used to specify the contrast value of the image. You can also specify the contrast value of the image by using the slider bar given on the right of this edit box. By changing the contrast value, you can update the image in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

## Clear

Choose this button to revert the changes done in the image to restore its original color and appearance.

## Accept

Choose this button to apply the modification made in the image and exit the **Brightness and Contrast Tool** window.

## Cancel

Choose this button to exit the **Brightness and Contrast Tool** window without saving any change made in the image.

# Correcting the Saturation and Value of an Image

**Palette:**          Paint Edit > Color Correction > Saturation/value

To modify the saturation and value properties of an image, choose the **Saturation/ value** tool of the **Color Correction** flyout from the **Paint Edit** tab in the **Palette**; the **Saturation and Value Tool** window will be displayed. Adjust the view, range of colors, saturation, and value of the image as required in this window. Next, choose the **Accept** button; the saturation and the value of the image will be modified. Most of the options in the **Saturation and Value Tool** window are the same as those discussed in the **Brightness and Contrast Tool** window. The other options in this area are discussed next.

## Saturation Factor

This edit box is used to specify the saturation value of the image. You can also specify the saturation value by using the slider bar given on the right of this edit box. When you change the saturation value, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

## Value Factor

This edit box is used to specify the amount of value for the image. You can also specify the amount of value by using the slider bar given on the right of this edit box. When you change the value factor, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

# Correcting the Dodge of an Image

**Palette:**          Paint Edit > Color Correction > Dodge

To modify the dodge property of an image, choose the **Dodge** tool of the **Color Correction** flyout from the **Paint Edit** tab in the **Palette**; the **Dodge Tool** window will

be displayed. Adjust the view, range of colors, dodge factor, and dodge color of the image as required. Next, choose the **Accept** button; the dodge property of the image will be modified. Most of the options in this window are the same as those discussed in the **Brightness and Contrast Tool** window. The other options in this area are discussed next.

## Dodge Factor
This edit box is used to specify the dodge value of the image. You can also specify the dodge value by using the slider bar given on the right of this edit box. When you change the dodge factor, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

## Color
The **Color** swatch is used to specify the color with which the image will be dodged. Click on the **Color** swatch to invoke the **Color** editor that is used to select the dodge color. You can change the intensity of the selected dodge color by using the slider bar given on the right of this swatch. When you change the dodge color, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after modification.

# Correcting the Burn of an Image

**Palette:**          Paint Edit > Color Correction > Burn

To modify the burn property of an image, choose the **Burn** tool from the **Color Correction** flyout of the **Paint Edit** tab in the **Palette**; the **Burn Tool** window will be displayed. Adjust the view, range of colors, burn factor, and burn color of the image as required. Next, choose the **Accept** button; the burn property of the image will be modified. Most of the options in this window are the same as those discussed in the **Brightness and Contrast Tool** window. The other options in this area are discussed next.

## Burn Factor
This edit box is used to specify the burn value of the image. You can also specify the burn value by using the slider bar given on the right of this edit box. When you change the burn factor, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

## Color
The **Color** swatch is used to specify the color with which the image will be burn. Click on the **Color** swatch to invoke the **Color** dialog box that is used to select the burn color. You can change the intensity of the selected burn color by using the slider bar given on the right of this swatch. When you change the burn color, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after modification.

# Balancing the Color of an Image

**Palette:**          Paint Edit > Color Correction > Color balance

To modify an image by adjusting colors, choose the **Color balance** tool from the **Color Correction** flyout of the **Paint Edit** tab in the **Palette**; the **Color Balance Tool** window

will be displayed, as shown in Figure 14-62. Adjust the view, range of colors, color balance factor, and hue of the image as required. Next, choose the **Accept** button; the colors of the image will be modified. Most of the options in this window are the same as those discussed in the **Brightness and Contrast Tool** window. The other options in this area are discussed next.



*Figure 14-62  The **Color Balance Tool** window*

## Color Balance Factor

This edit box is used to specify the degree of color variation between the original image and the modified image. You can also specify the degree of color variation by using the slider bar given on the right of this edit box. When you change the color balance factor, the image gets updated in the **Current Pick** window, thus allowing you to compare the image before and after its modification.

## Add Hue to Gray Scale Areas

Generally, when you modify image with the **Color balance** tool, the gray areas of the image remain the same. To add color to these gray areas, select the **Add Hue to Gray Scale Areas** check box.

## More Green

Click on the More Green image to modify the green color in the image. Clicking on this image makes the image more green.

If you want to modify other colors in the image such as yellow, cyan, and so on, click on the respective images in this **Color Balance Tool** window.

> **Note**
> *You need to select the **Add Hue to Gray Scale Areas** check box to add the arfore-mentioned colors to the gray areas of the image.*

## Undo

Choose this button to undo the changes made in the image one by one.

**Redo**
Choose this button to redo the undone changes in the image step by step.

# Balancing the HSV of an Image

**Palette:**              Paint Edit > Color Correction > Color replace (HSV)

To modify an image by adjusting its HSV (hue, saturation, and value), choose the **Color replace (HSV)** tool from the **Color Correction** flyout of the **Paint Edit** tab in the **Palette**; the **Color Replace Tool** window will be displayed, as shown in Figure 14-63. To replace hue in the image, first specify the range of colors for which the hue will be modified by using the **Hue** slider bar. You can also use eyedroppers to specify the range of colors. The **Hue** slider bar is used to specify the range of colors for which the hue will be modified. The **From** area of the **Hue** slider bar is used to modify the range of colors in the original image. The **To** area of the **Hue** slider bar is used to select the range of colors in the target region. You can also use eyedroppers to specify the range of colors. Select the check box on the right of the **Hue** slider bar to adjust hue for the image. There are five sliders in each region. These sliders are used to fine tune the color selection. Drag the outer arrow  sliders to fade the selected colors. Adjusting the tolerance makes the hue mask semitransparent. Drag the inner arrow sliders to broaden or narrow the range of the selected region. Drag the middle arrow sliders to move the entire range of colors. Click on the down-arrow given on the right of the **From** area to move the selected color range to the target color range. Click on the up-arrow given on the right of the **To** area to move the target color range to the selected regions. The movement of the color ranges can be viewed on the slider bar. Similarly, set the saturation and value of the image. After changing the hue, saturation, and value of the image, choose the **Accept** button; the hue, saturation, and value of the image will be modified.

