











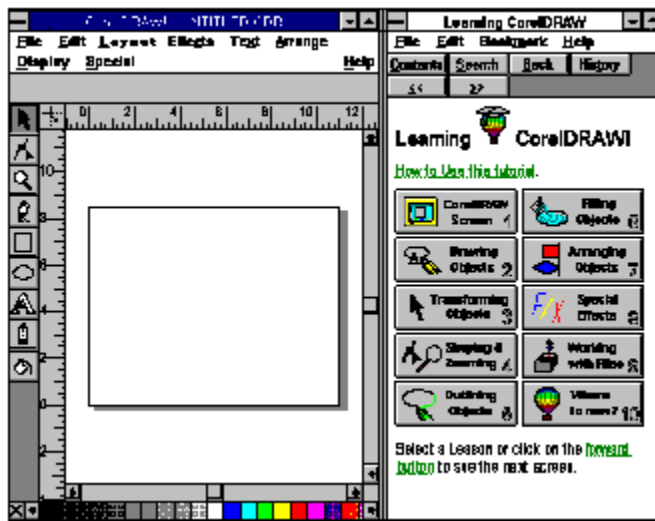
Learning CoreIDRAW!

How to Use this tutorial.

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Select a Lesson or click on the [forward button](#) to see the next screen.

To make the use of this tutorial easier, you should resize the CoreIDRAW screen so that it does not overlap the tutorial screen.



For information about resizing Windows, see the *Microsoft Windows User's Guide*.



Forward Button

How to use this tutorial

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How to use this tutorial

Is this tutorial for you?

If you are new to CorelDRAW, this tutorial is for you. Its lessons will give you an overview of the program, and hands-on practice learning to use it.

This tutorial *won't* make you a CorelDRAW expert. But it *will* get you started. For detailed information about the features, refer to the *CorelDRAW User's Manual* or the *On-line Help*.

Viewing the QuickTour

The CD-ROM companion to this tutorial , *Core/DRAW QuickTour*, demonstrates some of what you'll learn in the lessons and more. To get the most from the tutorial, view the tour first, then try the lessons.

Using the lessons

Each of the lessons in this tutorial has an [Introduction](#), an [Overview](#), an [Exercise](#) and a [Summary](#).

Each lesson is intended to build on what you've learned in previous lessons. If you are new to CorelDRAW, you should go through the lessons as they are presented. This means you simply click on the [forward button](#) after you have read or completed the instructions on the screen.

If you wish to jump to a specific lesson in the tutorial, just click on the appropriate Lesson heading displayed in the Contents screen and select a topic.

The **Introduction** tells you what you will learn in the lesson and why it's important.

The **Overview** tells you what you will *do* in the lesson.

The **Exercise** is divided into parts. It introduces features, explains how they work, and provides step-by-step instructions to get you started using them. It helps you learn by doing.

The **Summary** is a checklist of what you've learned. If you can check off the entire list, you're ready for the next lesson. If you can't, return to the Exercise and make sure you understand it before moving on.

Before you begin

Before you can begin the lessons, you should be somewhat familiar with Microsoft Windows™, under which CorelDRAW runs.

You should know how to open and close Windows applications, and how to use a mouse. For information about Windows, see the Basic Skills section of the *Microsoft Windows User's Guide*.

What's Ahead?

As you work through the lessons, here's what you'll learn:

In Lesson 1, **Using the CorelDRAW screen**, you'll start CorelDRAW (if you haven't already done so). And you'll learn your way around the screen where all CorelDRAW activities are performed.

In Lesson 2, **Drawing objects**, you'll draw rectangles, ellipses, lines and curves, create text, and learn how to trace bitmaps. These simple objects form the basis of even the most complex drawings.

In Lessons 3 and 4, **Transforming objects and Shaping objects**, you'll learn to move, modify and shape the objects you've drawn.

What's Ahead?

Lessons 5 and 6, **Outlining objects and Filling objects**, show you how to shape and color your objects' outlines, and how to fill their interiors with grays, colors and special effects.

Lesson 7, **Arranging objects**, teaches you to move objects in front of and behind one another, and to group, ungroup and align them.

In Lesson 8, **Creating Special Effects**, you'll learn to distort, blend, and extrude objects. You will also be find out how to give perspective to objects and fit text to path.

What's Ahead?

Lesson 9, **Working with files**, you'll learn to save, import, export, insert objects, and print the files that contain drawings.

Lesson 10, **Wrapping up**, you'll learn to create and apply styles, set up multi-page documents, and attaching information to objects.

1 Using the CorelDRAW Screen

Introduction

When you start CorelDRAW, the screen where you perform all CorelDRAW activities is displayed on the monitor. It provides a work area, the tools and menu commands you need to create and modify graphics, and information to help you draw.

Before you start drawing, it's important to know your way around the screen. This lesson takes you on a quick tour.

Overview

In Lesson 1, you'll:

- (a) Start CorelDRAW, and learn how to exit.
- (b) Look over the CorelDRAW screen, and learn how to use each part of it.
- (c) Learn how to change Page Setup and Display settings.

(1a) Starting CoreIDRAW

To begin, if you have not yet already started CoreIDRAW, do so now:

1. To start CoreIDRAW, double-click on the CoreIDRAW icon.

Don't do it now, but when you're ready to exit CoreIDRAW, either hold down the Control (Ctrl) key and press X, or select Exit from the File menu.

2. To make the use of this tutorial easier, you should resize the CoreIDRAW screen so that it does not overlap this tutorial screen.



CorelDRAW! CorelDRAW icon

(1b) Looking over the CorelDRAW screen

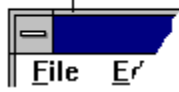
Don't worry if parts of your CorelDRAW screen are not identical to the ones shown.

Someone might have changed your screen settings. In this lesson you'll learn how that's done.

From top to bottom, the parts of the screen are:

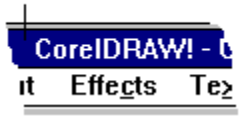
1. The Windows border.
2. The Title bar.
3. The Menu bar.
4. The Status line.
5. The Toolbox.
6. The Drawing window.
7. The Printable page.
8. Horizontal and Vertical Scroll bars.
9. The Color Palette.

1. Windows border



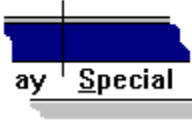
You use it to change the size of the CoreIDRAW window if you want to run other applications beside it.

2. Title bar

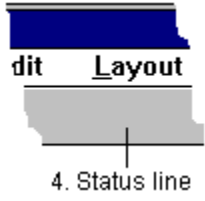


It displays the name of the program and of the file you're working in ('Untitled' for now).

3. Menu bar



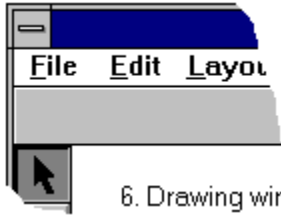
It displays the names of the nine dropdown menus you can access. Each offers a selection of features or commands. You'll use the Layout and Display menus in this lesson.



It displays information about the graphics you draw or select.



It displays icons of the nine tools used to draw, shape, outline, view and fill objects.

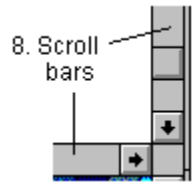


6. Drawing window

You can draw or place objects anywhere in this area.



Only objects inside this border will be printed.



You use them to move the Drawing window side to side or up and down.



The Color Palette provides access to the colors used to outline and fill objects.

The screen also has features you can turn on and off. They might not be visible now but you'll encounter some of them later. And you can find detailed information about all of them in the *On-line Help* and *User's Guide*. They include:

- **Rulers and Crosshairs.** They're helpful when the exact size or placement of objects is important.
- **Grids and Guidelines.** They also help you size and place objects.

Changing Page Setup and Display settings

The appearance of the screen depends partly on settings you turn on and off in the Layout and Display menus. You can change the settings any time, to reflect how you want to use the screen.

The Page Setup

Page Setup entries determine the orientation and size of your printable page.

1. To access Page Setup:
 - Move the cursor to the Menu bar and click on Layout
 - In the Layout menu, click on Page Setup.

You can see from the Page Setup dialog box that your orientation options are Portrait and Landscape. Your size options range from 1.00 by 1.00 inch to 30.00 by 30.00 inches.

Although we won't discuss them here, you can choose a preset page layout for documents such as books, greeting cards and pamphlets from this dialog box. There are also options for viewing facing pages in a multi-page document and adding a background color to the page.

2. To prepare for the lessons that follow, establish a Portrait orientation and a letter-sized page:

- Click on the radio button (the small diamond) to the left of Portrait
- Click on the radio button to the left of Letter
- Click on the OK button.

If your page had a different orientation before, you'll notice a change in the printable page on the screen now.

The Display settings

Display settings determine a variety of screen characteristics. They're described in detail in the *On-line Help* and *User's Guide*, but we'll take a quick look at them now.

3. To access the Display menu, click on Display in the Menu bar.

Many Display settings can be turned on and off by clicking on them. Settings that are on, like Show Status Line have a check mark (✓) before them. Those turned off, like Show Rulers, have none.

The first group turns on and off the Rulers that are helpful when an object's size or location is important, the Status Line which displays information about objects, and the Color Palette for filling and outlining objects. The last command in the group, moves the Toolbox away from its usual spot along the left side of the screen. You can then drag it wherever you want.

The second group turns the Wireframe mode on and off, refreshes the screen after performing a procedure, and whether or not bitmaps you've loaded are visible on the screen.(More about them in Lesson 2.)

The third selection displays the current drawing using the entire screen and the last determines what is and isn't shown in the window.

There's also a group of setting in the Layout menu for for establishing a grid and guidelines on the screen; horizontal and vertical lines that can be useful when drawing and placing objects. You can choose to have objects snap into place on them or not.

- Grid Setup...
- Guidelines Setup...
- Snap To ▶

✓ Show Rulers

✓ Show Status Line

Color Palette



Floating Toolbox

<u>E</u>dit Wireframe	Shift+F9
Refresh <u>W</u>indow	Ctrl+W
✓ Show <u>B</u> itmaps	

Show Preview

F9

Preview Selected Qonly

In the lessons ahead, it will be helpful if your display settings have a ✓ next to *Show Status Line* and *Show Bitmaps*.

4. If your settings don't match those mentioned, change them:

- To add a ✓ or remove one from a setting, click on the setting. When you do, the menu disappears.
- Access the menu again and change the next setting, until all of them match ours. Then click anywhere in the drawing window to leave the menu.

You're ready for the rest of the lessons.

Summary

In Lesson 1, you learned how to:

- Start and exit CoreIDRAW.
- Use each part of the CoreIDRAW screen.
- Change the screen's Page Setup and Display settings.

2 Drawing Objects

Introduction

When you create graphics with CorelDRAW, you begin by drawing objects. Even the most complex graphics start out with simple objects such as rectangles, ellipses, straight and curved lines, and text.

In this lesson, you'll use the Toolbox's four drawing tools to draw basic objects. You'll also learn about adding dimensions and tracing bitmaps. In the process you'll display a new page when you need one, and you'll discover some of the information CorelDRAW displays in the Status Line to help you with your drawings.









The four basic objects: rectangles, ellipses, lines and text.



Overview

In Lesson 2, you'll:

- (a) Draw rectangles and ellipses using the  and  tools.
- (b) Display a new page using the New selection on the File menu.
- (c) Draw straight lines using the  tool.
- (d) Draw curves using the  tool.
- (e) Learn how to set line and curve preferences using a selection in the Special menu.
- (f) Create and edit text using the  tool.
- (g) Draw dimension lines using the  tool.
- (h) Learn how you can trace bitmaps using Auto-Trace and CorelTRACE.

(2a) Drawing rectangles ✓ and ellipses

✓

If you haven't started CorelDRAW, do it now using the instructions in Lesson 1. Then, to draw a rectangle:

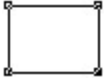
1. First, click on  in the Toolbox.

Notice that ✓ is highlighted in the Toolbox, and that your cursor has changed from

☞ to
+.


2. Next:


- Move the cursor to an open space in the screen
- Press and hold the mouse button
- Drag the cursor up or down and off to one side
- Release the mouse button.



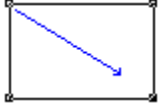
You've drawn a rectangle. Repeat step 2 to draw another.

Although Filling objects is not covered until Lesson 6, you can give a newly created rectangle a fill color by simply clicking on one of the colors in the [Color Palette](#) at the bottom of the CorelDRAW screen

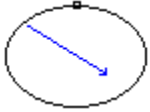
3. To draw an ellipse, follow the same procedure using the  tool:

- click on , then repeat step 2.

You've drawn an ellipse. Draw another by repeating step 3 again. Immediately after creating an ellipse, give it a fill color by clicking on a color in the Color Palette at the bottom of the CorelDRAW screen.




To draw a rectangle, select the rectangle tool, then press the mouse button and drag.



To draw an ellipse, select the ellipse tool, then press the mouse button and drag.


As you drew, a solid line indicated where the object would appear on the screen. The Status Line displayed the cursor's location on the grid, and the object's name and size. This helps you draw objects exactly as you want them.

Drawing squares and circles

Squares are equal-sided rectangles. Circles are round ellipses. To draw squares and circles, you press and hold the Control (Ctrl) key while drawing with the  or

 tools.


4. For example, to draw a square:

- Click on the  tool
- Press and hold the Control key
- Draw a square (Follow [step 2](#))
- Release the Control key.



The Control key constrains the rectangle to a square.

5. To draw a circle


- Click on the  tool
- Press and hold the Control key
- Draw a circle (Follow [step 3](#))
- Release the Control key.



Drawing from the center out

You've drawn objects by dragging from a start to an end point. Using the Shift key you can draw from the center out.

6. To draw a rectangle or ellipse from the center out:

- Click on  or




- Press and hold the Shift key
- Draw a rectangle or ellipse (Follow [step 2](#))
- Release the Shift key.

Drawing squares and circles from the center out

You can draw squares and circles from the center out by holding both the Control and Shift keys.

7. To draw a square or circle from the center out:

- Click on  or



- Press and hold both the Control and Shift keys
- Draw a rectangle or ellipse (Follow [step 3](#))
- Release the Control and Shift keys.

Before moving on, practice drawing rectangles and ellipses.

Try dragging in different directions. Use the Control and Shift keys to constrain and draw from the center out.

Notice that, when you've just drawn it, a rectangle has a small square in each corner, and an ellipse has one somewhere on its outline. You'll use these *nodes* in Lesson 4, to shape objects.

(2b) Displaying a new page

If you completed part (a), your screen is covered with rectangles and squares, circles and ellipses. You'll want a fresh page for drawing lines.

