

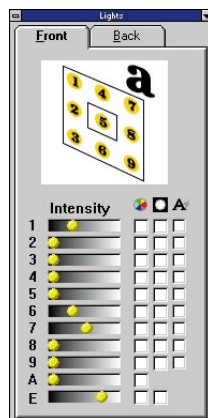
adding lights

Light types

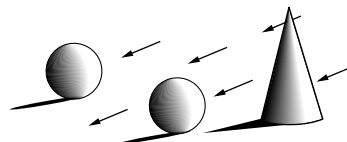


Use the Lights window to adjust the lighting.

To add or adjust lights, select Lights from the Windows menu. This displays the Lights window.



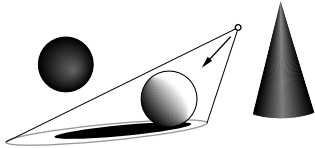
For the numbered lights you can change the look of the light to three things. These are called *Looks*:



Distant lights. This is the default — Typestry uses distant lights unless you choose some other light Look from the Browser. Light from a distant light source has a direction but no specific point of origin. This is like light emitted from a distant body such as the sun, where all the light rays are parallel throughout the scene (see the illustration at bottom).



Spotlights. Light from a spotlight Look casts a cone of light from a specific location in a specific direction. Only surfaces that fall within the cone are illuminated. Some spotlights are “built” with stuff across their faces: slats (creating effects like window panes or blinds), hunks of gauze, and so on.



Slide projectors. These are like spotlights, but they cast an image (provided by you) onto objects. Apart from casting an image, these differ from spotlights in the shape of the lit area, which must be rectangular, since your image is rectangular. (Of course, with real slide projectors it's the slide's rectangular frame that shapes the lit area.) Since you can use your own image in the Look, you can create interesting variations of the spotlights, for example. For more on getting your image into a Look see the section on “Getting a picture into an Instance” in the *Editing Looks* chapter.

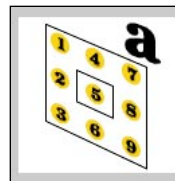


TV Screen. The TV Screen Look is special. This allows you to use your own image to put on something like a TV screen at the light's location. This shining "screen" will be reflected by any objects in the scene that are shiny enough to be reflective. Like a real TV screen, it shines light, but only at a relatively low intensity. Of course, images you use don't have to be exactly the same shape as a TV screen, they can be any rectangular shape. In fact, by having an image repeat endlessly, you can create a screen that's infinitely big, as in the picture below.

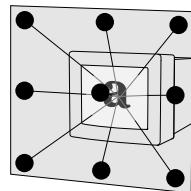


Using the Lights window

The illustration on the tabs indicates the positions of the lights relative to the text.



This is representative of a bank of lights in front of your monitor, pointing into the middle of the monitor, illuminating the text:



Note: Turning on too many lights can really wash out an image. One or two lights will often be sufficient!

The "A" (for Ambient) light near the bottom of the Lights window is a "global" light. It's as if its light comes from everywhere, as if there were an enormous sphere around the scene casting light from everywhere on its surface.



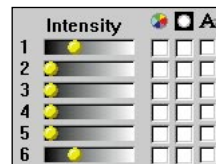
Note: Too much ambient light tends to “wash out” an image.



The “E” (for Environment) slider at the bottom of the window is used for reflections. These reflections will appear on all objects in the scene that are shiny enough to reflect. Clicking on the right-most box allows you to select a Reflection Look. By selecting the Use Your Picture Look in the *Environs* folder you can supply your own image to be used as a reflection. For more on using reflection pictures, see the section on “Reflection issues” in the *Editing Looks* chapter.

- Note: When you use the E slider, unless you turn off a Look’s simulated reflection you’ll get two reflections: the simulated one and the E one. These can add together to form an interesting reflection. However, if you’d like to turn off the Look’s simulated reflections see the section on this at the end of this chapter.

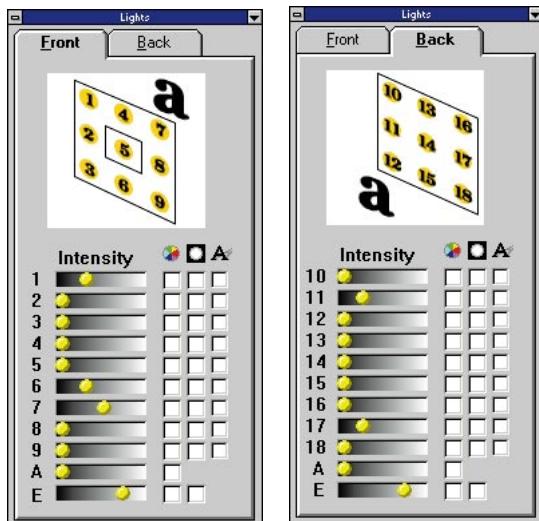
Use the sliders to control the lights’ intensity: all the way to the left effectively turns the light off (zero intensity), all the way to the right is “full” intensity. For the E light, the slider controls the intensity of the reflection.



The boxes allow you to set a light's color, Look, and shadow-casting ability (see below).

Note: Some Looks ignore all light settings (e.g., Sky or Constant). Also, some Looks respond differently to light intensity: settings that work for one Look may be too bright for another. This means there's no magic formula for lighting that will work for every picture — you'll have to play with the lights to get things the way you want them. However, the default settings will produce a reasonable image.

Select front or back lights using the tabs.



