



KPT SkyEffects

KPT SkyEffects simulates the interaction between light and the earth's atmosphere—allowing you to create true-to-life atmospheric effects quickly and easily. Just by dragging the sun, you can create a photorealistic sunset. KPT SkyEffects handles everything for you, including the reddening of the sun as it approaches the horizon, moving clouds, darkening skies and scattering light through the clouds. You can even modify the atmosphere parameters to render alien planets.

This chapter provides specific information about working with KPT SkyEffects, including:

- [KPT SkyEffects Basics](#)
- [Using Presets](#)
- [Working in the Atmosphere Editor](#)
- [Rendering the Sky](#)

See your KPT 6 CD-ROM for the KPT SkyEffects Tutorial.

To launch KPT SkyEffects:

- 1 Open the image you want to modify in the host application.

If the image includes multiple layers, select the layer on which you want to render the sky.

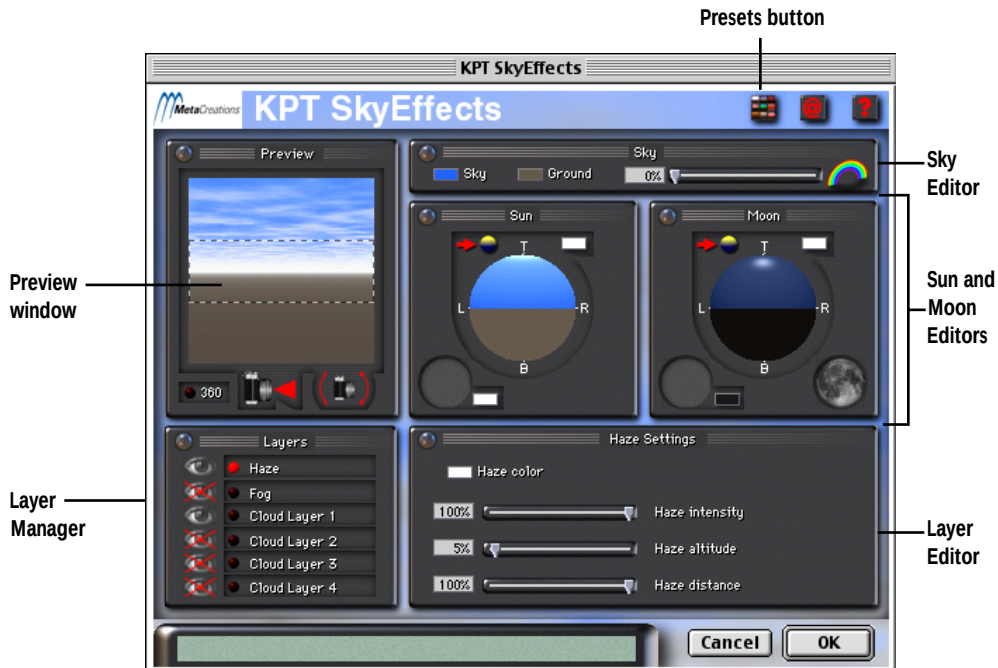
If you want to apply the effect to a selected area, make that selection now. Otherwise, make sure that no selections are active in the host application.

- 2 Select **Filter menu> KPT6> KPT SkyEffects**.

The KPT SkyEffects window appears.

KPT SkyEffects Basics

The KPT SkyEffects window is subdivided into functional areas, as illustrated below.



Using Presets

KPT SkyEffects includes many preset skies that let you create beautiful effects quickly and easily.

Tip

The best way to learn how to use KPT SkyEffects is to choose a preset and then edit the settings.

To choose a preset:

- Click the top right button on the KPT SkyEffects panel.



The Presets panel appears.



At the bottom of the panel are six banks of presets.



