How to use symbols and patterns

There are a variety of symbol and pattern tools available within Adobe Illustrator CS6 to help you create interesting design elements for your illustration projects (**Figure 1**).

The *Symbol Sprayer* acts like a particle sprayer—letting you add a large number of identical objects to the artboard at one time. For example, use the symbol sprayer to add hundreds of grass blades, wildflowers, bees, or snowflakes.

Pattern Creation tools allow you to create and edit vector shapes to create repeating, seamless patterns. Repeating patterns are often used in various industries including textiles, apparel, manufacturing, and even cartography. Pattern Creation tools in Illustrator allow you to easily create and edited repeating patterns at any time, so you can easily change artwork and tweak the design.

You can use the Symbol Sprayer and Pattern Creation tools in Illustrator to create interesting designs or backdrops and then import the Illustrator file into Adobe InDesign CS6.

Figure 1 Backdrop design created with Symbol Sprayer and Pattern Creation tools

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About Symbols

A *symbol set* is a group of symbol instances that you create with the Symbol Sprayer tool. You can create mixed sets of symbol instances by using the Symbol Sprayer tool with one symbol and then using it again with another symbol (**Figure 2**).

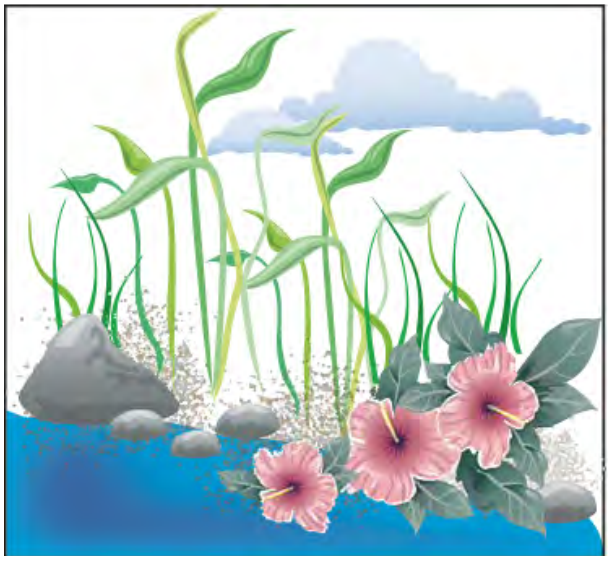

Figure 2 Artwork created with the symbolism tools

As you work with symbol sets, keep in mind that the symbolism tools affect only the symbol or symbols selected in the Symbols panel. For example, if you create a mixed symbol instance set that represents a meadow with grass and flowers, you can change the orientation of just the grass by selecting the grass symbol in the Symbols panel and then using the Symbol Spinner tool. To change the size of both the grass and the flowers, select both symbols in the Symbols panel and then use the Symbol Sizer tool.

To use the Symbol Sprayer:

1. Start Illustrator and choose File > New to display the New Document dialog box (**Figure 3**).
2. Enter the following information in the New Document dialog box:
   - *Name:* Backsplash
   - *Number of Artboards:* 1
   - *Units:* Inches
   - *Orientation:* Landscape
   - *Width:* 11 in
   - *Height:* 8.5 in

   Note: These dimensions fit within the outer margins of a standard (8.5 x 11) two-page spread.

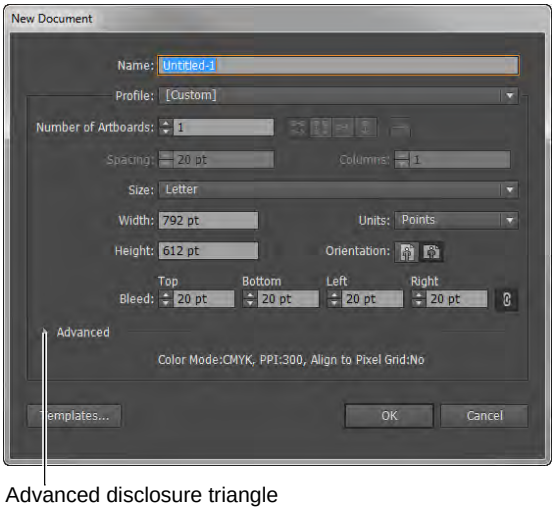

Figure 3 New Document dialog box

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3. If the Advanced options are not displayed, click the Advanced disclosure triangle to display this section of the New Document dialog box (**Figure 3**).
4. Enter the following settings in the Advanced section of the New Document dialog box:
   - *Color Mode:* CMYK
   - *Raster Effects:* High (300 ppi)

   Color Mode refers to the way your document will print. CMYK is the standard mode for documents sent to a print vendor.