1. To display a new page:
 - In the Menu Bar, click on File.
 - In the File menu, click on New.


The message on your screen names the file you're in, tells you it has changed since you last saved it, asks if you want to save the changes, and gives you three options. You haven't given your file a name, so it's UNTITLED. Its suffix of .CDR indicates it's a CorelDRAW file.

2. You're just learning CorelDRAW, so there's no need to save what you've drawn. To start a new file without saving your objects, click on No.




In the lessons ahead, repeat this procedure any time you want a new page.

(2c) Drawing straight lines (○)

To start drawing a straight line:

1. In the Toolbox, click on the  tool.

2. CoreIDRAW provides two modes for line drawing: Freehand and Bezier. We'll use Freehand, so if the message in the Status Line is already **Drawing in Freehand Mode**, proceed to step 3. If the message in your Status Line is **Drawing In Bezier Mode**, then:

- Click on  and hold the mouse button down
- When this flyout  appears, release the mouse button
- Click on  .

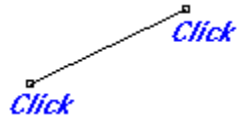
3. Place the cursor where you want the line to start, and click.

When you move your cursor now, a line forms between the starting point and the cursor.

You can move the cursor anywhere on the screen to see the line that would result if you clicked there.

4. To end your line, place the cursor where you want the line to end, and click.

You've drawn a straight line. To draw another, repeat steps 3 and 4.



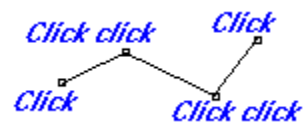
To draw a line, click to start, click to finish.

Drawing multiple-segment lines

5. To draw a line with many segments:

- Place the cursor where you want the line to start, and click
- Place the cursor where you want the line segment to end and the next to start, and doubleclick. Repeat this for each segment except the last.
- For the last segment, place the cursor where you want the line to end, and click once.

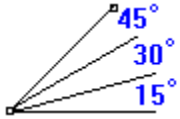
You've drawn a multiple-segment line.



A multiple-segment line.

Constraining the angle of a line

Just as the Control key constrains rectangles and ellipses to squares and circles, it constrains the angle of straight lines to multiples of the angle you specify, with the default being fifteen degrees.



6. To constrain the angle of a straight line:

- Press and hold the Control key
- Place the cursor where you want the line to start, and click
- Move the cursor in a circle around the start point, and notice that it jumps in fifteen degree steps
- Place the cursor where you want the line to end, and click
- Release the Control key.

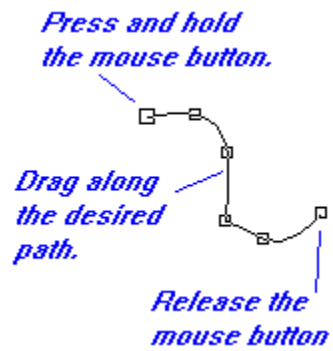
Practice drawing straight lines until you're comfortable with them. Then move on to curves.

(2d) Drawing curves (○)

You're still in Freehand mode, with the ○ tool selected.

1. To draw a curve in Freehand mode:
 - Place the cursor where you want the curve to start
 - Press and hold the mouse button
 - Drag the cursor along the path of the curve
 - At the end of the curve, release the mouse button.

There was a fraction-of-a-second wait while CorelDRAW determined exactly where to place the curve. The result is a Bezier curve; a mathematical curve that CorelDRAW creates in Freehand Draw mode as well as Bezier mode.



Draw more curves in Freehand mode. Notice after you've drawn one that it has a node at each end, and at least one in between.

If you want to try erasing while drawing, hold the Shift key down while you draw, then backtrack along your curve to erase as much of it as you want.

○ **Drawing in Bezier mode**

To draw curves in Bezier mode, you must understand the concept of shaping. It isn't discussed until Lesson 4, so we won't actually draw in Bezier mode right now. Briefly though, instead of dragging to draw a curve, you:

- Click where you want the first node in the curve
- Drag the node's control points to determine the height and shape of the curve leading to the next node
- Click to place the next node
- Repeat the procedure for each node.

Both Draw and Bezier modes have advantages. You'll come to prefer one or the other, depending on the graphic you're creating.

For now, before moving on, spend some time drawing curves in Freehand Draw mode only. (If you just can't wait to draw in Bezier mode, consult the *On-line Help* or *User's Guide*.)

(2e) Setting line and curve preferences

When you're working with lines and curves, you sometimes want to be very precise, sometimes not so precise. For example, you might want the ends of two lines to be near one another without joining, or you might want them to join even if you don't start the second line exactly where the first ends.

Using Line and Curve Preferences you can specify how precise you want to be. The preferences are described in detail in the *On-line Help* and *User's Guide*. But let's take a quick look at them now so you'll know where they are when you need them.

1. To access the Preferences dialog box:

- In the Menu Bar, click on special

Most of the settings here are in inches and degrees. You can change the distance by which a duplicated object is offset from the original and also change the constrain angle of lines drawn while holding down the Control key.

To access the Curves dialog box:

- In the Preferences dialog box, click on Curves.

The settings here are in pixels, the standard measure of distance on a computer screen. They can vary from 1 to 10. The lower the setting, the more precisely CorelDRAW interprets the movement of the cursor. The higher the setting, the more it allows for minor variations, smoothing out what you draw.

2. When you've looked over the selections, exit the Special menu by clicking on Cancel in the Curves dialog box, then on Cancel in the Preferences dialog box.

Next you'll learn how to create and edit text

(2f) Creating and editing text (☞)




The last objects you will create in this lesson are text and symbols. CorelDRAW lets you enter text directly on the screen as either strings of Artistic text or blocks of Paragraph text. You can also add symbols from the Symbol Library, which is a collection of graphic symbols relating to business, sports, transportation and many other subjects.

Adding Artistic Text

Entering text as artistic text allows you to fit the text to a path and create special effects such as blending and extruding. You can add as many strings as you want, with each string limited to 250 characters. To begin:



1. Click on  in the Toolbox to activate the text tool.


The  tool is highlighted, and the cursor has changed from  to .

2. Move the cursor to indicate where you want to begin the text, and click.
3. Key in a few words. Your name for example, or CoreIDRAW, or some letters and numbers.
4. To end a line and start a new one, press the ENTER key.

Editing text



Your text is there, with its typeface and size displayed in the Status Line. But it isn't very large on the screen.

5. To change the text size and font:




- With the  tool still active, double-click on one of the words you entered.
- Click on the Text menu item and select Text Roll-Up.
- Click on the typeface name, in the Text Roll-Up, and select a typeface other than the one currently selected.
- Click on the up arrow to the right of the Size box until the size is about 100 points.
- Click on Apply

The **Text Roll-Up** provides settings for alignment, a wide variety of typefaces, and settings for style and text size.

It also provides buttons to access the Character Placement, Frame and Paragraph dialog boxes.

Changing the type size can also be done quickly using the Pick  tool. Although the  tool is not discussed until lesson 3, we'll quickly resize the text using the Pick Tool.

6. To change the font size:




- Click on the  tool.
- Click on the text string you created earlier.
- Place the cursor on any of the four black boxes at the corners (not the sides) of the text string, until  becomes 
- Press and hold the mouse button, drag away from the text or into its center, then release the mouse button.

Your text sting should now be resized.

Adding Paragraph Text

Paragraph text is designed for adding lengthy blocks of text to ads, brochures, newsletters and other types of text-intensive applications. Paragraph text offers more formatting options such as flowing text into columns, adding bullets and setting tabs and indents. You can add as many Paragraph blocks as you like.

7. To select the Paragraph text tool:

- Click on  and hold the mouse button down
- When this flyout  appears, release the mouse button
- Click on  .

8. Next, draw a frame to hold the text:

- Position the cursor where you want the top left corner to be.
- Position the cursor where you want the top left corner to be.
- Drag to where you want the lower right margin of the text to be.
- Release the mouse button.

You can also add a page-sized frame just by clicking anywhere on the page with the



9. Key in several words of text.

If you typed in enough text you will have noticed that the text wraps automatically from one line to the next.


Once the paragraph text is on the page, you can use the Text Roll-Up window or the Character command in the Text menu to change the typeface, point size and other character attributes. Use the Frame command to change the number of columns and the Paragraph command to apply formatting such as spacing, tabs and hyphenation.


You can also Import text files into a Paragraph text frame or paste text from the Clipboard. See the *Online Help* or *User Guide* for more information about text editing and formatting.

Adding Symbols

CorelDRAW's Symbol Library contains thousands of graphic symbols. You can use the symbols as they are, or edit them the same way you would any other object.

8. To select the Symbol tool:

- hold down the mouse button on the  tool

- when the fly-out menu appears, click on .

The Symbols Roll-Up appears.

9. To add a symbol to a drawing:


- click on the Symbol category list box at the top of roll-up
- scroll through the list and click any of the categories.
- scroll through the available symbols using the up and down arrows below the preview box.
- hold the mouse button down on a symbol and drag to where you want it to appear on the page


The symbol is automatically selected and assigned the default Outline and Fill attributes.


Other options in the Symbols Roll-Up allow you size a symbol before adding it to the page and create a pattern of repeating symbols.

Practice adding text and symbols for a while. Then, when you're comfortable with what you've learned, move on to find out about another way you can create objects in CorelDRAW.

(2g) Drawing dimension lines

Dimension lines are commonly used in technical illustrations to show the size of objects or the distance between them. You draw them using the ,



, and

 tools in the Pencil tool flyout menu.

To begin:

1. Draw a rectangle. (If you're not sure how, see [Drawing rectangles](#) earlier in this lesson.)
2. Turn Snap to Objects on by selecting Snap to Objects from the Layout menu.
(You don't need to enable Snap to Objects, but using it makes precise measuring easier.)

3. To select a dimension tool:

- hold down the mouse button on the  tool
- when the fly-out menu appears, click on .

This tool is for drawing horizontal dimension lines. The other two are for drawing vertical and angular dimension lines.

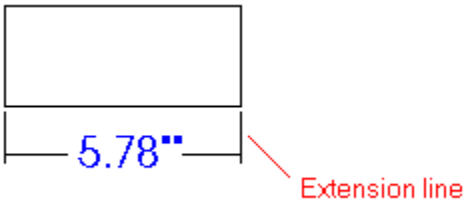
4. Click on bottom-left corner of the rectangle and then drag toward the bottom-right corner.
5. When you reach the other corner, click.

If you have Snap to Objects enabled, the cursor will snap to the end of the object.

6. Move the cursor down to establish the length of the extension lines.

7. Move the cursor to where you want the dimension text (that is, the text that shows the actual measurement) to appear and click.

If you clicked inside the extension lines, then your dimension line should look something like this:



After drawing the dimension line you can edit it by:

- changing the color of the line or text
- changing the placement of the text
- changing the point size and typeface of the text.

Consult the *On-line Help* or *User's Guide* for details on how to make these changes.

The Dimension tools have a set of preference settings which you can access through the Preferences command in the Special menu. One of the settings will automatically center the dimension text on the dimension line.

(2h) Tracing bitmaps

This section describes another way you can create curved objects in CorelDRAW, by tracing bitmaps.

Bitmaps are graphics created pixel by pixel instead of using vectors as CorelDRAW does. You'll eventually want to try tracing one. For now though, there's no hands-on work involved. So if you skip this section you'll still be able to complete the lessons that follow.


Why trace bitmaps?

If you've tried sketching with a mouse or digitizing tablet, then you know that a pen and paper are faster and more accurate. And if you've printed bitmaps on a low-resolution printer, or even printed enlarged bitmaps on a high-resolution printer, then you know the frustration of jagged outlines where you want smooth ones.

With CorelDRAW you can overcome these limitations by tracing bitmaps. Your tracing is a smooth vector line drawing like those created using the tools you're already familiar with. The result is a sketch you can edit using all of CorelDRAW's powerful capabilities; one that retains its resolution when printed at any size on any printer.

Your tracing options

CorelDRAW provides two methods for tracing bitmaps:

- Auto-tracing with the  tool, as described in the *On-line Help* and *CorelDRAW User's Guide*
- Tracing with CorelTRACE, a program that comes with CorelDRAW.

How it's done

Here's the process you typically follow to create vector objects by tracing bitmaps using Auto-Trace:







- You import the bitmap--a scanned image of a pen and paper sketch, or an already existing bitmap file-- into CorelDRAW.
- You then trace the bitmapped object using Auto-Trace.
- You modify your tracing any way you want; changing its outline, filling its interior, adding to, removing from or shaping the tracing until you've achieved the desired result.
- Finally, you save your traced sketch as a new file, which you can print like any other CorelDRAW file.

If you're using CorelTRACE, the bitmap is traced automatically, and the resulting file can be imported into CorelDRAW for modification.

You now know how to draw the four basic objects in CorelDRAW. And you know where to look when you want to trace bitmaps. In the next lesson you'll learn how to transform objects that you've drawn.

Summary


In Lesson 2, you learned how to:

- Draw rectangles and ellipses using the  and  tools.
- Draw straight lines using the  tool.
- Draw curves using the  tool.
- Set line and curve preferences in the Special menu.
- Create and edit text using the  tool.
- Draw dimension lines using  tool.
- Trace bitmaps using Auto-Trace or CorelTRACE.

3 Transforming Objects

Introduction

Drawing objects is just the start. Once they're drawn, you usually want to transform them to achieve the results you're after. Transformations you can apply to objects are: Stretch, Scale, Rotate, Skew and Mirror.

In this lesson you'll use the Pick  tool, and its menu command alternatives, to select and transform objects. You'll also learn how to undo a procedure, repeat transformations, and clear them from an object.

Overview

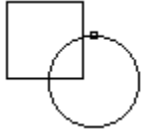
In Lesson 2, you'll:

- (a) Select objects
- (b) Stretch objects, and undo a stretch
- (c) Scale objects
- (d) Rotate objects
- (e) Skew objects
- (f) Repeat and clear transformations


(3a) Selecting objects


The first step when transforming an object is to select it. To learn selecting you'll need objects. So if you haven't already, start CorelDRAW, get a new page, and:

1. Draw a rectangle, then an ellipse. Immediately after creating each object, give it a fill color by clicking on a color in the color bar at the bottom of the CorelDRAW screen





Selecting and deselecting an object


You use the Pick  tool to select objects. There's a shortcut for activating


 and selecting the last object you've drawn:


2. To select your ellipse using the shortcut, press the Space Bar once.

Pressing the Space Bar changes the cursor to  and selects the last object drawn. You know your ellipse is selected because of the black box at each corner and on each side. The Status Line displays the object's type, size and location.



3. To change back to , press the Space Bar again.

Move your cursor and you'll notice it has changed from  to

, ready to draw another ellipse.

The Space Bar is a toggle. Press it repeatedly and you change back and forth between  and the most recently used drawing tool. So it's easy to draw an object, select and transform it, then draw another of the same type.