Most of the options in this window are the same as those discussed in the **Brightness and Contrast Tool** window. The other options in this area are discussed next.

**Eyedroppers**
The three eyedroppers given on the right of the zoom options in the **Color Replace Tool** window are used to pick, add, and subtract the selected color of an image.

**Selection**
Select this check box to display the masked areas of the image. On selecting this check box, the masked areas will be displayed in pink color, whereas the unmasked regions will be displayed in white color.

**Hue slider bar**
The **Hue** slider bar is used to specify the range of colors for which the hue will be modified.

**Saturation slider bar**
The **Saturation** slider bar is used to specify the range of colors for which the saturation will be modified.
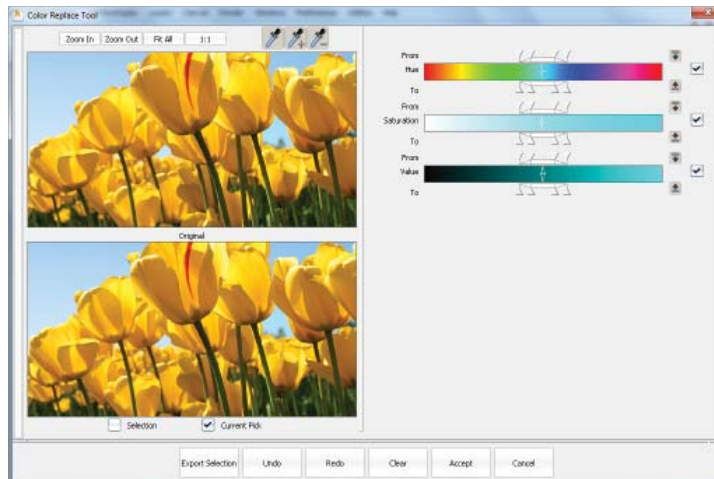
*Figure 14-63* The **Color Replace Tool** *window*

### Value slider bar
The **Value** slider bar is used to specify the range of colors for which the value will be modified.

### Export Selection
Choose this button to copy the selected parts of the image to the masked layer.

## Balancing the HSL of an Image

**Palette:** Paint Edit > Color Correction > Color replace (HSL)

To modify an image by adjusting its HSL (hue, saturation, and luminance), choose the **Color replace (HSL)** tool from the **Color Correction** flyout of the **Paint Edit** tab in the **Palette**; the **Color Replace Tool** window will be displayed. Next, set the hue, saturation, and luminance of the image and choose the **Accept** button from the **Color Replace Tool** window; the hue, saturation, and luminance of the image will be modified. Most of the options in the **Color Replace Tool** window are the same as those discussed in the **Color Replace Tool** window used in changing the HSV of the image. The other options in this window are discussed next.

### Luminance slider bar
The **Luminance** slider bar is used to specify the range of colors for which the luminance will be modified.

## Sharpening a Layer

**Palette:** Paint Edit > Layer Effect > Sharpen layer

You can sharpen all unmasked areas in an active image layer by using the **Sharpen layer** tool. To do so, choose the **Sharpen layer** tool from the **Layer Effect** flyout of the **Paint Edit** tab in the **Palette**; the unmasked areas in the active image layer will be sharpened. Figures 14-64 and 14-65 show the original and sharpened images.

***Figure 14-64*** *Original image*



***Figure 14-65*** *Sharpened image*

To set the parameters of the **Sharpen layer** tool, double-click on the **Sharpen layer** tool; the **Sharpen Layer Options** dialog box will be displayed, as shown in Figure 14-66. The options in this dialog box are discussed next.
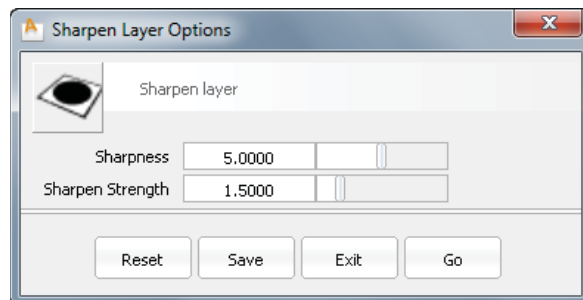


***Figure 14-66*** *The **Sharpen Layer Options** dialog box*

## Sharpness

This edit box is used to specify the amount of sharpness of the active image layer. The range of sharpness in this edit box is 0 (no sharpening) to 10 (maximum sharpening). You can also specify the sharpness value by using the slider bar given on the right of this edit box.

## Sharpen Strength

This edit box is used to specify the amount or the degree upto which the unmasked region of the image will be sharpened. The sharpening strength has been discussed earlier in the **Sharpen brush** tool of this chapter.

# Blurring a Layer

**Palette:**          Paint Edit > Layer Effect > Blur layer

The **Blur layer** tool is used to blur all unmasked areas in an active image layer. To blur an unmasked area, choose the **Blur layer** tool from the **Layer Effect** flyout of the **Paint Edit** tab in the **Palette**; the unmasked areas in the active image will be blurred. Figures 14-67 and 14-68 show the original and blurred images.

***Figure 14-67*** *Original image*


***Figure 14-68*** *Blurred image*

To set the parameters of the **Blur layer** tool, double-click on the **Blur layer** tool; the **Blur Layer Options** dialog box will be displayed, as shown in Figure 14-69. The options in this dialog box are discussed next.
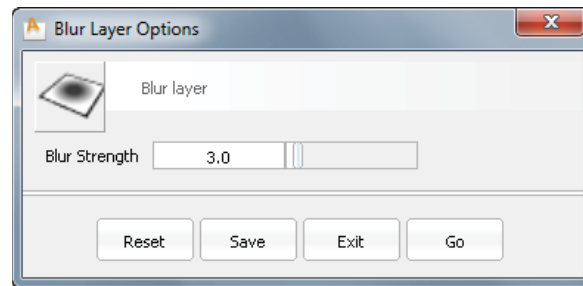

***Figure 14-69*** *The **Blur Layer Options** dialog box*

## Blur Strength

This edit box is used to specify the amount or the degree upto which the unmasked region of the image will be blurred. The blur strength determines how much will a pixel in the active image layer be blurred in comparison to surrounding pixels. The value in this edit box ranges from 1 to 32. If the value in the **Blur Strength** edit box is 1, each pixel will be blurred by comparing it with the surrounding pixels within a radius of 1 pixel. If the value in this edit box is 4, each pixel will be blurred by comparing it with the surrounding pixels within a radius of 4 pixels.