   Raster Effect refers to the resolution of bitmap effects in the document. Set this to 300 ppi for printing.
5. Click OK.

   The New Document dialog box closes and the new document opens.

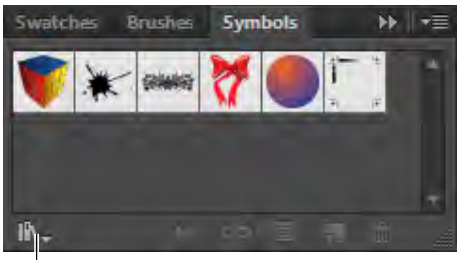
   Before you can use the Symbol Sprayer, you need to choose a symbol to spray.
6. Choose Window > Symbols to display the Symbols panel.

   By default, a limited number of symbols appear in the Symbols panel (**Figure 4**).
7. Click the Symbol Libraries Menu button and choose a symbol library, such as Flowers (**Figure 5**).
8. To add a symbol to the Symbols panel, click the symbol in the library.

   The new symbol appears in the Symbols panel (**Figure 6**).
9. Click one of the symbols in the Symbols panel to select it.
10. Choose the Symbol Sprayer in the Tools panel (**Figure 7**).

    The pointer changes to a spray can surrounded by a wide circle.

    Note: You can change options for the Symbol Sprayer by double-clicking it in the Tools panel.
11. Click on the canvas once or twice to place a few symbols.



Symbol Libraries Menu button

Figure 4 Symbols panel

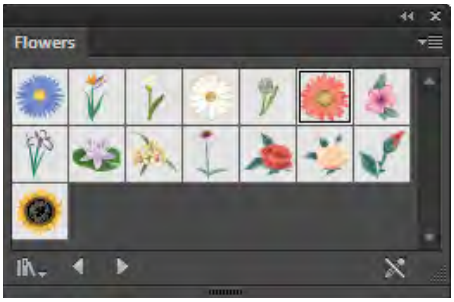


Figure 5 Flowers symbol library

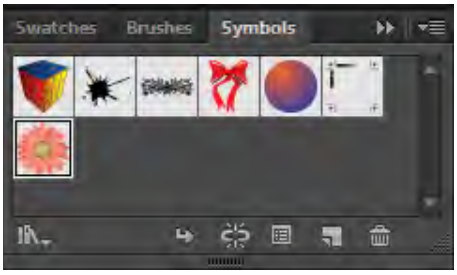


Figure 6 New symbol added to Symbols panel

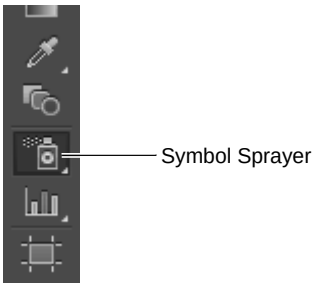


Figure 7 Tools panel

12. Drag the Symbol Sprayer across the canvas.

As you do, symbol-instance outlines appear under the pointer (**Figure 8**).

13. When you are satisfied with the number of symbols on the document, release the mouse button.

Symbols fill in wherever their outlines appeared (**Figure 9**).