4. To select your rectangle:


- Either click on  in the toolbox, or press the Space Bar until the cursor shape is 
- Place the cursor on the outline or fill of the ellipse, and click.


Now your ellipse has black boxes around it and your rectangle doesn't. You've *deselected* the rectangle and selected the ellipse.

If the ellipse was unfilled you would of had to click on the ellipse's outline. Because the object is filled, you can select it by either clicking on the ellipse's fill or outline. (More about fills in Lesson 6)

5. To deselect the ellipse without selecting another object, click on any open space.

Selecting multiple objects

6. To select both your objects using :
 - Click on the first object's outline or fill
 - Press and hold the Shift key
 - Click on the second object's outline or fill
 - Release the Shift key.

Holding the Shift key, you can use  to select as many objects as you want.

You can also select all your objects using the Edit menu:

7. First, to deselect your objects, click on open space. Then, to select all your objects:

- In the Menu bar, click on Edit
- In the Edit menu, click on Select All.

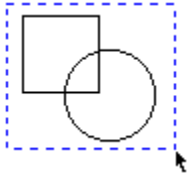
With only two objects to select, you could just as easily have used the Shift key. But when you're working with many objects you'll find Select All handy.

Marquee select

You can also select one or more objects with the marquee select.

8. First, to deselect your objects, click on open space. Then, to marquee select your rectangle and ellipse:

- Place the cursor above or below, and to one side of your objects
- Press and hold the mouse button
- Drag until a dotted line fully encloses both objects
- Release the mouse button



Practice selecting objects by clicking on them and by marquee selecting them.

So far you've focused on rectangles and ellipses. But all objects are selected in the same way. So try creating lines, curves and text, and selecting them.

Next you'll learn how to move selected objects.



(3b) Stretching objects

The black boxes around a selected object are for stretching and scaling it. To learn stretching we'll use a square, so begin by drawing one.



Stretching manually

1. To stretch the square:

- Use  to select it
- Place the cursor on any of the four stretch boxes along the sides (not at the corners) until it becomes 
- Press and hold the mouse button, drag away from the square



- release the mouse button.



Dragging a box at the side of an object stretches it, changing its size and aspect ratio. Changing the aspect ratio converted your square into an ordinary rectangle.

Undoing an action

2. To get your square back, undo the stretch:

- In the Menu bar, click on Edit
- In the Edit menu, click on Undo.

You've undone your most recent action; in this case a stretch. In the exercises ahead, use Undo any time you want to undo an action and try it again.

Two-way stretching and constraining

To stretch in two directions you hold the Shift key while stretching. To limit the size of the stretch to multiples of the original size you hold the Control key.

3. To stretch in two directions repeat step 1 holding the Shift key down while dragging. Be sure to release the mouse button before the Shift key. When you've finished, undo your action.
4. To constrain a stretch, repeat step 1 holding the Control key down. Again undo your action.
5. Try holding both Control and Shift while stretching to discover for yourself what effect this has.

Mirroring an object

Mirroring is stretching an object across itself, usually using the Control key to ensure symmetry.

6. To mirror your square, repeat step 1, but instead of dragging away from the square, drag across it to the other side. Try it with and without the Control key.

Leaving the original

When stretching an object, you can use the right mouse button or the numeric keypad's + character to leave the original in place along with the stretched object.

7. To mirror your square and leave the original:

- Select the square
- Place the cursor on one of the side black boxes, press and hold the mouse button, and drag across the square to the other side
- While still holding the mouse button, tap the right mouse button or the numeric keypad's + key
- press and hold the Control key
- Release the mouse button, then the Control key.

Stretching with the Stretch & Mirror dialog box

If you know the exact amount by which you want to stretch or mirror an object, you might want to do it using the Stretch & Mirror dialog box.

8. To display the Stretch & Mirror dialog box:

- Select an object
- In the Menu bar, click on Effects
- In the Transform menu, click on Stretch & Mirror.


You can use this box to perform stretch and mirror operations similar to those you did manually.


- 9 For now though, exit the dialog box by clicking on Cancel, practice stretching with a variety of objects, then move on to scaling.

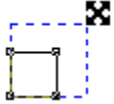
(3c) Scaling objects

You stretched objects, changing their size and aspect ratio, using the side stretch/scale boxes. You scale objects, changing their size but not their aspect ratio, using the corner boxes.

1. If you don't already have one, draw a square and select it. Then, to scale the square:

- Place the cursor on any of the four scaling boxes at the corners (not the sides) of the square, until  becomes

-  Press and hold the mouse button, drag away from the square or into its center, then release the mouse button.



Your square, although bigger or smaller than before, is still a square. Scaling altered its size but not its aspect.

Four-way scaling and constraining

When you stretched objects holding the Shift key, you stretched in two directions. When you stretched holding the Control key, you stretched in multiples of the object's size. And when you stretched holding both the Shift and Control keys, you stretched in two directions and in multiples of the object's size.

Scaling works similarly. When you scale holding Shift, you stretch in four directions. When you scale holding Control, you scale in multiples of the original object's size. And when you scale holding Shift and Control, you scale in four directions and in multiples of the object's size. To see this for yourself:

2. Scale an object while holding the Shift key. Be sure to release the mouse button before you release Shift.
3. Scale an object while holding the Control key. Again, be sure to release the mouse button, then the Control key.
4. Scale an object while holding both the Shift and Control keys.

Leaving the original

You also use the + key in the numeric keypad the same way when scaling as when stretching, to leave the original object in addition to scaling it.

5. To scale an object and leave the original:

- Draw an object
- Select the object
- Place the cursor on any of the corner black boxes, press and hold the mouse button, and drag to scale the object
- Press + in the numeric keyboard to leave the original
- Release the mouse button.

Again you can also leave the original while scaling using either or both the Shift and Control keys. Shift scales from the center out, while Control constrains the scale to multiples of the original objects size.

6. To scale an object using both Shift and Control, and leave the original:

- Draw any object and select it
- Place the cursor on any of the corner black boxes, press and hold the mouse button, and drag to scale the object
- Without releasing the mouse button, tap the numeric keypad's + key, then press and hold both the Shift and Control keys
- Release the mouse button then the Shift and Control keys.

Stretching and scaling is trickier than some of the tasks you've performed. So before moving on, practice your technique using the instructions in steps (c) and (d).


When you're comfortable with stretching and scaling you're ready to rotate and skew objects.

(3d) Rotating objects

You've stretched and scaled selected objects using the black stretch/scale boxes around them. To rotate and skew objects, you use the rotate/skew arrows that replace the stretch/scale boxes when you select already selected objects.

1. To get started, on a new page draw any object. In the example we'll use an ellipse.


2. To activate rotate/skew mode:

- Click on  to select the ellipse
- Place the cursor on the outline or fill of the ellipse and click again.

You know you're in rotate/skew mode because the stretch/scale boxes have been replaced by double-headed rotate/skew arrows.




Rotation Arrows

 Skew Arrows

Center of Rotation Bulls-eye

3. To rotate the ellipse:

- Place the cursor on a curved rotate arrow at one of the corners (not a straight skew arrow along one of the sides) until  becomes



- Press and hold the mouse button, drag around the ellipse until you've rotated as much as you want, then release the mouse button.

As you rotated, the angle of rotation was displayed in the status line, along with the cursor coordinates.

4. Create another object, text for example, and repeat step 3 to rotate it. This time use the + key to leave the original, the way you did when stretching and skewing in part (c) of this exercise.


By now you know the Control key constrains your actions in different ways. It constrains the angle of rotation to multiples of fifteen degrees.


5. To rotate in fifteen degree increments, repeat step 3, but hold the Control key while rotating. You can start holding the Control key at any time during the rotation. But remember to release it only after you've released the mouse button.

Changing the center of rotation

When you double-clicked on an object, in addition to the rotate/skew arrows around it, there was a bullseye at its center. When you rotate, the rotation takes place around this center. To change the center, simply drag it.

6. To rotate around a different center:

- Draw an object and double select it
- Place the cursor on the center of rotation until it becomes .
- Press and hold the mouse button, drag the center anywhere you like, then release the mouse button
- To rotate the object around its new center of rotation, perform step 3.

To return the center of rotation to its original location, hold the Control key down and drag the  to the center of the object.

Using the Rotate & Skew dialog box

In addition to manual rotation, you can rotate objects using the Rotate & Skew dialog box.

7. To access the dialog box:

- In the Menu bar, click on Effects
- In the Effects menu, click on Rotate & Skew

Using this box you specify the angle of rotation you want, and whether or not you want to retain the original in addition to creating a rotated duplicate.

Before moving on to the next section, exit the dialog box and practice rotating a variety of objects manually.


If you want to, try using the Rotate and Skew dialog box too. Its operation is more or less self-explanatory and the *Online Help* is always available when you need it.

(3e) Skewing objects

To rotate objects, you used the curved arrows at the corners of double selected objects. To skew objects, you use the straight arrows along their sides.

1. To begin, draw a rectangle (or any other object) and double-select it to display the rotate/skew arrows.

2. To skew the rectangle:

- Place the cursor on a *straight skew* arrow on one of the sides (not a curved rotate arrow at a corner), until  becomes



- Press and hold the mouse button, drag in the direction of one of the two skew arrows until you've skewed the rectangle as much as you want, then release the mouse button.

As you can see, skewing changes the object's perspective.


3. To get some practice, skew a few other objects, including text. To do it, first create the objects, then repeat step 2. Remember you can undo a skew just as you can any other action, using the Undo command in the Edit menu.

Constraining a skew and leaving the original

When you skew objects the Control and + keys work the same way they do with rotation:

- As a default, Control constrains a skew to fifteen-degree increments. You can change the angle using Line & Curve Preferences.
- The + key in the numeric keypad leaves the original.

3. To skew an object and leave the original:

- Place the cursor on a skew arrow on one of the sides until  becomes



- Press and hold the mouse button, drag in the direction of one of the skew arrows until you've skewed the rectangle as much as you want
- Press + in the numeric keypad
- Release the mouse button.

Using the Rotate & Skew dialog box

You've already learned you can rotate an object using the Rotate and Skew dialog box in the Transform menu. You can use the same box to skew an object, specifying the horizontal and vertical amounts by which you want it skewed.

Practice skewing objects manually. If you want to try skewing with the Rotate and Skew dialog box, go ahead. Otherwise, when you feel confident that you know how to skew objects, move on to find out how to repeat transformations you've applied to an object and how to clear them

(3f) Repeating and clearing transformations

Once you've performed a transformation on an object you can easily repeat it using Repeat in the Edit menu or clear it using Clear Transformations in the Transform menu.

Repeating a transformation

To try out the repeat feature:

1. Draw an object then rotate it 15 degrees while leaving the original.
2. In the Edit menu select Repeat.

You now have three objects: the original, the one you rotated and copied manually, and the one you rotated and copied using the Repeat command.

3. To repeat the transformation again using a shortcut, hold down the Control key and press the letter R.
You can use Repeat as many times as you want to repeat the action you performed most recently; in this case a rotation.
4. Repeat your transformation any number of times, by holding Control and pressing R each time.

Clearing a transformation

To try out the clear feature:

1. Draw an object.
2. Rotate it 15 degrees.
3. Skew the object by any amount.
4. To clear the transformations, in the Transform menu click on Clear Transformations.

Clear Transformations clears all the transformations that you performed on the object, in this case a rotation and a skew, leaving the untransformed original.

You now know the basics of applying transformations to an object and repeating and clearing them. You might want to practice these actions for a while before moving on.

To practice, and to consolidate what you've learned, draw a variety of objects and move, stretch, scale, rotate and skew them. Try repeating transformations and clearing them as well, until you feel comfortable with transformations. In the next lesson you'll learn how to shape objects.


Summary


In Lesson 3, you learned how to:

- Select objects
- Move objects
- Stretch objects, and Undo transformations
- Scale objects
- Rotate objects
- Skew objects
- Repeat and clear transformations.

4 Shaping and Zooming







Introduction

When you drew and transformed objects we pointed out small squares called nodes along their outlines. Now you'll use those nodes, and the shape tool , to shape objects.


Node-editing is an important activity in CorelDRAW, because it allows you to change objects, especially curves, into an infinite variety of shapes. Also in this lesson, because you sometimes want to magnify an object when shaping it, you'll try out the zoom  tool.

Overview

In Lesson 4, you'll:

- (a) Shape rectangles and ellipses using the  tool.
- (b) Zoom in and out on objects using the  tool.
- (c) Shape curves using the  tool.
- (d) Kern text and change character attributes using the  tool.
- (e) Shape 'text' using the  tool.
- (f) Adjust character, word and line spacing in text strings, also using the  tool.


(4a) Shaping rectangles and ellipses

A rectangle has a node in each corner. An ellipse has a single node along its outline. Using the  tool you can round the *corners* of rectangles, and create arcs and wedges from ellipses.

1. To get started, draw a rectangle and two ellipses.



Rounding a rectangle

2. To shape your rectangle:

- Select  from the Toolbox, and notice that the cursor changes from

 to



- Select the rectangle by clicking on it with .
- Place  on any node, press and hold the mouse button, and drag the node along the outline of the rectangle as far as it will go
- Release the mouse button.



When you selected the node, it changed from hollow to black. When you dragged it, each of the rectangle's nodes split in two, and all of the nodes moved along the outline of the rectangle, rounding its corners.

The nodes moved until the ones along the shorter sides of the rectangle met. The amount of rounding (the corner radius) is displayed in the Status Line.

That's all there is to shaping a rectangle.


Creating an arc


3. To create an arc:

- Select an ellipse with 
- Place  on the ellipse's node press and hold the mouse button, and drag in a circle *outside* the outline of the ellipse
- Release the mouse button.


When you dragged, the node split in two with one node at each end of an arc. The shape and size of the arc changed as you dragged. The location of the nodes was displayed in degrees in the status line. And the total angle created between the nodes was also displayed.

Creating a wedge


4. To create a wedge, repeat step 3 with your second ellipse. But instead of dragging outside the outline of the ellipse drag *inside* it.
5. Practice rounding the corners of rectangles and creating arcs and wedges from ellipses. When shaping ellipses, try using the Control key to constrain the angle of an arc or wedge to multiples of fifteen degrees.
6. Create a number of ellipses dragging in different directions with the  tool to see the effect this has on the location of the ellipse's node.

When you're satisfied you know how to shape rectangles and ellipses, you're ready for the bigger challenge of shaping curves. But first, because it's often helpful to magnify nodes when you're shaping curves, we'll look at the  tool.

(4b) Zooming in and out on objects


When working with a drawing, you sometimes want to magnify several objects, a single object, or even part of an object. The  tool lets you do that, by zooming in and out on objects.

You should still have some objects left on your screen from part (a). If you don't, draw one or two now. Then:


1. To access the zoom flyout menu from the Toolbox, click on the  tool.

As you can see, the menu has five selections.