To set a light's color, click in the first box to the right of the light. This brings up the color picker. Click on the color you want, then on OK.

Click on the middle box to set the look of the light. This brings up the Browser, allowing you to select a Light Look. The default installation puts light Looks in the *Lights* folder in */Pixar/Looks/Starter*. Clicking and holding on the box displays a popup menu:



New Look. Selecting this brings up the Browser, allowing you to select a light Look.

Edit Look. Selecting this brings up the Looks Editor, allowing you to edit the Look's parameters. See the chapter on *Editing Looks* for more on this.

Detach Look. Selecting this removes the light's Look. The light will revert back to the default distant light.

Click on the third box to enable the light to cast shadows behind the objects. (Shadows increase rendering time.) Shadows cast by any light that's not a distant light will tend to spread out somewhat.

Note: In *Typestry*, shadow casting is a characteristic of a light, rather than of an object.





When using shadows, there are times when the shadows may need to be recomputed. When you render you will be prompted to allow this “prerendering.” Shadows need recomputing when

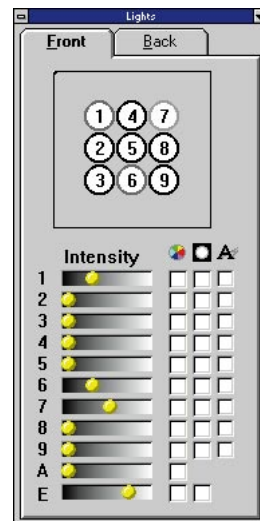
- you have just checked Cast Shadows for one or more lights; or
- if you move, rotate, resize, or extrude a shadow-casting object (the shape or location of the shadow may change).

To force shadows to be recomputed, just move an object and Undo the move. When you render, you’ll be prompted to Compute Shadows.

See the chapter on *Making a picture* for more information on rendering with shadows.

Special lighting features

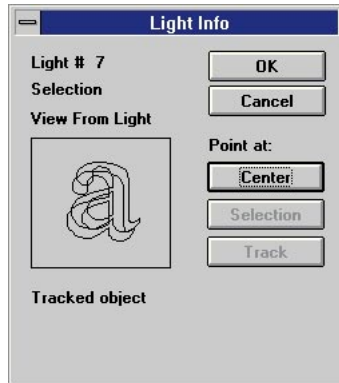
Holding down the Ctrl key and clicking on the diagram of the lights in the Lights window changes the diagram and allows you to adjust a light’s position, orientation, and spread:



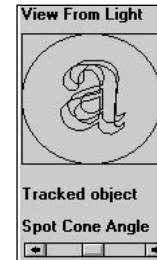
To move a light, just click and drag it. The light will remain pointed at the center of the image.

- To reset all lights to their default positions and settings, select Reset Lights from the Edit menu. This deletes any settings in the Light Info dialog, as well as lights’ positions in poses where they are set!

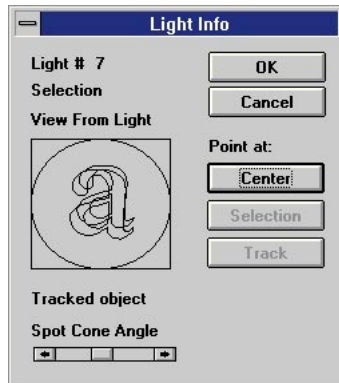
Holding down the Ctrl key while clicking on a light brings up this dialog:

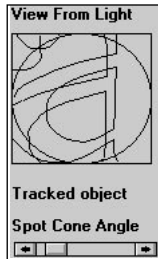


Use the Spot Cone Angle slider to narrow or widen a spotlight's cone of light:



If the light uses a spotlight Look, you'll see this dialog:





Center

By default, a light points at the center of an image. If you have changed this, click on the top button to have the light point at the center again.

Selection

Use the middle button to make the light point at the center of the selected object. You may need to group objects to get the light to point at the center of the group. You can also use this feature to train a light on an invisible object; this way you can point the light in an (almost) arbitrary direction. To do this, just turn the object's opacity all the way down; this makes the object invisible (and it won't cast a shadow either).

Track

Use the bottom button to make the light track (follow) the selected object during an animation. You can also use this feature to have a light track an invisible object, so it looks like the light is moving independent of the objects in the scene. To do this, just turn the object's opacity all the way down.

Turning off simulated reflections

If you're using the E light to create reflections, you may want to turn off any simulated reflections. This is not a light operation, but rather a Look operation. To do this:

1. Select the object that has the Look you want to change.
2. In the Looks tab (in the Details window), click on the Edit Look button. Or, in the Score window, click and hold on the object's Look icon and select Edit Look. This brings up the Edit Look dialog.
3. Look for the Reflection Type parameter and set it to None. This will turn off the simulated reflection, allowing the Look to use anything provided by the E light.
4. Save the Look.

Don't forget, if you used Save As to save your Look you'll have to apply the new Look you just created to any other objects that used the Look you changed. If you need to know how to apply a Look, see the chapter on *Applying Looks*.





Image: Joy Gipson

Fonts: Novarese Ultra, Gill Sans

Build Methods: Extrude; colored angled bevel for T, custom (flat) for Pixar...

Effects: Wall

Looks: Picture as Background with Pixar 128 White Oak; ECGems Dented Jewel, light blue, 5% scale; Matte, light blue

Lights: #2 65% spotlight, #8 100% spotlight with shadow, Ambient 20%

“Pixar Typestry” was typed on a line in Illustrator and imported