

ADOBE ILLUSTRATOR CS2 CRASH COURSE



FBAUP, Pedro Amado, 2007-01-22
Versão 0.1 (alfa). Actualizada em 2007-01-22.

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<http://users.fba.up.pt/~pamado/designlab>

SUMÁRIO

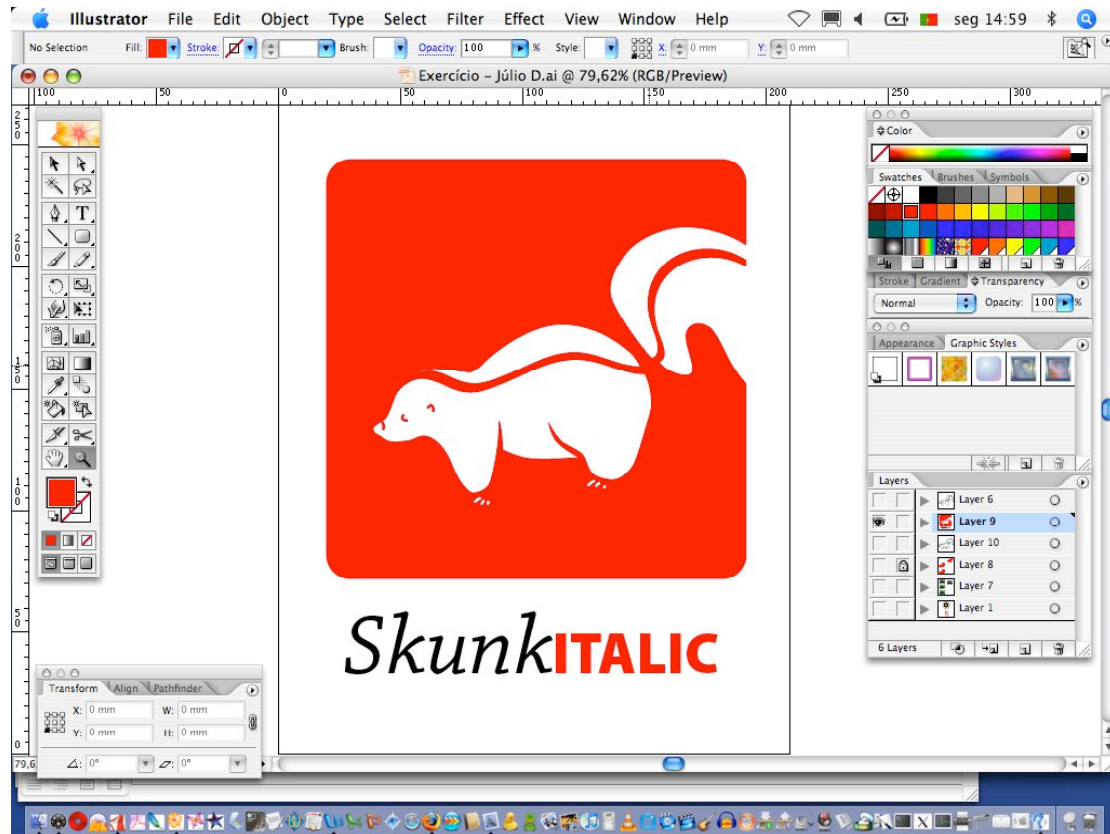
Introdução	7
Vector graphics reinvented.....	7
Tutoriais	7
Passar do Freehand para o Illustrator	8
Vectors vs. Rasters.....	9
VECTOR GRAPHICS VS. RASTER GRAPHICS: PYTHAGORAS VS. SEURAT	9
Vector graphics - remember algebra?	9
Raster graphics - pixels, pixels, pixels	9
BRINGING IT ALL TOGETHER	10
GUI	11
Creating New Files	11
Opening Files	11
Working with Palettes	11
Workspaces	11
Key Preferences	11
Tools & Toolbox	12
To view artwork as outlines.....	13
Previewing artwork in its final output medium.....	13
To work with rulers, guides & units.....	13
To snap objects to anchor points and guides	13
Seleção	14
Selecting Objects	14
Grouping.....	14
The Bounding Box	14
Rulers and Guides	14
Arranging and Distributing.....	14
Stacking and Arranging	14
Outline View.....	14
Edição Básica.....	15
Primitivas.....	15
About paths	15
Components of a path.....	15

Rectangles	16
Ellipses and Rounded Rectangles	16
Polygons and Stars	16
Editing Points.....	16
Editing Direction Handles.....	16
Lines and Arcs	16
Spirals	16
Pencil tool options.....	18
To draw curves with the Pen tool	19
Reshaping paths	21
To smooth paths	23
Imagens.....	23
Cor – Fills e Strokes	24
About colors in digital graphics.....	24
Adding Color	24
Color Picker	24
To use the Color Picker.....	24
Color Picker	25
Using Swatches.....	25
About swatches	25
To use the Swatches palette	27
Color Pallette	27
To work with the Color palette	27
Spot Colors.....	28
Strokes.....	28
Patterns	28
Linear Gradients	28
Radial Gradients	28
Transparency	28
Blending Modes.....	28
Multiple Strokes and Fills	28
Live Paint	28
Live Paint Tips	28
Layers e Grupos.....	29
About the Layers palette.....	29
Layers and Groups	30
Hiding and Locking	30
Organizing Layers	30
Pasting between Layers	30

Transformações	31
About the Transform palette	31
Rotating and Scaling	32
Reflection	32
Shearing	32
Free Transform	33
Tipografia	34
Type Containers	34
Importing text files into artwork	35
Point Type	36
Path Type	36
Area Type and Threading (Área Type Options)	36
Paragraph Control	36
Character Control	36
Kerning and Tracking	36
Estilos	38
Paragraph Styles & Character Styles	38
About character and paragraph styles	38
Open Type and Glyphs	39
About the Glyphs palette	39
Creating Outlines	40
Modifying letterforms as graphic objects	40
Edição	42
Pen and Pencil	42
Drawing with the Pen	42
Converting Points	42
Tracing with the Pen	42
Drawing with the Pencil	42
Smoothing and Erasing	42
Tracing Trick	42
Paintbrush Tools	42
Calligraphic Brushes	42
Transform Avançado	43
Cutting, dividing, and trimming objects	43
About clipping masks	43
Envelopes, Meshes, and Blends	44
Envelopes	44
Blends	46
About blends	46

Filtros e efeitos	48
About effects and filters	48
To create a drop shadow.....	48
3D.....	49
Rotating, Extruding & Revolving.....	49
Creating 3D objects	49
Extruding 3D objects	49
Revolving 3D objects	49
To set 3D rotation position options	50
Extras	52
Saving and Printing	52

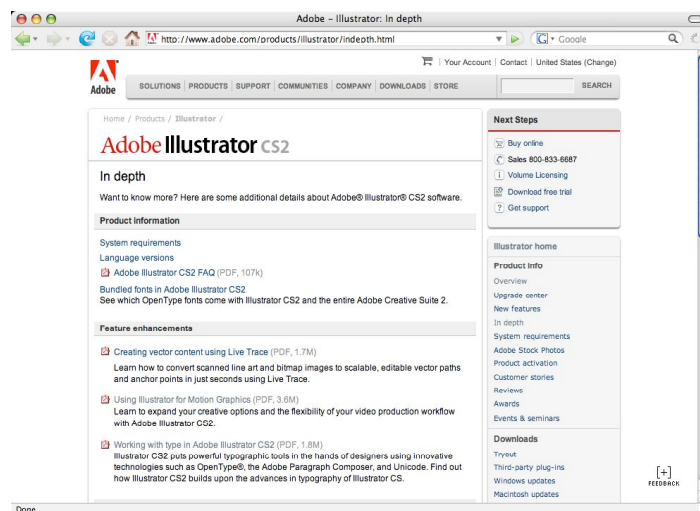
ADOBE ILLUSTRATOR CS2 CRASH COURSE



INTRODUÇÃO

VECTOR GRAPHICS REINVENTED

Adobe® Illustrator® CS2 software gives you new creative freedom that lets you realize your ideas quickly and powerfully. Instantly convert bitmaps to vector artwork and paint more intuitively. Save time with intelligent palettes and optimized workspaces. Plus, tight integration with other software allows you to produce extraordinary graphics for print, video, the web, and mobile devices.

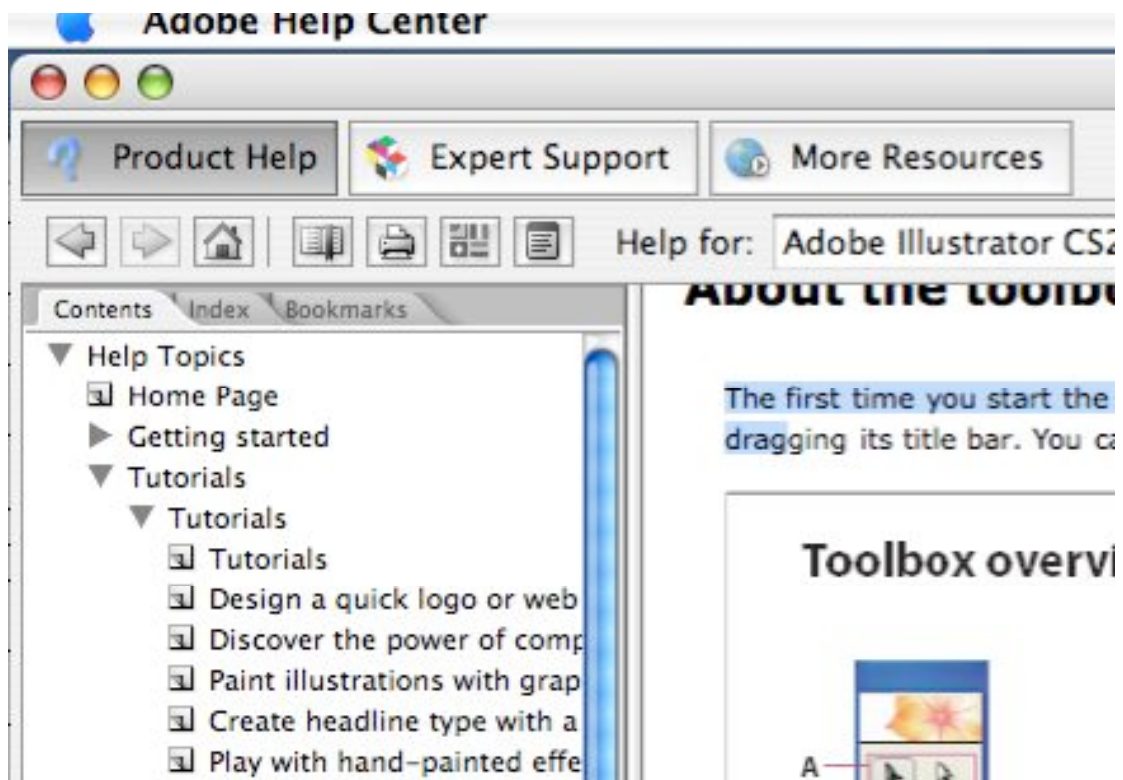


http://www.adobe.com/products/illustrator/pdfs/illustrator_overview.pdf

<http://www.adobe.com/products/illustrator/indepth.html>

TUTORIAIS

<http://www.adobe.com/designcenter/tutorials/>



PASSAR DO FREEHAND PARA O ILLUSTRATOR

http://www.adobe.com/products/illustrator/pdfs/illcs2ip_fhillmigr.pdf



VECTORS VS. RASTERS

VECTOR GRAPHICS VS. RASTER GRAPHICS: PYTHAGORAS VS. SEURAT

Vector graphics - remember algebra?

