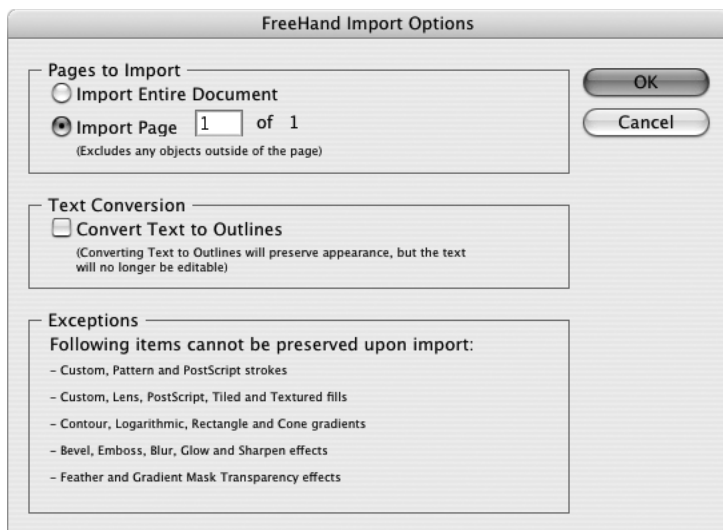


# Moving from FreeHand to Illustrator

When moving from one powerhouse application to another, you'll encounter two main concerns. First, how do you migrate all your existing content from one application to another? Second, and perhaps more important, how do you familiarize yourself with conceptually different functions, new keyboard shortcuts, and, in many cases, an entirely new workflow? The good news is that Adobe has already taken care of the first concern.

Unlike Adobe Illustrator CS2, which could open only native Macromedia FreeHand 9 files, Illustrator CS3 has the ability to open native FreeHand 10 and FreeHand MX files. In the process of doing so, Illustrator will do its best to retain as much of the file in an editable state as possible. In fact, Illustrator does a wonderful job of this, making it possible to migrate content easily from FreeHand. You can open a FreeHand file the same way you would open an Illustrator file, at which time you'll be presented with a FreeHand Import Options dialog (**Figure 1** on the following page). You'll find that almost all the content in the file will be imported and remain editable as well.

**Figure 1** New in Illustrator CS3, you can open native FreeHand MX files and maintain the integrity of the file, making it easier to migrate content from FreeHand into Illustrator.



The second concern is a far greater task. However, as an already proficient FreeHand user who now desires to get up to speed in Illustrator, you are about to find yourself ahead of the game when it comes to moving toward program versatility.

Do not look to this guide for a global pronouncement as to which of the two applications is better. The answer to that question depends upon another: “Better at what?” It would be wonderful to take the best treatment of each feature from each program (and if we did, we would have to include some features from CorelDRAW, Corel Designer, and Deneba Canvas in the mix) and combine them into one ideal vector-based commercial illustration program. Don’t count on that happening anytime soon, though.

As a final assurance, before you dive in head first, know that we wrote this guide to help you learn a new tool. Its tone is unbiased, and your expertise is assumed and, more important, respected. We assume an intermediate-level proficiency with FreeHand.

## GETTING YOUR FEET WET

Despite the initial bewilderment you deal with when faced with a new program, you’ll soon find that your FreeHand experience proves advantageous in Illustrator. If you are proficient with FreeHand, you already have a conceptual understanding of the principles of vector drawing.

The key to quickly achieving a matching proficiency in Illustrator is to try to discover the underlying behavioral principles. Don't worry so much about locating every specific tool or command. Even if you find the tool you're looking for, you might find that it doesn't seem to work correctly or that it seems frustratingly backward or illogical. When this is the case, run a mental check on the underlying principle and do a little experiment off to the side to boil down the essential issue; you'll find that you are merely struggling with a different interface layered on a familiar principle. At this point, you will begin to see your "adversary" in its true smaller perspective, and you will feel much less overwhelmed.

This is the strategy we'll employ in the following pages. Rather than memorizing a dizzying catalog of specific commands, you will use the understanding of basic vector path principles that you already possess and then figure out the way Illustrator "thinks" as you go.

The overall goal here is to give you, the already-experienced FreeHand user, a boost over that initial frustration hump so that you can get on with exploring the myriad features found throughout Illustrator.

When trying to adapt to a program that is supposed to be so functionally similar to one we already know, many of us make a basic assumption and commit a basic error: we tend to think it is just a matter of finding corresponding commands and memorizing their locations. We get frustrated when we find out it isn't quite as simple as that.

This naive assumption leads to nasty surprises and confusion, especially when two programs are so similar in purpose—and even general design—as FreeHand and Illustrator.

What we fail to consider is that even if the "equivalent" command we seek is present, it may operate according to a different set of givens—a different set of underlying principles of behavior. In fact, as you shall see in a moment, even the mere *location* of a command may cause it to act quite differently from what we'd expected based upon years of experience and habit in another program.

## Comparing Underlying Similarities

First, take a deep breath and rest assured that the basic paths, points, and handles that make up Illustrator's vector paths are the same objects as those

you are accustomed to creating and manipulating in FreeHand. Both programs draw Bézier paths. As in FreeHand, the following items are true for Illustrator:

- Paths are either open or closed and can have fills and strokes.
- Paths are connected by, or end at, anchor points.
- All paths have an inherent “direction,” and even if closed, they have a start/end point.
- Points are either corner anchor points or smooth anchor points (there is no connector point in Illustrator).
- Smooth anchor points have two direction handles each, which can be individually extended or retracted to affect the shape of their associated segments.

So, the basic building blocks of Illustrator vector objects are practically identical to those in FreeHand. It follows, then, that the basic functions that you can do with paths are also very similar:

- You can combine multiple paths into *composite paths* (called *compound paths* in Illustrator) to create shapes with holes in them.
- You can group multiple paths (with or without other objects) so that you can manipulate them as a unit.
- You can use paths as masks for other paths (a *clip path* in FreeHand is called a *clipping path* in Illustrator).
- Stacks of paths can be automatically generated to give the appearance of smooth color and/or shape transitions (called *blends* in both programs).
- You can add or subtract paths from each other to create new paths (via Combine operations in FreeHand and pathfinders in Illustrator).

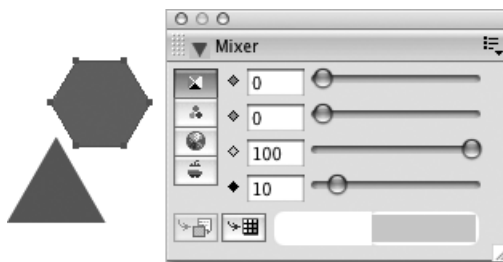
But even while you are performing the same kinds of operations upon the same kinds of objects, there are some differences. Each command can employ a different method of accomplishing its purpose, can present the user with a different set of parameters, and can exist within a different organizational scheme than those of the more familiar program.

## Conceptual Differences: Working with Color

To both illustrate and emphasize the earlier conceptual gibberish, we'll start with what may be a mildly startling example. What could be more basic than the simple matter of selecting and applying a fill color to a path? Surely this process is practically identical in both programs? Well, let's see.

FreeHand and Illustrator both have the expected Color panel, where colors are mixed (called the Color Mixer panel in FreeHand), and the Swatches panel, where defined colors are stored. You can apply colors, of course, to strokes and fills. So far, so good. But there's a not-so-subtle difference that makes *all* the difference. In FreeHand, the fill/stroke indicator resides in the Swatches panel, whereas in Illustrator, it resides in the Color panel (and in the Tools panel).

This is just an organizational thing, but it's one with confusing consequences. In FreeHand, because the fill/stroke indicators are in the Swatches panel, it doesn't matter whether a path is selected while you adjust the mixer sliders; the path is unaffected (**Figure 2**). But in Illustrator, where the fill/stroke icons are right there in the same panel as the mixer, the selected object's color changes as you drag the sliders (**Figure 3**). You're not just mixing a color; you're mixing a color and applying it to a fill or a stroke at the same time, and you'd better be aware of this if anything is selected, because whatever is selected will change in color.