# PROJECTING SKETCHES

| **Menu bar:** | Canvas > Project sketch |
|---|---|

Alias Design allows you to project canvas sketch on object(s) by using the **Project Sketch** option. Projecting the sketches helps you conceptualize the final product. You can add the details of design details to objects (models) in the form of projected sketches and then create the model accordingly. The **Project sketch** option is available in the **Default** mode of Alias Design. To project a canvas sketch on object(s), select the canvas that has sketch and object and then choose **Canvas > Project sketch** from the menu bar; the **confirm** message box will be displayed. Choose the **OK** button from this message box; the sketch on the canvas will be projected on the object. To view the projected sketch, shade the object by choosing

**WindowDisplay > Hardware Shade** from the menu bar. Figure 14-70 shows the top surface of the model and the sketch. Figure 14-71 shows the sketch projected on the top surface of the model.
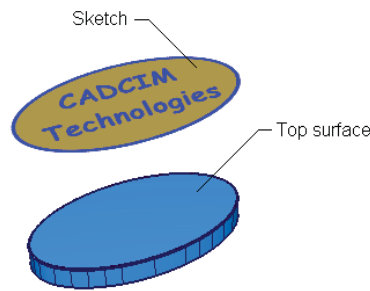


*Figure 14-70*  *Sketch and top surface*          *Figure 14-71*  *Sketch projected on top surface*
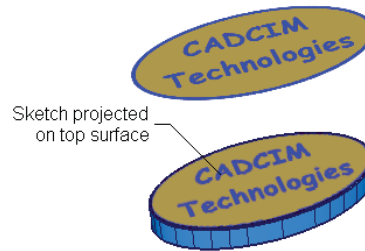
When you project a sketch on an object; shaders are created automatically. These shaders are placed above the shaders that are originally assigned to the object. If there are any transparent areas on the projected sketch, these areas will use the originally assigned shaders.

If you create a paint or the sketch on the canvas that is already projected on an object, the paint or the sketch will automatically be projected on the object. In other words, the paint or the sketch will be reprojected on the object automatically. Therefore, in such cases, you need not invoke the **Project Sketch** tool again to project the modified paint or sketch.

To set the parameters of the **Project sketch** option, click on the box on the right of the **Project sketch** option; the **Project Sketch Options** dialog box will be displayed, as shown in Figure 14-72. The options in this dialog box are discussed next.

## Render
This area is used to specify the objects on which the sketch will be projected. The radio buttons in this area are discussed next.

### Active Objects
This radio button is selected by default and is used to project the sketch on the active (selected) objects only.

### All Objects
Select this radio button to project the sketch on all objects in the active window.

## Project from
This area is used to specify the canvas whose sketch will be projected on the object. In other words, this area is used to control the order of sketches of different canvases to be projected on the object. The radio buttons in this area are discussed next.
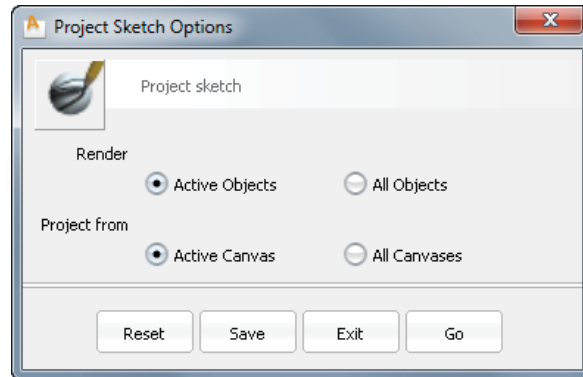
*Figure 14-72*  *The Project Sketch Options dialog box*

### Active Canvas

This radio button is selected by default and is used to project the sketch of the active canvas on the object.

### All Canvases

Select this radio button to project the sketch of all canvases on the object.

# TUTORIALS

## Tutorial 1

In this tutorial, you will create the sketch of a toy calculator. The top view of the sketch of the toy calculator is shown in Figure 14-73.                    **(Expected time: 30 min)**

The following steps are required to complete this tutorial:

a.  Start Alias Design in the **Paint** mode.
b.  Create curves by using different curve tools and create boundaries by using the **Pencil** tool.
c.  Create the base sketch of the toy calculator by applying different colors by using the **Flood fill** tool.
d.  Erase boundaries around outer areas by using the **Erase hard** tool.
e.  Create curves and boundaries for buttons and display screen.
f.  Create the sketches of buttons with different colors by using the **Flood fill** tool.
g.  Erase boundaries around the circle, ellipse, and linearc by using the **Erase hard** tool.
h.  Create new boundaries around buttons and display screen by using the **Marker ink** tool.
i.  Create text on the model by using the **Text image** tool.
j.  Export image by using the **Export** option.
k.  Save and close the file.

***Figure 14-73*** *Sketch of a toy calculator*

## Starting Alias Design in the Paint Mode

1.  Double-click on the Alias 2012 icon on your desktop; the Design window is displayed.

2.  Choose **Preferences > Workflows > Paint** from the menu bar; the **Paint** mode is invoked.

3.  Choose **File > New** from the menu bar; the **confirm** message box is displayed.

4.  Choose the **Yes** button from this message box; the **New Canvas** dialog box is displayed.

5.  Next, choose the **Top (Default)** button from the **Orientation** area and then choose the **OK** button from this dialog box; the **Top [Paint]** window expands to fill the entire screen.

## Creating Curves and Boundaries

You need to create curves for defining the boundaries of the sketch.