Remember the day you started talking about graphs in Algebra? **All those x and y coordinates making lines and shapes?** Remember thinking that you will never use this stuff in the real world? Well you were right. Thanks to the good people who have written vector based drawing programs like Illustrator, Freehand, and CorelDraw. They have done all the dirty work for us. Now we just open up their programs, draw some circles and squares and drag some handles around until we get what we want.

It's not really that easy, but the point is that the shapes and lines are created using Algebraic equations. The images created in these programs are called vector-based graphics or just vector graphics. Vector graphics have many strengths and weaknesses. Their strengths include their ability to render type and large areas of color with relatively small file sizes. They can also be reduced or enlarged to any size without losing any image quality. One major weakness of vector graphics is their inability to show continuous tone images like photographs or complex blends.

Raster graphics - pixels, pixels, pixels

Enter raster graphics, which are also known as pixel-based graphics or bit-mapped graphics. **Raster graphics are built on a grid of pixels. The number of pixels in one inch determines an image's resolution. For example: Image A is 3 inches tall by 5 inches wide. Image B is also 3 inches tall by 5 inches wide. Image A is saved at 72 dpi (dots per inch). Image B is saved at 300 dpi. As you move in closer to view the detail in Images A & B, You will notice Image A will start to look jagged and clunky.** While at the same viewing distance, Image B will still appear smooth, with clean, fine lines. Image B has a higher dpi and therefore better resolution. For a visual demonstration of this principle go to our section on [Web Graphics vs. Print Graphics - Image Resolution](#).

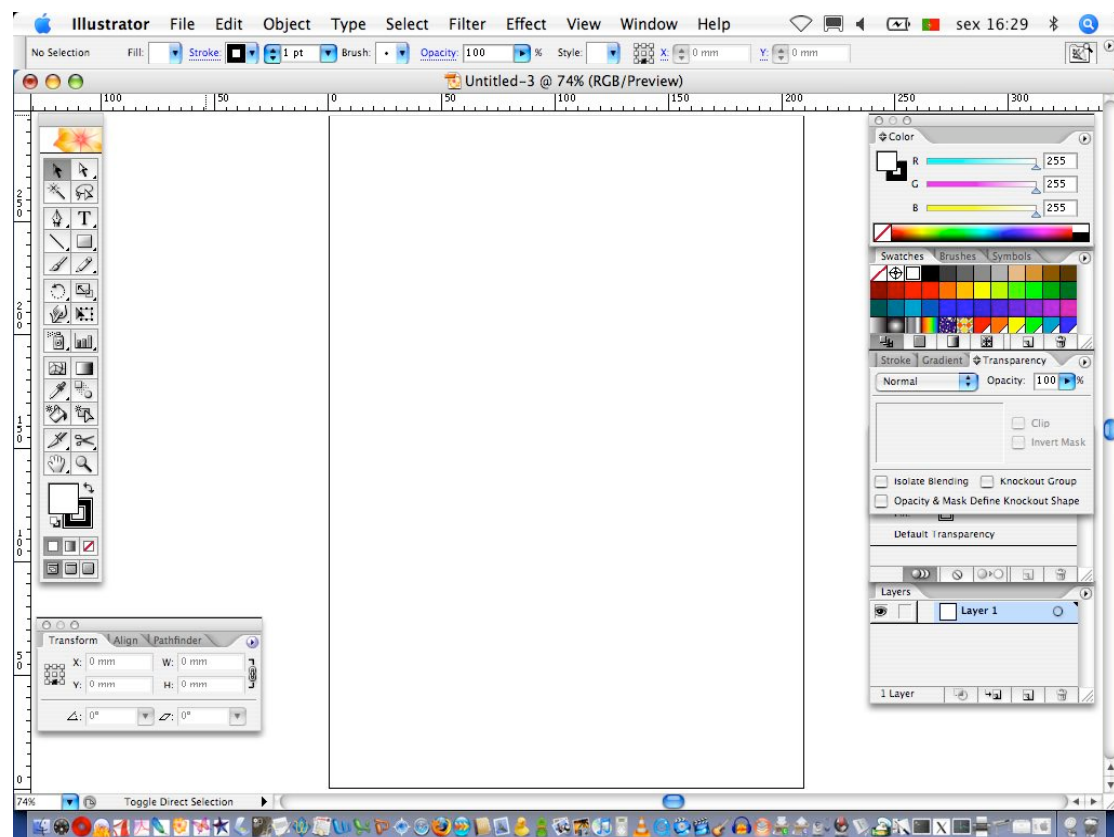
Raster Graphics are best used for large photographic images. We use programs like PhotoShop to create and manipulate raster graphics. Their strengths include their ability to show continuous tones and shading in photographic images. Their weaknesses are in their poor scalability and relatively large file sizes.

BRINGING IT ALL TOGETHER

As designers, we use vector and raster graphics every day. Programs like Quark Express and PageMaker let us combine the two types of graphics to make datasheets, letterheads, tradeshow graphics, and other printed pieces. In the web world, the only two widely supported graphic formats are GIF and JPEG, which are both raster graphic formats. New technologies like the Flash Plug-in are beginning to utilize the smaller file sizes of vector graphics, but the change is coming slowly.

http://www.design-works.com/resources/vector_and_raster_graphics.htm

GUI



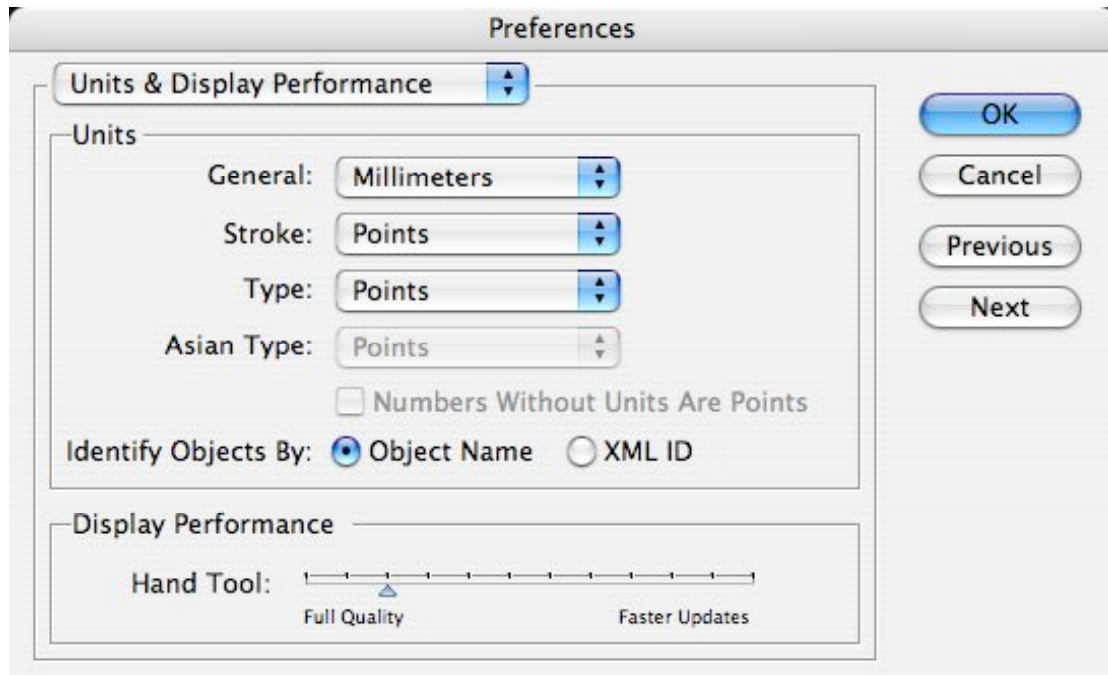
CREATING NEW FILES

OPENING FILES

WORKING WITH PALETTES

WORKSPACES

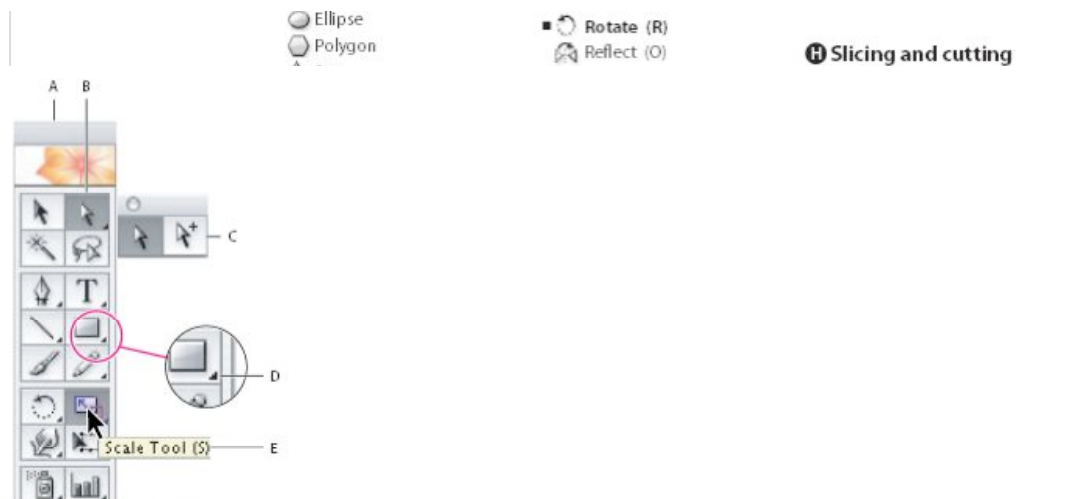
KEY PREFERENCES



TOOLS & TOOLBOX

Toolbox overview

- A Selection tools**
 - Selection (V)
 - Direct Selection (A)
 - Group Selection
 - Magic Wand (Y)
 - Lasso (Q)
- B Drawing tools**
 - Pen (P)
 - Add Anchor Point
 - Delete Anchor Point
 - Convert Anchor Point
 - Line Segment (L)
 - Arc
 - Spiral
 - Rectangular Grid
 - Polar Grid
 - Rectangle (M)
 - Rounded Rectangle
- C Type tools**
 - Type (T)
 - Area Type
 - Type On a Path
 - Vertical Type
 - Vertical Area Type
 - Vertical Type On a Path
- D Painting tools**
 - Paintbrush (B)
 - Mesh (U)
 - Gradient (G)
 - Eyedropper (I)
 - Measure
 - Live Paint Bucket (K)
 - Live Paint Select (Shift+L)
- E Reshaping tools**
- F Symbol tools**
 - Symbol Sprayer (Shift+S)
 - Symbol Shifter
 - Symbol Scruncher
 - Symbol Sizer
 - Symbol Spinner
 - Symbol Stainer
 - Symbol Screener
 - Symbol Styler
- G Graph tools**
 - Column Graph (J)
 - Stacked Column Graph
 - Bar Graph
 - Stacked Bar Graph
 - Line Graph
 - Area Graph
 - Scatter Graph
 - Pie Graph
 - Radar Graph



Selecting a hidden tool

A. Toolbox **B.** Active tool **C.** Tear off palette with hidden tools **D.** Hidden tool triangle **E.** Tool name and shortcut

TO VIEW ARTWORK AS OUTLINES

By default, Illustrator previews all artwork in color. However, you can speed redraw and performance by viewing artwork as outlines (or paths).