**Figure 2** FreeHand: The fill/stroke icons are not in the Color Mixer panel. Changing values does not affect the selected objects because you are mixing a color that is not necessarily yet a swatch, fill, or stroke.



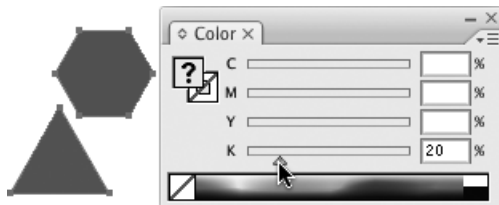
**Figure 3** Illustrator: The fill/stroke icons are right there in the Color panel. Changing values affects selected objects because you are adjusting a color that is either a fill or a stroke.

So you see? Just knowing where to find the corresponding fill/stroke toggles within the two programs doesn't really help you understand the program. You have to examine the underlying principles—the ramifications—of what that change of location entails before you come to grips with that nagging confusion you feel when you're mixing and applying colors.

 FreeHand has a similar capability in its Color Control Xtra. But here also, the organization principle is different between two “corresponding” features. The sliders in this dialog start at zero and add the value(s) you enter there to the present values of each selected object.

Can one method be called right and the other wrong? Probably not. It can be argued that the FreeHand approach encourages you to define color swatches before you actually apply the colors to objects. On the other hand, the Illustrator approach enables something you may not discover even after years of working in the program. Suppose you have two (or more) objects selected. Each has a different fill color, but they both share a particular component value (say, they both have a 10% K component). In such a situation, the slider handle and value appear only for that common component in Illustrator's Color panel. You can adjust that component for all the selected objects in a single move (slide the K slider to 20%, and you have darkened both selected paths by 10%) (**Figure 4**). If the value of a particular component differs across the selected objects (say one contains 10% C and another contains 5% C), you can equalize them in one move by entering a value for that component. (Enter 15% in the C field; the other components remain unaltered.)

**Figure 4** The treatment in Illustrator means you can adjust a shared component of all selected objects at once without affecting the other components.



## Offering a Word of Encouragement

Many years of engrained habit can be difficult to reprogram, but don't sell short that marvelous analog computer between your ears. Many (no, not all) of the difficulties that seem so awfully tedious at first are short-lived. You will undoubtedly find yourself pleasantly surprised that after the initial frustration, somewhere fairly early along the way, the mental bells will go off about the underlying principle involved (“Of course! The selection is affected when I mix colors! The fill/swatch selectors are right there in the Color panel!”), and you will stop stumbling over this difference.

# FIRST STEPS: LEARNING THE USER INTERFACE

You've just arrived, switched off the ignition, grabbed the suitcase, walked up the porch steps, and swung open the door. Already you can see that the floor plan and decor is rather different from the place from which you came. Go ahead—step inside, and flip on the switch.

## Multiple Pages, Where Art Thou?

The basic document environments for FreeHand and Illustrator are so similar it hurts. Why this pain? Because the environment in Illustrator is almost identical to FreeHand 3, before the multiple-page capability was added. In those days, both programs framed a single page within a very similarly sized (within inches) pasteboard workspace. FreeHand's page was placed at the lower left, and when resized, it grew toward the upper/right (**Figure 5**). The page in Illustrator was (and still is) placed in the middle of the Pasteboard, and when resized, it grew (grows) from the center out (**Figure 6**).



**Figure 5** FreeHand's Pasteboard is a little more than 224 inches square. The default first page is near the lower-left corner. Pages grow upward and toward the right.



**Figure 6** The pasteboard in Illustrator is a little more than 227 inches square. The single artboard is in the center and grows from the center outward.

 When opening a multiple-page FreeHand 10 or MX file in Illustrator CS3, you can choose to convert all pages to multiple crop areas. For more information on crop areas, refer to Chapter 1, *The Illustrator Environment*, in *Real World Adobe Illustrator CS3* (Peachpit Press).

Both programs conform to the math and engineering convention of having the zero point of its coordinate grid located at the lower-left corner of the page. Because the artboard (page) in Illustrator is always centered in the pasteboard, be sure to check the alignment of the ruler origin after changing the page size. Do this the same way you do it in FreeHand: double-click the ruler's origin—the box where the left and top rulers meet at the upper left of the document window.

As for Illustrator's single-page-per-document limitation, you will occasionally encounter references to workarounds and/or plugins that invariably resort to either page tiling or using layers to imitate multiple pages.

Of course, FreeHand can also tile pages and show/hide layers, and the FreeHand user will find these workarounds quite unsatisfying substitutes for the real thing. To date, there is no real answer. Illustrator CS2 enhanced the tiling workaround by enabling page tiles to be saved as individual pages in a single PDF file (refer to Chapter 13, *Saving and Exporting Files*, in *Real World Adobe Illustrator CS3*).

## Working with Rulers, Grids, and Guides

With Illustrator, you can choose between points, picas, inches, millimeters, centimeters, and pixels, and the value readouts in panels will change accordingly the next time a selection causes them to update. But other scales available in FreeHand, such as decimal inches, are not offered in Illustrator, and you cannot create custom scales such as 1"=10' and have value fields reflect the scale accordingly.

The grid in Illustrator works similarly to FreeHand's, but it offers the option for displaying it as lines of dots like FreeHand or as lines. A more significant difference is that the grid in Illustrator rotates with the Constrain Angle preference setting.

Guides are also similar to FreeHand's, except that in FreeHand they extend across the page, whereas in Illustrator they extend to the bounds of the entire Pasteboard. As in FreeHand, Illustrator's unlocked guides can be released (View > Guides > Release Guides) to turn them into ordinary paths, and ordinary paths can be turned into guides (View > Guides > Make Guides). One handy little difference between Illustrator's guides and FreeHand's is that in Illustrator they snap to your ruler tick marks if you press Shift, whether or not you have Snap to Grid on.



## Where's the Inspector?

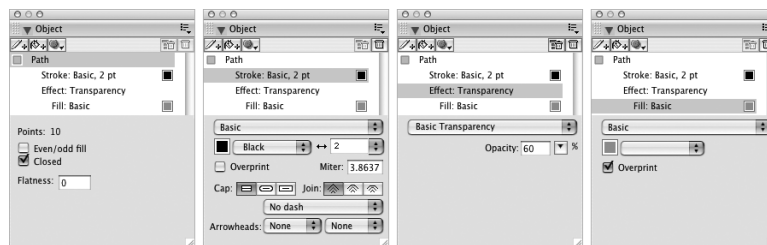
FreeHand's Object panel (which many FreeHand users still refer to as the Object Inspector) is like a one-stop shop for information about and settings for the current selection. The closest counterpart to this in Illustrator is the Appearance panel, and it is also probably the most important panel to have always handy.

The Appearance panel, like FreeHand's Object panel, is where you find the stack of strokes, fills, and effects that are applied to the current selection. The Appearance panel also displays some specific information about the items in that stack; for example, the weight of a stroke appears within its listing.

Beyond that, however, the similarity begins to break down because of this important difference: although the Appearance panel in Illustrator is where you can *view* the stack of strokes, fills, and effects, it is not where you *edit* them and, in the case of effects, not where you apply them. You can add strokes and fills using the Appearance panel menu, but to adjust their parameters, you still must go to various other panels. As in FreeHand, you can apply effects to individual strokes or fills, but you select them from the Effects menu, not from the Appearance panel.

For example, consider a simple path with a basic appearance (one stroke, one fill). If this object is selected in FreeHand, the item stack lists the stroke and its weight. Likewise, if an identical object is selected in Illustrator, the stroke and its weight are listed.

However, in FreeHand, if you then select the stroke listing itself, all of its particular settings and options appear at the bottom of the Object panel. For example, the stroke's type, weight, cap, join, dash, arrowhead, and overprint settings appear, and they are editable right there in the Object panel (**Figure 7**).