14. Save the document.

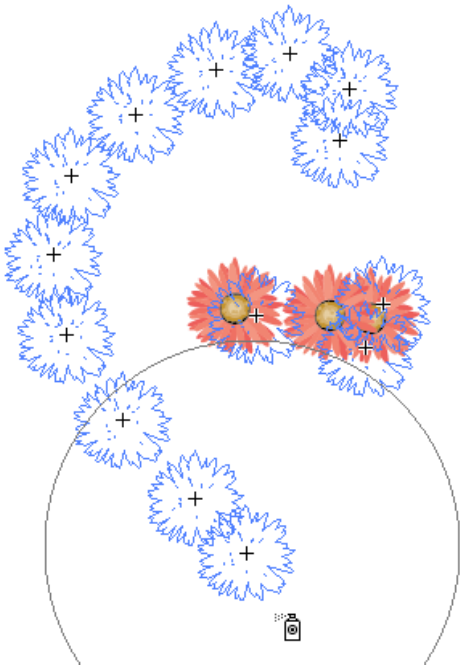


Figure 8 Dragging with the Symbol Sprayer

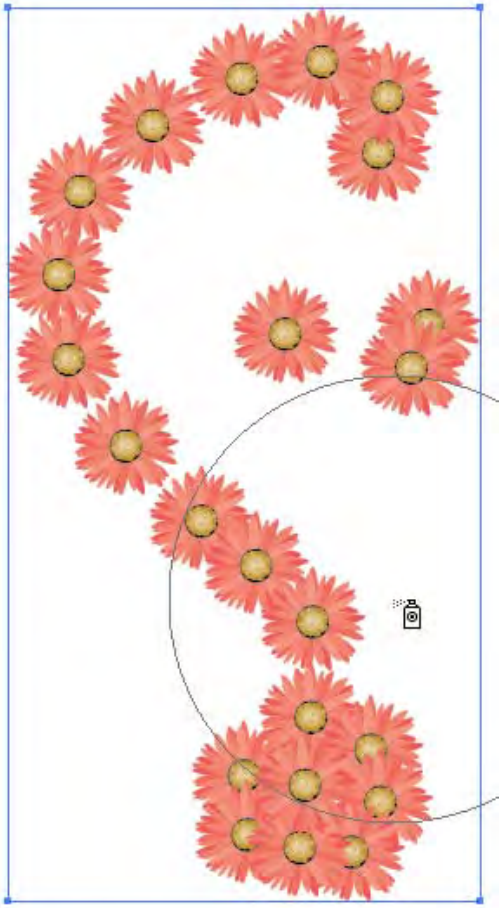


Figure 9 Results of Symbol Sprayer

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To edit a symbol source in isolation mode:

1. Choose the Selection tool in the Tools panel.
2. Double-click the symbol in the Symbols panel that you want to edit.

   The workspace enters isolation mode (**Figure 10**).
3. Edit the symbol as needed.

   For example, you might decide to alter the colors of the symbol to better match a color scheme or image thematic. In this example, some petals of the pink flower are altered by color (**Figure 11**). This way, when you spray an altered symbol, all instances of that symbol appear the same.
4. When you finish making edits, click the Exit Symbol Editing Mode button in the upper-left corner (**Figure 12**).

   Bear in mind that any changes you make in isolation mode affect all instances of the symbol in your document (**Figure 13**).
5. Save and close the document.