PREVIEWING ARTWORK IN ITS FINAL OUTPUT MEDIUM

TO WORK WITH RULERS, GUIDES & UNITS

TO SNAP OBJECTS TO ANCHOR POINTS AND GUIDES

SELECÇÃO

SELECTING OBJECTS

GROUPING

THE BOUNDING BOX

RULERS AND GUIDES

ARRANGING AND DISTRIBUTING

STACKING AND ARRANGING

OUTLINE VIEW

EDIÇÃO BÁSICA

PRIMITIVAS

About paths

As you draw, the resulting line is called a path. A path is made up of one or more straight or curved segments. The beginning and end of each segment is marked by anchor points, which work like pins holding a wire in place. You change the shape of a path by editing its anchor points. You can control curves by dragging the direction points at the end of direction lines that appear at anchor points.

A path is either open, like an arc, or closed, like a circle. For an open path, the starting and ending anchor points for the path are called endpoints.

Components of a path

A. Selected (solid) endpoint B. Selected anchor point C. Curved path segment D. Direction line E. Direction point

Paths can have two kinds of anchor points—corner points and smooth points. At a corner point, a path abruptly changes direction. At a smooth point, path segments are connected as a continuous curve. You can draw a path using any combination of corner and smooth points. If you draw the wrong kind of point, you can always change it.

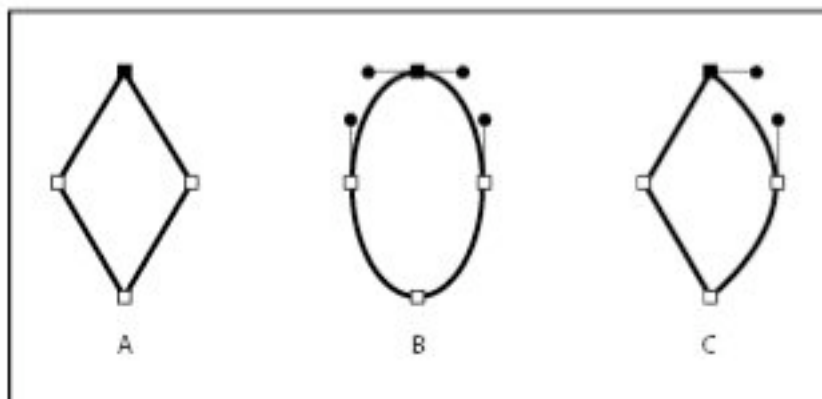


FIGURE 1 - POINTS ON A PATH

A. Four corner points B. Four smooth points C. Combination of corner and smooth points

A corner point can connect any two straight or curved segments, while a smooth point always connects two curved segments.

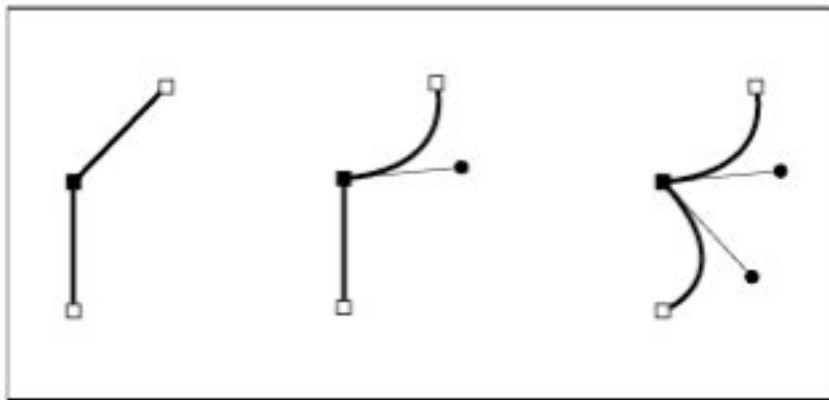


FIGURE 2 - A CORNER POINT CAN CONNECT BOTH STRAIGHT SEGMENTS AND CURVED SEGMENTS.

Rectangles

Ellipses and Rounded Rectangles

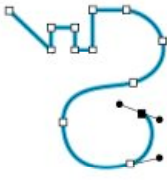

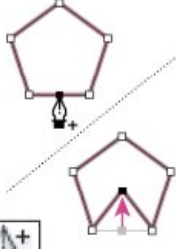

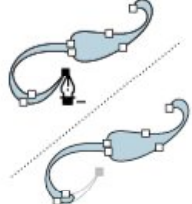









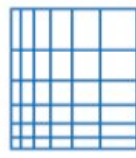



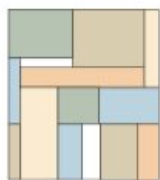

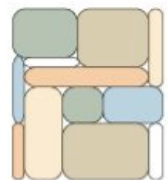



Polygons and Stars





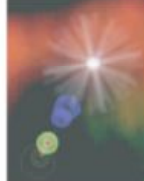



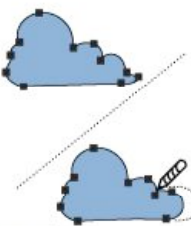

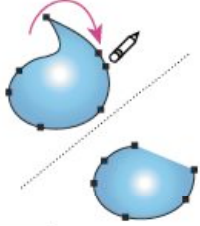

Editing Points

Editing Direction Handles

Lines and Arcs

Spirals

  <p>The Pen tool (P) draws straight and curved lines to create objects.</p>	  <p>The Add Anchor Point tool (+) adds anchor points to paths.</p>	  <p>The Delete Anchor Point tool (-) deletes anchor points from paths.</p>	  <p>The Convert Anchor Point tool (Shift+C) changes smooth points to corner points and vice versa.</p>
  <p>The Line Segment tool (\) draws individual straight line segments.</p>	  <p>The Arc tool draws individual concave or convex curve segments.</p>	  <p>The Spiral tool draws clockwise and counterclockwise spirals.</p>	  <p>The Rectangular Grid tool draws rectangular grids.</p>
  <p>The Polar Grid tool draws circular chart grids.</p>	  <p>The Rectangle tool (M) draws squares and rectangles.</p>	  <p>The Rounded Rectangle tool draws squares and rectangles with rounded corners.</p>	  <p>The Ellipse tool (L) draws circles and ovals.</p>

  <p>The Polygon tool draws regular, multi-sided shapes.</p>	  <p>The Star tool draws stars.</p>	  <p>The Flare tool creates lens-flare or solar-flare-like effects.</p>	  <p>The Pencil tool (N) draws and edits freehand lines.</p>
  <p>The Smooth tool smooths bezier paths.</p>	  <p>The Erase tool erases paths and anchor points from the object.</p>		

To reshape paths with the Pencil tool

Pencil tool options

Double-click the Pencil tool to set any of the following options.

Fidelity Controls how far you have to move your mouse or stylus before Illustrator adds a new anchor point to the path. For example, a Fidelity value of 2.5 means that tool movements of less than 2.5 pixels aren't registered. Fidelity can range from 0.5 to 20 pixels; the higher the value, the smoother and less complex the path.

Smoothness Controls the amount of smoothing that Illustrator applies when you use the tool. Smoothness can range from 0% to 100%; the higher the value, the smoother the path.

Fill New Pencil Strokes Applies a fill to pencil strokes you draw after selecting this option, but not to existing pencil strokes. Remember to select a fill before you draw the pencil strokes. (See To apply a color, pattern, or gradient to an object.)

Keep Selected Determines whether or not Illustrator keeps the path selected after you draw it.

Edit Selected Paths Determines whether or not you can change an existing path with the Pencil tool.

Within: _ pixels Determines how close your mouse or stylus must be to an existing path in order to edit the path with the Pencil tool. This option is only available when the Edit Selected Paths option is selected.

To draw curves with the Pen tool

Select the Pen tool .

Position the Pen tool where you want the curve to begin, and press down the mouse button.

The first anchor point appears, and the Pen tool pointer changes to an arrowhead .

Drag to set the slope of the curve segment you're creating, and then release the mouse button.

In general, extend the direction line about one third of the distance to the next anchor point you plan to draw.

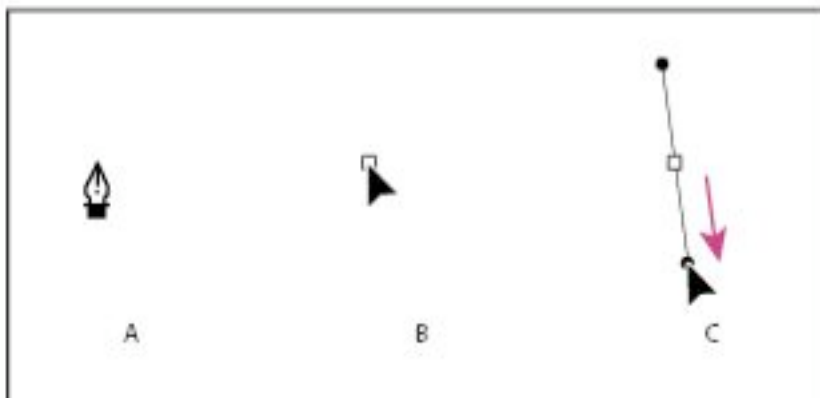


FIGURE 3 - DRAWING THE FIRST POINT IN A CURVE

A. Positioning Pen tool B. Starting to drag (mouse button pressed) C. Dragging to extend direction lines

Position the Pen tool where you want the curve segment to end, and do one of the following:

To create a “C”-shaped curve, drag in a direction opposite to the previous direction line. Then release the mouse button.