1.  Create the profile of the sketch by using different curve tools, as shown in Figure 14-74.

2.  Double-click on the **pencil** tool from the **Pencil** flyout of the **Paint** tab in the **Palette** with the **Propertie**s tab chosen.

3.  Enter **1** in the **Max Radius** and **Max Opacity** edit boxes and then choose the **Stamp** tab from this dialog box.

4.  Press and hold the left mouse button on the **Regular** button in the **Brush Profile** drop-down list; a flyout is displayed.

5.  Select the **Hard Solid** option from the drop-down list and close the **Brush Options : PencilDefault** dialog box.

6.   Choose the **Snap to Curve** icon given on the right of the promptline.

7.   Next, click and drag the cursor on curves repeatedly; the boundaries of the sketch are created on curves, as shown in Figure 14-75.
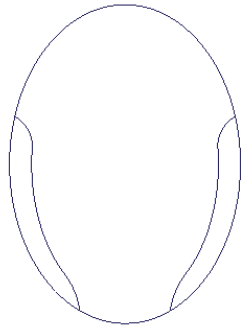


*Figure 14-74*  *Profile of the sketch*          *Figure 14-75*  *Boundaries created on curves*
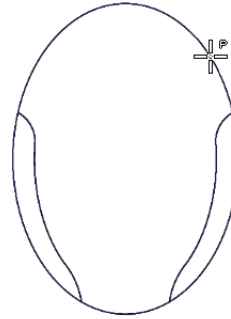
## Creating the Base Sketch of the Toy Calculator
After defining boundaries, you need to fill these boundaries with different colors.

1.   Double-click on the **Flood fill** tool of the **Paint** tab in the **Palette**; the **Brush Options: FloodFill** dialog box is displayed.

2.   Click on the **Brush Color** swatch; the **Color** editor is displayed with the **Wheel** tab chosen in it.

3.   Choose the **HSV** option from the **Color Model** drop-down list of the **Color** editor. Enter **359**, **0**, and **0.8** in the **Hue**, **Saturation**, and **Value** edit boxes, respectively.

4.   Close the **Brush Options : FloodFill** dialog box, and then click on the central area defined by boundaries; the area gets filled by the selected color, as shown in Figure 14-76.

5.   Next, choose the **Pick object** tool from the **Pick** tab in the **Palette** to exit the **Flood fill** tool.

6.   Invoke the **Brush Options : FloodFill** dialog box again and fill the outer areas of the sketch with light pink color; the sketch after filling colors is shown in Figure 14-77.

**Note**
*If you fill the outer areas of the sketch after filling the central area without exiting the **Flood fill** tool, the same color will be used to fill all areas. To avoid this, exit the **Flood fill** tool and then invoke it again. Next, set the required color to fill the outer areas.*
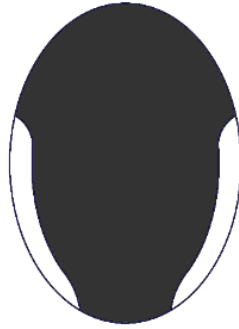
*Figure 14-76*  *Central area filled*
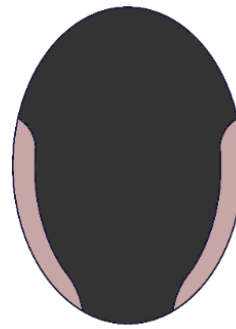


*Figure 14-77* *Outer areas filled with color*

## Erasing Boundaries

After filling these areas with different colors, you need to erase the inner boundaries of the outer areas.

1.  Choose **Erase > Erase hard** from the **Paint** tab of the **Palette** and then double-click on the **Eraser hard** tool; the **Brush Options : EraserHardBrush** dialog box is displayed.

2.  Choose the **Properties** tab from this dialog box and then enter **2** in the **Max Radius** edit box and **1** in the **Max Opacity** edit box. Next, choose the **Stamp** tab from this dialog box.

3.  Select the **Hard Solid** option from the **Brush Profile** drop-down list in the **Profile** area.

4.  Close the **Brush Options : EraserHardBrush** dialog box and then choose the **Snap to Curve** icon given on the right of the promptline, if not chosen.

5.  Next, click and drag the cursor to the inner curves of the outer areas; the boundaries defined by the inner curves are erased, as shown in Figure 14-78.

## Creating Curves for Buttons and Display Screen

You need to create boundaries for buttons and display screen. Before creating curves for buttons, you need to hide the canvas image.

1.  Choose **Windows > Editors > Canvas Layer Editor** from the menu bar; the **Canvas Layer Editor** window is displayed.

2.  Click on the **Image Visibility** eye icon on the left of the **Image** layer in the **Canvas Layer Editor** window; the image layer gets hidden.

3.  Create circles by using the **Circle** tool, as shown in Figure 14-79.
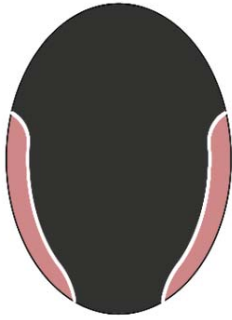
*Figure 14-78  Boundaries erased on outer areas*
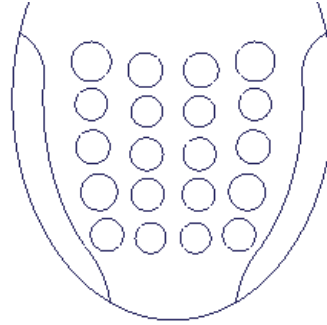


*Figure 14-79  Circles created*

4. Create the profiles for the lowermost (elliptical) button and the display screen by using the **Ellipse** and **Line-arc** tools, respectively, as shown in Figure 14-80.

5. Click on the **Image Visibility** eye icon in the **Canvas Layer Editor** window; the visibility of the canvas image is turned on.