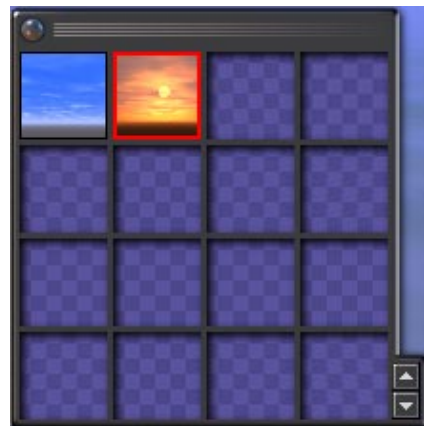
The Presets banks.

To choose a preset:

- 1 Select a Presets bank.
- 2 Use the arrows on the side right of the panel to scroll through the presets.
- 3 Click on a thumbnail to select a preset.
- 4 Click OK.

Adding User Presets

The User Presets bank lets you save and reaccess skies that you've created.



The User Presets bank.

To save a user preset:

- 1 Create the sky you want to save.
- 2 Open the Presets panel.
- 3 Select the User Presets bank.
- 4 Click the Add Preset button.



A thumbnail of the preset appears in the next available slot.

To remove a user preset:

- 1 Select the User Presets bank.
- 2 Click the Remove Preset button.



- 3 Click on the bottom right button to remove the preset.

Working in the Atmosphere Editor

The Atmosphere Editor contains six sections:

- Preview window
- Sky Editor
- Sun Editor
- Moon Editor
- Layer Manager
- Layer Editor

Using the Preview Window

The Preview window renders the atmosphere based on the current settings. Each time you modify a parameter, the preview updates to show the result. A dotted rectangle shows your current selection. What you see in the preview is exactly what you will get in your document.



The Preview window.

Note

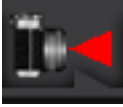
To see the sun or the moon, you must drag it to the center of the sun or moon editor.

The Preview window has two dynamic widgets:

- Camera Focal
- Camera Rotation

To change the camera focal:

- Click and drag the bottom left button.



To rotate the camera:

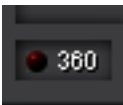
- Click and drag the bottom right button.



The third button at the bottom of the Preview window is used to switch to the spherical camera mode. This special rendering mode can be used to create environment maps for 3D rendering.

To create an environment map:

- 1 Click on the 360 radio button (click again to return to the conical camera mode).



- 2 Click OK to render your environment map.

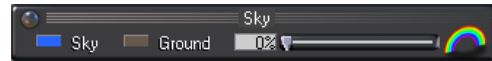
- 3 Save the rendered image and import it into any 3D software to create an highly realistic sky.

Tip

To get better results, the width of your environment map should be two times larger than the height:

Using the Sky Editor

The Sky Editor lets you change the color of the sky and ground. You can also add or remove rainbows.



The Sky Editor.

To set the sky color:

- 1 Click the Sky color swatch.
- 2 Drag the pointer over the desired color and release the mouse button.

Tip

Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

Changing the ground color is just like changing the sky color.

To set the ground color:

- 1 Click the Ground color swatch.
- 2 Drag the pointer over the desired color and release the mouse button.

Tip

Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

The Rainbow slider lets you set the intensity of the rainbow in your atmosphere. The rainbow intensity by default is 0% (invisible). By dragging the Rainbow slider up to 100% you can change the intensity of the rainbow.

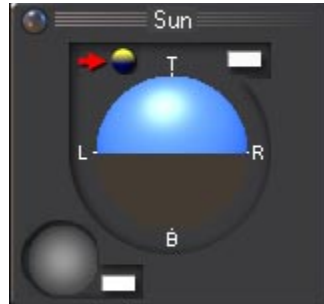
The rainbow rendering is made of two parts: the primary rainbow and the secondary rainbow. The intensity of the primary rainbow is about ten times greater than the intensity of the secondary one. By adjusting the intensity setting you can make the secondary and primary rainbows appear or disappear.