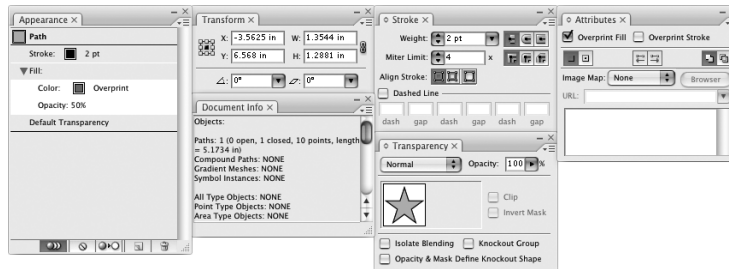


**Figure 7** In FreeHand, the settings for the selected object's attributes are presented in the bottom of the Object panel as contextual screens that display according to which item in the attributes stack is selected. All four of these screens are displayed at the bottom of the single Object panel.

This is not so in Illustrator, although the first step is similar. To modify that stroke's options in Illustrator, you first select its listing in the Appearance panel. But to change its weight, dash, caps, and joins, you must still visit

the separate Stroke panel. To apply an arrowhead to it, you call up the Add Arrowheads dialog from the Effects menu; to set it to overprint, you visit another separate panel named Attributes; to turn the stroke into a brush, you visit the Brush panel; and so on (**Figure 8**).

**Figure 8** Although the Appearance panel in Illustrator is similar to the Object panel in FreeHand in that it provides a stack of strokes, fills, and effects and displays some of their settings, and although the detail settings are sensitive to which item is selected in the stack, the actual settings reside in individual separate panels. Ready access to all of these panels is necessary in order to make all the settings represented in the previous view of FreeHand's Object panel.



So although the Appearance panel is one that you need to keep up front and handy as you work, it is not at all the kind of comprehensive centralized object settings panel to which you are accustomed in FreeHand. Hunting around for specific settings is one of the primary causes for disorientation among FreeHand users when working in Illustrator. You have to get back into the mind-set of individual panels for each type of setting, which was more the nature of FreeHand's early versions prior to the arrival of the Inspector-based interface.

You might logically expect Illustrator's Control panel to be the centralized counterpart to FreeHand's Object panel. Although it does provide more immediately convenient access to some of the most frequently needed settings, it doesn't necessarily present them all.

## By the Numbers

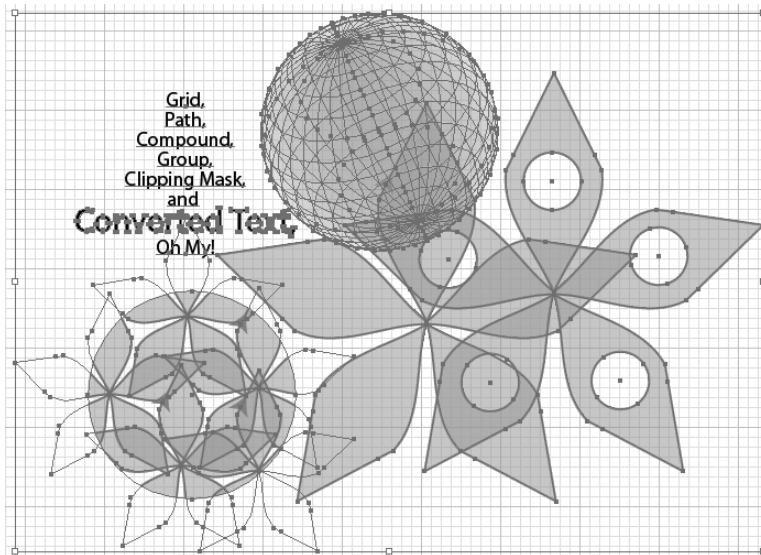
Value fields in FreeHand panels and dialogs accept and retain numerical values to six decimal places, whereas Illustrator displays four. Under the hood, every measure in Illustrator is converted from its underlying native measure of 72 points per inch. This, combined with the four-decimal display, often leads to what the FreeHand user sees as disconcerting numerical inaccuracies in value fields. For example, if like many users you've memorized the decimal equivalent of 1/16th as .0625 and then you enter **.0625/2** in a value field, the displayed result will be .0313, not .03125. This does not mean that Illustrator did not make your object .03125 in width. It rounded the value only for the sake of the display in the panel. However (and unfortunately), if you then enter **\*2** after the displayed value to double the object's measure, Illustrator recalculates the entire expression, which is now keyed into the field, with a result of .0626, instead of restoring the previous .0625. Does a thousandths-of-an-inch inaccuracy matter? You decide.

## WALK THIS WAY: WORKING WITH OBJECTS

Differences exist between the way FreeHand and Illustrator let you know what is selected, and this can be quite disorienting. In FreeHand, the edges and points of selected simple paths display. All other objects, such as groups, compound paths, live special shape objects (ellipses, rectangles, and so on), blends, and clip paths display four corner handles of their bounding boxes when selected in their entirety. These handles are usually used to scale the object by dragging.

Illustrator highlights selected simple paths in the same fashion. But that's also how they display regardless of whether they are part of a group, whether they are part of a compound path, or even whether they are masked by a clipping path.

This is particularly disconcerting in regard to clipping paths because the edges of the entire clipped contents display, not just the portions inside the clipping paths (**Figure 9**).



**Figure 9** Complex objects, such as compound paths, clipping paths, and groups, highlight the edges of their subparts or contents when selected. It takes a little getting used to.

In Illustrator, you can choose View > Hide Edges when you need to reduce the visual clutter (for example, text objects converted to paths easily become an indistinguishable mass of displayed points). Be aware, however, that if

you have Hide Edges on, the selection is not displayed at all if you are working with the Direct Selection tool, because the bounding boxes in Illustrator do not display when working with that tool. Even when you're working with the regular Selection tool, looks can be quite deceiving as to what is actually selected because the bounding box displays around the entire selection, not each object. Therefore, use the Hide Edges command only for momentary toggle on/toggle off purposes, not as a normal working mode.

## Using Marquee Selections


Generally speaking, when you drag with FreeHand's pointer, it selects whatever you fully enclose with its dashed-line selection marquee. The Selection tool in Illustrator, on the other hand, selects whatever its selection marquee touches—even objects that partially fall within the marquee area—and this takes considerable practice. Which is best? That depends upon the specific circumstances (you could have guessed that).

Actually, upon closer examination, the comparison here is not really all that simple. For example, if you drag a selection marquee using Illustrator's Direct Selection tool (the white-filled pointer), its behavior is similar to that of FreeHand's pointer when it is dragged across several simple paths. In both cases, the paths become highlighted, but only the points that were enclosed become selected.

Similar, of course, does not mean identical: dragging across only segments of simple paths (but enclosing no points) with FreeHand's pointer selects nothing. The same is true of FreeHand's Subselect tool. In contrast, with Illustrator, the same action of dragging across segments selects the whole path(s) with the Selection tool and selects the crossed-over segments with the Direct Selection or Lasso tool.

So, here we have a situation in which *neither* of FreeHand's tools select *anything*; yet *both* of Illustrator's "corresponding" tools select *something*. No wonder users feel like astronauts on a foreign planet when learning the "other" program.

A typical situation in which this difference is particularly bothersome is when you're trying to lasso a few points of paths that overlap other paths. Remember, the selection marquees in Illustrator select whatever they touch. Well, in both Illustrator and FreeHand (these days), a segment is a selectable

 It's best to get this selection behavior mentally nailed down before you progress very far into work with Illustrator. Spend a little time drawing some simple shapes, dragging across them with both selection pointers, and trying to anticipate what will be selected when you release the mouse button.

item. So in FreeHand, you can lasso the cluster of points without also selecting the overlapping path. That is, crossing over segments of the unwanted path does not select them, because the segments are not fully enclosed by the marquee; you just have to be careful not to fully enclose any points of the unwanted path.

This is not the case in Illustrator. If you have to cross over a segment of an unwanted path in order to select points in its interior, doing so selects the unwanted path's segment, which is touched by the marquee. At first, the FreeHand user is inclined to think that Illustrator wants to select segments more than FreeHand does. But the real principle at play here is Illustrator's convention of selecting whatever a selection marquee touches.

## Applying Transformations

Illustrator provides a collection of transform tools similar to those in FreeHand. However, their basic use differs. In FreeHand, the invisible center of transformation is normally set where you first click with the tool. You then drag away from this point to transform the current selection.