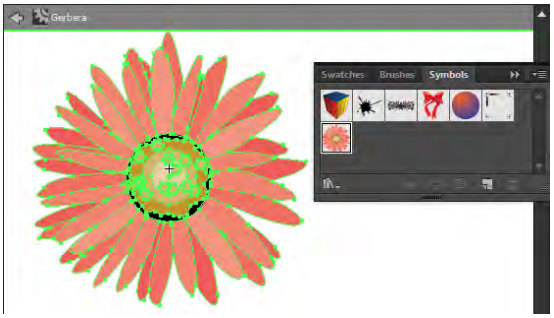

Figure 10 Isolation mode for individual symbol editing

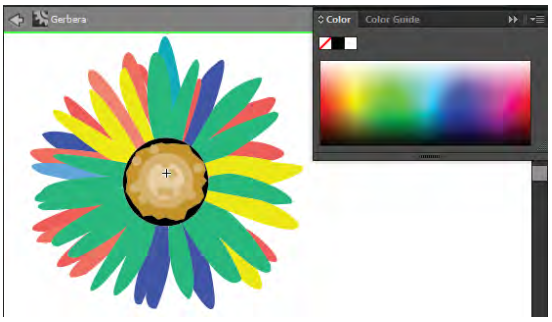

Figure 11 Editing the symbol

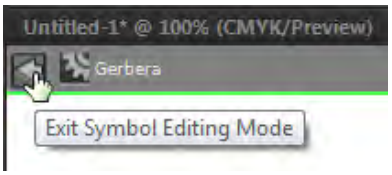

Figure 12 Exit Symbol Editing Mode button

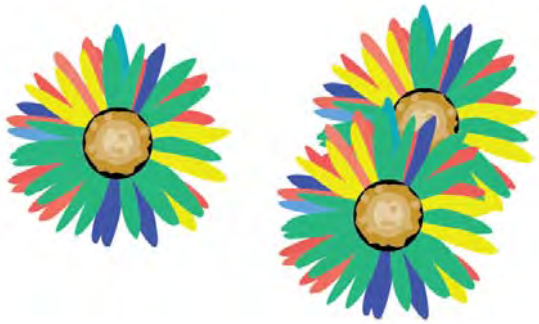

Figure 13 All symbols updated in the document

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About Patterns

It’s easy to create simple, seamless patterns in Illustrator using a library object or an image of your own.

Figure 14 Pattern created with the pattern tools

To use the Pattern Creation tool:

1. Start Illustrator and choose File > New to display the New Document dialog box.
2. Name the document and click OK.

   The New Document dialog box closes and the new document opens.
3. Choose Window > Symbols to display the Symbols panel.
4. Click the Symbol Libraries Menu button and choose a symbol pattern library, such as Florid Vector Pack (**Figure 15**).
5. Choose one of the symbols from the Florid Vector Pack library, and click the symbol to add it to the library.

   The new symbol appears in the Symbols panel.
6. Select the just-added object and drag it onto the artboard.

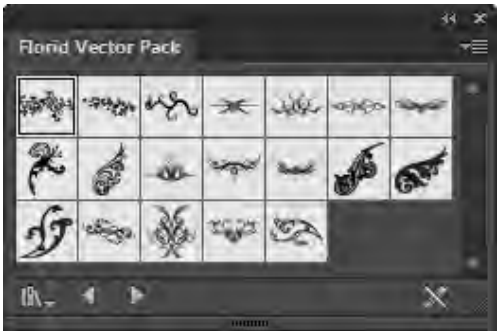

Figure 15 Florid Vector Pack Library

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7. Choose Object > Pattern > Make.

   The Pattern Options panel opens (**Figure 16**).

   As well, a dialog box opens telling you that the new pattern has been added to the Swatches panel, and that any changes made while in Pattern Editing mode will be applied to the swatch upon exit.

8. Click OK to close the dialog box.

   The Pattern tiles across the artboard according to the default settings and the pattern enters Pattern Definition mode (**Figure 17**).

   Pattern Definition mode is a form of isolation mode in which you can modify new or existing patterns. It is similar to symbol editing mode. While in Pattern Definition mode, you can add new objects to the pattern. Depending on the current pattern settings, objects extending outside of the pattern definition area can wrap back in from the other side of the artboard.

   Dimmed objects will appear that are replicas of the original, editable object. A rectangle appears around the original object's boundary showing the pattern definition area.

9. Click the Tile Type popup menu to select a different repetition tiling option:

   - *Grid* objects arranged in an even, linearly distributed horizontal and vertical format
   - *Brick by Row* offsets objects linearly along a horizontal axis
   - *Brick by Column* offsets objects linearly along a vertical axis
   - *Hex by Column* arranges objects vertically along six sides of the source object
   - *Hex by Row* arranges objects horizontally along six sides of the source object

   Choosing a different repetion type may change the shape of the Pattern Definition Area boundary. You can also change the size of the pattern definition area, which will change how the objects are tiled.

10. Use the Copies menu (**Figure 16**) to select the number of grid copies that are to be included in the pattern.

11. When you finish making edits, click the Save A Copy button in the upper-left corner of the document window (**Figure 17**).

    The New Pattern dialog box opens (**Figure 18**).