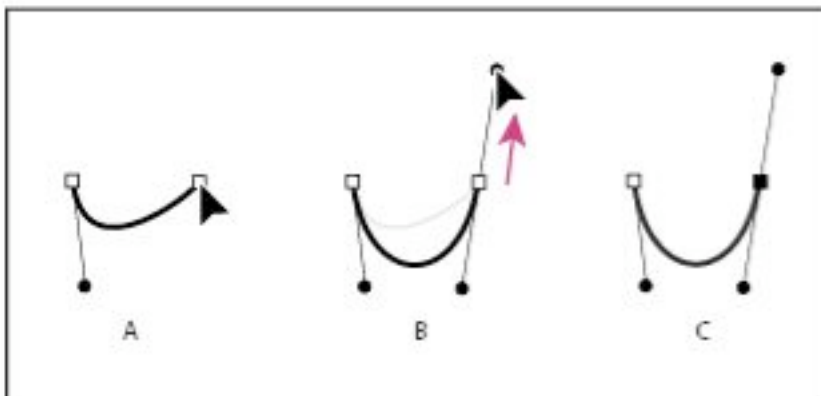


FIGURE 4 - DRAWING THE SECOND POINT IN A CURVE

A. Starting to drag second smooth point B. Dragging away from previous direction line, creating a “C” curve C. Result after releasing mouse button

To create an “S”-shaped curve, drag in the same direction as the previous direction line. Then release the mouse button.

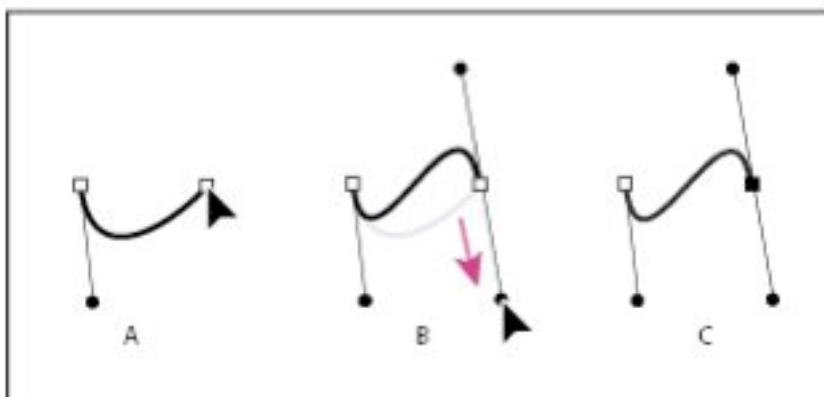


FIGURE 5 - DRAWING AN S CURVE

A. Starting to drag new smooth point B. Dragging in same direction as previous direction line, creating an “S” curve C. Result after releasing mouse button

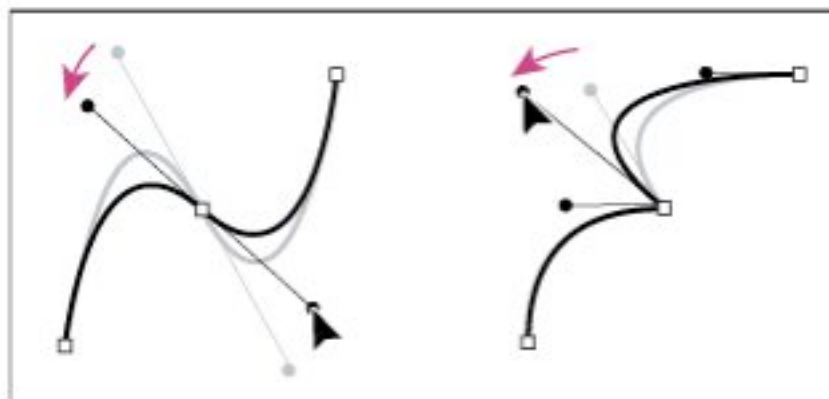
Continue dragging the Pen tool from different locations to create additional smooth points.

Complete the path by doing one of the following:

To close the path, position the Pen tool over the first (hollow) anchor point. A small circle appears next to the Pen tool pointer when it is positioned correctly. Click or drag to close the path.

To leave the path open, Ctrl-click (Windows) or Command-click (Mac OS) anywhere away from all objects, choose Select > Deselect, or select a different tool in the toolbox.

Curves are easier to edit and your system can display and print them faster if you draw



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FIGURE 6 - TO CONVERT BETWEEN SMOOTH POINTS AND CORNER POINTS

Select the entire path you want to modify.

Select the Convert Anchor Point tool .

Position the Convert Anchor Point tool over the anchor point you want to convert, and do one of the following:

To convert a corner point to a smooth point, drag a direction point out of the corner point.

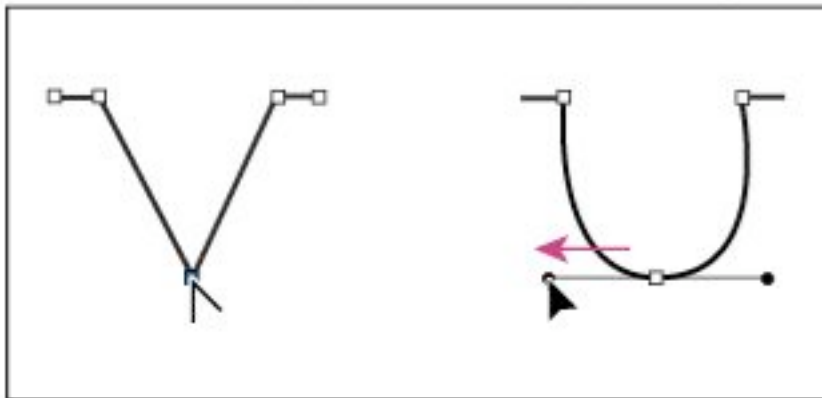


FIGURE 7 -

To convert a smooth point to a corner point without direction lines, click the smooth point.

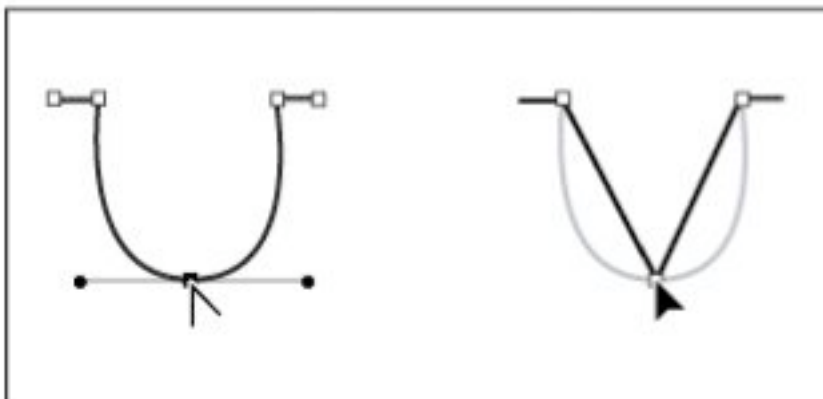


FIGURE 8 - CLICKING A SMOOTH POINT TO CREATE A CORNER POINT

To convert a corner point without direction lines to a corner point with independent direction lines, first drag a direction point out of a corner point (making it a smooth point with direction lines). Release the mouse button only (don't release any keys you may have pressed to activate the Convert Anchor Point tool), and then drag either direction point.

To convert a smooth point to a corner point with independent direction lines, drag either direction point.

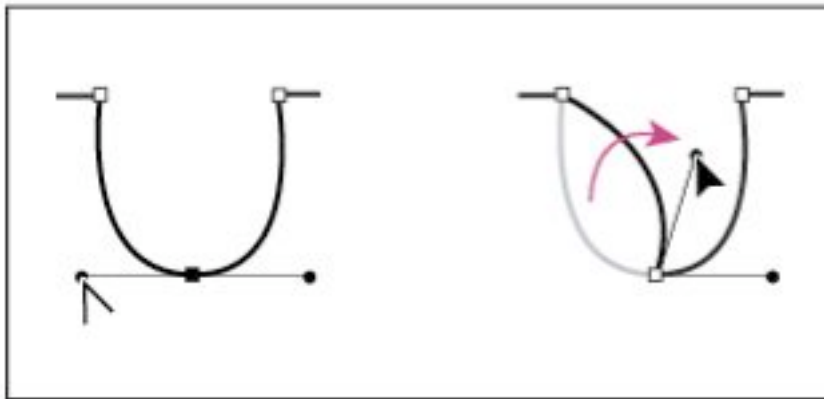


FIGURE 9 - CONVERTING A SMOOTH POINT TO A CORNER POINT

To smooth paths

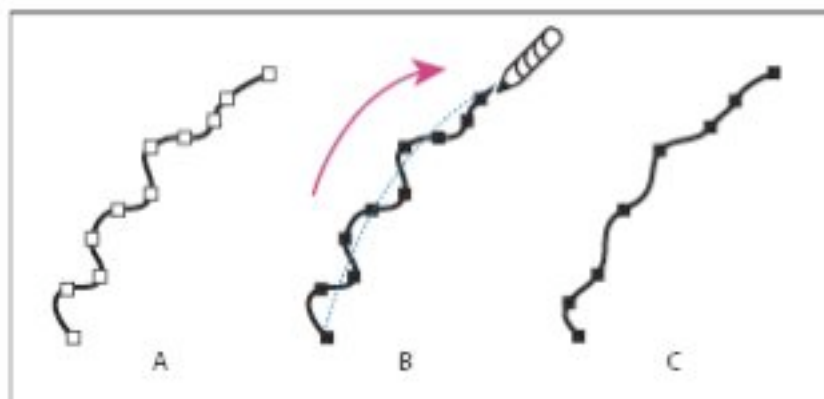


FIGURE 10 - TO ERASE AND SPLIT PART OF A PATH

IMAGENS

Colocação e manipulação básica

COR – FILLS E STROKES

ABOUT COLORS IN DIGITAL GRAPHICS

We use color models to describe the colors we see and work with in digital graphics. Each color model, such as RGB, CMYK, or HSB, represents a different method for describing and classifying color. Color models use numeric values to represent the visible spectrum of color. A color space is a variant of a color model and has a specific gamut (range) of colors. For example, within the RGB color model are a number of color spaces: Adobe RGB, sRGB, and Apple RGB. While each of these color spaces defines color using the same three axes (R, G, and B), their gamuts are different.

When you work with the colors in a graphic, you are actually adjusting numerical values in the file. It's easy to think of a number as a color, but these numerical values are not absolute colors in themselves—they only have a color meaning within the color space of the device that is producing the color.

Because each device has its own color space, it can reproduce colors only in its gamut. When an image moves from one device to another, image colors may change because each device interprets the RGB or CMYK values according to its own color space. For example, it is impossible for all the colors viewed on a monitor to be identically matched in a print from a desktop printer. A printer operates in a CMYK color space, and a monitor operates in an RGB color space. Their gamuts are different. Some colors produced by inks cannot be displayed on a monitor, and some colors that can be displayed on a monitor cannot be reproduced using inks on paper.