In Illustrator, when you select a transform tool, the origin point is at the center of the selection, and it is a visible icon that you can move to where you want it. After you position the origin point, you can click and drag away from it to transform the selection. Initially, the FreeHand user can find this difficult to control for two reasons:

- The FreeHand user wants to habitually click with the transformation tool and immediately start dragging. You can do this in Illustrator, but if you do, the transformation will be centered wherever the origin marker is—at the center of the selection when you first select the tool. Instead, after selecting the desired transform tool, click where you want the transformation centered. Then move the pointer some distance from the marker and begin your drag.
- In Illustrator, the rate at which the transformation occurs is proportional to the nearness of your pointer to the transformation origin when you begin the drag. Therefore, you have finer control over the amount of the transformation if you begin your drag some distance from the position of the origin marker. The principle is similar to FreeHand's Rotation tool, with which a temporary guide appears when you click.

If you drag along this guide before beginning your rotation, you have finer control. The difference is that this principle works similarly on all of Illustrator's transformation tools, not just the Rotate tool.

You can use Illustrator's Effect > Distort & Transform > Transform effect to replicate the behavior of FreeHand's Mirror Xtra. Because this is an effect, the result remains editable until it is nailed down into individual objects by choosing Object > Expand Appearance. Also, be sure to explore the Transform Each command in Object > Transform > Transform Each, described in Chapter 4, *Advanced Vectors (Real World Adobe Illustrator CS3)*.

## Working with Text Objects

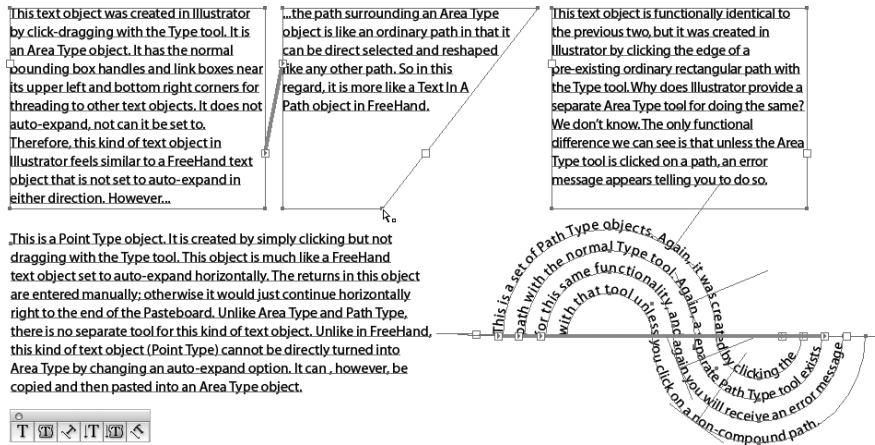
Unlike FreeHand, Illustrator has two separate object types for text objects that autoexpand horizontally and those that wrap. A Point Type object is similar to a FreeHand text object that is set to autoexpand, and you usually create it in the same way—simply click (don't drag) with the Type tool.

An Area Type object is one that is contained within a frame, similar to a FreeHand text object that is not set to autoexpand in either direction. Again, the customary creation routine is the same—drag with the Type tool.

For the full rundown on text handling, see Chapter 7, *Typography (Real World Adobe Illustrator CS3)*, but here are a few specifics that commonly befuddle FreeHand users:

- In Illustrator, you can't set an Area Type object to autoexpand vertically. You have to become especially careful by looking for the red text overflow icon.
- There is no explicit command for separating path type from its path once it has been attached. You can copy the text and paste it into an ordinary text object, or you can use the Direct Selection tool to select and modify the path. However, if you delete it, you will delete the whole Path Type object.
- For type on a path, FreeHand's feature by which a return character wraps the following text to the opposite side of the path is unique to FreeHand. There is no corresponding feature in Illustrator. Creating the

common text-around-the-top-and-bottom of a circle treatment requires two Type on a Path objects (**Figure 10**).



**Figure 10** Illustrator distinguishes between Area Type objects, which do not autoexpand, and Point Type objects, which do. These two cannot be directly turned into one another by changing their autoexpand characteristics as is done in FreeHand. Path Type objects are much like FreeHand Text on a Path objects. There are separate tools for all three (plus the vertically oriented versions of area and point text). But you can create all three objects (Point Type, Area Type, and Path Type) with the regular Type tool.

## Combining Paths (Pathfinders)

Be sure to explore carefully and methodically the pathfinder features in Illustrator. These are analogous to FreeHand's **Modify > Combine** operations, but you will find many unfamiliar behaviors within them.

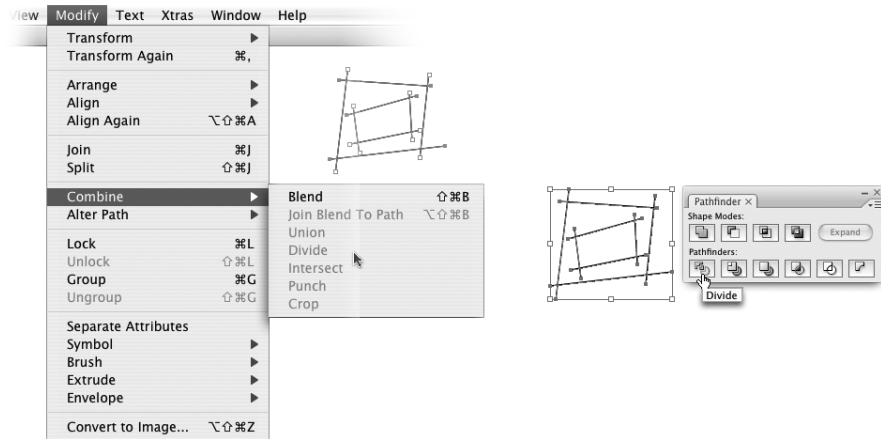
In Illustrator, some pathfinder operations result in compound shapes, which can be nondestructively edited until they are “expanded” into literal new paths. In the Pathfinder panel, these are the four in the top row of icons. Ironically, despite their “live” nature, these are among the functions that will feel most familiar. The behaviors of the first three (Add, Subtract, Intersect) pretty much correspond to FreeHand's Union, Punch, and Intersect commands. The fourth (Exclude) results in something similar to what you achieve in FreeHand when you join several paths into a composite, where overlapping areas become voids.

You will no doubt find some of the other pathfinders to be less intuitive in the details of their results. Several remove strokes and/or unfilled open paths in the process of performing their shape combinations. For example, Illustrator's Divide behaves similarly to FreeHand's Divide if at least some of the paths are closed. However, Illustrator's Divide creates closed paths around areas surrounded by open paths, whereas FreeHand's Divide is not



available to selections of only open paths. This can be an often advantageous difference (**Figure 11**).

**Figure 11** FreeHand's Combine > Divide command does nothing with this object because there are no closed paths (left). In contrast, Illustrator's Divide creates closed paths around visually enclosed areas resulting in paths you can quickly stroke and fill (right).



The Merge pathfinder in Illustrator also behaves somewhat similarly to FreeHand's Divide, but it deletes strokes and leaves the selection unaffected if none of the paths is filled (closed or not). But it also does more, and Merge is one of the pathfinders that gives the FreeHand user new and important capabilities. It removes underlying parts of overlapping fills and simultaneously welds areas of contiguous color (**Figure 12**).

**Figure 12** Illustrator's Merge pathfinder can remove the overlaps and weld the areas of contiguous color, quickly resulting in paths more suitable for practical purposes such as cutting from sign vinyl.





The bottom line here is for the FreeHand user to just be aware. Pathfinders are indeed intended for the same general purposes as FreeHand's Combine operations, but the devil is in the details. The differences are too numerous and dependent upon specific circumstances for an exhaustive comparison. Be sure to give Chapter 4, *Advanced Vectors (Real World Adobe Illustrator CS3)*, a thorough study, and set up simple experiments in which you try to anticipate the results. You'll not only avoid a lot of unexpected confusion, but you'll also find a few "new" gems that you can employ to your advantage with a little ingenuity.