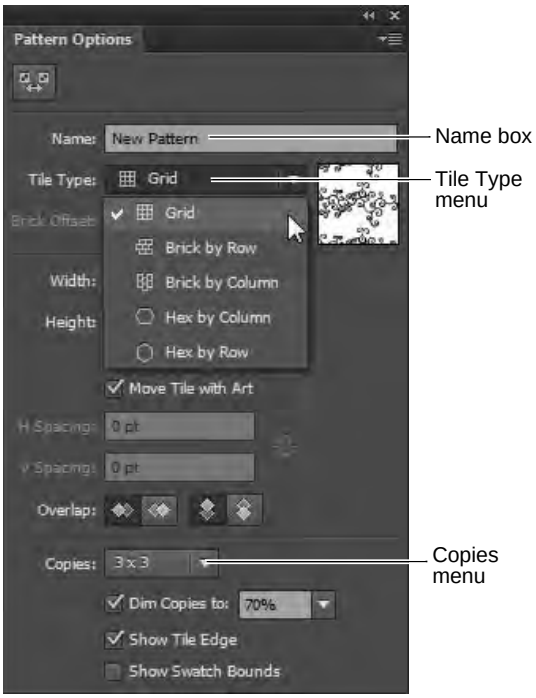

Figure 16 Pattern Options panel

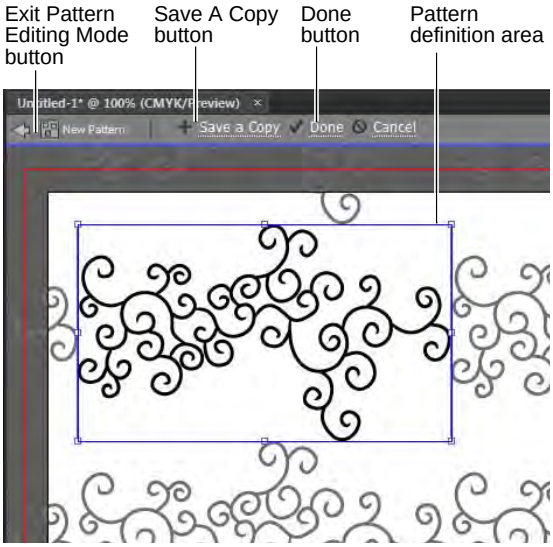

Figure 17 Pattern tiling across the artboard

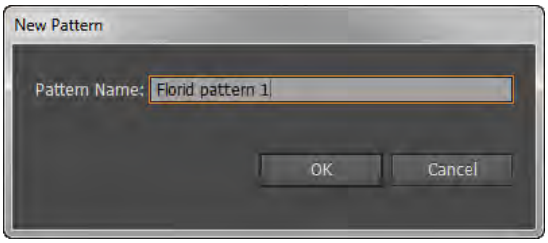

Figure 18 New Pattern dialog box

12. Give the new pattern a name and click OK.

    The new pattern is saved to the Swatches panel (**Figure 19**).

13. Click the Done button or Exit Pattern Editing Mode button in the upper left corner (**Figure 17**).

14. Select and delete the original object on the artboard.

15. Click-drag the new pattern from the Swatches panel onto the artboard.

    Note: Double-clicking on the thumbnail in the Swatches panel will return you to Pattern Definition mode with an instance of the pattern available for editing in the artboard.

16. Save the document.

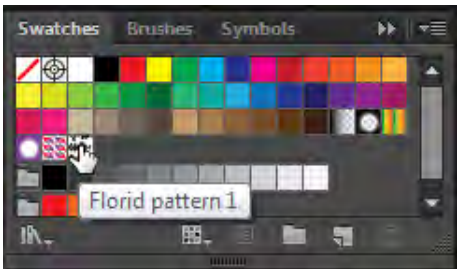

Figure 19 New pattern saved to Swatches panel

To create a pattern using your own image:

1. Open or place a file to use as the source image for the tracing and position as needed so that it has enough room to tile across the artboard (**Figure 20**).

2. Select the source image, and do one of the following:

   - To trace the image using a tracing preset, open the Tracing Presets menu in the Control panel, and select a preset (**Figure 21**).
   - To trace the image using the default tracing options, click Image Trace in the Control panel, or choose Object > Image Trace > Make.

   Note: If you are working with a large image, you may see a dialog box warning that tracing may proceed slowly, and asking if you would like to proceed. Click OK.

   Adobe Illustrator processes the image and displays a Progress dialog box if the processing time is lengthy. When complete, the Control panel displays advanced Image Tracing options.