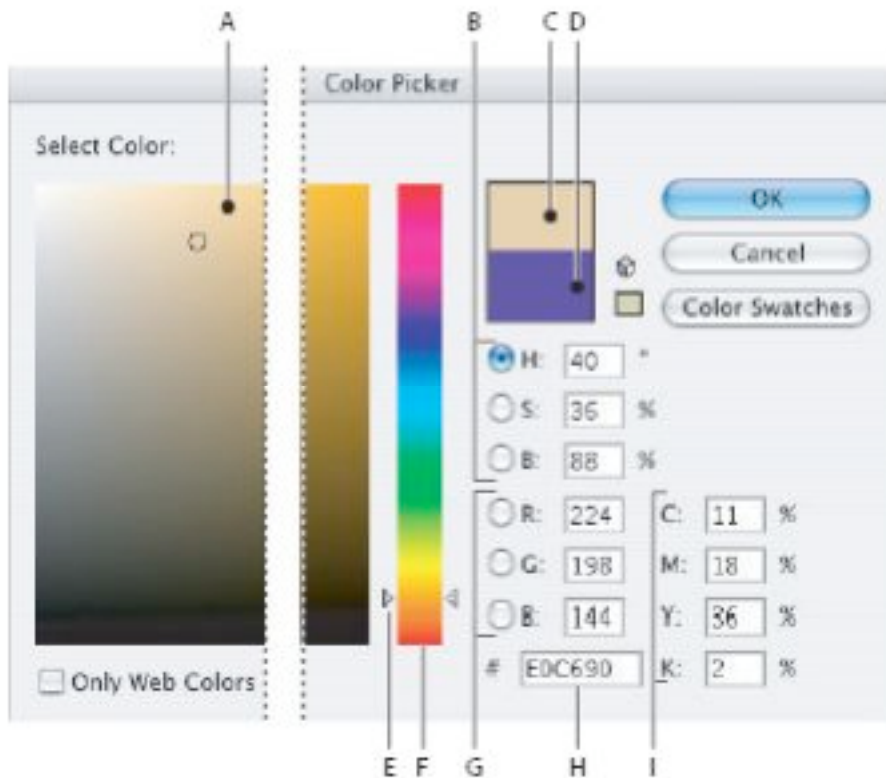
Even though it is impossible to perfectly match all colors on different devices, you can use color management to ensure that most colors are the same or similar enough so they appear consistent.

ADDING COLOR

COLOR PICKER

To use the Color Picker

The Color Picker lets you select an object's fill or stroke color by choosing from a color spectrum, defining colors numerically, or clicking a swatch.



Color Picker

A. Color spectrum B. HSB color values C. Current color D. Previous color E. Color slider triangles F. Color slider G. RGB color values H. Hexadecimal color value I. CMYK color values

USING SWATCHES

About swatches

Swatches are named colors, tints, gradients, and patterns. The swatches associated with a document appear in the Swatches palette. In addition, you can open libraries of swatches from other Illustrator documents and various color systems. Swatch libraries appear in separate palettes and are not saved with the document.

The Swatches palette and swatch library palettes can contain the following types of swatches:

Process colors A process color is printed using a combination of the four standard process inks: cyan, magenta, yellow, and black. By default, Illustrator defines new swatches as process colors. (See *About process colors*.)

Global process colors A global color is automatically updated throughout your artwork when you edit it. All spot colors are global; however, process colors can be either global or local. You can identify global color swatches by the global color icon (when the palette is in list view) or a triangle in the lower corner (when the palette is in thumbnail view).

Spot colors A spot color is a premixed ink that is used instead of, or in addition to, CMYK process inks. You can identify spot-color swatches by the spot-color icon (when the palette is in list view) or a dot in the lower corner (when the palette is in thumbnail view). (See *About spot colors*.)

Tints A tint is a global process color or spot color with a modified intensity. Tints of the same color are linked together, so that if you edit a tint swatch, all associated tint swatches (and the objects painted with those swatches) are also changed. Tint swatches are identified by a percentage (when the palette is in list view).

Gradients A gradient is a graduated blend between two or more colors or tints of the same color. Gradient colors can be assigned as CMYK process colors, RGB colors, or a spot color.

Patterns Patterns are repeating (tiled) paths, compound paths, or text with solid fills or no fill, or are designed from scratch with any of the tools in Illustrator.

None The None swatch removes the stroke or fill from an object. You can't edit or remove this swatch.

Registration The registration swatch is a built-in swatch that causes objects filled or stroked with it to print on every separation from a PostScript printer. For example, registration marks use the Registration color so that printing plates can be aligned precisely on a press. You can't remove this swatch.

Note: If you use the Registration color for type, and then you separate the file and print it, the type may not register properly and the black ink may appear muddy. To avoid this, use black ink instead for type.

To use the Swatches palette

You use the Swatches palette to control all document colors, gradients, patterns, and tints. You can name and store any of these items for instant access. When a selected object's fill or stroke contains a color, gradient, pattern, or tint applied from the Swatches palette, the applied swatch is highlighted in the Swatches palette.

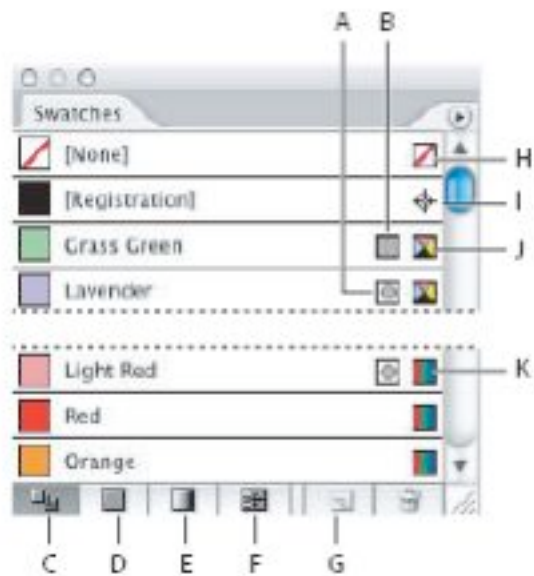


FIGURE 11 - SWATCHES PALETTE

A. Spot color B. Global color C. Show All Swatches button D. Show Color Swatches button E. Show Gradient Swatches button F. Show Pattern Swatches button G. New Swatch button H. Fill or stroke of None I. Registration swatch (prints on all plates) J. CMYK symbol (when document is open in CMYK mode) K. RGB symbol (when document is open in RGB mode)

COLOR PALLETE

To work with the Color palette

You use the Color palette to apply color to an object's fill and stroke, and also to edit and mix colors. The Color palette can display color values using different color models. By default, only the most commonly used options are visible in the Color palette.

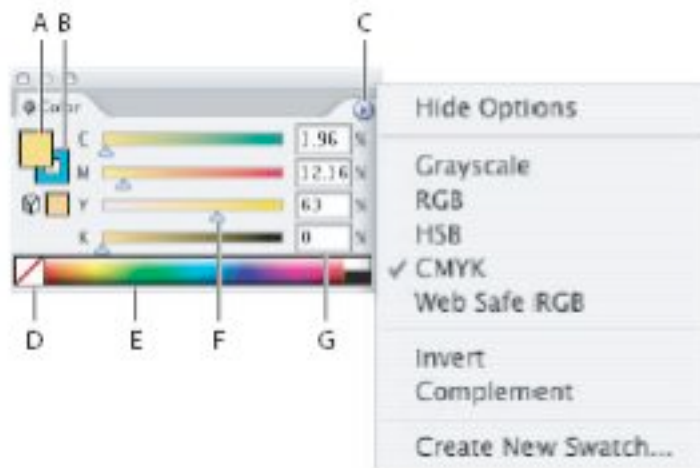


FIGURE 12 - COLOR PALETTE

A. Fill color B. Stroke color C. Palette menu D. None box E. Color spectrum bar F. Color slider G. Text box for a color component

SPOT COLORS

STROKES

PATTERNS

LINEAR GRADIENTS

RADIAL GRADIENTS

TRANSPARENCY

BLENDING MODES

MULTIPLE STROKES AND FILLS

LIVE PAINT

LIVE PAINT TIPS

LAYERS E GRUPOS

About the Layers palette

You use the Layers palette to list, organize, and edit the objects in a document. By default, every new document contains one layer, and each object you create is listed under that layer. However, you can create new layers and rearrange items to best suit your needs. To display the Layers palette, choose Window > Layers.

By default, Illustrator assigns a unique color to each layer in the Layers palette. The color displays in the layer's selection column when one or more objects within the layer are selected and also displays in the selected object's selection column. In addition, the same color displays in the document window in the bounding box, path, anchor points, and center point of the selected object. You can use this color to quickly locate an object's corresponding layer in the Layers palette and you can change this layer color to suit your needs.

When an item in the Layers palette contains other items, a triangle appears to the left of the item's name. Click the triangle to show or hide the contents. If no triangle appears, the item contains no additional items.

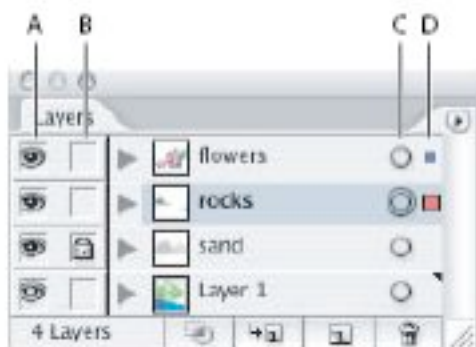


FIGURE 13 - LAYERS PALETTE

A. Visibility column B. Edit column C. Target column D. Selection column

LAYERS AND GROUPS

HIDING AND LOCKING

ORGANIZING LAYERS

PASTING BETWEEN LAYERS

TRANSFORMAÇÕES

About the Transform palette

The Transform palette displays information about the location, size, and orientation of one or more selected objects. By typing new values, you can modify the selected objects or their pattern fills, or both. You can also change the transformation reference point and lock the object's proportions. To display the palette, choose Window > Transform.

All values in the palette refer to the bounding boxes of the objects except for the X and Y values, which refer to the selected reference point.

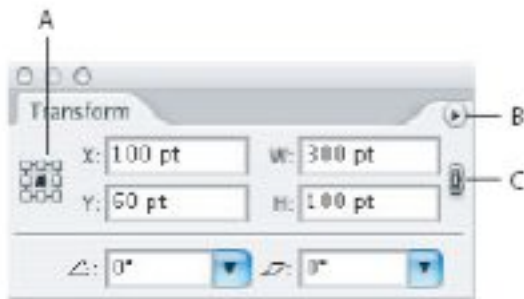


FIGURE 14 - TRANSFORM PALETTE

A. Reference point locator B. Palette menu C. Lock proportions icon

To use the bounding box

When you select one or more objects with the Selection tool, a bounding box displays around them. The bounding box lets you move, rotate, duplicate, and scale objects easily by dragging the object or a handle (one of the hollow squares along the bounding box).

