

Using Ambiences

This task shows you how to enhance your product using ready-to-use visualization environments (called "ambiences") containing preset lighting, ground and background.

Two types of ambiences are available in all 3D PLM editors: Design Ambiences and Experience Ambiences.

- [Using Design Ambiences](#)
- [Using Experience Ambiences](#)

Before you begin:

- The last selected ambience is stored in [preference files](#) (which are identified by the suffix *.CATPreferences and cannot be administered). This means that the last selected ambience is kept from one session to another and is applied to each new window you open in your current session (windows that are already open are not impacted).
- Ambiences are not taken into account when rendering and printing images.
- Ambiences cannot be used in 2D workbenches such as **Drafting** because they are irrelevant.

Using Design Ambiences

Three Design Ambiences are available as well as a neutral environment. These ambiences are to be used when you want to work in a design mode.

Except for **None**, objects are displayed by default in a parallel view but you can switch to a perspective view through **View > Render Style > Perspective**. Whenever you switch to another Design Ambience, the parallel view is automatically applied.

1. Select **View > Ambience > Design Ambiences** then click the ambience of your choice.

Tip: You can also right-click anywhere in the geometry area then use the **Ambience > Design Ambiences** contextual menu.

- **Design Icy Blue**

Contains a grid, a ground, a shadow, a sky and a skyline.



- **Design Dark Grey**

Contains a grid, a ground and a shadow.



- **Design Deep Blue**

Contains a grid, a ground, a shadow, a sky and a skyline. This is the default V6 ambience.



- **None**

No ambience is defined and the default V6 visualization environment is retrieved.



The following functionalities can be customized:

- **View > Lighting...**
- **View > Ground...**
- **Graduated color background** and **Background** in the [Visualization](#) tab:

Objects are displayed in the last applied view (i.e. **Perspective** or **Parallel**). The view choice is stored in preference files and is recalled from one session to another.

Important: Except **None**, the predefined ambiances supersede parameters that may have been defined for lighting, ground, background and global illumination. Therefore, some commands are grayed out (e.g. **View > Lighting...**) or, are still available but have no effect on the ambiance (e.g. the **Background** list in the **Visualization** tab).

2. Zoom in or out.

The grid moves according to the size of the scene.

When you modify the scene, no shadow is cast on the ground as long as you press the mouse buttons. Shadows are displayed as soon as you release the mouse buttons.

3. To switch to another ambiance, select **View > Ambience > Design Ambiences** or **View > Ambience > Experience Ambiences** then choose the appropriate ambiance.

You can switch between ambiances as needed to work in a design or review context.

4. Select **View > Ambience > Design Ambiences > None**.

The object is displayed in a neutral environment and you can customize visualization settings.

For instance, you can apply a new background color through **Tools > Options... > General > Display > Visualization**.



Using Experience Ambiences

Three Experience Ambiences are available. These ambiances are to be used when you want to work in a review mode.

By default:

- Objects are displayed in a perspective view but you can switch to a parallel view through **View > Render Style > Parallel**. Whenever you switch to another Experience

Ambience, the perspective view is automatically applied.

- The [Gravitational effects during navigation](#) option is automatically activated.

All these Experience Ambiences use the SSAO (Screen Space Ambient Occlusion) lighting technique. This technique is a simplified calculation of the global indirect illumination which produces enhanced realism by taking into account light attenuation due to occluding objects. With this technique, the scene is equally lit with soft shadows and small surface details are accentuated to give more relief.

However, it is recommended to have a powerful graphics board because there is a price to pay in performance. Otherwise, you can still deactivate the ambient occlusion effect through the [Graphics Optimizer](#).

1. Select **View > Ambience > Experience Ambiences** then click the ambience of your choice.

Tip: You can also right-click anywhere in the geometry area then use the **Ambience > Experience Ambiences** contextual menu.

- **Clean Space**

This ambience is intended for models that can be seized (e.g. phone, small furniture) and for models to be used in a photo studio. It is inspired from photo scenes used for shooting products.



- **Crystal Lab**

This ambience is intended for luxury materials with reflective properties (e.g. crystal, diamond, glass). It contains a ground, a shadow and a mirror effect. As for the **Clean Space** ambience, it is inspired from photo scenes used for shooting products.



Warning: When you use this ambience, there is a price to pay in performance (it takes twice as much time to draw the model).

- **Dark Mirror**

Contains a ground, a shadow and a mirror effect:



Warning: When you use this ambience, there is a price to pay in performance.

2. Zoom in or out.

The grid moves according to the size of the scene.

When you modify the scene, no shadow is cast on the ground as long as you press the mouse buttons. Shadows are displayed as soon as you release the mouse buttons.

3. To switch to another ambience, select **View > Ambience > Experience Ambiences** or **View > Ambience > Design Ambiences** then choose the appropriate ambience.

You can switch between ambiances as needed to work in a design or review context.