2. To Zoom in on an object:

- In the  flyout, click on



- Move your cursor, which has changed to , above or below and to one side of an object, press the mouse button, then drag until a dotted line completely encloses your object
- Release the mouse button.

Your object now takes up most of the screen.



3. To zoom in even more, repeat steps 1-2, but in step 2 enclose only part of your object in the dotted line.



Now a portion of your object is even larger.


4. Next, access the  menu again, and click on




The  selection zooms out one size.

5. To display only the part of the window that contains objects, access the  menu and click on the  selection.


6. To return to your original full-page view, access the  menu and select .

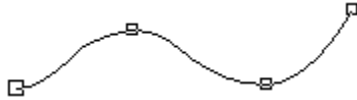
The other  selection, 1:1, displays objects as close as possible to the size they'll be on your printed page.


7. When you've finished exploring the  tool, you're ready to start shaping curves. So select New from the File menu to display a fresh page.

(4c) Shaping curves

The most direct way to shape a curve is by holding the mouse button down on it and dragging. For more precise shaping you drag the nodes and control points.

1. To get started, use the  tool in Freehand drawing mode to draw a simple S curve.



2. It will be easier to work with the curve if you magnify it, so use the  tool to zoom in on it.

3. To start shaping the curve:


- Select  from the Toolbox, so the cursor becomes



- Hold the mouse button down on the part of the curve you want to shape and drag.

Shaping by dragging the node


Next, try shaping the curve by moving its nodes.

4. Select the node at one end of your curve by clicking on it with the .



The selected node is now black instead of hollow, and a small arm extends from the node, with a control point at its end. (If you can't see it, magnify the end portion of your curve even more.)



Dragging a node affects its position relative to the next node in the curve, but doesn't affect the angles at which the curve enters and leaves the node.

5. To move the selected node, use  to drag the node anywhere on the screen.


Shaping by dragging a control point

Moving the control point does affect the angle at which the curve enters or leaves the node.

6. To shape your curve using the control point:

- If it isn't already selected, use  to select the end node. The control point for this node and for the node at the other end of the curve segment will appear.
- Place  on the control point at the end of the dotted line extending from the node, press and hold the mouse button, and drag the control point. To get a feel for it, move the control point in and out along its axis. Also move it freely in a circle around the node and observe the effect on the shape of the curve. Then select and move the control point at the other end of the first curve segment to see how moving it alters the curve shape.

As you've seen, moving the control point determines the angle at which the curve leaves the node, changing the curve's shape.

The end nodes of a curve are always cusp nodes, and always have a single control point. Practice shaping curves using their end points, zooming in and out as required using the  tool. Next you'll learn how to shape curves using the other types of nodes.

Smooth and symmetrical nodes


The other types of curve nodes are smooth and symmetrical. Their differences are outlined in the *Online Help* and *User's Guide*. Briefly though, unlike cusp nodes their control points always lie in a straight line. And the control points of symmetrical nodes are always equidistant from the node.

7. When learning node editing, there's no substitute for experimenting on your own. To see for yourself the differences between the types of nodes, draw a few curves, making some smooth and some not so smooth. Then click on various nodes, check the Status line to see what type they are, and practice using them to shape the curve.


Adding a node

When shaping a curve, you sometimes want to add additional nodes.

7. To add a node:

- Place  at a point on a curve where you want to add the node, then double-click to access the Node Edit Roll-Up
- From the Node Edit Roll-Up, select Add.

8. Try shaping the curve using this new node.

There's a quicker way of adding nodes: Place  at a point on a curve where you want to add the node, then press the + key on the numeric keypad.

The other Node Edit Roll-Up selections


As you noticed when you accessed the Node Edit Roll-Up, it provides a variety of selections. With these you can:

- Add, align and delete nodes
- Break a curve in two at the point where a node is located, or join two nodes on the same curve
- Convert a curve to a line or a line to a curve
- Convert nodes of one type to another type
- Stretch and scale selected parts of a curve
- Rotate and skew selected parts of a curve
- Make a curve expand and contract like an elastic when dragging nodes or the curve itself.

Practicing node editing curves

Learning to shape curves effectively is not something that can be fully explained in a tutorial. It's best mastered by experimentation and practice.

What you've learned here should get you started. But it would be a good idea to read the section on Shaping Lines and Curves in the *CorelDRAW User's Guide*.

8. Before moving on, practice shaping curves, using the  tool to zoom in and out when necessary. Here's additional information that will give you more actions to try out as you experiment:




- You can select multiple nodes using marquee select or by holding the Shift key while selecting
- If a node and control point overlap, you can pull the control point away from the *unselected* node by holding Shift and dragging the control point
- When drawing in Bezier mode, you can alter each node as you place it, determining the shape of the curve segment leading to the next node you create
- Using Control when moving a control point constrains its movement to horizontal or vertical
- The Status line displays information about a selected node and its associated line or curve segment, the amount by which you move a node, and the number of nodes selected.

When you've practiced shaping curves as much as you want to, move on to learn how to kern text.

(4d) Kerning text and changing character attributes

Text nodes are used to kern text, altering the spacing between characters. They can also be used to change character attributes such as typeface, point size and character angle. And, if you change the text to curves first, you can use nodes to shape the curves just as you would any other curves.

1. To get started:

- Display a new page
- Select the  tool and type the word Corel
- Use the  tool to magnify your text
- Select the text using the  tool.

Notice there is a node at the base and to the left of each character, and two spacing arrows at each end of the word.




We'll concentrate on the nodes for now, and use the spacing arrows in step (f) of this exercise.

Kerning text

When working with text, you sometimes want to kern it; moving individual characters slightly to change the spacing between them, making the text more readable.

2. To move the letter C for example:

- Use  to select the node below and to the left of the letter C.



- Drag the letter slightly to the left and above or below its present location.

You've dragged your character up or down and to the side. But when kerning, you usually want to move a character left or right but not up or down.

3. To realign the character vertically with the other characters in the string:
 - In the Menu Bar, select Text
 - In the Text menu, select Align to Baseline.


The horizontal move has been retained, but the vertical move has been erased, returning the character to its appropriate baseline. You can easily avoid this additional step simply by pressing the Control key then moving the letter. It ensures that its baseline is retained, and that it only moves horizontally.

4. Move two or more characters at the same time by selecting all of their nodes, then moving one of them.



Try it, moving the characters as much or little as desired. Then use the Undo command in the Edit menu to return the characters to their original location.

Changing character attributes


If you use  to double-click on a text node, you access the Character Attributes menu. You can use it to change a variety of attributes assigned to the character.


5. To change the point size and angle of the C in Corel:

- Access the Character Attributes menu by double-clicking on the letter C's node (You could also do it by selecting the node then selecting Character... in the Text menu.)
- Increase the point size of the letter, and give it a Character Angle of 45 degrees. Then click on OK.


By selecting more than one character, you could assign attributes to several letters in the string at once. You can also assign different attributes to each character to create special effects.

(4e) Shaping 'text'


Strictly speaking you can't shape text. But you can convert text to curves, then shape the curves with the  tool just as you would curves created with the

 tool.


1. To get started:

- Display a new page
- Use the  tool to create a text string of one or two words.


2. Next, to convert the text to curves:

- Use the  tool to select the text string (As a shortcut, simply press the space bar.)
- From the Arrange menu select Convert to Curves.


What was text is now a series of curves in the shape of letters. If you select Undo before performing any other action, you'll change the curves back to text. But if you wait till later, there's no going back; your curves can't be reconverted to text.

Now that your text string is actually a series of curves, you can shape it using the  tool, just as you would any other curves.

3. To shape your curves:

- Select the  tool from the Toolbox
- Select a node, or marquee select several nodes
- Drag the nodes to move them, and use their control points to shape them to achieve any effect you want.

(4f) Adjusting text spacing


When working with text you may also want to change the spacing between characters, words or lines. You can do this using the Paragraph dialog box which is accessed from the Text menu or Roll-Up discussed in Lesson 2 (f). But you can also do it interactively using the  tool and the text spacing arrows.

1. To begin, on a new page create two short lines of text.

2. To change the spacing between the lines of text:

- Select  from the Toolbox



• Place  on

 so it becomes

, then press the mouse button to turn the cursor shape into



- Drag down to increase the inter-line spacing or up to decrease it
- Release the mouse button.

3. To change the spacing between letters repeat step 2 using the  arrow and moving it left or right to decrease or increase the inter-character spacing.
4. To increase the inter-word spacing repeat step 2 again, but use the  arrow and hold the Control key while dragging. Be sure to release the mouse button before the Control key.

Practice shaping text and adjusting text spacing before moving on.


Summary

In Lesson 4, you learned how to:

- Shape rectangles and ellipses.
- Zoom in and out on objects.
- Shape curves using the tool.
- Kern text and change its character attributes.
- Shape text.
- Adjust text spacing.

5 Outlining objects






Introduction

So far, all the objects you've drawn have had the same outline. But with CorelDRAW's outline pen  you can vary the width, shape and color of outlines. You can create interesting effects, including calligraphic-pen-like shapes for text and other objects.

In this lesson you'll learn how to establish outline width, shape and shading or color.

Overview


In Lesson 5, you'll:


- (a) Use the  tool to set defaults for the outline width and color of new objects.
- (b) Create a custom outline shape and width for an object using the Pen Roll-Up and the  selection in the  menu.
- (c) Create a custom outline color using the Pen Roll-Up and the  selection in the  menu.

(5a) Setting outline width and color defaults


You can choose a variety of common line thicknesses from the Outline tool menu and specify others with the Pen Roll-Up window.


The Roll-Up window lets you apply a wide range of attributes with one or two clicks of your mouse. You can have the roll-up window open as you work or hide the controls, leaving just the Title bar visible. For more information on Roll-Up windows, consult the *Online Help* or *User's Guide*.





1. To get started using the  tool, select it from the Toolbox.


As you can see, the  flyout menu has two lines of icons. The ones in the top line let you determine the width of outlines and display the Pen Dialog Box and Roll-Up. Those in the bottom line determine outline shading or color. We'll look at the width selections first.

The width selections

The  selection at the left of the top line of icons provides access to the dialog box for assigning custom outline widths and shapes. You'll use it in part (b) of this exercise.

The  displays the Pen Roll-Up window which lets you quickly assign line thickness, color, style and arrowhead type.


The selections to the right of  are used to quickly assign basic outline widths, including no outline at all (), a hairline (), and outlines between 0.5 and 24 points. )

2. To try out the shape line in the flyout menu, select  .


The Outline Pen dialog box for new objects has appeared because you didn't select an object before specifying a line width. It lets you establish a default line width to be applied to all new objects you draw.



3. To establish hairline as the default line thickness for all objects, click on OK.


Although we won't use it now, briefly here is how to select a line thickness from the Pen Roll-Up window:

- click on 
- select the object you want to outline
- select the line thickness you want by clicking on the Thickness Selector arrows
- Click the Apply button.

The color selections

4. Select  from the Toolbox again, and we'll look at the bottom line of selections in the flyout menu.

The  selection at the left of the bottom line of icons is similar to the  selection above it; it accesses the dialog box for assigning custom outline colors. You'll use it in part (c) of this exercise.

The seven selections to the right of  are used to quickly assign white, black, and five shades of gray to objects' outlines.


5. To try the outline fill line in the flyout menu, select the black option; third from the left, just to the right of the white selection.

Now the Outline Color dialog box for new objects box is displayed again because you didn't select an object before specifying an outline color. It lets you establish a default line color to be applied to all new objects you draw.


6. To establish a black outline for all future objects, click on OK.


Trying out your options

7. Now that you've established defaults for line width and color, try assigning different outline widths and shadings to actual objects:


- First draw a variety of objects
- Then select them one at a time and assign some of the  menu's already-discussed pre-set options for line width and shading (that is, any of the selections to the right of



 and

 in the

 flyout menu)

- Use the Pen Roll-Up window to assign different colors, thickness and style to your objects.

When you have a good feel for how the pre-set selections work, you're ready to use the  menu's

-  selection to assign custom outline widths and shapes and its
-  selection to assign custom outline color.



(5b) Creating custom outline shapes

1. To get ready to try out the custom outline shape feature:

- Display a new page
- Draw a good-sized ellipse, and select it.

Now you're going to change the width and shape of the outline.

2. To begin, access the Outline Pen dialog box:

- From the Toolbox, select the  tool
- From the flyout menu, select the  icon from the left of the top line.

A quick tour of the Outline Pen dialog box

The Outline Pen dialog box provides a variety of ways to customize object outlines. Briefly, its components include:

- Line Style and Arrows buttons. These display pop-up boxes for selecting preset or custom-designed outlines and line ends. They show the type of outline and line ends already selected.
- A Behind Fill button. It lets you specify whether an object's outline is to appear in front of or behind the outline's fill. (Outlines behind the fill have half the width of those in front.)
- A Scale with Image button. It determines whether or not the outline thickness changes if you change the size of the object.
- Corner selections, including miter, round and beveled.
- Line cap selections, including butt, round and square.
- A Nib Shape box used to customize an object's outline. You'll try it out next.

Using the Nib Shape feature

3. To try out Nib Shape, set these values:


- First, in the Corners section, select round by clicking on the radio button for the second of the three Corner choices
- Next, in the Nib shape portion of the dialog box, set the Width to 0.50 inches, the Stretch to 200% and the Angle to 50 degrees, noticing the effect this has on the Nib Shape displayed to the right of your settings
- Finally, click on OK and have a look at the effect of your changes on the ellipse.


That's a simple example of how the Outline Pen customizes an outline. Before moving on, experiment. For example, create the letter A in the Banff typeface at about 200 points. Then set the corners to round, the Pen shape width to 0.08, the angle to 50, and the stretch to 300.

Experiment with outline shape as much as you want to before moving on to create custom outline fills.


(5c) Creating custom outline colors 

1. To get ready to try the custom outline color feature:

- Display a new page
- Draw and select a good-sized square, and use the  tool's custom outline shape selection (

) to assign it an outline width of 0.50 inches.

What you should see on your screen now is a square with a half-inch outline. The outlines are black because of the default set in part (a).

Notice that, at the right of the Status line, the Outline thickness is listed as 0.500 inches. The small box with an  inside indicates that the object's interior has no fill.

Using the square you've drawn, we're going to explore CorelDRAW's options for assigning colors to objects' outlines.

2. Outline colors are assigned using the custom color selection (☞) in the outline flyout menu, so:
 - To display the Outline flyout menu, select ☞ from the Toolbox
 - To display the Outline Color dialog box, select ☞ from the Outline flyout menu.