To hide the bounding box, choose View > Hide Bounding Box.

To show the bounding box, choose View > Show Bounding Box.

To reorient the bounding box after you rotate it, choose Object > Transform > Reset Bounding Box.

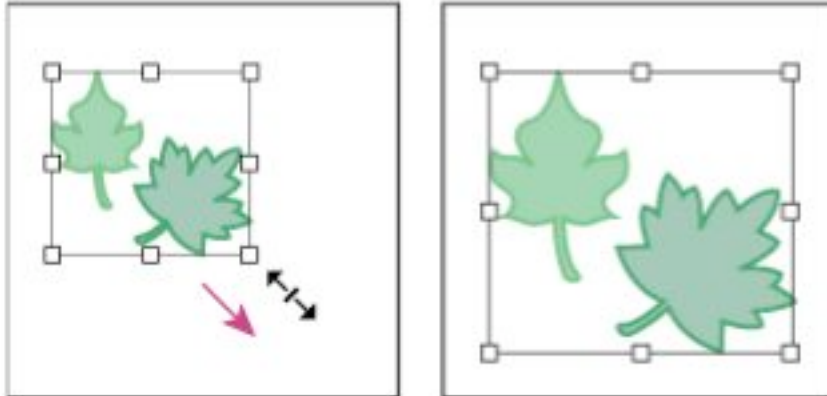


FIGURE 15 - SELECTED OBJECTS BEFORE (LEFT) COMPARED TO AFTER (RIGHT) SCALING USING THE BOUNDING BOX

ROTATING AND SCALING

REFLECTION

SHEARING

Shearing an object slants, or skews, the object along the horizontal or vertical axis, or a specified angle that's relative to a specified axis. Objects shear relative to a reference point which varies depending on the shearing method you choose and can be changed for most shearing methods. You can lock one dimension of an object as you shear it, and you can shear one object or multiple objects simultaneously.

Shearing is useful for creating cast shadows.

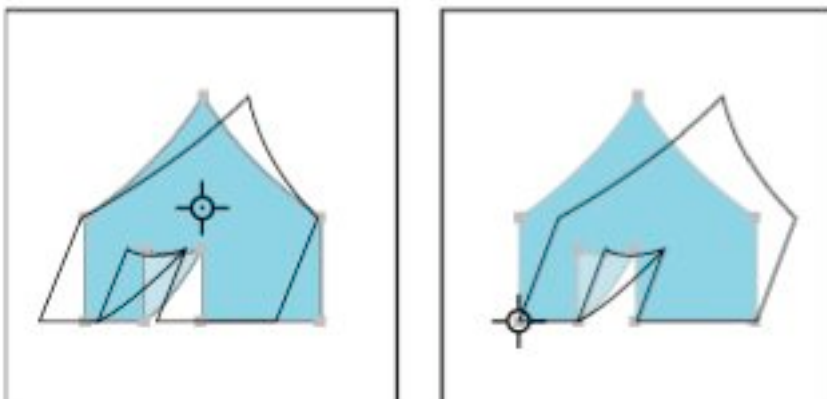


FIGURE 16 - SHEARING RELATIVE TO THE CENTER (LEFT) COMPARED TO SHEARING RELATIVE TO A USER-DEFINED REFERENCE POINT (RIGHT)

FREE TRANSFORM

To distort objects with the Free Transform tool

Select one or more objects.

Select the Free Transform tool .

Start dragging a corner handle on the bounding box (not a side handle), and then do one of the following:

Hold down Ctrl (Windows) or Command (Mac OS) until the selection is at the desired level of distortion.

Hold down Shift+Alt+Ctrl (Windows) or Shift+Option+Command (Mac OS) to distort in perspective.

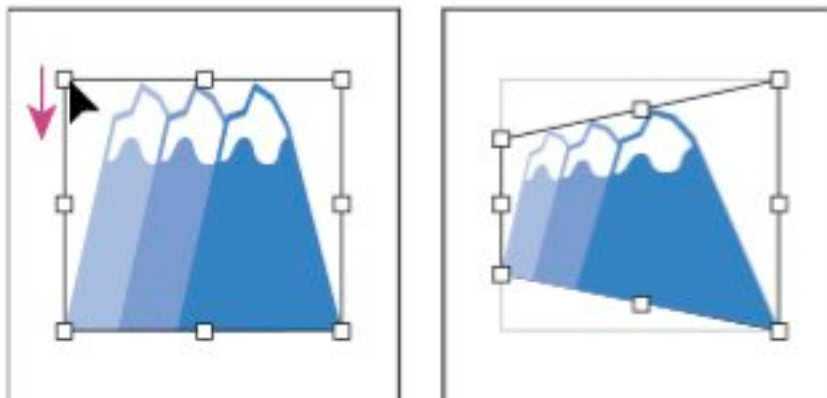


FIGURE 17 - DISTORTING IN PERSPECTIVE

TIPOGRAFIA

TYPE CONTAINERS

Entering text in artwork

In Illustrator, there are three methods for creating type: at a point, inside an area, and along a path.

Point type is a horizontal or vertical line of text that begins where you click on the artboard and expands as you enter characters. Entering text this way is useful for adding a few words to your artwork.

Area type uses the boundaries of an object to control the flow of characters, either horizontally or vertically. When the text reaches a boundary, it automatically wraps to fit inside the defined area. Entering text this way is useful when you want to create one or more paragraphs, such as for a brochure.

Type on a path flows along the edge of an open or a closed path. When you enter text horizontally, the characters are parallel to the baseline. When you enter text vertically, the characters that are perpendicular to the baseline. In either case, the text flows in the direction in which points were added to the path.

If you enter more text than can fit within an area or along a path, a small box containing a plus symbol (+) appears near the bottom of the bounding area.

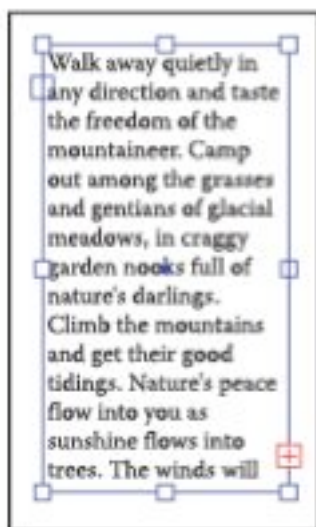


FIGURE 18 - EXAMPLE OF OVERFLOW TEXT

You can resize the text area or extend the path in order to display the overflow text. You can also thread the text into another object.

Importing text files into artwork

You can import text into your artwork from a file that was created in another application. Illustrator supports the following formats for importing text:

Microsoft Word 97, 98, 2000, and 2002

RTF (Rich Text Format)

Plain text (ASCII) with ANSI, Unicode, Shift JIS, GB2312, Chinese Big 5, and Cyrillic encoding.

One advantage of importing text from a file, rather than copying and pasting it, is that imported text retains its character and paragraph formatting. For example, text from an RTF file retains its font and style specifications in Illustrator. You can also set encoding and formatting options when importing text from a plain text file.

Important: When importing text from Microsoft Word and RTF files, make sure that the fonts used in the file are available on your system. Missing fonts and font styles—including fonts that have the same name but different formats (Type 1, TrueType, or CID)—may cause unexpected results. On Japanese systems, differences in character sets may prevent text that was entered in Windows from appearing on-screen in Mac OS.

POINT TYPE**PATH TYPE****AREA TYPE AND THREADING (ÁREA TYPE OPTIONS)****PARAGRAPH CONTROL****CHARACTER CONTROL****KERNING AND TRACKING**

Kerning is the process of adding or subtracting space between specific pairs of characters. Tracking is the process of loosening or tightening the spacing between the characters in selected text or an entire block of text.

You can automatically kern type using metrics kerning or optical kerning. Metrics kerning (called Auto kerning in Illustrator) uses kern pairs, which are included with most fonts. Kern pairs contain information about the spacing of specific pairs of letters. Some of these are: LA, P., To, Tr, Ta, Tu, Te, Ty, Wa, WA, We, Wo, Ya, and Yo. Illustrator uses metrics kerning by default so that specific pairs are automatically kerned when you import or type text.

Some fonts include robust kern-pair specifications. However, when a font includes only minimal built-in kerning or none at all, or if you use two different typefaces or sizes in one or more words on a line, you may want to use the optical kerning option. Optical kerning adjusts the spacing between adjacent characters based on their shapes.

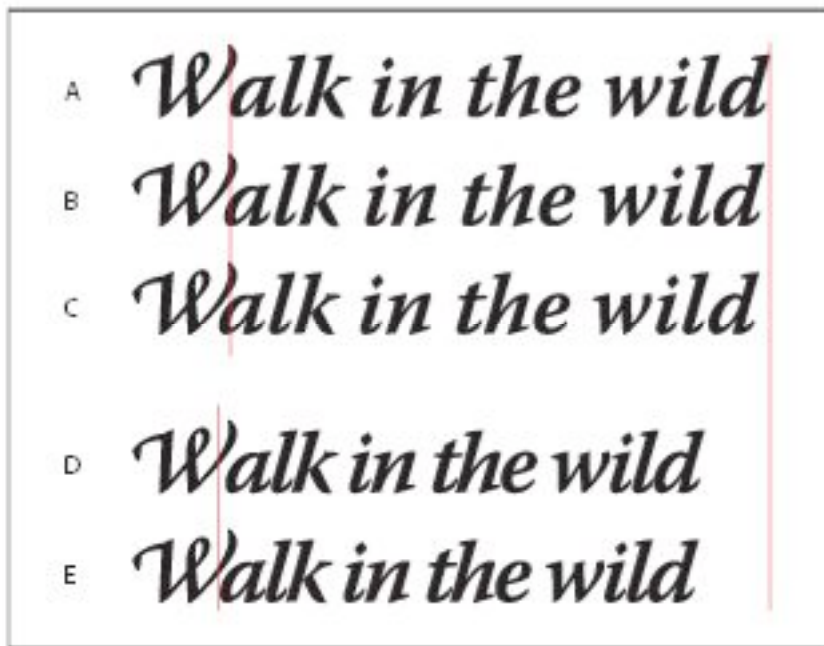


FIGURE 19 - KERNING AND TRACKING OPTIONS

A. Original text B. Text with optical kerning C. Text with manual kerning between W and a D. Text with tracking E. Cumulative kerning and tracking

You can also use manual kerning, which is ideal for adjusting the space between two letters. Tracking and manual kerning are cumulative, so you can first adjust individual pairs of letters, and then tighten or loosen a block of text without affecting the relative kerning of the letter pairs.