6. Choose the **Pencil** tool from the **Pencil** flyout of the **Paint** tab in the **Palette** and click-drag the cursor on all circles. Also, click-drag the cursor on linearc and ellipse; the boundaries for the buttons and the display screen are created, as shown in Figure 14-81.
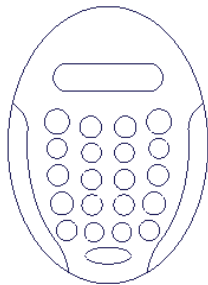


*Figure 14-80  Profile for lowermost button and display screen*
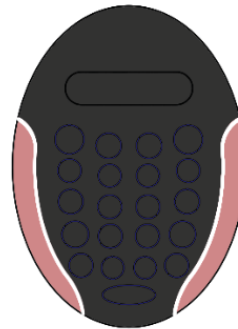


*Figure 14-81  Boundaries created for circles, ellipse, and linearc*

## Creating the Sketch of Buttons

After defining the boundaries for the display screen and buttons, you need to fill them with different colors.

1. Double-click on the **Flood fill** tool of the **Paint** tab in the **Palette**; the **Brush Options : FloodFill** dialog box is displayed.

2.   Click on the **Brush Color** swatch; the **Color** editor with the options of the **Wheel** tab is displayed.

3.   Enter **300**, **1**, and **1** in the **Hue**, **Saturation**, and **Value** edit boxes, respectively.

4.   Next, click inside the circles and the ellipse; the area inside the circles gets filled by the pink color, as shown in Figure 14-82.

5.   Similarly, fill the area inside the linearc with the light green color; the sketch after filling the colors is displayed, as shown in Figure 14-83.
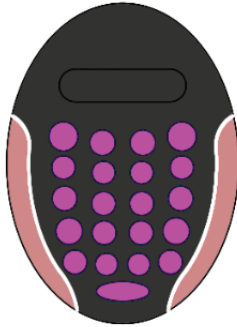


*Figure 14-82*  *Areas inside the circles filled*        *Figure 14-83*  *Areas inside the linearc filled*

## Erasing Boundaries

After filling the areas inside the circles, ellipse, and linearc, you need to erase their boundaries. As you have preserved the color for the eraser earlier, you can apply eraser directly for erasing the boundaries.

1.   Choose the **Eraser hard** tool from the **Eraser** flyout of the **Paint** tab in the **Palette**, and then click and drag the mouse on the boundaries defined by circles, ellipse, and linearc; the boundaries are erased from the sketch, as shown in Figure 14-84.

## Creating New Boundaries

After erasing the boundaries, you need to create the well-defined boundaries of buttons and screen display.

1.   Double-click on the **Marker ink** tool from the **Marker** flyout of the **Paint** tab in the **Palette**; the **Brush Options : MarkerInk** dialog box is displayed.

2.   Choose the **Properties** tab in this dialog box and click on the **Brush Color** swatch; the **Color** editor with the options of the **Wheel** tab is displayed.

3.   Enter **300**, **0.15**, and **0.9** in the **Hue**, **Saturation**, and **Value** edit boxes, respectively. Close the **Color** editor.

4. Next, enter **2** in the **Max Radius** edit box and **1** in the **Max Opacity** edit box and then choose the **Stamp** tab from this dialog box.

5. Select the **Hard Solid** option from the **Brush Profile** drop-down list in the **Profile** area.

6. Close the **Brush Options : MarkerInk** dialog box, and then choose the **Snap to Curve** icon given on the right of the promptline, if not chosen.

7. Next, click and drag the left mouse button on circles and ellipse; well-defined boundaries of light pink color are created.

8. Similarly, create boundaries around the screen display and the outer areas, as shown in Figure 14-85.



*Figure 14-84* *Old boundaries erased around circles and linearc*



*Figure 14-85* *New boundaries created around outer areas, circles, and display screen*

## Creating Text Images on Buttons and Display Screen

After creating sketches, you need to create text images on buttons and display screen. Each time you create a text image, a new shape layer will be created.

1. Double-click on the **Text image** tool of the **Paint** tab in the **Palette**; the **Text Options** dialog box is displayed.

2. Select the **Comic Sans MS** font from the list box given below the **Font Name** area.

3. Click on the **Brush Color** swatch; the **Color** editor is displayed.

4. Enter **120**, **1**, and **1** in the **Hue**, **Saturation**, and **Value** edit boxes, respectively.

5. Next, choose the **Bold** button from the **Style** area and enter **15** in the **Point Size** edit box.

6. Click at the center of the button area, refer to Figure 14-86; the cursor changes to the text cursor and you are prompted to enter the text string.

7.  Enter **0** in the promptline; the text image is created in the button area, as shown in Figure 14-86.

8.  Exit the **Text image** tool by choosing the **Pick object** tool.

9.  Similarly, create text on other button areas and display screen. The sketch after creating text images is displayed, as shown on Figure 14-87.

*Figure 14-86*  *Sketch after creating the text image in one button area*

*Figure 14-87*  *Sketch after creating all text images*

## Exporting the Image

After creating the image (sketch), you need to export it to the required location.

1.  Choose **File > Export > Canvas Image/Mask Layer** from the menu bar; the **Export Image Layer** dialog box is displayed.

2.  Browse to the *alias_2012* folder in the **Save in** drop-down list; all files in this folder are displayed in a list box.

3.  Enter *image_toy_calculator* in the **Object name** edit box and choose the **Save** button; the image is exported and saved to the *alias_2012* folder.

## Saving the Model

1.  Save the model with the name *c14.tut.wire* at the location given below:

    *\alias_2012\c14_tutorials\c14_tut01.wire*

## Tutorial 2

In this tutorial, you will create the model of a toy calculator and project the sketch created in Tutorial 1 on it. Figure 14-88 shows the complete model of a toy calculator.

**(Expected time: 30 min)**

***Figure 14-88***  *Complete model of a toy calculator*

The following steps are required to complete this tutorial:

a.   Open the sketch created in the previous tutorial.
b.   Create the base feature of the model by using the **Bevel** tool.
c.   Create the offset copies of the curves used for creating buttons by using the **Offset** tool.
d.   Project curves, the offset copies of these curves, and linearc on top face of the bevel surface by using **Project normal** tool.
e.   Trim unwanted surfaces by using the **Trim** tool.
f.   Create recesses for buttons by using the **Fillet flange** tool.
g.   Create buttons by using the **Tube flange** tool.
h.   Create the display screen by using the **Tube flange** and **Set planar** tools.
i.   Project whole canvas on top face of the bevel surface.
j.   Save the file.