The Outline Color dialog box

Let's look over the Outline Color dialog box:

- The Show box contains a list of color palettes for selecting predefined colors and color models for creating new colors
- The Visual Selector box on the right allows for direct visual selection of colors from the current color palette or model
- The text boxes beside the Visual Selector allow you to create colors by typing numeric values.
- The Show color names option allows for selection of colors by name. With this option selected, you can locate colors by typing their names in the Search String box.
- The square below Cancel button displays a sample of the current color and the selected or mixed color
- % tint shows the tint of spot colors
- The Color Name displays the name of the currently selected color
- The PostScript selection in the lower left provides access to PostScript halftone fills you can use only with Spot colors on a PostScript printer
- Finally, Palette lets you load other palettes into CorelDRAW and save ones you've modified

The Process Outline Color Dialog box

3. To access the Outline Color dialog box for mixing colors:

- Click on the Show box at the top of the Outline Color dialog Box

The Outline Color box provides five methods for choosing outline colors. You can get the same results using any of the five. The one you use depends on which you prefer. They include:

- CMYK, for mixing cyan, magenta, yellow and black to create colors
- RGB for mixing red, green and blue
- HSB for mixing by altering hue, saturation and brightness
- Palette, for visual selection of colors from the current palette
- Names, for selecting Pantone colors or colors you've already mixed and assigned names to.

All five methods work similarly. In the next part of this exercise we'll use the RGB method to give you an idea how to select an outline color.

1. To begin selecting a custom RGB outline color:

- Click on RGB in the Show list box


The Visual Selector box is actually two boxes; one a large rectangle, the other a long, thin rectangle. Both have a small node-like button. The button in the larger box is at the lower left, and the one in the smaller box is at the bottom. In these positions the result, as the sample box shows, is Black, the default color established earlier. You're now going to use those buttons to design a color.


2. Move the button in the larger Visual Selector box part way up its left side, then notice the effect on the value entered for Green in the slider box to the left of the selector. Move the button to the top and the Green value will be 100.0, while Red and Blue remain 0.
3. Next, move the same button to the right, along the top of the selection box, and notice the effect on the Red value. Move it to the upper right corner and the values for Green and Red will be 100, while Blue is still 0. As the sample indicates, the resulting color is Yellow.

4. Move the button at the bottom of the smaller Visual Selector box up, stopping at various points and noticing the effect on the blue component of the color.

5. Experiment with the two buttons, moving them until the color displayed in the sample box appeals to you. (You can also use the three slider controls below the Visual Selector to specify precise values for each of the colors.) While CorelDRAW doesn't require that you do so, assign a name to the color by typing Mycolor in the Color Name box, but *don't* press the Enter key.

6. Click on the Palette button and select Add Color To Palette.
7. To assign Mycolor to the outline of your square, select OK.

The outline of your square is no longer Black but Mycolor; the color you created using the  selection in the

 tool flyout menu.

Using a shortcut method to assign outline colors

There's a much faster method for assigning already-defined colors to objects' outlines. To try it:

8. Access the Color Palette from the Display menu and if one isn't already selected, select a color palette.






A color palette displaying up to 800 colors is now displayed at the Bottom of the screen with scroll bars for moving to the color you want.

9. To assign an outline color to a selected object use the *right* mouse button to click on the color in the palette. You'll find Mycolor at the far right of the palette.

Before moving on, practice what you've learned in this lesson. Try the CMYK, HSB, Palette and Named methods of selecting colors if you want to. And practice using the right mouse button and the palette at the bottom of the screen to assign outline colors to different objects.


Summary

In Lesson 5, you learned how to:

- Set outline width and fill defaults using the  tool.
- Create custom outline shapes using the  tool's  selection.
- Create custom outline colors using the  tool's  selection.

6 Filling Objects

Introduction

In this lesson, you'll learn to use the fill tool  to fill the interiors of objects with grays, colors, bitmap and Full-color patterns, fountain fills and PostScript textures.

The function of the dialog boxes and roll-up windows for coloring interiors are virtually identical to those for coloring outlines. So much of what you learned in Lesson 5 will come in handy in this lesson.

Overview



In Lesson 6, you'll:




- (a) Fill the interiors of objects with grays and colors.
- (b) Fill objects with Two-color and Full-color patterns.
- (c) Fill objects with fountain fills.
- (d) Fill objects with Bitmap textures.
- (e) Fill objects with PostScript textures.

(6a) Filling with grays and colors

To get started, display a new page. When you've done that, we'll set a default of no fill before trying out CorelDRAW's fill options.


Setting the default fill

1. Set the default fill just as you did the default outline, using the  tool instead of the  tool:

- With no objects drawn, to display the flyout menu, select  from the Toolbox
- From the  menu, to indicate no fill, select 
- In the Uniform Fill dialog box for new objects, click on All objects, then on OK.



Now the interiors of objects you draw will have no fill.

Filling with grays

You can use the  tool flyout menu to fill objects with black, white and shades of gray.

2. To get started, draw and select a large square.

3. To fill your square with white, black and grays:


- Select  from the Toolbox
- Try the various selections in the bottom row of the  menu to fill your square with white, black and shades of 10-90% gray.

As you experiment with the fills, notice that the name of the color (or shade of gray in this case) is displayed at the right of the Status Line. A sample is provided too, in case you are editing in Wireframe mode.





You can also fill objects with grays from the color palette at the bottom of the CoreIDRAW screen. You used the palette and the right mouse button to change outline fills in Lesson 5. You fill interiors using the same method, but with the *left* mouse button.

4. To try out the color palette's grays, select your square and, using the left mouse button, click on grays in the color palette. You can scroll the palette one color left or right using the left mouse button to click at the end of the scroll bar. To move a screen-width of colors at a time, click on the scroll bar with the right mouse button.

Filling with colors

You can also color objects using both the color palette and the  flyout menu.

5. Continue to experiment with the palette as you did when filling with grays. But select a wider range of colors, noticing the effect on your square's fill and on the information in the Status Line. You should be able to find Mycolor that you defined in Lesson 5.

6. To fill your square with colors using the  flyout menu:
- Select  from the Toolbox
 - Select  from the upper left of the  flyout menu.

The UNIFORM FILL dialog box is identical to the OUTLINE COLOR dialog box you used in Lesson 5 (d). You use it in the same way, assigning existing colors from the palette or using spot or process methods to create colors. The only difference is that the colors are for filling object interiors instead of outlines.

7. Practice using the UNIFORM FILL option to assign different colors to the interior of your square. It's essentially a review of what you did when coloring object outlines, except you're now filling interiors.




(6b) Filling with Two-color and Full-color patterns

In addition to grays and color fills CorelDRAW provides Two-color and Full-color pattern fills. And it gives you the ability to create your own pattern fills.

Although you can use the Fill Roll-Up window to select patterns, the lesson explains how to select them from dialog boxes. Consult the *Online Help* or *User's Guide* for information on selecting patterns from the roll-up.

Two-color pattern fills

1. To access the selection for using Two-color pattern fills:

- Select  from the Toolbox
- Select  from the top line of the  flyout menu.

The Two-color Pattern dialog box provides access to a series of bitmap images you can use to fill objects, options for setting the background and foreground color of the bitmap images, a Tiling option for changing the image size and Offset, options for importing files to create your own bitmap patterns and a Create option for designing your own bitmap fills.

2. To try out this feature:




- Click on the preview box in the upper middle.
- Scroll through the available bitmaps and select one that appeals to you by double-clicking on it

Experiment with the sizing if you want to, by selecting small, medium or large or by changing the values in the Tiling box. Any changes you make will be reflected in the box in the upper left of center screen.

Full-color pattern fills

The dialog box for Full-color pattern fills is almost identical to that of the Two-color bitmap fill. The only difference is that there is no Create option and the foreground and background color choices are not relevant.

3. To access the selection for using Full-color fills:

- With your square still selected, choose  from the Toolbox
- Select  from the  flyout menu.
- Click on the preview box in the upper middle.
- Scroll through the available bitmaps and select one that appeals to you by double-clicking on it.

Using the tiling option you can change the size of the color pattern fill and the offset alignment of the pattern.

4. To try out the Full-color pattern fill you've chosen, click on OK.

Your square is now filled with the chosen color pattern.

Creating new patterns

5. We mentioned the Create option for Two-color pattern fills. There's a second method for creating Two-color patterns and Full-color patterns. Let's take a quick look at it now:
 - With your square still selected, from the Menu bar select the Special menu
 - From the Special menu, select Create Pattern.




As you can see, the Create Pattern dialog box provides options for creating Two-color or Full-color fills and for specifying their resolution. The feature is covered in detail in the *User's Manual*.

6. For now, rather than create a pattern, click on Cancel and we'll move on to Fountain fills.

(6c) Using fountain fills

A fountain is a type of fill that fades gradually from one color to another. You can create fountains using the Fill Roll-Up window, but for now we'll show how they are created using the Fountain Fill dialog box.

1. To access the dialog box for creating fountain fills:

- Select  from the Toolbox
- Select  a from the top line of the  flyout Menu.

The Fountain Fill dialog box provides options for determining the type of fountain fill, the range of colors from and to which the fill will radiate and a few others which we'll deal with later. The best way to understand fountain fills is to try one.

2. To establish a radial fill for your square:
 - Select Radial as the Type of fountain fill
 - Click on the color button of the From color box and select black
 - Click on the color button of the To color box and select white
 - Notice that an example of the radial fill you've selected is displayed in top center of the Fountain Fill box
 - Select OK.

Your square is now filled with a color pattern that begins with a white center and radiates out in increasing amounts of gray until it reaches black.

You may have noticed a Center Offset control in the Fountain Fill dialog box as well. Using it, you can change the center from which the fill radiates to create a variety of effects. Try it out. When you are done experimenting, move on to the next topic: "Creating custom fountains".

Creating custom fountains

The Options button in the Fountain Fill dialog box provides additional options for controlling the colors CorelDRAW uses to create the fountain. We'll explore the *Custom* option since it's the most interesting.

3. Click on Custom under Blend.

The controls that appear allow you to select not only the From and To colors in the fountain but those in between as well.

4. Select the From and To colors as described earlier.
5. Hold the mouse button down on the small square near the lower-left corner of the preview box.
A triangle appears. It's used to mark the spot where you want the first intermediate color to appear in the fountain.
You can also add markers by double-clicking just below the preview box.
6. Drag the marker right about an inch.
7. Click on a color from the palette at the bottom of the dialog box.
The fountain reforms to incorporate the color you selected.
8. Repeat steps 5 to 7 to add a few more intermediate colors.

You may have noticed the value in the Position box changing as you added color markers. The purpose of this box is to allow you to specify exactly where the intermediate colors will appear in the fountain.

Next, you'll learn how to save fountains you create in this dialog box and in the previous one.

Saving fountain fills



9. Select OK to return to the Fountain Fill dialog box.
10. Click inside the Presets box and type a name. You can type up to 25 characters including spaces.
11. Click the Save button.

The fountain is now stored in your computer. To fill other objects with the fountain, access the Fountain Fill dialog box, select the fountain's name from the Presets list box and choose OK.

(6d) Using Bitmap textures

If you've been experimenting with fills in different objects, display a new page. Then draw and select a square or other object you can use to explore Bitmap texture fills.

1. To access the dialog box for selecting Bitmap textures:

- Select  from the Toolbox.
- Select the  icon from the flyout menu.

As you can see the Bitmap Texture dialog box provides a list of named textures you can scroll through and select from. And it contains controls you use to change the appearance of your selection.

2. To try out the textures select one from the Texture list.
3. To change the appearance of your selection adjust the parameters in the lower half of the dialog box. There are two ways to do this:
 - Click the Preview button to randomly change the unlocked parameters. You lock and unlock parameters by clicking the Lock icon next to it.
 - Enter a value in the text box next to the parameter name to change the numeric parameters. To change a color parameter, click on the color button and select a new one from the pop-up palette. To see the effect the new parameters have on the texture, click the **Preview** button.



As with fountain fills, you can save Bitmap textures you create. Consult the *Online Help* or *User's Manual* later for details on how that's done. For now, let's move on to PostScript textures.

(6e) Using PostScript textures

If your page is cluttered with objects, display a new page. Then draw and select a square or other object you can fill with a PostScript texture.

PostScript textures are available only if you use a PostScript printer. Even then they aren't visible on your monitor. They're displayed in an appendix in the *User's Manual* and they appear when you print your drawing on a PostScript printer.


1. To access the dialog box for selecting PostScript textures:

- Select  from the Toolbox
- Select PS from the  flyout menu.

The PostScript Texture dialog box provides a list of named textures you can scroll through and select from. And it displays an area where you can change certain variables affecting the printed appearance of your selection.

2. To try out the textures select one from the list then click on OK.

Your square, or other object, is now filled with the letters PS indicating it contains a PostScript texture that will appear when you print the object on a PostScript printer.

Before moving on, use the Fill Roll-Up  window to fill objects with the same types of fills you accessed from the

 tool flyout menu.

That covers the types of fills--grays and colors, patterns, fountain fills, Bitmap and PostScript textures--that you can use inside objects. In the next lesson you'll learn how to arrange objects.

Summary

In Lesson 6, you learned how to:

- Fill the interiors of objects with grays and colors.
- Fill objects with bitmap and Full-color patterns.
- Fill objects with fountain fills.
- Fill objects with Bitmap textures.
- Fill objects with PostScript textures.

7 Arranging Objects

Introduction

Objects seldom exist in isolation. So it's important to know how to arrange them in relation to one another; how to place one over or under another, how to group and ungroup two or more of them, and how to align them.

In this lesson you'll learn the basics of performing these operations. You'll also learn how to duplicate and delete objects and how to fit text to a path.

Overview

In Lesson 7 you'll:

- (a) Duplicate and delete objects.
- (b) Move objects to different locations on the page.
- (c) Move objects in front of and behind one another.
- (d) Group and Ungroup objects.
- (e) Align objects.
- (f) Working with layers.

(7a) Duplicating and deleting objects

1. To prepare for this lesson:

- Display a new page
- Draw a rectangle about two by four inches.

Duplicating an object

When you duplicate an object, such as the rectangle on your screen, the location of the duplicate on the page depends on settings in the Preferences dialog box.

2. To access Preferences, select Special from the Menu bar then select Preferences from the Special menu.

You passed through this dialog box on your way to Lines and Curves in Lesson 2 (e). This time we'll focus on Place Duplicate. The Horizontal and Vertical entries determine where the duplicate is placed in relation to the original. For example, if your entries are +1.00 inch and 1.00 inch, duplicates will be placed an inch to the right and an inch below the original .

To try it:

3. Set the Horizontal and Vertical entries both to 0.25 inches, then click on OK.

4. To duplicate the rectangle:
 - Select it
 - In the Menu bar, select the Edit menu
 - In the Edit menu, select Duplicate.

A duplicate of the rectangle has been placed a quarter-inch above and to the right of the original, and has been selected automatically.