## Working with Composite Paths (Compound Paths)

A FreeHand composite path is functionally the same as an Illustrator compound path, with one rather shocking difference: the individual paths of an Illustrator compound path do not have to be closed. That's right. Draw two curved open paths with a stroke but no fill. Select them both, and choose Object > Compound Path > Make. Now use the Direct Selection tool to select and apply a fill to one of the paths. Both curves receive the same fill, because they are, in fact, in fact, a single compound path.

FreeHand users may find it initially distracting and occasionally confusing that Illustrator displays the edges of all the subpaths of a selected compound path. Sometimes this makes it difficult for you to recognize that a selected path is part of a compound path. You see, in FreeHand, you typically click a composite path to select it, and seeing its four corner handles clues you in to that it is a composite or a group. You then deliberately hold down Option (Alt) and click to "dig into" the composite and select one of its subpaths. In Illustrator, though, you will more often be using the Direct Selection tool. When you click a compound path, the Direct Selection tool goes ahead and selects the subpath, and therefore you may not realize that it is compounded with other paths.

Another related oddity worth mentioning here is that certain features that FreeHand users would associate only with open paths, such as arrowheads, also apply to closed paths in Illustrator. You are probably aware that even a closed path still has a direction and a start/end point. But if you apply an arrowhead to a closed path in FreeHand, the arrowhead doesn't appear unless the path is cut or opened. This is not the case in Illustrator; the

arrowhead appears at the start/end point of the closed path and on each subpath of a compound path.

## HEALTHY JOGGING: DRAWING AND EDITING PATHS

As in FreeHand, productive and efficient drawing with the Pen tool in Illustrator involves frequent movements of anchor points and direction handles as you proceed. And this is where the FreeHand user stumbles. Surprisingly, the stumbling block is not so much due to Pen tool differences but more because of Illustrator's fundamentally different approaches toward tools, the simple matter of selection, and the definitions of parts of a path.

Proficient FreeHand users draw paths efficiently by repeatedly switching back and forth between two basic operations: adding segments with the Pen tool, and adjusting the paths, segments, points, and handles with a selection tool. This oft-repeated process involves the Pen and the Pointer.

Proficient Illustrator users do the same—alternately adding segments and selecting subparts of the path—but doing so involves more tools. Depending upon the habits you develop in Illustrator, it can involve the Pen, Selection, Direct Selection, Group Selection, and Convert Anchor Point tools.

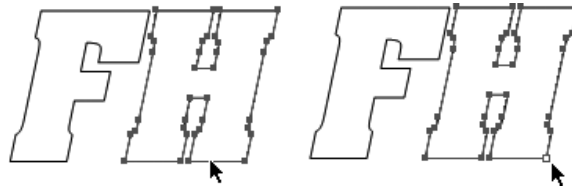
In addition to dealing with the more numerous individual tools in Illustrator, the FreeHand user must simultaneously adapt to a reversal of “selection direction” as he manipulates paths and their subparts. As we'll see, for a number of reasons intrinsic to the principles of its interface, Illustrator's path selection moves generally from deeper to shallower (or, specific to general) as opposed to FreeHand's shallower to deeper (general to specific) approach.

Furthermore, the common selection routines in Illustrator are described as more segment oriented whereas FreeHand's are more decidedly points oriented. To the FreeHand-accustomed user, it is much like learning to drive a manual transmission *and* to back a trailer *at the same time*. Understandably, it is at first a very disorienting endeavor, requiring conscious effort with every turn of the wheel and every slip of the clutch. But after a little studied practice at a few narrow boat ramps, it becomes a natural mind shift. Let's examine these underlying differences more closely to help you avoid launching your car into the lake.

## Using Multiple Tools, Not Multiple Clicks

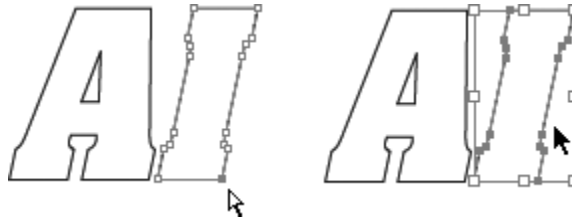
You’ve heard it said (and probably said it yourself) for years: FreeHand does with one selection tool what Illustrator requires two to do. We wish it were that simple. If you take nothing else away from this discussion, be sure to get this one down pat: Illustrator does with *individual tools* what FreeHand does with *consecutive clicks* of a single tool. This deceptively subtle difference is at the very core of much of the frustration and confusion you feel while drawing paths in Illustrator.

In FreeHand, consecutive clicks on the same part of a path with the same selection tool dig deeper, enabling you to manipulate the path’s subparts. For example, the first click of the Pointer directly on a segment of an unselected path selects the path. Another click selects the segment (**Figure 13**).



**Figure 13** In FreeHand, click once with the Pointer to select the path; click again to subselect a point.

This does not occur in Illustrator. A tool change—whether you make it by actually picking a different tool or by momentarily invoking it with a modifier key—is required to select at a different “object depth.” The net result is that drawing paths with the Pen tool in Illustrator involves more tools (**Figure 14**).



**Figure 14** In Illustrator, the Direct Selection tool goes right to the point (or segment, depending on where you clicked the path). You can click all day long with the black Selection tool, but it will never direct select a subpart of the path. (Modifier keys can switch you to the other pointer, but we’ll get into that later.)

Here’s a little history: From its beginning, and for most of its years, FreeHand had but one selection tool (the black Pointer). To select a path, you clicked it with the Pointer. Then, to select a point on that path, you clicked again on the point. Then, to select a retracted handle “within” that point,

you pressed Option (Alt) to tell the pointer to “dig deeper still,” and then you simply dragged it out. (If both handles were retracted, the first one dragged out was the outgoing handle; this was followed by the incoming handle if you dragged again.)

Meanwhile, Illustrator had its *two* pointers: the “normal” black-filled Selection tool was primarily for selecting whole objects and their bounding boxes. The white-filled Direct Selection tool was primarily for selecting the subparts of paths—points and segments.

Then, in version 9, FreeHand acquired its own hollow pointer, the Subselect tool. This was a direct accommodation to the habits and expectations of Illustrator users. But there was a fundamental difference. FreeHand’s Subselect tool did not actually *add* any functionality. Anything that it could select could still be just as easily selected with the original black Pointer, and most experienced FreeHand users simply ignored the new tool (and most still do to this day). In still later versions of FreeHand, certain esoteric responsibilities have been assigned to the Subselect tool to help it earn its keep (having to do with new features, such as the special control handles of the live basic shape objects). This is a quite recent development, and we dare say that all but newcomers to FreeHand still ignore the Subselect tool except for those new feature purposes. And regardless, the fact remains that both the Pointer and Subselect tools in FreeHand can select all parts of a path—segments, points, or handles.

The salient point here is this: while you are drawing paths in FreeHand, you need only one selection tool working in conjunction with the Pen. In Illustrator, that is not so. This in turn involves the memorization of more (and more complicated) keyboard shortcuts to switch between the more numerous tools.

You will hear some long-time Illustrator users claim to rely entirely upon Illustrator’s Direct Selection tool and to absolutely never ever use the “normal” black one. That may or may not be true, but the fact is, if you use only the Direct Selection tool in Illustrator, you’ll sacrifice certain very common selection conveniences (such as those associated with bounding box-related manipulations). And if you *do* ever use the black Selection tool, its mere existence can get in the way while you are drawing paths. Further complicating matters, a third “selection” tool is required for accessing retracted handles, as we shall examine momentarily.

## “Soft” Mode Change vs. “Hard” Tool Switch


You may remember that when FreeHand acquired its Subselect pointer, the various cursor icons were shuffled, too. The long-established Option (Alt) keyboard modifier of the Pointer now changes the pointer to that of the newfangled Subselect pointer. But this is a fairly recent development, and it represents only a visual change, not a functional one. Because the actual behavior is the same as before the extra pointer appeared, many, if not most, FreeHand users still think of the Option (Alt) modifier as a momentary mode change of the current tool (reinforced by the fact that the same key is used to make similar mode changes for other tools), not as a hard switch to an entirely different tool.