## Opening the File

You need to open the sketch created in Tutorial 1 along with all curves. These curves will be used later for creating different parts of the calculator.

1.   Choose **File > Open** from the menu bar; the **Open** dialog box is displayed.

2.   Browse to the *c14_tutorials* folder in the **Look in** drop-down list and select *c14_tut01.wire* from the list box.

3.   Next, choose the **Open** button from the **Open** dialog box; the Design file along with the sketch of Tutorial 1 (toy calculator) is opened, as shown in Figure 14-89.

4.   Choose **Preferences > Workflows > Default** from the menu bar; the **Default** workflow is invoked.

5.  Choose **Layers > New** from the menu bar; a new layer is created in the Layers bar.

6.  Double-click on this layer; the layer text edit field is displayed.

7.  Enter **Image** in the layer text edit field; the layer name is changed to Image.

8.  Select the canvas (rectangular boundary displayed around the image) that was used to create the entire sketch in Tutorial 1 and then press and hold the left mouse button on the layer Image; a flyout is displayed.

9.  Choose the **Assign** option from this flyout; the canvas is assigned to the layer Image.

10. Create another layer with the name Body and then assign the ellipse that was used to create the outer boundary of the sketch to this layer.

11. Similarly, create two more layers with the names Buttons and Screen and then assign the curves used for creating buttons and display screen to these layers.

12. Press and hold the left mouse button on the layer Image in the Layers bar; a flyout is displayed.

13. Choose the **Visible** option from this flyout; the visibility of the image is turned off.

14. Similarly, turn off the display of the layers: Body, Buttons, and Screen.

**Note**
*You need to use different layouts such as **Top**, **Left**, and **Back** to create different features in this tutorial.*

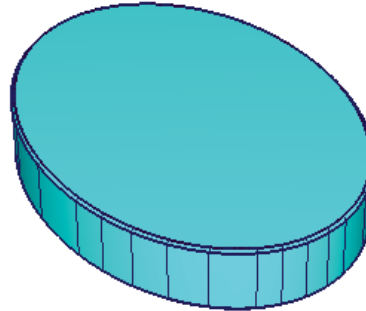## Creating the Base Feature

You need to create the base feature of the toy calculator by using the **Bevel** tool.

1.  Press and hold the left mouse button on the **Set planar** tool of the **Surfaces** tab in the **Palette**; a flyout is displayed.

2.  Double-click on the **Bevel** tool in the flyout; the **Bevel Options** dialog box is displayed.

3.  Enter **5** or suitable values in both the **Bevel Width** and **Bevel Depth** edit boxes and **25** or a suitable value in the **Bevel Extrusion Depth** edit box.

4.  Next, choose the **Go** button from the **Bevel Options** dialog box; you are prompted to select curves to bevel.

5.  Turn on the visibility of the layer Body. Select the ellipse that was used to create the outer boundary of the sketch; the **Go** button is displayed.

6.   Choose the **Go** button; the base surface is created.

7.   Choose the **Go** button again to accept the current parameters of the base surface. The base surface is shown in Figure 14-90.



*Figure 14-89*  *Sketch of the toy calculator*          *Figure 14-90*  *Base surface*

8.   Exit the **Bevel** tool by choosing the **Pick nothin**g tool.

## Creating Offset Curves

You need to create the offset copies of the curves that were used to create buttons in the sketch. The original and offset curves are used for trimming the unwanted surfaces.

1.   Press and hold the left mouse button on the layer button in the Layer bar; a layer flyout is displayed.

2.   Choose the **Visible** option from this flyout; the visibility of the curves assigned to layer buttons is turned on.

3.   Press and hold the left mouse button on the layer button in the Layer bar; a layer flyout is displayed again.

4.   Choose the **Pick objects** option from the layer flyout; the curves that were used for creating buttons are selected.

5.   Double-click on the **Offset** tool of the **Object Edit** tab in the **Palette**; the **Offset Settings** dialog box is displayed.

6.   Enter **1** in the **Distance** edit box and select one of the curves used for creating buttons; the **Accept** button is displayed at the lower right corner of the active window.

7.   Choose the **Accept** button; the offset copies of the selected curves are created, as shown in Figure 14-91. Close the **Offset Settings** dialog box.
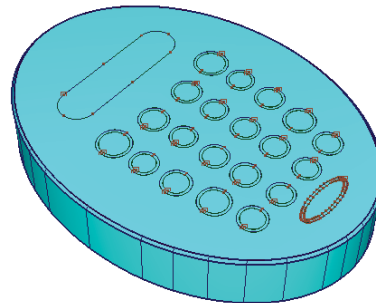
## Projecting all Curves on the Top Face

Next, you need to project all curves (circles, ellipse, and linearc) on the top face of the model.

1. Press and hold the left mouse button on the layer Screen in the Layers bar; a flyout is displayed.

2. Choose the **Visible** option from the flyout; the visibility of curves in the layer Screen is turned on.

3. Choose the **Project** tool from the **Surface Edit** tab in the **Palette**; you are prompted to select surfaces to project curve onto.

4. Select the top face of the base surface; the **Go** button is displayed at the lower right corner of the active window.

5. Choose the **Go** button; you are prompted to select the projecting normal curves.

6. Select the curves that were used to create buttons, their offset copies and linearc; the **Go** button is displayed again at the lower right corner of the active window.

7. Choose the **Go** button; the selected curves are projected on the top face of the base surface, as shown in Figure 14-92.
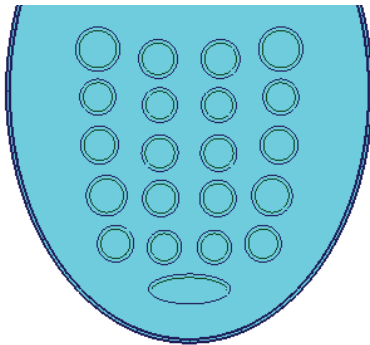
*Figure 14-91*  *Offset copies of curves*          *Figure 14-92*  *Curves projected on top face*
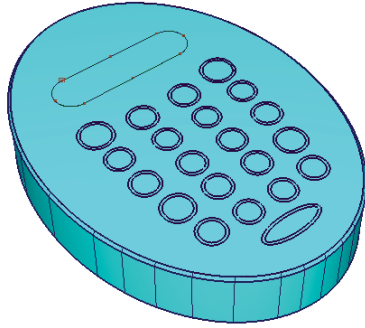
## Trimming Surfaces

After projecting curves on the top face of the toy calculator, you need to trim the surface portions that lie between curves and their offsets.