Tip

KPT SkyEffects rainbows react just like a real ones—to see a rainbow, you must carefully move the sun behind the camera.

Using the Sun Editor

The Sun Editor lets you change the position, color, halo color, and size of the sun. The virtual trackball at the center of the Sun editor lets you set the position of the sun.



The Sun Editor.

To set the sun's position:

- 1 Click anywhere on the trackball and drag in the direction you want to move the sun.
- 2 When the sun is in the desired position, release the mouse button. The sun position and sky color are updated automatically.

The top half of the sun editor represents the day—the bottom half the night. You can move the sun from 00:00 (midnight) to 12:00 (noon). The sunrise is at 06:00 (6 AM).

Tip

If you want to see the sun in the Preview window, drag it to the center.

To switch between AM and PM:

- Click the Front/Back toggle switch in the upper left corner of the editor.



The toggle switch moves the sun behind you: the sun is then invisible. You can move the sun from 12:00 (noon) to 24:00 (midnight). The sunset is at 18:00 (6 PM).

To set the sun's color:

- Click the sun color swatch.



- Drag the pointer over the desired color and release the mouse button.

Tip

Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

Use the Halo control at the bottom of the Sun Editor to adjust the size of the sun's halo.



The Halo control.

To adjust the size of the sun's halo:

- Click on the Halo control and drag to the right to increase the size of the halo, or drag to the left to decrease its size.

To select a color for the sun's halo:

- Click the halo color swatch.
- Drag the pointer over the desired color and release the mouse button.

Tip

Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

Using the Moon Editor

The Moon Editor lets you change the position, color, phase, halo color, and size of the moon. The virtual track ball at the center of the Moon editor lets you set the position of the moon.



The Moon Editor.

Using the Moon Editor is just like using the Sun Editor.

To set the moon's position:

- Click anywhere on the trackball and drag in the direction you want to move the moon.
- When the moon is in the desired position, release the mouse button. The

moon position and sky color are updated automatically.

To switch between front and back:

- Click the Front/Back toggle switch in the upper left corner of the editor.



The toggle switch moves the moon behind you—making the moon invisible.

To set the moon's color:

- 1 Click the moon color swatch.



- 2 Drag the pointer over the desired color and release the mouse button.

Tip

Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

Use the Halo control at the bottom of the Moon Editor to adjust the size of the moon's halo.



The Halo control.

To adjust the size of the moon's halo:

- Click on the Halo control and drag to the right to increase the size of the halo, or drag to the left to decrease its size.

To select a color for the moon's halo:

- 1 Click the halo color swatch.
- 2 Drag the pointer over the desired color and release the mouse button.

Tip

Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

To change the moon's tilt and phase:

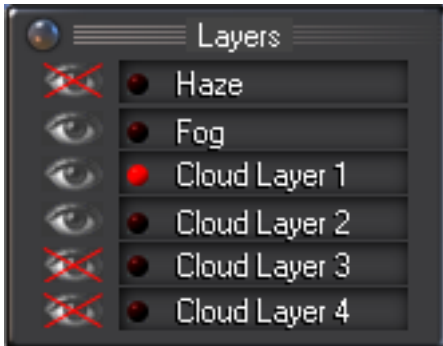
- Click the Moon Phase selector at the bottom right corner of the editor and drag it in the direction you want to tilt the moon and change the phase.



The Moon Tilt and Phase control.

Using the Layer Manager

The Layer Manager lets you edit the layers in your atmosphere and display or hide them.



The Layer Manager.

To display or hide a layer:

- Click the eye in front of the layer.
When the layer is hidden, a red cross is displayed over the eye.

To edit a layer:

- Click the red button to the right of the eye.
The settings for this layer are displayed in the Layer Editor to the right.

Note

When editing a layer, you need to display it to see the results in the Preview window.

Editing Layers

The Layer Editor lets you edit the various types of layers that can be added to an atmosphere. Its appearance varies, depending on which layer is selected for editing.