5. To duplicate the second rectangle using a shortcut, hold the Control key and press the letter D. Now you have three rectangles; your original, and the duplicates created a quarter-inch above and to the right of the previously selected one.

Deleting an object

You can delete objects using a menu selection or a shortcut.


6. To delete the selected rectangle:
 - From the Menu bar, select Edit
 - From the Edit menu, select Delete.

7. To delete a rectangle using the shortcut:
 - First return the deleted rectangle by selecting Undo from the Edit menu (or by holding the Alt key and pressing Back Space)
 - Next, to delete it again, simply press the Delete (Del) key.
8. You'll need all three rectangles for the next part of the lesson. So, once again, Undo your deletion so that you're left with three rectangles on your screen.

Using other selections on the Edit menu you can cut, copy and paste objects. If you want to try them out on your own, go ahead, referring to the User's Guide if you need help. Just make sure you leave your three original rectangles in place, because you'll need them for the next part of this exercise.

Next you'll learn how to move objects in front of and behind each other.

(7b) Moving objects

Once you've selected an object, you can move it using either the  tool or a Arrange menu selection.

Using to move an object

1. To select and move one of your objects, first click on open space to make sure no objects are selected. Then:
 - Place the cursor anywhere on an object's outline or fill
 - Press and hold the mouse button
 - Drag to move the object anywhere on the screen
 - Release the mouse button.

When you press and hold the mouse button you select the object. As you drag, the object's outline is replaced by a dotted line.



As you move the object, information about it, and about how far you've moved it, is displayed in the Status Line.

Repeat step 1 with another object, and notice these changes as they occur.

2. To move several objects at once:
 - Select two or more objects
 - Repeat step 1 for any of the selected objects.

All selected objects move as a group when one of them is moved.

Using the Move command to move an object

You can also move objects using the Move command in the Arrange menu. You can specify how far you want an object moved by entering Horizontal and Vertical distances. You can also specify where on the page you want an object placed, by entering coordinates for the object's center or for any of the black boxes that surround it when it's selected.


For example, to move an object up an inch and to the right an inch:

3. First, to access the Move dialog box:
 - Select the object you want to move
 - In the Menu bar, click on Arrange
 - In the Arrange menu, click on Move.


4. To move the object, using the Move dialog box:

- If there is a checkmark (☑) in the Absolute Coordinates button, click on it to turn Absolute Coordinates off
- If there is no ☑ in the Leave Original button, click on it to turn Leave Original on
- In both the Horizontal and Vertical boxes enter 1.00 inch
- Click on OK.

A copy of your object has been placed exactly an inch above and to the right of the original. And, because you specified you wanted it left in place, the original remains where it was.

To move an object using coordinates instead of distance, you click on the Absolute Coordinates button so it contains an . Nine additional buttons appear; one for each of the black boxes around the object, and one for the object's center.

Click on any of them and the coordinates of the object's corresponding black box are displayed in the Horizontal and Vertical fields. You can change the coordinates to specify exactly where you want that point of the object placed.

Move a few more objects, including lines and text, using the  tool. Try holding the Control key to see how it constrains the movement to vertical and horizontal.

If you want to, try using the Move dialog box to move some objects. If you have trouble figuring out how it works, refer to the *On-line Help* or *User's Guide* for help.

You might also want to try the Nudge feature, to make minor adjustments to objects' locations using your keyboard's arrow keys. It, too, is described in the *On-line Help* and *User's Guide*.

Now that you know how to select and move objects, you'll learn how to stretch them.

(7c) Moving objects to front and back

When you duplicated rectangles, the duplicate was placed on top of the original. CoreIDRAW always does this, building from the bottom up. One way to confirm it, and to provide objects to move to front and back, is to fill each of your three rectangles with different colors.

1. To fill the bottom rectangle with white:

- Select the rectangle
- Move the cursor to white in the color palette, and click with the left mouse button.

2. To fill the middle and top rectangles with gray and black respectively, repeat step 1 twice, choosing a gray shade then black from the color palette.

The selections used to move objects above and below one another are in the Arrange menu. The following steps illustrate how to use this menu.

3. To move the white rectangle to the front:

- Select it
- From the Menu bar, select Arrange
- From the Arrange menu, select Order then To Front.

4. To move the white rectangle to the back again, from the Order submenu select To Back.

5. To move the white rectangle forward one level, so it's in front of the gray but behind the black one, select Order from the Arrange menu then select Forward One.
6. To move the black rectangle to the back, reversing the original order:
 - Select the black rectangle
 - From the Arrange menu select Order then To Back.

7. To return to the original bottomtotop order (white, gray, black):
 - Marquee select all three rectangles
 - From the Arrange menu select Order then Reverse Order.

A shortcut for selecting layered objects

There's a quick way to change which object on your screen is selected. When several objects are stacked the way your rectangles are, it can be very useful.

8. Try it:

- Select the bottom (white) rectangle
- Press the Tab key once and notice that now the top (black) rectangle is selected
- Press the Tab key again and notice that the middle (gray) rectangle is now selected
- Press the Tab key repeatedly and notice that the selected object keeps changing.

In this part of the exercise you learned how to arrange objects over and under one another, and how to select the object you want. Next you'll learn how to group and ungroup objects.

(7d) Grouping and ungrouping objects

1. To prepare for this part of the exercise:
 - Display a new page
 - Add the word Corel at a size of about 100 points
 - Draw a rectangle surrounding the word Corel.

Grouping objects

You now have two objects on your screen; a text string and a rectangle.

2. To group the objects:

- Marquee select them, and notice that the Status Line displays the message 2 objects selected
- From the Menu bar, select the Arrange menu
- From the Arrange menu, select Group.

To confirm that you've grouped your two objects, check the message in the Status Line.

Working with a group

3. To illustrate how grouped objects respond to actions you perform on them:

- Double select your already-selected grouped objects by clicking on them again to display rotate and skew arrows
- Use one of the rotate arrows to rotate the group the way you rotated objects in Lesson 3 (e).

When you rotated the group both objects rotated the same amount. If you perform other actions on the group the result will be the same: both objects will be affected. No matter how many objects are included in the group all will respond in the same way.

Ungrouping objects

4. To get rid of the rotate/skew arrows so that the group of objects is simply selected click on their outline again.
5. To ungroup the objects in the Arrange menu select Ungroup).

Notice that the message in the Status Line is once again 2 objects selected.

6. Next:

- To unselect the selected object click on an open space
- Double-select the rectangle to display rotate/skew arrows around it
- Rotate the rectangle.

This time, because you ungrouped the rectangle and text string, only the rectangle moved.

If you want more practice grouping and ungrouping objects, draw a variety of objects, group them, then try performing various transformations or other actions on them.

(7e) Aligning objects

When you're working with several objects to create a single drawing, you often want to align them. In this part of the exercise, to introduce you to alignment, you'll center text inside a square.

1. To get started:

- Display a new page
- At the top of the page, add the word Text about 100 points in size
- At the bottom of the page, draw a square large enough to enclose the word Text.

Centering the objects

You now have two objects: a text string and a square.

2. To select both objects:
 - Press the space bar to automatically select the square that you drew last
 - Hold the Shift key and select the text so that both the square and text are selected.
3. You align objects using the Align dialog box. To access it:
 - From the Menu bar, select Arrange
 - From the Arrange menu, select Align.

Horizontal and Vertical entries in the Align dialog box determine how the objects you've selected will be aligned.

The Horizontal options are Left, Center and Right; the Vertical options Top, Center and Bottom. The diagrams accompanying the selections provide a graphic depiction of the result you'll get with each selection.

4. To center the text in the square for both Horizontal and Vertical click on the Center button. Then click on OK.

The text string is now centered inside the square. CorelDRAW aligns the first object selected to the second. As a result, it moved the square which you selected first to the text which you selected last.

Aligning multiple objects

The align feature works with any number of objects not just two aligning all the objects to the last one selected

5. To test this:

- Draw an ellipse
- Select the ellipse text and square keeping in mind that the first object you select will be aligned to the last
- Access the Align dialog box from the Arrange menu and, once again, center the objects by selecting Center for both Horizontal and Vertical, then clicking on OK.

All three objects are now centered. Assuming it was sized appropriately, the ellipse is centered inside the square, and the text inside the ellipse.

To explore your alignment options, return to the Align dialog box and try various combinations of Horizontal and Vertical alignment selections.

Next you'll learn to work with layers.

(7f) Working with Layers

The Layer function allows you to have multiple layers overlaying one another. Planning complex projects is easier with Layers because it lets you organize your drawing on a series of invisible planes with each plane containing a portion of your drawing.

You may have as many layers as you want in a drawing, but only one at a time can be active. Layers can also be made visible or invisible, or locked to prevent them from accidentally being erased.

1. To access the CorelDRAW's default layers, get a new page, and:

- Select Layers Roll-Up from the Layout menu

The Layers roll-up window appears, showing three default layer names: Layer 1, Guides, Grid and Desktop. All new drawing files will have the default layers

Layer 1: This layer is the initial drawing layer assigned to all new files. If you begin adding objects to a new drawing, they'll automatically be placed on this layer. You can rename this layer if you wish.

Guides: This layer is used to contain any guidelines you set up in your drawings. While the guidelines reside in their own layer, objects on other layers will snap to them as before. Having a separate guideline layer allows you to turn off the guidelines without having to manually remove them one at a time.


Grid: This layer is used to contain the grid you set in your drawing. While the grid points now reside on their own layer, objects on other layers will snap to them. Having a separate grid layer makes it easy for you to turn off the grid lines temporarily, and gives you the option of printing the grid.

Desktop: This layer is used when working with multi-page documents. Any object moved off the printable page is automatically placed on the Desktop layer and displayed on each page in the document. If you want to add the object to a particular page, simply drag it onto the printable page.

Adding a new layer

You can add as many layers as you need to organize objects in your drawing.

2. To add a new layer:

- Click on  in the Layers Roll-Up window.
- Choose New to display the Layer Option dialog box

The Layer Option dialog box is used to specify the attributes of the selected or new layer.

- Enter a name for the new layer (*Mine* for example) and choose OK.

The new layer is now the active layer.

Changing the active layer

Any objects you add to a drawing are placed on the active drawing layer. You can change the active layer at any time. Before you try changing the active layer:

3. Draw a couple of ellipses and give them a blue fill color.

- Select Layers Roll-Up from the Arrange menu
- Click on *Layer 1* to make it the active layer.
- Draw a couple of rectangles that overlap the ellipses and give them a yellow fill color.

Notice that the rectangles appear behind the ellipses. Although *Layer 1* is now the active layer, the order of the layers stacks all of the objects on layer *Mine* above those on *Layer 1*

Changing the order of layers

The Layers Roll-Up window lists the names of the layers in the current drawing. The order of the names corresponds to the order the layers are stacked in the drawing. Objects on a higher layer display and print on top of objects which are on layers lower in the list.

You can move a layer and the objects on it to a different position in the stacking order.

4. To change a layer's position in the stacking order:
 - Select Layers Roll-Up from the Arrange menu
 - Hold the mouse button down on *Layer 1* and drag it to the top of the list.

Notice that the ellipses now appear behind the rectangles and that *Mine* is now second from the top in the list of layers.

Making a layer visible or invisible

When you are working on a complex drawing, hiding objects on layers you are not currently working on makes editing easier and speeds up screen redrawing.

5. To make a layer invisible
 - Select Layers Roll-Up from the Arrange menu
6. Choose the layer you want to hide:
 - Double-click on *Mine* in the layers list
 - Choose *Visible* to remove the check mark and make the layer invisible.
 - Choose OK

The objects of layer Mine are still there, but you cannot see them. Note that in the layers list, *Mine* is dimmed.

7. To make *Mine* layer visible again:

- Double-click on *Mine* from the list in the Layers Roll-Up.
- Choose *Visible* to add the check mark.
- Choose OK

Other handy Layers features you may wish to explore on your own include:

- Printing selected layers only for faster printing.
- Locking layers to prevent accidental changes to objects on the layer.
- Displaying and printing the grid and guidelines.
- Drawing objects on the guides layer and using them as guidelines
- Making a layer a Master Layer so that objects on it appear on all pages in a multi-page document.

Now that you've covered the basics of arranging objects, in the next lesson we'll look at special effects.

Summary

In Lesson 7, you learned how to:

- Duplicate and delete objects.
- Move objects to different locations on the page.
- Move objects in front of and behind one another.
- Group and ungroup objects.
- Align objects.
- Work with Layers.

8 Creating Special Effects

Introduction

CorelDRAW has many powerful commands for manipulating objects. For example, you can blend one object with another, add perspective to it and even extrude it.


This lesson will cover the commands under the Effects menu and the *Fit Text To Path* command under the Text menu.

Overview

In Lesson 8, you'll:

- (a) Shape objects using envelope command.
- (b) Add one and two point perspective to objects.
- (c) Blend two objects and blend along a path.
- (d) Extrude an object to give it a three dimensional look.
- (e) Contour and object.
- (f) Draw a Powerline.
- (g) Fit text to a path.



(8a) Shaping with Envelopes


One way to change the basic shape of an object is by using the  to manipulate its nodes and control points.

Another way to reshape an object or group of objects is by applying an *envelope* to them. You have a choice of four envelope editing modes, each of which reshapes the object in a different way.

1. To get started, display a new page, create a text string and use the zoom tool to magnify the text so that it fills the screen

Shaping an object's envelope

2. Select the text object with the Pick Tool  .
 - Choose Envelope Roll-Up from the Effects menu.
 - From the roll-up select .
 - Click the Add New button.

The  tool is selected and a dashed rectangle with eight handles appears around the object.



4. Use the cursor to grab the top-middle handle, then drag it towards the top of the screen and release the mouse button.
5. Click the Apply button.



A reshaped version of your object will be drawn.

Clearing an object's envelope

You can restore an object to the way it was before you shaped it with an envelope.


5. To clear an object's envelope:

- Select the object with the envelope you want to clear
- Select Clear Envelope from the Effects menu.

Before moving on, practice shaping the envelopes of different objects using the four envelope editing modes. Try applying one of the preset envelopes from the selection that appears when you click the Add Preset button. Also try shaping the object's envelope while holding the Control or Shift key down to see what effect they have on editing envelopes.

(8b) Adding Perspective



You can create one- and two-point perspective views of an object using the Perspective feature.

1. To get started, display a new page, create a text string and use the zoom tool to magnify the text so that it fills the screen.
2. To add perspective to your text:
 - Select the text with the .
 - Choose Perspective from the Effects menu



PERSPECTIVE

The Shape  Tool becomes selected and a bounding box with four handles appears around the object.

3. Place the cursor over one of the handles at the corners of the text, until  becomes .
4. For one-point perspective, hold down the mouse button and drag either horizontally or vertically.



To constrain the handle's motion to one of these axes, hold down the Ctrl key while dragging. Holding down the Ctrl and Shift keys moves opposing handles the same amount in the same opposite directions.