1. Choose the **Trim** tool from the **Surface Edit** tab in the **Palette** and then select the top face of the base surface. The button, **Keep**, **Discard**, and **Divide** are displayed in the inactive state at the lower right corner of the active window.

2. Next, click on the surface portion that lies between one of the circles and its offset; crosshairs are displayed on the selected portion of the surface. Also, the **Keep**, **Discard**, and **Divide** buttons get activated.

3.  Choose the **Discard** button; the unwanted surface portion is removed and the **Revert** button is displayed at the lower right corner of the active window.

    Similarly, trim the other unwanted surface portions from the top face of the toy calculator, as shown in Figure 14-93.

4.  Remove the surface portion that lies inside the projected linearc by using the **Trim** tool; the model after removing all unwanted surface portions is displayed, as shown in Figure 14-94.

*Figure 14-93* Surface portions trimmed around button curves
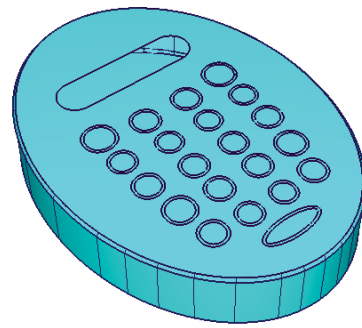
*Figure 14-94* Model after trimming all unwanted surface portions

5.  Exit the **Trim** tool by choosing the **Pick nothing** tool from the **Pick** tab in the **Palette**.

## Creating Recesses for Buttons

After trimming unwanted surfaces, you need to create recesses for buttons.

1.  Double-click on the **Fillet flange** tool from the **Rolled Edge** flyout of the **Surfaces** tab in the **Palette**; the **Fillet Flange Control** dialog box is displayed.

2.  Enter **0.5** in both the **Radius** and **Length** edit boxes in the **Fillet** and **Flange** areas of the **Fillet Flange Control** dialog box, respectively.

3.  Select the **Auto Trim** and **Auto Recalc.** check boxes from the **Control Options** area of the dialog box.

4.  Next, select one of the edges created by circles after projecting and trimming the unwanted surface portions on the top face; the preview of the button recess is displayed at the selected edge.

5.  If the preview of the button recess is displayed above the top face of the base surface, select the **Flip** check box from the **Wall** area of the **Fillet Flange Control** dialog box; the direction of the button is reversed.

6.  Choose the **Next** button from the dialog box; the button recess is created.

7.  Similarly, create other button recesses on the model, as shown in Figure 14-95.
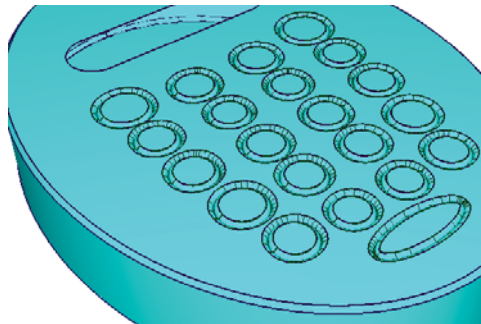
## Creating Buttons

After creating button recesses, you need to create buttons.

1.  Double-click on the **Tube flange** tool from the **Rolled Edge** flyout of the **Surface** tab in the **Palette**; the **Tube Flange Control** dialog box is displayed.

2.  Enter **0.5** in both the **Radius** and **Length** edit boxes of the **Tube** and **Flange** areas of the dialog box.

3.  Select the **Auto Recalc.** check box from the **Control Options** area of the dialog box.

4.  Next, select one of the edges created after projecting and trimming offset curves; the preview of the button is displayed at the selected edge.

5.  If the preview of the button is displayed above the top face of the base surface, select the **Flip** check box from the **Tube** area of the **Tube Flange Control** dialog box; the direction of the button is reversed.

6.  Choose the **Next** button; the button recess is created.

    Similarly, create other buttons on the model, as shown in Figure 14-96.
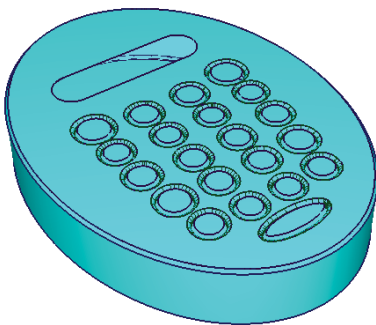


*Figure 14-95  Button recesses*          *Figure 14-96  Buttons created on the model*

## Creating the Display Screen

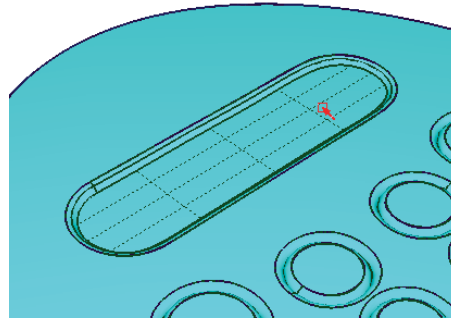After creating the buttons, you need to create the display screen of the toy calculator. The display screen consists of two parts: frame and screen.

1.  Double-click on the **Tube flange** tool of the **Surfaces** tab in the **Palette**; the **Tube Flange Control** dialog box is displayed.

2.  Enter **0.5** in the **Radius** edit box in the **Fillet** area of the **Tube Flange Control** dialog box.

3.  Next, enter **45** and **0.5** in the **Sweep Angle** and **Length** edit boxes of the **Flange** area of the **Fillet Flange Control** dialog box, respectively.

4.  Select the **Auto Recalc.** check box in the **Control Options** area of the dialog box.

5.  Next, select the edges created after projecting and trimming the linearc; the preview of the frame is displayed at the selected edge.