There are three kinds of layers:

- Haze layer
- Fog layer
- Cloud layer.

Using the Haze Layer Editor

Haze is a light fog that appears due to the humidity in the atmosphere.



The Haze Editor.

To edit the haze:

- Click the color swatch to select a haze color.
Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.
- Adjust the Haze intensity slider to change the intensity of the haze.
- Adjust the Haze altitude slider to change the altitude of the haze.

The haze starts at altitude 0 (the ground) and increases to the height you set with the Altitude slider.

- 4 Adjust the Haze distance slider to change the point at which the haze becomes visible.

Using the Fog Layer Editor

The Fog Layer editor lets you set the color, intensity, altitude, and distance of fog in your atmosphere.



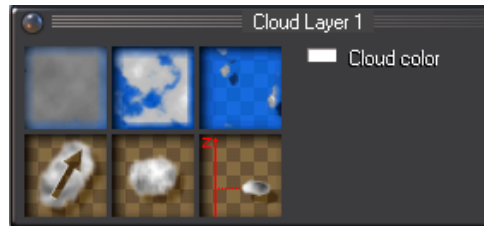
The Fog Editor.

To edit the fog:

- 1 Click the color swatch to select a fog color.
Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.
- 2 Adjust the Fog intensity slider to change the intensity of the fog.
- 3 Adjust the Fog start and Fog end sliders to define the altitudes where the fog starts and stops.
- 4 Adjust the Fog distance slider to change the point at which the fog becomes visible.

Using the Cloud Layer Editor

Your atmosphere can contain up to four layers of clouds. The Cloud Layer Editor lets you set the color, size, altitude, and density for each cloud layer.



The Cloud Layer Editor.

Tip

When adjusting these settings, keep in mind how the cloud layers interact. You can observe this interaction in the Preview window.

To edit the cloud color:

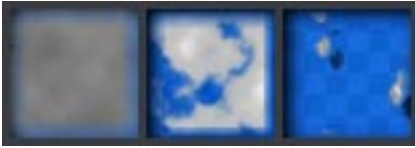
- Click the color swatch to select a cloud color.
Hold down the Command/Ctrl key and click the color swatch to use the standard color picker.

The Cloud Layer Editor provides six graphic cloud controls for adjusting the density and altitude of clouds in the layer.

To use a cloud control:

- Click inside the square and drag left or right to adjust the setting. The control dynamically displays the result of your adjustment.

The first row of cloud controls can be used to set the clouds' contrast, thickness and coverage. Together these settings determine the quality of the weather.



The weather controls.

Starting from the left:

- The first weather control sets the clouds contrast.
- The next control lets you set the cloud thickness—from nearly transparent clouds to thick clouds in a heavy storm.

Note

The cloud thickness setting is the most important of the six settings because it controls how dense the clouds are, in turn affecting how light interacts with them. As in the real world, thin clouds scatter light, while thick clouds absorb light. To create beautiful sunsets, drag the sun near the horizon and add several layers of thin clouds. You'll get awesome results! To see an example, take a look at the Sunrise presets.

- The last weather control determines the cloud coverage. Use this control to choose between a blue sky and completely overcast sky.

The next row of cloud controls are used to change the geometry of the cloud layer.



The Geometry controls.

Starting from the left:

- The first control lets you rotate the clouds.
- The second control changes the size of the clouds in the layer.
- The third control lets you adjust the altitude of the cloud layer.

Note

By default, cloud layers are arranged with Layer1 at the lowest altitude and Layer 4 at the highest.

Rendering the Sky

When you are satisfied with a sky, click OK to render it.

KPT SkyEffects uses a high end Ray Tracing engine to render the light interactions with the haze, fog, and cloud layers. Ray Tracing is a very powerful render technology but depending on the size of your document and the computer you are using, it can take a while to do the job.

KPT SkyEffects can render RGB or grayscale images.