In Illustrator, although some of the modifier key presses are indeed momentary, both the general interface and the facts of the matter just discussed result in the opposite sensation. The user impression is more often that of making an actual switch to a different tool. The FreeHand user new to Illustrator struggles with reconciling this difference when a behavior he is trying to understand as a mode change turns out to be an actual change of tools.

## Performing “Bottoms-Up” Selection

Press the Direct Selection tool in Illustrator’s main Toolbox to extend its flyout panel, and you’ll see another one with a plus sign (+) next to it. That’s the Group Selection tool. As we’ve seen, pressing Option (Alt) when Illustrator’s Direct Selection tool is in hand does not invoke the Convert Anchor Point tool to allow you to dig deeper and drag out a handle. Instead, pressing Option (Alt) momentarily switches to that mysterious third pointer, the Group Selection tool, which digs shallower, not deeper. That is, it selects the whole path.

Note that the same modifier key, Option (Alt), is used in both FreeHand and Illustrator to change the depth of the primary selection tool. But as we’ve now seen, the depth change is in opposite directions. Add to this what we now know about Illustrator’s two pointers. For most FreeHand users, the primary selection pointer is the black one. For most intermediate and advanced Illustrator users, the primary selection tool is the hollow one.

 Illustrator CS3 also features a new behavior that allows you to select a specific anchor point with the Direct Selection tool even if the entire object is already selected.

This is of much greater significance than merely the color of the pointer. In practice, it translates to this: In FreeHand, the customary selection routine starts with the black pointer in hand, and subsequent clicks, sometimes augmented with modifier keys, generally progress from *general to specific* (object to path to point to handle). In Illustrator, the more common “advanced” selection routine starts with the Direct Pointer in hand. As soon as you make the first click with this tool on a path at which you are already at the deepest level, the point or the segment you clicked is selected. Sequential clicks using modifier keys, progress from *specific to general* (point or segment to path to group). Note that this is different even from the behavior of FreeHand’s Illustratorish Subselect pointer. The first click of an unselected path with FreeHand’s white pointer does not subselect the segment; you click again to do that.

So to review, how do you select a whole path when you have the Direct Selection tool in hand? Press Option (Alt), and click the path. This momentarily invokes the Group Selection tool, telling Illustrator to select up a level to the whole path. In fact, if the path happens to be part of a group or a compound path, another click with the Group Selection tool selects up to the group or compound object level.

## Understanding Path Handling Conventions

Here is a list of some of the behavioral differences you’ll encounter. Some are conceptually puzzling at first, and these we will explore more fully shortly. Others are merely differences in interface conventions:

- Selected points in Illustrator are displayed as solid; unselected points are displayed as hollow—exactly the opposite of the default in FreeHand. However, in both programs, if a whole path is selected, and none of its points is selected, then all points are displayed as solid. (In this detail, Illustrator’s convention seems more logically consistent.)
- FreeHand displays selected corner points as hollow squares and selected curve points as hollow circles. Illustrator displays both curve and corner points identically; there is no visual clue as to the type of point selected other than the orientation of its handles.
- A double-click of the Pen does not end a path in Illustrator. To end the current path, you have to deselect it (or click to close the path). Press the Command (Control) key to momentarily invoke a Selection tool, and

click the page in a nonobject location; or press the keyboard shortcut for Deselect, which is Command-Shift-A (Control-Shift-A).

- In Illustrator, pressing Delete when a point is selected does not merely remove the point; it removes the point *and its associated segment(s)*. Therefore, if you select one point of a closed path and press Delete, you delete the point and the two segments on each side of it, resulting in an open path. If you select a point of an open path and the point is not an end point, pressing Delete deletes the point and the two adjacent segments and results in two separate paths. If the point you deleted happened to be only one segment removed from an end point of the path, you still have two separate paths even though the segment next to the end point is removed. The end point itself is left behind as a “stray point”; this behavior is why Illustrator is much more susceptible to the stray point malady than is FreeHand.
- In Illustrator, if you select a point and copy it to the clipboard, not only is the point copied, but also its associated segments are copied. This can be useful. For example, selecting the bottom point of an ellipse is a frequently used method to begin drawing a cylinder. Making this kind of selection, followed by Cut and then Paste in Front, is also a commonly used method for cutting a path.
- When clicked on a segment of an unselected path, the Direct Selection tool selects the segment, not the whole path. (Remember, bottom-up selection.) If the segment has at least one of its associated handles extended, those handles display, letting you know you have selected the segment. However, if the selected segment has both of its associated handles retracted (it is a straight segment), *there is no visual indication* that the segment is selected. Dragging the segment moves it and its associated points, even though the two points are not displayed as selected. If such a selected segment has either of its handles extended, however, dragging it bends the segment. Its associated points do not move, but the extended handle(s) will.
- Subselecting a segment in FreeHand automatically selects its associated points. But in Illustrator, direct selecting a segment selects only that segment’s *handles*.


By now it should be abundantly clear that, despite that Illustrator and FreeHand create and manipulate the same kinds of paths and that corresponding tools and commands (often even with the same names) can

be found, performing even the most common tasks can require quite different thought processes. Clearly, the conventional wisdom approach of merely searching for and locating corresponding tools is not the path to Illustrator proficiency but to Illustrator frustration. When a command as basic as pressing the Delete key yields such radically different results, the feature-by-feature details of it all are too numerous to memorize by rote. You have to concentrate on discovering Illustrator's different set of underlying principles and learn to think the way Illustrator does.

Whenever you encounter one of those frustratingly unexpected results, take a moment to move over to the side of the artboard, draw a simple path, and perform the operation on it until you understand what is happening. Taking a little time to do that pays off big.

## Deleting and Adding Points

As we've seen, merely selecting a point and pressing Delete does not delete just the point but its associated segment(s) as well. Consequently, Illustrator does not provide a way to eliminate a bunch of selected points at once without simultaneously breaking the paths by removing segments.

 Illustrator CS3 does offer the ability to delete selected anchor points from a path without deleting the segments through a button that appears in the Control panel.

Similar to FreeHand, Illustrator Pen tool has an autoadd and autodelete behavior. Unlike Freehand, and in keeping with Illustrator's propensity toward tools, tools, and more tools, the cursor icons that appear when you're using this feature are actual separate tools—the Add Anchor Point tool and the Delete Anchor Point tool live in their own slots in the Pen tool's cluster in the main Toolbox.

When the autoadd and autodelete setting is on, it affects only selected paths—usually the one you are drawing at the time. If several paths are selected, adding or deleting a point on one deselects the other paths.

## Merging Paths

You've drawn an open path with the Pen and deselected it in order to start a new path, which you know will have a different stroke weight, color, or other attribute. You want the new path to snap to and begin at the same place where one of the preexisting paths starts or ends. When you click, Illustrator assumes that—even though the preexisting path is not selected—you don't mean to start a new path, but you want to continue adding segments to the existing one.



Illustrator provides a clumsy workaround for this. To prevent this dyslexic mind-reading behavior of the Pen, click and hold the mouse button down somewhere beyond the snap distance of the preexisting path's end, press the spacebar, drag the cursor to the end point, and only then release the mouse button. Then continue placing the points of your new path.

## Joining and Closing Paths

Inexplicably, after all these years, Illustrator still does not allow you to select a bunch of open paths and issue a Join command to connect them end to end. To join paths in Illustrator, you must direct select the end points to tell Illustrator which ends of the paths you want connected, and you must do this two points at a time.

This can be very tedious. Often, if the two ends you are trying to join are in close proximity, dragging a selection marquee around the end points is easier than Shift-clicking them individually. However, if there are additional points near either of the end points, you will direct select them also, and the Join command will fail with an annoying dialog. (Check the Don't Show Again button, and thereafter you'll just get a system beep when a Join command doesn't work.) Illustrator's Join command is also used to close an open path, but again, it works on only one path at a time.



Mentioned in Chapter 4, *Advanced Vectors* (*Real World Adobe Illustrator CS3*), Rick Johnson's Concatenate plugin allows you to join multiple paths at once in Illustrator.