When you click to place the insertion point between two letters, Illustrator displays kerning values in the Character palette. Metrics and optical kerning values (or defined kern pairs) appear in parentheses. Similarly, if you select a word or a range of text, Illustrator displays the tracking values in the Character palette.

Tracking and kerning are both measured in 1/1000 em, a unit of measure that is relative to the current type size. In a 6-point font, 1 em equals 6 points; in a 10-point font, 1 em equals 10 points. Kerning and tracking are strictly proportional to the current type size.

ESTILOS

PARAGRAPH STYLES & CHARACTER STYLES

ABOUT CHARACTER AND PARAGRAPH STYLES

A character style is a collection of character-formatting attributes that you can apply to a selected range of text. A paragraph style includes both character- and paragraph-formatting attributes, and can be applied to a selected paragraph or range of paragraphs. Using character and paragraph styles saves time and ensures consistent formatting.

You use the Character Styles and Paragraph Styles palettes to create, apply, and manage character and paragraph styles. To display the palettes, choose Window > Type > Character Styles or Window > Type > Paragraph Styles. To apply a style, simply select text and click a style name in one of the palettes. If you don't select any text, the style applies to new text you create.

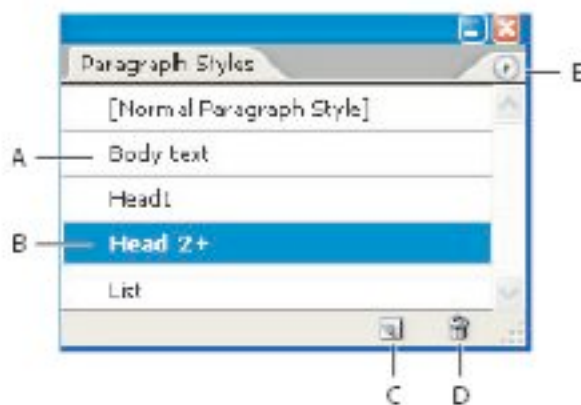
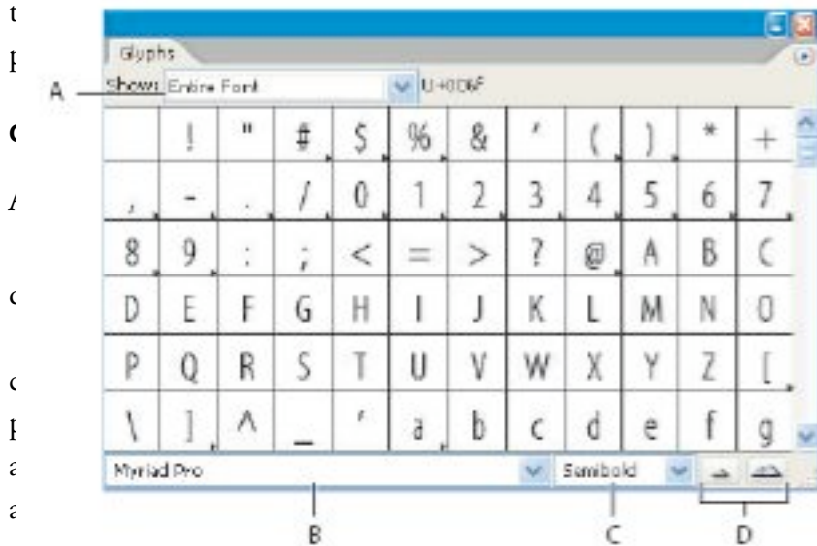


FIGURE 20 - PARAGRAPH STYLES PALETTE

A. Style name B. Style with additional formatting (overrides) C. New Style button D. Delete icon E. Palette menu

When you select text or insert the cursor in text, the active styles are highlighted in the Character Styles and Paragraph Styles palettes. By default, every character in a document is assigned the Normal Character Style and every paragraph is assigned the Normal Paragraph Style. These default styles are the building blocks for all other styles you create.

A plus sign next to a style name indicates that there are overrides to the style. An override is any formatting that doesn't match the attributes defined by the style. Any time you change settings in the Character and OpenType palette, you create an override to the Paragraph



specific glyphs in your
 .
 ly selected font. You
 re bottom of the
 ou can display
 om the Show menu

FIGURE 21 - GLYPHS PALETTE

A. Show menu B. Font family C. Font style D. Zoom buttons

When you select an OpenType font in the Glyphs palette, you can restrict the palette to display certain kinds of glyphs by selecting a category from the Show menu. You can also display a pop-up menu of alternate glyphs by clicking the triangle in the lower right corner of the glyph box where applicable.



FIGURE 22 - POP-UP MENU FOR ALTERNATE GLYPHS

CREATING OUTLINES

Modifying letterforms as graphic objects

The Create Outlines command (and the same command as an effect—Outline Object) lets you turn type into a set of compound paths that you can edit and manipulate as you would any other graphic object. Create Outlines and Outline Object are useful for changing the look of large display type, but they are rarely useful for body text or other type at small sizes.

These commands get font outline information from the actual font files installed on your system. When you create outlines from type, characters are converted in their current positions; they retain all graphics formatting such as their stroke and fill.



FIGURE 23 - MODIFYING A LETTERFORM

A. Original type object B. Type converted to outlines, ungrouped, and modified

Note: You can't convert bitmap fonts or outline-protected fonts to outlines.

When you convert type to outlines, the type loses its hints—instructions built into outline fonts to adjust their shape so that your system displays or prints them optimally at a wide range of sizes. Therefore, if you plan to scale the type, do so by adjusting its point size before converting it to outlines.

You must convert all the type in a selection to outlines; you cannot convert a single letter within a string of type. To convert a single letter into an outline, create a separate piece of type containing only that letter.

EDIÇÃO

PEN AND PENCIL

DRAWING WITH THE PEN

CONVERTING POINTS

TRACING WITH THE PEN

DRAWING WITH THE PENCIL

SMOOTHING AND ERASING

TRACING TRICK

PAINTBRUSH TOOLS

Calligraphic Brushes

TRANSFORM AVANÇADO

CUTTING, DIVIDING, AND TRIMMING OBJECTS

Illustrator provides the following methods to cut, divide, and trim objects:

Divide Objects Below This command acts as a cookie cutter or stencil, using a selected object to cut through other objects, discarding the original selection.

Knife tool Cuts objects along a freehand path you draw with the tool, dividing objects into their component filled faces (a face is an area undivided by a line segment).

Split Into Grid This command lets you divide one or more objects into multiple rectangular objects arranged in rows and columns. You can precisely change the height, width, and gutter size between rows and columns, and quickly create guides for laying out artwork.

Compound paths and compound shapes Let you use an object to cut a hole in another object.

Pathfinder effects Provide various ways to divide and trim overlapping objects.

Clipping masks Let you use an object to hide portions of other objects.

ABOUT CLIPPING MASKS

A clipping mask is an object whose shape masks other artwork so that only areas that lie within the shape are visible—in effect, clipping the artwork to the shape of the mask. The clipping mask and the objects that are masked are called a clipping set and are marked with a dotted line in the Layers palette. You can make a clipping set from a selection of two or more objects or from all objects in a group or layer.

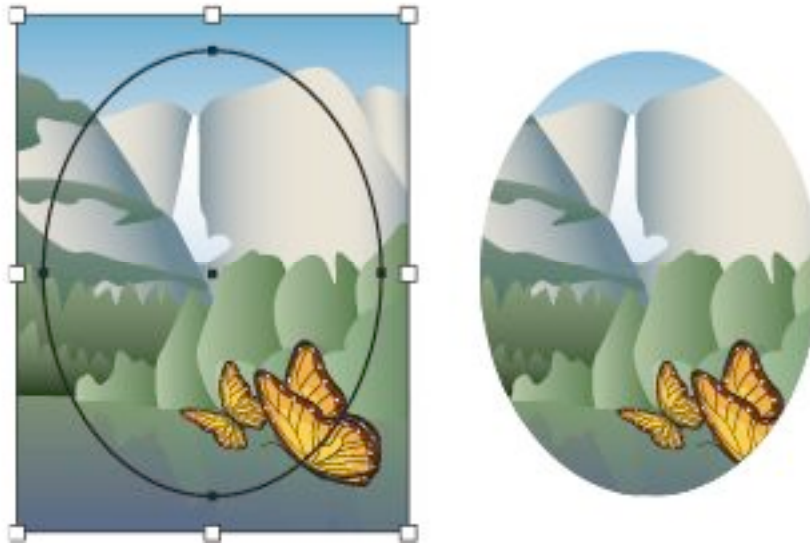


FIGURE 24 - BEFORE MASKING (LEFT) COMPARED TO AFTER MASKING (RIGHT)

The following guidelines apply to creating clipping masks:

The objects that you mask are moved into the clipping mask's group in the Layers palette if they don't already reside there.

Only vector objects can be clipping masks; however, any artwork can be masked.

If you use a layer or group to create a clipping mask, the first object in the layer or group masks everything that is a subset of the layer or group.

Regardless of its previous attributes, a clipping mask changes to an object with no fill or stroke.

To create a semitransparent mask, use the Transparency palette to create an opacity mask.

ENVELOPES, MESHES, AND BLENDS

Envelopes

Envelopes are objects that distort or reshape selected objects. You can make an envelope out of an object on your artboard, or you can use a preset warp shape or a mesh

grid as an envelope. You can use envelopes on any object except graphs, guides, or linked objects (with the exception of TIFF, GIF, and JPEG files).

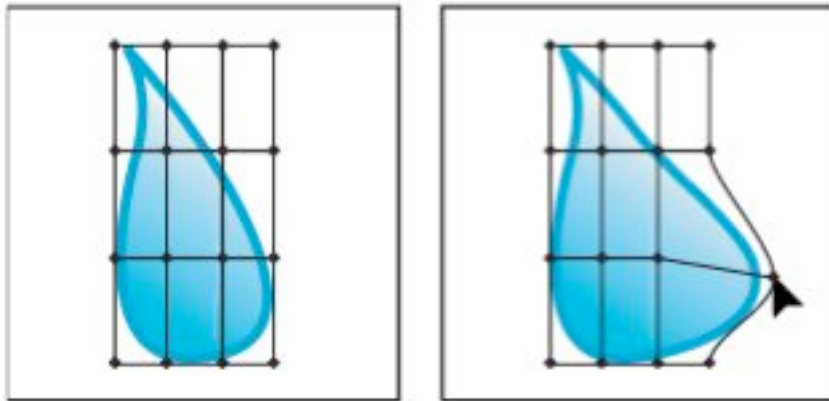


FIGURE 25 - MESH GRID ENVELOPE



FIGURE 26 - ENVELOPE CREATED FROM ANOTHER OBJECT

The Layers palette lists envelopes as <Envelope>. Once you apply an envelope, you can continue to edit the original objects. You can also edit, delete, or expand an envelope at any time. You can edit an envelope shape or the enveloped object, but not both at the same time.