3. (Optional) Use the Control panel to adjust the results of the tracing by selecting other image tracing presets (**Figure 21**).

4. Choose Object > Pattern > Make.

   The Pattern Options panel opens (**Figure 16**). An informational dialog box opens as well.

5. Click OK to close the informational dialog box.

   The Pattern tiles across the artboard according to the default settings (or the last settings used) and the pattern enters Pattern Definition mode.

6. In the Pattern Options panel, adjust the Tile Type, number of copies, and other options.

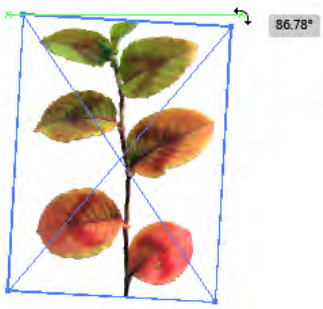

Figure 20 Rotating and scaling a placed image

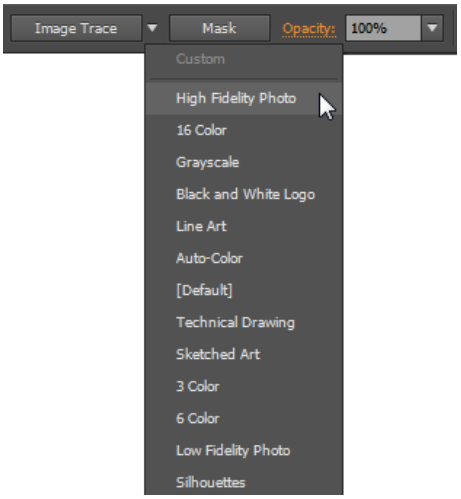

Figure 21 Image Trace options menu

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7. When you finish making edits, click the Save A Copy button in the upper-left corner of the document window.

   The New Pattern dialog box opens.

8. Give the new pattern a name and click OK.

   The new pattern is saved to the Swatches panel.

9. Click the Done button or Exit Pattern Editing Mode button in the upper-left corner of the document window.

10. Select and delete the original object on the artboard.

11. Click-drag the new pattern from the Swatches panel onto the artboard (**Figure 22**).

12. Save the document.

Figure 22 Placing the new pattern onto the artboard

Importing symbols and patterns into InDesign

Once you've completed your symbol and pattern designs in Illustrator, you can import the files into Adobe InDesign CS6.

To add Illustrator images to an InDesign page spread:

1. Start InDesign and create a new document with the following specifications.
   - *Number of Pages:* 1
   - *Page Size:* Letter
   - *Orientation:* Landscape
2. Click OK.
3. Choose File > Place.

   The Place dialog box appears.

4. Browse to the location of the Adobe Illustrator file you saved in the previous steps, and select it.
5. Make sure the Show Import Options option is selected in the Place dialog box. Click Open.

   The Place PDF dialog box appears (**Figure 23**).

6. Make sure Show Preview is selected. Select an option in the Crop To menu to specify how the imported image is to be cropped.

   With the Show Preview option, you can preview the Adobe Illustrator file in the left section of the Place PDF dialog box.

7. Click OK.

   The image replaces the pointer as a thumbnail image.

8. Click to place the image into the spread (**Figure 24**).

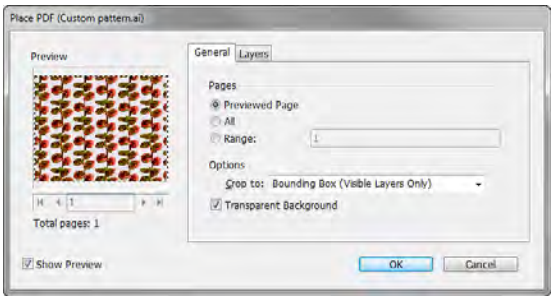

Figure 23 Place PDF dialog box

Figure 24 Image placed in spread

9. (Optional) Move and scale image to fit the spread.
10. Choose Window > Layers to display the Layers panel.
11. Add a new layer, and rename the original layer Background.
12. Add content to the spread (text and graphic frames) in the new layer.
13. Save the InDesign file.

    Note: To reuse the design on multiple pages, you could add the background to a master page. For more information on master pages, see InDesign Help.

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