5. For two point perspective, drag on a diagonal toward the center of the object.



NOTE: As you drag, the vanishing points represented by **X**'s appear. You can drag these to change the object's perspective.

Release the mouse button to redraw the object in its new perspective.

Clearing an object's perspective

You can restore an object to the way it was before you applied the Perspective command to it.

6. To clear an object's perspective:

- Select the object with the perspective you want to clear.
- Choose Clear Perspective from the Effects menu.

(8c) Blending

The Blend command blends two objects through a series of intermediate shapes. You can blend different line thicknesses, an open path with a closed one, and similar or dissimilar fills.

1. To get started, display a new page
 - Create two objects a few inches apart. In this lesson we will use an ellipse and a rectangle.
 - Give each object a different fill color selected from the color bar.

2. To blend the two objects:

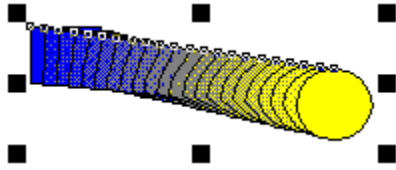
- Marquee select both the ellipse and the rectangle.



- Choose Blend Roll-Up from the Effects menu

The Blend Roll-Up allows you specify such parameters as the number of blend steps, the color parameters of the blend and the rotation of the intermediate objects.


3. For now, use the default parameters and click on the Apply button.

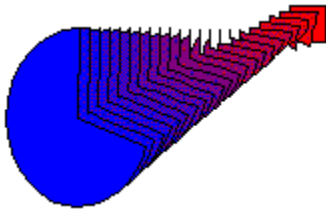


Editing a blend

Blending two objects creates a dynamically-linked group of objects that you can edit by changing the position, size, shape, outline or fill of either the original objects.

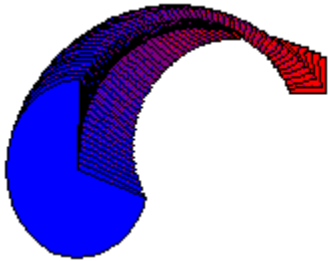
CorelDRAW reblends automatically, following changes to the original objects.

Before moving on, try editing the blend by changing the size, color and positions of the original objects. Also experiment with reshaping the original objects using the  tool.



To edit a blend from the Blend Roll-up:


4. Select the blend group.
5. Choose the options in the Blend Roll-Up you want to use:
 - Increase the number of steps to 50
 - Change the Rotation angle to 90.
 - Click on the Apply button

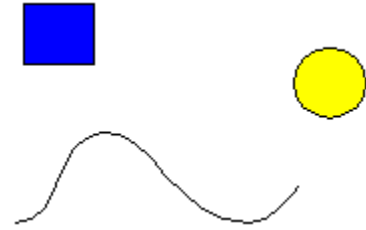


Consult the *On-line Help* or *User's Guide* for more information on the options you can set from the Blend Roll-Up.


Blending objects along a path

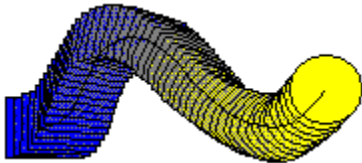
You can blend two objects and then fit the blend to any path. The path and the blend become a dynamically-linked group, which means you can edit the path and have CoreIDRAW automatically adjust the blend.

6. To get started, display a new page
 - Create a rectangle and ellipse as you did in step 1.
 - Draw a simple S curve with the  tool.



7. To blend objects along a path:

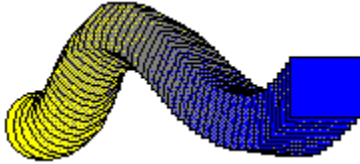
- Blend the rectangle and ellipse (Follow step 2).
- Click on the  button
- Choose New Path
- Click on the S curve.
- Choose Full Path to extend the blend to the full length of the path.
- Click the Apply button.



Reversing the Blend Order

8. To reverse the direction of the blend:

- Select the blend group
- From the Arrange menu, choose Order then Reverse Order.




Clearing intermediate shapes in a blend

The Clear Blend command lets you quickly delete the intermediate shapes in a blend.

9. To clear the intermediate shapes in a blend:

- Select the blend
- Choose Clear Blend from the Effects menu.

Before moving on, experiment by blending different types of objects and after blending objects to a path, try editing the blend path with the  tool.

(8d) Extruding

The Extrude command projects surfaces from an object to give it a three dimensional appearance.

Choosing the Extrude command displays the Extrude Roll-Up window and applies a default wireframe extrusion to the selected object. You can drag the **X** control to adjust the depth and direction of the extrusion, or use the numeric controls in the roll-up window.


Other controls in the roll-up window let you:

- Specify a parallel or perspective extrusion
- Rotate the extrusion
- Change the color of the extruded surfaces
- Apply a light source to enhance the 3-D effect

Extruding an object


1. Display a new page, create a text string and use the zoom tool to magnify the text so that it fills the screen.

FUN

2. To begin extruding the text object:
 - Select the text with the  tool.
 - Choose Extrude Roll-Up from the Effects menu.
 - Click on Edit.

×




3. To specify the depth enter a value in the Depth box.
4. To specify the direction of the extrusion:
 - Drag the **X** control or click  and enter values in the H and V boxes.
4. To extrude the object click on the Apply button



Rotating an Extrusion




5. To rotate the extrusion:

- Click on the  button
- Click on the arrow buttons to rotate the extrusion in the direction you want
- When the extrusion is in the position you want, click on the Apply button.



6. To return the extrusion to its original position, click on the  button.

Changing the Color of the Extruded Surface

7. To change the color of the extruded surfaces
 - select the extruded object with the  tool.
 - click on the  button in the Extrude Roll-Up.
8. To fill the surfaces with a solid color:
 - click Solid.
 - click on the color button .
 - select the color you want to use.
 - click the Apply button.

9. To fill the surfaces with a graduated color:


- choose Shade.
- click on the From and To color buttons  to select the colors you want to use.
- click the Apply button



10. To color the surfaces the same as the object, click on Use Object Fill and click the Apply button.

Applying a light source

11. To apply a light source:

- Click on the  button
- Click the On/Off box to turn the light source on.
- The sphere represents the extrusion, while the **X** represents the light source.
- Move the light source by clicking where lines on the wireframe box intersect.
- Set the Light Intensity to 150.
- Click on the Apply button.

Editing an Extruded object

Extruding an object creates a dynamically-linked group of objects which you can edit by selecting different options from the Extrude Roll-up window or by changing the position, size, shape outline or fill of the extrusion.

We won't do it now, but to edit an extrusion from the Extrude Roll-up:

- If the Roll-up window is not already displayed, choose Extrude from the Effects menu.
- Select the extrusion group.
- choose the options you want to use.
- click the Apply button.

Clearing Extruded Surfaces

The Clear Extrude command lets you quickly delete the surfaces created by extruding an object.


12. To clear the extruded surfaces:

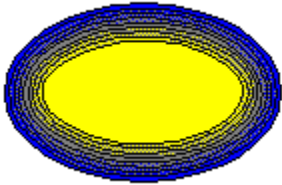
- Select the extruded object
- Choose Clear Extrude from the Effects menu.

(8e) Contouring an object

Contouring an object creates a series of concentric shapes that gives an object a three-dimensional look. You could achieve a similar effect by blending two different sized but otherwise identical objects one inside the other.

1. To get started, display a new page
2. Draw an ellipse and fill it with a color.

3. To contour the object, select it and choose Contour Roll-Up from the effects menu.
The Contour Roll-Up lets you radiate the shapes in or out from the object, specify the number of shapes created and the outline and fill colors that will blend with those in selected object.
4. In the Steps box, enter 8.
5. Click the button next to the  and then select a color.
6. Click the Apply button.



Clearing contour shapes

The Clear Contours command lets you quickly delete the shapes created by contouring an object.

7. To clear the extruded surfaces:

- Select the contoured object.
- Choose Clear Contour from the Effects menu.


(8h) Drawing PowerLines

The PowerLine feature lets you draw lines that look like they were created with traditional artists' tools like paintbrushes, calligraphic pens and wood etching tools.

1. Display a new page then choose PowerLine Roll-Up from the Effects menu.

The roll-up provides a selection of preset PowerLine types and controls for modifying their appearance. After modifying a PowerLine you can give it a new name and add it to the list of presets. We'll get into this in more detail after you draw a couple of PowerLines.

2. To draw a PowerLine

- Make sure there's a check mark next to *Apply when drawing line* in the PowerLine Roll-Up.
- Click the  tool
- Draw a curved line something like this one:



3. Draw a few more PowerLines using the current settings then try writing your name. When you're done drawing try the following:
 - Select one of the PowerLines you drew and choose an outline and fill color from the palette at the bottom of the screen.
 - Select a different PowerLine type from the list in the roll-up and then click the Apply button.
 - Change the Max Width setting and then click the Apply button.
 - Draw an ellipse, outline and fill it with color and then click the Apply button. Notice that the PowerLine assumes the outline and fill of the ellipse while the ellipse itself appears to have vanished. Actually it's still there--you just can't see it nor can you select it.

By now you should have a good idea how PowerLines work. However, there's still a lot more to discover about this feature. Next, we'll look at using the keyboard to vary the width of the PowerLine as it's being drawn. After that, you'll learn how to shape PowerLines with the Shape tool and save PowerLines settings so that you can use them again.

**Using the keyboard to vary the width
of a PowerLine**

4. Scroll through the PowerLines type list and select Pressure.
5. Click to begin your PowerLine and then begin dragging.
6. As you drag press the ↓ key in the numeric keypad repeatedly to increase the width of the line.
7. While continuing to drag press the ↑ key repeatedly to decrease the width.

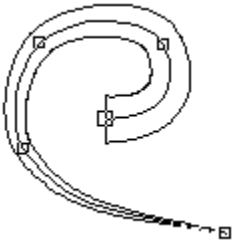
When you stop dragging, CorelDRAW will take a few moments to calculate the shape of the PowerLine. Practice drawing a few more PowerLines before moving on.

Shaping a PowerLine with the Shape tool

If you cleared your screen, you'll need to draw a PowerLine before beginning the next procedure.

8. Select  from the Toolbox.

The first thing you'll notice is a line (called the "core" line) running more or less through the middle of the PowerLine. The hollow squares, as you may remember from an earlier lesson, are used to shape the PowerLine.

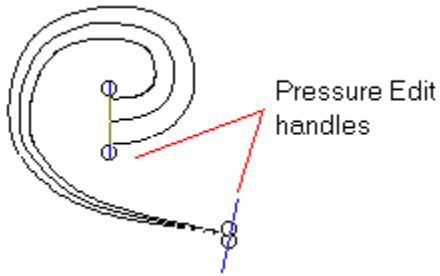


9. Select one of the nodes and drag it anywhere on the screen.
10. Try dragging the control points that extend from a selected node.

As you can see, shaping a PowerLine is no different than shaping another type of line. You can also use the Node Edit Roll-Up to edit PowerLines.

11. Display the Node Edit Roll-Up by double-clicking a node.

At the bottom of the roll-up is an option (Pressure Edit) which, when selected, displays pairs of round handles at various points along the PowerLine. Dragging these handles changes the width of the PowerLine.



Saving a custom PowerLine

Custom PowerLines you create by adjusting settings in the PowerLines Roll-Up can be saved for later use.


12. Click the Save From button in the roll-up.


13. In the PowerLine Name box, type a name.

You can type up to 22 characters including spaces.

14. Choose OK.

The PowerLine name is added to the end of the Preset list.

We've touched on everything except the  and

 buttons in the PowerLine Roll-Up. Clicking them displays additional settings which affect the appearance of the PowerLine. Try them out if you like. For more information refer to the *Online Help* or *User's Guide*.

(8g) Fitting Text to a Path

Text normally rests on an imaginary straight line called the baseline. While you cannot edit the baseline, you can fit it, along with the text, to a path of any shape. You can use an ellipse, rectangle, line curve and even a letter converted to a curve object as a path.

1. To get started, display a new page and create a text string and a circle.

CoreIDRAW



2. To fit the text to the circle:
 - Select both the text and the circle.
 - Choose Fit Text to Path from the Text menu.

The Fit Text to Path Roll-Up provides several options that let you determine how you want CoreIDRAW to fit the text to the path.

3. For now, accept the default settings and click on *Apply*.



For more information on Fitting Text to a Path, refer to the *On-line Help* or the *User's Guide*.

Editing text fitted to a path

Fitting text on a path creates a dynamically-linked group of objects which you can edit by:

- selecting different options from the Fit Text to Path Roll-Up window.
- editing the shape of the path.
- editing the text.



When you finish editing, CorelDRAW refits the text to the path automatically. See the *Online Help* and *User's Guide* for more information.

Practice fitting text to a path

Here are some suggestions for practicing fitting text to a path:

- Try various options from the roll-up window such as *Place on other side*
- Experiment fitting text to other objects - a freehand curve and a rectangle for example



Summary

In Lesson 8, you learned how to:

- Shape objects using envelope command
- Add one and two point perspective to objects
- Blend two objects and blend along a path
- Extrude an object to give it a three dimensional look
- Contour and object
- Draw a PowerLine
- Fit text to a path

9 Working with files

Introduction

Every drawing you create and save in CoreIDRAW occupies its own file. Because CoreIDRAW runs under Microsoft Windows, if you're familiar with file management in Windows you already know much of what you need to know about working with files in CoreIDRAW.

As a result, this lesson covers very quickly the basics of saving, opening and printing CoreIDRAW files, importing files into CoreIDRAW *from* other programs, and exporting CoreIDRAW files to other programs.

If you find this introduction too basic, refer to the *Online Help* or *User's Guide* for detailed information.

Overview

In Lesson 9, you'll:

- (a) Open an existing file, and save a new one.
- (b) Look over the dialog boxes for importing and exporting files.
- (c) Print a file.

(9a) Opening and saving files

The file management activities discussed in this lesson are performed using the File menu. So, to begin:

1. Display a new page. Then, from the Menu bar, select File.

This menu should be familiar by now. In Lesson 1 you explored Page Setup. And you used the New selection throughout the lessons to display a new page when you needed one. Unless you possess amazing stamina and have worked through this tutorial without a break, you've also used Exit, or its shortcut (Control X), to leave CorelDRAW from time to time.

In this lesson we'll step through some of the remaining File menu selections so you'll have an idea what they provide.

Opening a file

Files are opened in CorelDRAW using the Open command in the File menu. As a shortcut, you can select it directly from the CorelDRAW screen by holding down the Control key and pressing the letter O.

2. To access the Open Drawing dialog box, select Open from the File menu.

The Open Drawing dialog box displays the current directory Path, which you can change, a Drives and Directories list for choosing a path, and a list of files available in that path. The larger box on the right displays some of the contents of a file when you click on the file's name, provided the file was created or saved in a recent version of CorelDRAW and the Preview checkbox is selected.