Blends

About blends

The Blend tool and Make Blend command let you create a series of intermediate objects and colors between two or more selected objects. One of the simplest uses for blending is to create and distribute shapes evenly between two objects. You can also blend between two open paths to create a smooth transition between objects, or you can combine blends of colors and objects to create color transitions in the shape of a particular object.

Once you create a blend, the blended objects are treated as one object. If you move one of the original objects, or edit the original object's anchor points, the blend changes accordingly. In addition, the new objects blended between the original objects don't have their own anchor points. You can expand the blend in order to divide the blend into distinct objects.

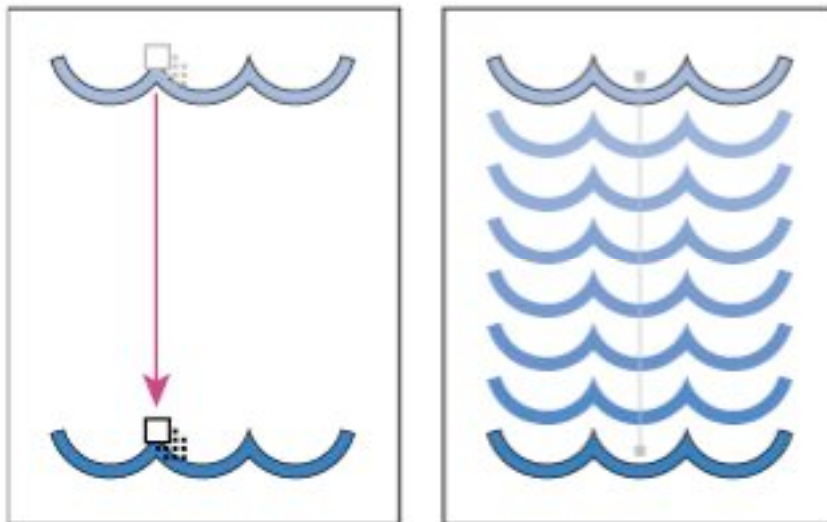


FIGURE 27 - EXAMPLE OF USING A BLEND TO DISTRIBUTE SHAPES EVENLY BETWEEN TWO OBJECTS

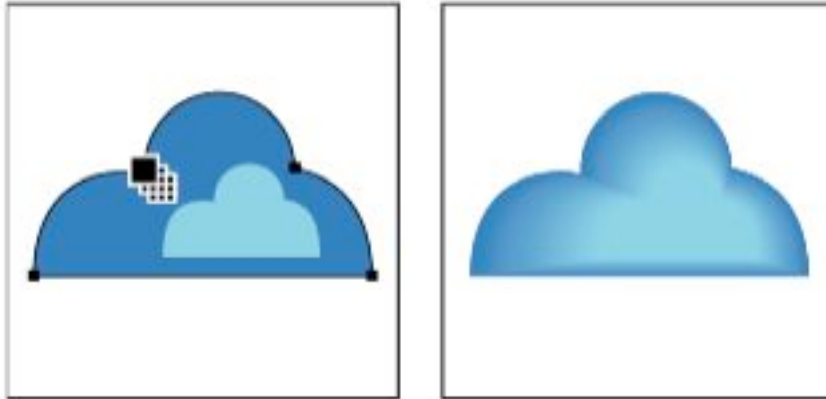


FIGURE 28 - EXAMPLE OF USING A BLEND TO DISTRIBUTE COLOR SMOOTHLY BETWEEN TWO OBJECTS

FILTROS E EFEITOS

ABOUT EFFECTS AND FILTERS

Many commands for changing the look of objects are available in both the Filter and Effect menus. For example, all of the commands in the Filter > Artistic submenu are also listed in the Effect > Artistic submenu. However, filters and effects have different consequences, so it's important to understand the difference in their use.

Effects are live, which means you can apply an effect command to an object and then continue to modify the effect's options or remove the effect at any time using the Appearance palette. Once you apply an effect to an object, the Appearance palette lists the effect and enables you to edit the effect, move it, duplicate it, delete it, or save it as part of a graphic style.

Filters change the underlying object, and the changes can't be modified or removed after the filter is applied. But one advantage to reshaping an object with a filter command is that you have immediate access to the new or modified anchor points created by the filter. (An effect must be expanded before you have access to the new points.)

Ellipse using Roughen effect (left maintains original anchor points and path segments, while the Roughen filter (right) creates new anchor points along the modified path.

To create a drop shadow

Select an object or group (or target a layer in the Layers palette).

Choose Effect > Stylize > Drop Shadow or Filter > Stylize > Drop Shadow.

Set options for the drop shadow (see Drop Shadow options), and click OK.

3D

ROTATING, EXTRUDING & REVOLVING

CREATING 3D OBJECTS

3D effects enable you to create three-dimensional (3D) objects from two-dimensional (2D) artwork. You can control the appearance of 3D objects with lighting, shading, rotation, and other properties. You can also map artwork onto each surface of a 3D object.

There are two ways to create a 3D object: by extruding or revolving. In addition, you can also rotate a 2D or 3D object in three dimensions.

Extruding 3D objects

Extruding extends a 2D object along the object's z axis to add depth to the object. For example, if you extrude a 2D ellipse, it becomes a cylinder.

Note: The object's axis always lies perpendicular to the object's front surface and moves relative to the object if the object is rotated in the 3D Options dialog box.

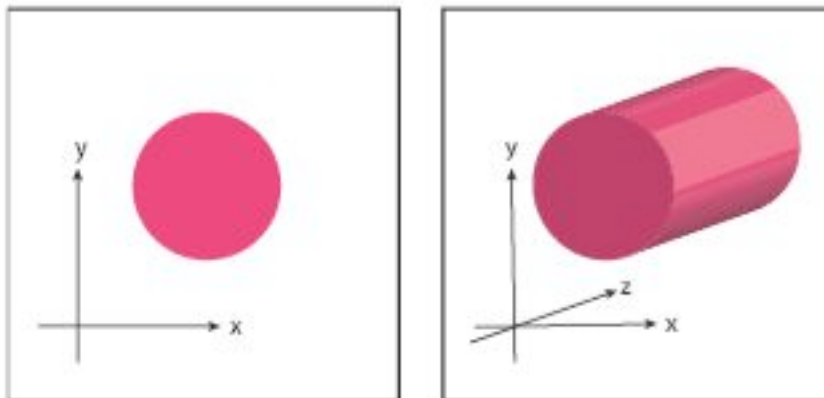
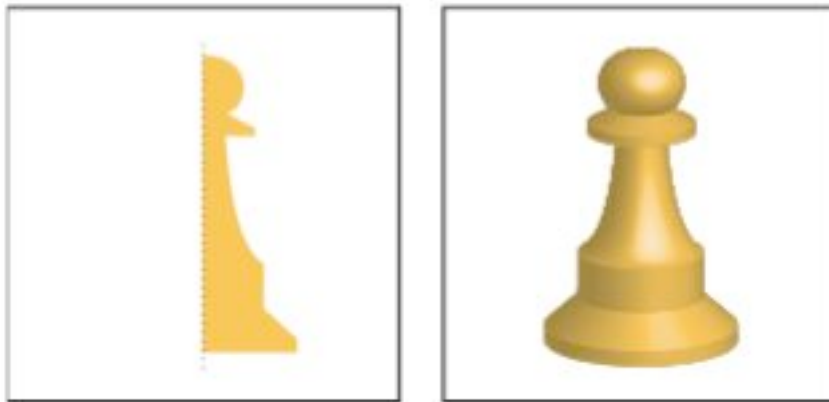


FIGURE 29 - EXTRUDING AN OBJECT

Revolving 3D objects

Revolving sweeps a path or profile in a circular direction around the global y axis (revolve axis) to create a 3D object. Because the revolve axis is vertically fixed, the open or closed path that you revolve typically needs to depict half of the desired 3D object's profile in a

vertical and front-facing position; you can then rotate the 3D object's position in the effect's dialog box.



Revolving an object

To set 3D rotation position options

Do any of the following:

Choose a preset position from the Position menu.

For unconstrained rotation, drag a track cube face. The front of the object is represented by the track cube's blue face, the object's top and bottom faces are light gray, the sides are medium gray, and the back face is dark gray.

To constrain the rotation along a global axis, hold down Shift while dragging horizontally (global y axis) or vertically (global x axis). To rotate the object around the global z axis, drag in the blue band that surrounds the track cube.

To constrain the rotation around an object axis, drag an edge on the track cube. The pointer changes to a double-sided arrow, and the cube edge changes color to identify the axis around which the object will rotate. Red edges represent the object's x axis, green edges represent the object's y axis, and blue edges represent the object's z axis.

Enter values between -180 and 180 in the horizontal (x) axis, vertical (y) axis, and depth (z) axis text boxes.

To adjust the perspective, enter a value between 0 and 160 in the Perspective text box. A smaller lens angle is similar to a telephoto camera lens; a larger lens angle is similar to a wide-angle camera lens.

Note: A lens angle that is higher than 150 may result in objects extending beyond your point of view and appearing distorted. Also, keep in mind that there are object x, y, and z axes and global x, y, and z axes. Object axes remain relative to an object's position in its 3D space. Global axes remain fixed relative to the computer screen; the x axis lies horizontally, the y axis lies vertically, and the z axis lies perpendicular to the computer screen.

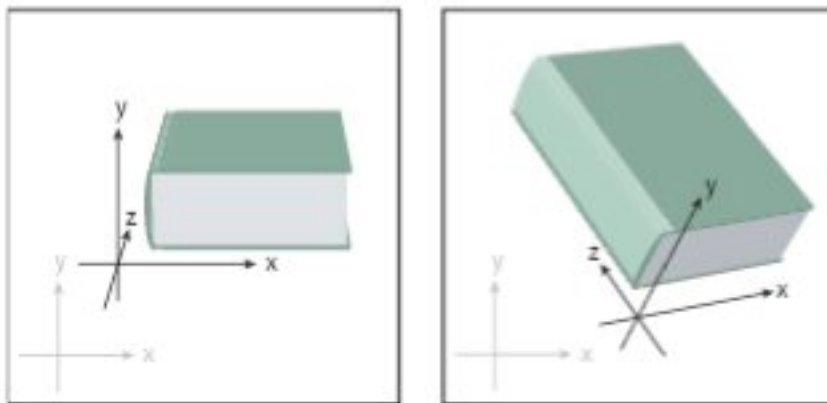


FIGURE 30 - OBJECT AXES (IN BLACK) MOVE WITH THE OBJECT; GLOBAL AXES (IN GRAY) ARE FIXED.

EXTRAS

SAVING AND PRINTING