## Selecting Through Objects

Illustrator provides no less than three ways to select objects underneath others, and unfortunately none of them works as quickly or simply as FreeHand's keyboard modifier that allows you to cycle through the objects under the cursor.

In Illustrator, Control-click (right-click) to invoke the contextual menu, and you'll find options for Select Next Item Above/Below. Similar commands are in the Select menu and are available as keyboard shortcuts.

## Cutting Paths

Illustrator's Knife tool (it's grouped with the Scissors tool) works much like FreeHand's (drag for free-form cuts; Option [Alt] drag for straight cuts) with one crippling exception: it fails to cut open unfilled paths. This makes it useless for common tasks such as neatly trimming off a bunch of roads

 Illustrator CS3 offers a new Eraser tool, which allows you to delete or cut paths, although it isn't anything like a knife tool and can't be used for precisely cutting paths. Refer to Chapter 4, *Advanced Vectors (Real World Adobe Illustrator CS3)*, for more information about this new tool.

at the border of a map. For cutting open unfilled paths, you must resort to other means, such as tediously clicking each path with the Scissors tool.

Note that the failure affects *unfilled* open paths. This is initially confusing to FreeHand users because the Knife tool will indeed cut across an open path if it is filled, and as we've already noted, Illustrator allows open paths to have fills, contrary to most FreeHand experience.

Also, be careful not to confuse the Knife tool with the Slice tool, which is used for making image slices for optimizing Web-based images. The Slice tool icon looks more like an X-acto knife.

## Cloning

There is no explicit clone command in Illustrator. Illustrator users typically use Copy, followed by Command-F (Control-F) for Paste in Front or Command-B (Control-B) for Paste in Back for this purpose. Doing this by means of the keyboard shortcuts makes it reasonably quick and easy, though, so it's really not as serious an omission.

## Reversing

FreeHand users are accustomed to being able to reverse the direction of any path or subpath at any time by choosing the Modify > Alter Path > Reverse Path command. Illustrator has a pair of Reverse Path buttons in the Attributes panel, but these work only on closed subpaths of compound paths. To reverse open paths or subpaths, most users just click the start end with the Pen tool. The autojoin behavior of the Pen thinks you want to start adding segments from that end point and therefore reverses the path. Of course, this means having to reverse each path individually; you can't reverse several paths at once, as FreeHand's command can.

# BUNGEE JUMPING: ENTERING A SEA OF NEW FUNCTIONALITY

If the previous section was “the bad,” there is also a middle ground. Some features in Illustrator both delight and disappoint the FreeHand user at the same time. Some are bittersweet and fall short of a FreeHand user's expectations in some ways and yet also contain certain aspects that are better than what the user is accustomed to.

Of course, just as FreeHand has many taken-for-granted “minor” features that make major differences in efficiency and capability, so does Illustrator. These are wonderful surprises that reward the FreeHand user who takes the time to explore their potential.

## Aligning and Distributing Objects

In Illustrator, locked objects are not selectable. This means they cannot be used as anchors to which you can align other objects. But when performing alignments in Illustrator, you can designate one of the selected objects as the anchor by simply giving it an extra click before performing the alignment (refer to Chapter 4, *Advanced Vectors (Real World Adobe Illustrator CS3)*, for more about defining key objects). Illustrator also allows you to apply Align functions to individually selected anchor points.

The sweet part is the additional functionality of Illustrator’s Align panel, especially the Distribute options, which are shown when you select Show Options from the panel flyout. Unlike in FreeHand, you can specify a distance *between* distributed objects. For example, if you want a series of different-sized objects to neatly abut, just enter **0** in the Distribute Spacing field.

## Employing Round Corners

How often have you performed the goofy positive/negative inset path trick in FreeHand to round the corners of a path? Illustrator has a Round Corners command that you can apply as either a literal filter (Filter > Stylize > Round Corners) or as a live effect (Effect > Stylize > Round Corners). However, it doesn’t actually give you corners of the radius you specify; the value you enter is actually the distance from the corner at which the curve is begun. Also, it works on whole paths, not on specific selected points. Still, this should be a welcome feature to FreeHand users.

## Expanding Strokes

As in FreeHand, Illustrator provides a means by which you can outline the edges of a stroke with unstroked paths, thereby converting them to closed, filled, and unstroked paths. Illustrator’s counterpart to FreeHand’s Modify > Alter Path > Expand Stroke command is its Object > Path >

Outline Stroke command. (The functionality also resides as a check box in the Object > Expand dialog.)

Illustrator's version of this important command holds a fundamental advantage over FreeHand's: whereas FreeHand's version invokes a dialog in which you specify the thickness, caps, and joins of the expanded strokes, Illustrator's abides by the already-applied characteristics of each path individually.

Besides just being more intuitive and "sensible," Illustrator's behavior is also more versatile. For example, if you have a line drawing in which several different stroke weights and caps are used, you can turn the entire thing into closed paths in one whack, without giving all the lines the same treatment. An example of where this can be especially useful is in preparing artwork for sign vinyl-cutting equipment. Applying Illustrator's Outline stroke, followed by the Merge pathfinder, performs much of the necessary preparatory work.

## Automating with Illustrator

Appendix A, *Automation with Illustrator (Real World Adobe Illustrator CS3)*, is devoted entirely to working faster and more efficiently with Illustrator, but it's important to emphasize here that Illustrator supports both AppleScript on the Mac and Visual Basic scripting on Windows. More important, there's the cross-platform JavaScript support as well. Adobe has similar built-in scripting support for all of its applications (including Bridge), so what you learn by scripting in one program augments your efforts in another.

If scripting just isn't for you, you can still create your own custom features by stringing together very simple or quite complex sequences of operations in Illustrator's built-in macro feature, the Actions panel. Many useful examples are provided with the program for common tasks, but you can also build your own specialties; for example, you can perform a series of Expand and Pathfinder operations to prepare artwork for your own sign-cutting workflow, or you can scale and rotate objects to fit the top, left, and right planes of an isometric drawing. Like its JavaScript support, the automation of Illustrator's Actions panel can help make up for some of the features you consider missing relative to FreeHand.

## Exploring Illustrator's Live Features

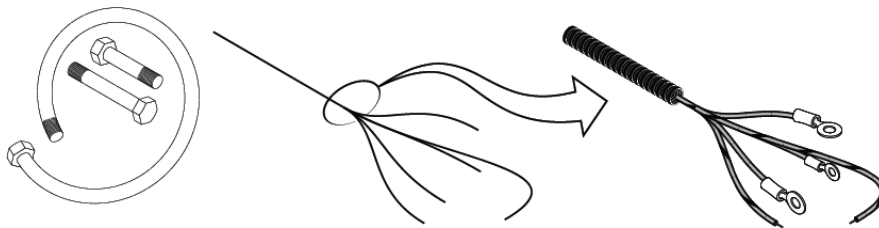
Since version 8, Illustrator has become increasingly centered on more and more elaborate live behavior. These are treatments that remain adjustable until they are nailed down by an Expand command or by being exported to a format that does not support the effect.

Of course, FreeHand has its share of live behaviors, too. They range all the way from things as mundane as blends to newer Illustratorish features such as transparency. In fact, when you think about it, even something as common as an ordinary stroke weight can be considered a live behavior. But here, we're talking bigger than that. These are major feature sets that the FreeHand user should explore (see Chapter 3, *Objects, Groups, and Layers*, and Chapter 8, *3D and Other Live Effects in Real World Adobe Illustrator CS3*) to appreciate their potential.

### Working with Brushes

FreeHand has live brushes, but not to the extent of Illustrator's selection. Roughly speaking, Illustrator's Art brush is analogous to FreeHand's Paint brush, and an Illustrator Scatter brush is similar to a Spray brush in FreeHand.

But FreeHand has nothing like Illustrator's Pattern brush, with its separate tiles for ends, sides, and corners. Pattern brushes can be used for one-time setups of complex objects ranging from border frames with special treatments at the corners to nuts and bolts with adjustable diameters and lengths (**Figure 15**).



