




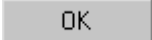



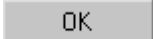

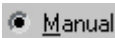







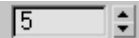


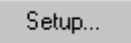

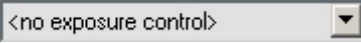
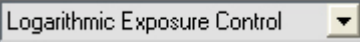
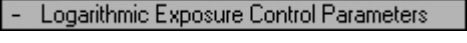
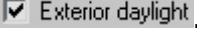




# Logarithmic Exposure Control

- Open **Logarithmic.max**.
- **Quick Render**  the scene. (Notice how flat the scene is because of the lack of lighting.)
- **Right-Click** in the *Top Viewport* to make it active.
- Under the **Create**  tab chose the **Systems**  button. (Notice Sunlight and Daylight.)
- Press the **Daylight**  button. (This opens the Control Parameters; here you will plugin different variables.)
- Press the **Get Location**  button. (This opens a floater that allows you to pick a city/state in the United States or other countries throughout the world.)
- Select **Atlanta, GA** and press **OK** . (This sets the Azimuth and Altitude for Atlanta as well as it sets the time based on your system settings..)
- In the Top Viewport, *pick-hold-drag* the mouse to define a **Compass**, once the compass is double the radius of the Gazebo, release the mouse and pick in the viewport to place the Sun. (The exact location at this moment is not important because we will come back and relocate the source.)
- **Quick Render**  the scene. (Notice how slow the renderer is and how bright the scene is.)
- **Close**  the rendered virtual frame buffer; **Camera01, frame 0**.
- Press the **Select by Name**  button, chose [Daylight] and press **OK** . (This makes the Daylight tool active.)
- Go to the **Modify**  tab and activate Manual  under Position. (This allows you to relocate the light source.)
- **Right-Click** in the *Front Viewport* to make it active.
- Press the **Move**  tool and position the light source at a 45-degree angle to the ground, centered on the gazebo.
- Under the **Modify**  tab open the **Sun Parameters**  group and set the Shadow type to be **Adv. Ray tracer**. (This will speed up the rendering time.)
- **Quick Render**  the scene. (Notice how the scene renders faster but it is still to bright.)
- Under the **Rendering**  pulldown menu chose **Radiosity**. (This opens the Radiosity floater.)
- Set the **Initial Quality**  to **15**. (This refers to the amount of energy distributed not the quality of the solution, most of the brightness is distributed in the early iterations.)
- Set the **Interactive Tools Filtering**  to **5**  (This reduces the noise between elements and can be set without having to reset/solving the solution.)

- Press the **Start**  button to start the radiosity solution. *(This now solves the energy from the sky and sun.)*
- **Quick Render**  the scene. *(Notice how the scene is completely white.)*
- Press the **Setup**  button in the *Interactive Tools* group.
- Under the **Exposure Controls**  pull down the **<no exposure control>**  and chose **Logarithmic Exposure Control** .
- Under the **Logarithmic Exposure Control Parameters**  chose **Exterior Daylight** . *(This tells max that the scene is being lit by an exterior light source.)*
- **Close**  the Environment floater.
- **Quick Render**  the scene. *(Notice how the scene is lit correctly.)*

**Note:**

VIZ places the sun in the scene based on your system clock meaning that if you place your light source at 10pm, your max scene will be dark unless you reposition the source manually.