6.  If the preview of the frame is displayed on the top face of the base surface, select the **Flip** check box from the **Tube** area of the **Tube Flange Control** dialog box; the direction of the frame is reversed.

7.  Choose the **Next** button; the frame of the display screen is created, as shown in Figure 14-97.

8.  Next, choose the **n-sided surface** tool from the **Surfaces** tab in the **Palette** and select the lower edge of the frame; the **Go** button is displayed at the lower right corner of the active window.

9.  Choose the **Go** button; the screen is created on the model, as shown in Figure 14-98.
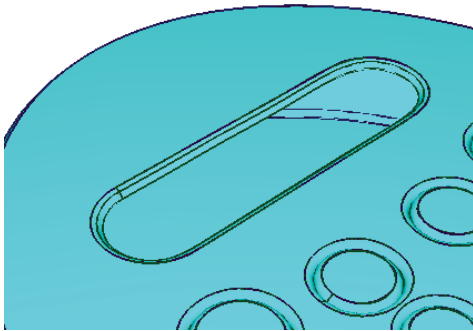


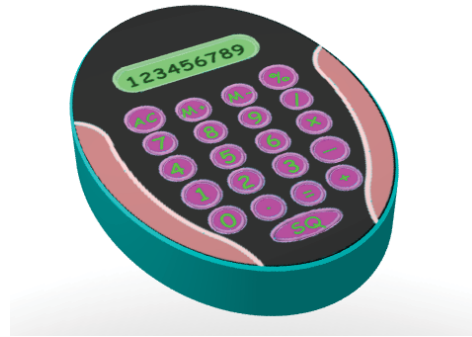*Figure 14-97*  *Frame of display screen*

*Figure 14-98*  *Screen created on the model*

## Projecting the Sketch

After creating the complete model, you need to project the sketch on the top face of the base feature.

1.  Press and hold the left mouse button on the layer Image in the Layers bar; a flyout is displayed.

2.  Choose the **Visible** option from this flyout; the visibility of the image is turned on.

3.  Select the canvas image, top face of the base surface, button recesses, buttons, and screen display, and then choose **Canvas > Project Sketch** from the menu bar; the image is projected on the selected parts of the model.

4.  After projecting the sketch, press and hold the left mouse button on the layer Image; a flyout is displayed.

5.  Choose the **Visibl**e option from this flyout; the visibility of the canvas image (layer Image) is turned off.

6.  Similarly, turn off the visibility of the layers Body, Buttons, and Screen.

7.  To display the projected sketch clearly on the model, choose **WindowDisplay** from the menu bar; a flyout is displayed.

8.  Click on the box given on the right of the **Hardware Shade** option; the **Hardware Shade** dialog box is displayed.

9.  Choose the **Accurate**, **High**, and **2048** buttons from the **Tessellator, Quality**, and **Texture resolution** areas of the **Hardware Shade** dialog box, respectively, and then choose the **Shade on** button; the projected sketch becomes more visible. The model with the projected sketch after the display correction is shown in Figure 14-99. Close the **Hardware Shade** dialog box.

## Saving the Model

1.  Save the model with the name *c14.tut02.wir*e at the location given below:

    *\alias_2012\c14_tutorials\c14_tut02.wire*

**Figure 14-99**  *Model with the projected sketch after the display correction*

## Self-Evaluation Test

**Answer the following questions and then compare them to those given at the end of this chapter:**

1.  The minimum and maximum radii of a brush are measured in terms of pixels. (T/F)

2.  A stroke of paint consists of closely-packed stamps. (T/F)

3.  A felt brush consists of fibers of wool, cotton, or rayon worked by applying pressure, heat, or by chemical reaction instead of knitting or weaving. (T/F)

4.  Paint brushes cannot be used to define the boundaries that are filled by using the **Flood fill** tool. (T/F)

5.  You cannot assign map textures to fill shapes. (T/F)

6. The **Tracking** edit box in the **Text Options** dialog box is used to specify the _____ between the letters of a text.

7. You can distort or warp an image by changing the shape of a region of interest using the _____ tool.

8. You can view all image layers in the _____ window.


## Review Questions

**Answer the following questions:**

1. Which of the following tabs of the **Brush Option** dialog box is used to specify the texture and shape of a stamp of a paint stroke?

   (a) **Properties**              (b) **Stamp**
   (c) **Stroke**                  (d) None of the these

2. Which of the following buttons in the **Brush Profile** area of the **Brush Options** dialog box is used to define multiple edges of a brush stamp?

   (a) **Custom**                  (b) **Buzz**
   (c) **Hard**                    (d) **Regular**

3. Which of the following tools is used to darken the color of a paint in the active image layer?

   (a) **Smear brush**             (b) **Dodge brush**
   (c) **Burn brush**              (d) **Blur brush**

4. Which of the following layers cannot be flipped with the **Horizontal flip** or **Vertical flip** tool?

   (a) Image                       (b) Invisibility
   (c) Mask                        (d) Text image

5. The **Color Picker** icon is used to grab a color from the screen for the current paint brush. (T/F)

6. A locked swatch can be deleted or restored to its original condition. (T/F)

7. If a curve selected for creating a shape is not closed, the endpoints of the curve will be connected by a straight line. (T/F)

8. While cloning the area of a sketch by using the **Clone brush** tool, two stamps are displayed on the active image layer. (T/F)

## Exercises

## Exercise 1

In this exercise, you will create the sketch of a beverage vendor control panel shown in Figure 14-100.                                    **(Expected time: 30 min)**



***Figure 14-100***   *Sketch of the beverage vendor control panel*

## Exercise 2

In this exercise, you will create the model of a beverage vendor control panel by projecting the sketch created in Exercise 1 of this chapter, as shown in Figure 14-101.        **(Expected time: 30 min)**



***Figure 14-101***   *Model of the beverage vendor control panel*

**Answers to Self-Evaluation Test**
**1.** T, **2.** T, **3.** T, **4.** F, **5.** F, **6.** average space, **7. Make warp shape**, **8. Canvas Layer Editor**, **9.** off, **10. Default**