3. To preview the contents of some of the files available in CoreIDRAW:
 - If it's not already displayed, change to the path containing .CDR files
 - Click on any filename to display a portion of its contents in the sample box.
4. If you want to open a file, double-click on the filename or click on the OK button. Otherwise, click on Cancel.

Saving a file

5. To start saving a file:

- If there is a file already open, display a new page by selecting New from the Edit menu
- To create contents for a file, draw one or more objects of any kind on your page
- Notice that the file name in the Title bar at the top of the screen is Untitled.CDR
- To use the shortcut for accessing the Save dialog box from the File menu, hold down the Control key and press the letter S.

The Save Drawing dialog box is similar to the Open Drawing box; there's a list of existing files and directories, a box showing the available drives and a File name box. The cursor is in the File name box prompting you to enter a name for the file you want to save.

6. To complete the save:

- In the File field type in a name such as TEST (CorelDRAW will add the .CDR suffix automatically.)
- Click on Save or press the Enter key.

You've saved a file. The objects you drew are still displayed on the screen, but the file's name (TEST, or whatever you assigned it:) is now displayed in the Title bar with the .CDR suffix.

When you're working with a drawing, it's a good idea to save it regularly. If you want to, using the 'Save as' command in the File menu, you can save it under a new name and leave the original file intact.

The Keywords box in the Save Drawing dialog box is for storing words or phrases with a file. These keywords can then be entered in the Open Drawing dialog box to locate the file. The Notes box is for storing comments with a file.

(9b) Importing, Exporting and Inserting Objects

You can import drawings into CorelDRAW from other programs using the File menu's Import command. And you can convert a CorelDRAW file into a format usable by other software, such as word processing and page layout programs, using the Export command.

Importing files

1. To begin a quick overview of the Import feature:
 - From the Menu bar, select File
 - From the File menu, select Import

The Import dialog box lists the types of graphics files you can import, drive and directory selection, and directory contents.

The *About* button will provide information regarding the version number of the currently selected import filter and the *Mosaic* button gives you access to the CoreIMOSAIC utility for locating files.

2. Click on the field *List Files of Type*.

Notice that one of your import options is CorelDRAW. Using it you can import one CorelDRAW file, such as your company logo, into another, then size and shape it to your liking.

After selecting a file type, you can specify the Path of the file you want to import, and the file's name. Once you've done that, you can click on OK and the file is imported into CorelDRAW.

3. We won't import a file at this time (although you can try it if you want to), so after you've looked over the Import dialog box, click on Cancel.

Exporting files

4. To explore the Export dialog box:

- If for some reason your file isn't still open from part (a) draw an object on your screen
- From the File menu, select Export.

The export dialog box lists the various formats in which you can export, drive and directory selection, and directory contents. The *About* button will provide information regarding the version number of the currently selected export filter.

After selecting a file type, you can specify the Path of the file you want to export, and the file's name. Once you've done that, you can click on OK. Additional export parameters will appear in a separate dialog box as required. Among other things, the additional parameters let you determine the resolution of exported bitmaps, along with the size of the Image Header you're exporting. These features are described in detail in the *User's Guide* and the *Online Help*.

5. We won't export a file right now, so once you've looked over this dialog box click on Cancel.

Inserting Objects

Earlier you learned how to use the Import command to bring text and graphic objects from other programs into your drawings. You can do the same thing with a feature called Object Linking and Embedding.

6. From the File menu, select Insert Object.

The Insert Object dialog box lists the various types of objects which you can bring into CorelDRAW. One of the types listed is Paintbrush Picture (you may need to scroll the list to see it.). If you're familiar with Windows, you probably know that Paintbrush is a program for creating and editing bitmap images. We'll be using this program to demonstrate how object embedding works.

7. Make sure Create New is selected then select Paintbrush Picture from the Object Type list.
8. Choose OK.

Within a few moments, Paintbrush will appear on your screen.

9. Select the rectangle drawing tool from the toolbox and drag a good-size square.

10. From Paintbrush's File menu, select Exit & Return to UNTITLED.CDR

A dialog box appears whether you want to update the embedded object.

11. Choose OK.

The CorelDRAW screen will reappear with the rectangle displayed and selected. Notice the Status Line says "Paintbrush Picture" and not "Bitmap" as it would if you imported the same rectangle. Because CorelDRAW knows where the rectangle came from means you can open Paintbrush to edit the rectangle just by double-clicking it. We'll try that next.

Editing an Embedded Object

To edit the embedded rectangle:

12. Either double-click on the object or select it and choose Edit Bitmap from the Edit menu.
The Windows Paintbrush screen appears with the rectangle.
13. Select the paint roller tool, then click a color from the palette along the bottom of the Paintbrush screen.
14. Click inside the rectangle.
15. From Paintbrush's File menu, Exit & Return to UNTITLED.CDR.
The CorelDRAW screen will reappear with the modified rectangle.

You now know how to insert and edit embedded objects. Linking is similar to embedding except CorelDRAW will automatically update the object whenever it changes in the originating program.

For more information on inserting objects see the discussion on Embedding Objects in the User Guide or refer to the Online Help.

Next you'll print a file.

(9c) Printing files

As an introduction to printing CorelDRAW files, you can print the file TEST.CDR that you created earlier.

1. Your TEST file should still be open from part (a) of this exercise. If it isn't, open it now. Or, open any other CorelDRAW file that you want to print.
2. To access the Print Options dialog box:
 - From the Menu bar, select File
 - From the File menu, select Print

Using Print Options

The Print Options dialog box is used to print files. It has a wide variety of settings to choose from. They allow you to specify, among other things:

- Exactly what you want to print (the whole file, for example, or only objects you've selected)
- Whether you want to fit your drawing to the page or print it at its actual size
- Whether or not you want crop marks printed

The window on the left side of the dialog box displays the image as it will print. You can move the image around on the page by dragging it and change its size by dragging the four handles.

The box at the top right shows the name of the printer to which the file will be sent. And the Printer button below accesses dialog boxes for specifying a different printer, changing the paper source, your page orientation (portrait or landscape) and so on.

If you have questions about how your printer will work with CoreIDRAW, or you have problems printing, refer to the *Online Help*.

3. For now, to print your file, click on OK.

You've sent your file to the printer, and it should soon be available in hard copy form.

You've also just about finished this tutorial. In the final lesson we'll give you a quick overview of some features you didn't encounter during the lessons.

Summary

In Lesson 9, you learned how to:

- Open an existing file and save a new one
- Use the dialog boxes for importing/exporting files and inserting objects
- Print a file

10 Wrapping up

Introduction

In this, the final lesson, we'll look at three features making their debut in CorelDRAW 4.0: Styles, Multi-page documents and Object Data.

Overview

In Lesson 10, you'll:

- (a) Create and apply styles.
- (b) Set up a multi-page document.
- (c) Learn to attach information to objects using the Object Data feature.

10 (a) Creating and applying styles

If you've worked with word processing or desktop publishing programs you're probably already familiar with the concept of styles. A style is set of attributes such as fill color and outline thickness to which you assign a name. When you apply a style to a selected object all the attributes in that style are applied at once.

1. To get started, display a new page
 - Draw a rectangle
 - Fill it with a color from the palette along the bottom of the screen
 - Select a thick outline from the Pen tool flyout menu.

2. Click the rectangle with the left mouse button.

The Object Menu appears.

3. Choose Save As Style.

The dialog box that appears is for naming styles and specifying which of the selected object's attributes to include in the style. Because we're using a simple rectangle, the only available attributes are Fill and Outline. Most of the other attributes become available when you select text.

4. Type the name My Style in the Name box then choose OK.

You've created a style called My Style. Next, you'll apply it to another object.

Applying a style

Before you can apply the style you just created you need to add another object to the page. So, select the Ellipse tool and draw an ellipse.

5. To apply the style you created

- Open the Object menu by clicking the outline of the ellipse with the left mouse button.
- Choose Apply Style
- From the submenu that appears choose My Style.





You should now have a rectangle and an ellipse with the same fill and outline.

Another way to apply styles is with the Style Roll-Up. We'll explore this roll-up next.

Exploring the Style Roll-Up

6. To open the Style Roll-Up, choose Style Roll-Up from Layout menu.

The Style Roll-Up contains the following components:

- A list of styles in the current style template. A template is a collection of styles which you name and store just like the styles themselves. You can open a template and apply its styles to any illustration.
- Buttons for displaying and hiding the three types of styles: Artistic Text, ; Paragraph text, ; and Graphic .
- A menu (displayed by clicking ) with commands for loading and saving templates, assigning hotkeys to Paragraph text styles so that you can apply them using the keyboard, deleting styles, and finding objects with a particular style.

That concludes our look at Styles. For more information about this feature, consult the *User's Guide* or *Online Help*.

Now, on to setting up multi-page documents.


10 (b) Setting up a multi-page document


So far each new drawing you were asked to create consisted of a single page. You can also create multi-page drawings or documents simply by adding new pages.

To add additional pages:

- From the Layout menu, choose Insert Page
- In the Insert box type 3 or click the up arrow to increment the value
- Choose OK.

You now have a drawing consisting of four pages.

Look in the bottom-left corner of the drawing window. You should see an information bar showing the number of pages in the drawing and two buttons, 

. Clicking these buttons displays the next or previous page. Pressing the PgUp and PgDn keys does the same thing.

To go to a specific page, click on information bar and enter the number of the page in the Go To Page dialog box. This dialog box is also accessible from the Layout menu.

Deleting pages is done with the Delete Page command in the Layout menu.

Below are some of the special features CorelDRAW provides for creating multi-page documents.

- **Multi-page Layouts:** Available through the Page Setup command in the Layout menu these include standard layouts for books, booklets, brochures and pamphlets.
- **Automatic Imposition:** Arranges the pages at printing time so that they appear in the proper order when bound.
- **Facing Pages View:** An option in the Page Setup dialog box that lets you display two consecutive pages at once. In this view, you can draw objects that lie partially on both pages. You can even blend objects across the pages.
- **Master Layers:** Lets you create a page with elements you want to appear on each page. You might create a master page that contains your company logo or headers and footers.
- **Automatic Text Flow:** You can link frames of Paragraph text on separate pages so that the text flows between them automatically.

For more information see the *User's Guide* or *Online Help*.

10 (c) Attaching information to objects

CorelDRAW's Object Data feature allows you to attach information to individual objects and groups of objects. The information can be text, numbers, dates, times or any other type of data you want to record. For example, you could record part names and numbers for a technical illustration you are working on.

1. To prepare for this part of the lesson:
 - Display a new page
 - Draw an ellipse and fill it with red
 - Draw a rectangle and fill it with blue.

2. Using the right mouse button, click on the red ellipse.
3. From the Object menu, choose Data Roll-Up.

The Object Data Roll-Up consists of a two columns labeled Field and Value, a text entry box, a button for displaying a menu of commands and another button for accessing the Object Data Manager.

The three items in the Field column (Name, Cost and Comments) are names describing the categories of information you can attach to objects. Although we won't be doing it in this lesson, you can change these names and add others.

4. Press ENTER or click in the text entry box at the top of the roll-up.
5. Type Ellipse and then press the ↓ key to select the Cost category. You can also select it by clicking the name Cost.

You should see the word Ellipse in the Value column next to Name.


6. Type 10 and then press the ↓ key to select the Comment category or click the name.
Notice the addition of a dollar sign in front of the number 10 along with the decimal point and extra zeroes. Each category of information has a format which determines how information you type in it is interpreted and displayed. The Cost category for example, formats numbers as currency and adds a (\$) in front of the number.

- 7 Type Red in the Comment category and then press ENTER.
8. Click the blue rectangle you drew and attach the following information just as you did for the ellipse:
 - Name: Rectangle
 - Cost: 20
 - Comment: Blue

You've now have two objects with information attached to them. You probably observed that the Object Data Roll-Up only displays information for one object at a time. To display and work with information for multiple objects you use the Object Data Manager mentioned earlier.

Displaying information for multiple objects

Before opening the Object Data Manager, select the ellipse and rectangle.

9. Click the  button in the Object Data Roll-Up.

The Object Data Manager opens showing information you entered earlier. Notice the Data Manager is in its own window complete with a menu bar. Commands in the menus allow you to print the information and organize it so that it's easier to follow. You can learn more about the commands and the Object Data feature in the *User's Guide* and *Online Help*. To close the Data Manager, choose Exit from its File menu.

Well, that's it. You've completed the tutorial. For suggestions on what to do next, click the Forward button.

Where to now?

If you've reached here by working through the lessons, with or without the help of the *QuickTour*, then you've taken an important first step toward mastering CoreIDRAW.

The next step

Now that you've made a start, here are some suggestions for continuing your quest to master CorelDRAW:

Keep this tutorial and the QuickTour handy

Once you've completed this tutorial, the natural tendency is to delete it and forget about it. But we've structured it in such a way that you can easily find a topic you want to review, and quickly reacquaint yourself with its basics.

So keep it handy. And refer to it from time to time for basic information. At the very least, it can pinpoint features you want to research further using the *CoreIDRAW User's Guide* or other materials.

And don't forget that the CoreIDRAW QuickTour provides a visual demonstration of CoreIDRAW's features. View it a second or even third time, and you'll find yourself picking up useful information you missed the first time through.

Use the User's Guide

Familiarizing yourself with the manual can save you time and frustration by answering questions before they arise, and pointing out shortcuts that can save you valuable time.

Build a third party library

CorelDRAW's popularity has spawned a number of third-party books and magazines. Some are excellent. Each offers something to add to your storehouse of CorelDRAW knowledge. Check them out when you're browsing in your favorite bookstore. And consider building a CorelDRAW library that will add to your reference alternatives.

Call us

The Hotline Bulletin Board at COREL. is covered with notes from grateful clients who have taken advantage of our free Hotline service. If you are experiencing difficulties with CoreIDRAW, refer to the *User Guide* for information about COREL Customer Services.

Help us to help you

In our efforts to help you get the most from CorelDRAW, we are constantly looking for new and better ways to document it.

One suggestion is an Ideas and Applications Guide that will describe interesting uses for CorelDRAW. If you have an unusual application, or you've developed a particular effect you think should be documented, let us know. Send us the details and we'll include them, with due credit to you of course, in future CorelDRAW learning material. Address your letter to:

CorelDRAW Product Manager,
COREL Systems Corporation,
1600 Carling Avenue, Ottawa, Ontario, Canada
K1Z 8R7

Fax: (613) 7289790

Have fun with CoreIDRAW!

We've emphasized throughout this tutorial, and we'll say it again: To master CoreIDRAW there's no substitute for experimenting. Go ahead, unleash your own create imagination. And have fun!