**Figure 15** Pattern brushes can have ends and corners that are different from the artwork used along their length. You can draw complex objects once and apply them to simple spine paths.

Some capabilities in FreeHand's brushes are not replicated in Illustrator. For example, FreeHand's Spray brush lets you apply multiple different symbols

within a single brush definition, whereas Illustrator's Scatter brush does not. Both treatments have their advantages. However, we suspect you will come to agree that Illustrator's brushes are, overall, more satisfying in terms of capability and results.

## Using Warps

Think of Illustrator's Warp commands (under the Effect menu) as presets of the most commonly needed Envelope shapes, but within a dialog that presents the most commonly needed distortions in the form of sliders (Illustrator also has a powerful Envelope function for more customized uses). You can use the Warp effect in a blend, as explained in Chapter 10, *Graphs, Distortion, and Blends*, (Figure 16). This feature set is a huge time-saver.



**Figure 16** If you apply the same Warp effect to two copies of the same artwork, you can blend it; the ends of the blends are still live and editable. This is a great technique for export to Flash.

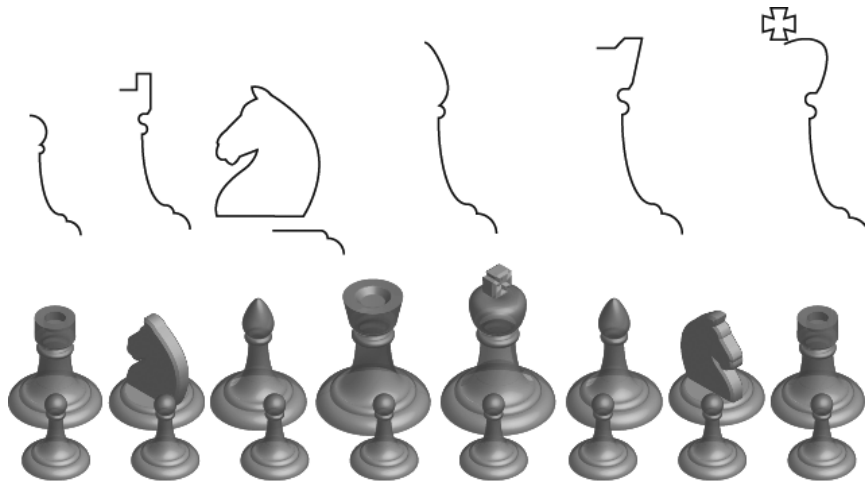
## Exploring the Symbolism Toolset

FreeHand's Graphic Hose can be much more down-to-business productive than Illustrator's Symbol Sprayer when you just want to spray a bunch of same objects in a line or within an area. But, oh my, the things you can do with the other symbolism tools after you put the symbols down! A crowd favorite is the Symbol Stainer tool. To use it, spray a bunch of symbols on the page, and then softly and subtly colorize them en masse: very cool and very useful. Be sure to check out Chapter 5, *Brushes, Symbols, and Masks* (*Real World Adobe Illustrator CS3*), for more details.

## Adding Dimension with the 3D Effects

FreeHand's Extrude feature is not 3D. It is a 2D construction for simulating 3D objects, much like perspective construction on a drawing board.

Illustrator's 3D Effect is 3D. It renders to a 2D image, of course, as does any 3D program, but it renders as vector paths, rather than pixels. An actual 3D engine is used to generate the model (**Figure 17**).



**Figure 17** The simple paths at the top of this figure are all you need to generate the 3D chess piece renderings at the bottom.

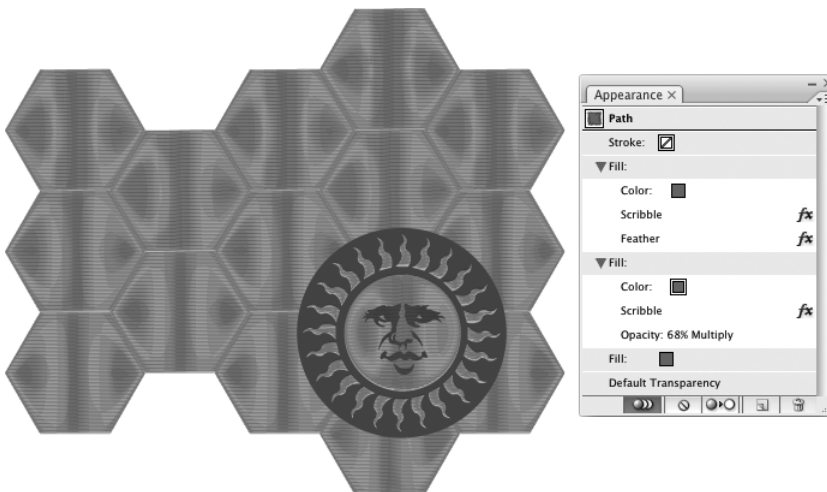
Understand, this is not meant to denigrate FreeHand's approach. Both 2D construction and 3D modeling have their purposes and advantages, depending upon what you are trying to do. But the greater realism of the 3D effect in Illustrator is plain to see when you first use it. It also offers two major capabilities that FreeHand's does not: parallel perspective (essential to tech illustrators, online game builders, and so on) and artwork mapping (great for package designs, labeling, and much more).

You can also blend between objects that have the same type of 3D effect applied. For example, apply a 3D effect to a path, make a copy, and blend between the two. Then modify the parameters of 3D effect applied to one. The blend updates accordingly. Release to layers, export to SWF, and you've got a frame-by-frame animation in much less time than you'd need to build something similar in FreeHand. Be sure to read Chapter 8, *3D and Other Live Effects*, and Chapter 11, *Web and Mobile Design (Real World Adobe Illustrator CS3)*, for more information on this subject.

## Getting Creative with the Scribble Effect

Scribble is not a single effect; it's a whole feature set. The obvious use, of course, is to make a fill or a stroke look . . . well, scribbled. But you can also use this to quickly render a wide variety of effects from embroidery to television interference. Be sure to read Chapter 8, *3D and Other Live Effects (Real World Adobe Illustrator CS3)*, where this is discussed in more detail, and explore this feature set into the wee hours (**Figure 18**).

**Figure 18** The shimmer effect used here is based on the Scribble effect applied to two fills. By using two slightly different Scribble angles, you can produce the interference pattern.



## Working with Live Effects

Here's where it really hits home: the major live effects in Illustrator can often be combined to produce elaborate treatments that would be very time-consuming to replicate in FreeHand; these capabilities are not always evident in a mere surface exploration of the individual features.

For example, you can create a blend between two copies of the same 3D object that have different orientations. This greatly expedites the process of building frame-by-frame animations to use in Flash.

Another example of combining effects involves blending between two symbol instances. To achieve this, drag two instances of a symbol onto the page. Blend them. Now direct select one, and use the Symbol Stainer tool to colorize it. The possible combinations go on and on.



## TAKING THE LEAP OF FAITH

This guide is already way over its space budget. It would have to be an entire book to exhaustively compare every feature of FreeHand to Illustrator. But if it functions well as a “leg up” over the initial getting-acquainted curve, it will have served its purpose.

So hop to it, FreeHanders. The Illustrator community needs you. Put your noses to the Illustrator grindstone, and try to learn its every nuance. Then, when you’re up to speed (it won’t take long), be sure to let Adobe know what you like and don’t like about Illustrator, what you’ve always loved about FreeHand, and that what we’re all expecting from the company is an absolutely best-ever vector drawing program (Adobe is always happy to hear from its users).

You can also reference the following additional materials when moving from FreeHand to Illustrator:

- **FreeHand to Illustrator Migration Guide.** This is an in-depth guide published by Adobe and is available at [http://www.adobe.com/designcenter/illustrator/articles/illcs2ip\\_fhillmigr/illcs2ip\\_fhillmigr.pdf](http://www.adobe.com/designcenter/illustrator/articles/illcs2ip_fhillmigr/illcs2ip_fhillmigr.pdf).
- **Migrating from FreeHand to Illustrator CS3.** This is a video training title published by lynda.com and is available at [www.lynda.com](http://www.lynda.com).

