INTRODUCTION

Artlantis is a family of unique software applications developed especially for architects and designers, ideal for quickly and easily creating high quality 3D renderings (Artlantis Render). In addition to high resolution rendering for still images, Artlantis Studio is the right tool for creating QuickTime® VR Panoramas, Objects and animations. Artlantis interfaces directly with ArchiCAD™, VectorWorks™, SketchUp™ Pro, and Arc+™. With the recent addition of the DWF, OBJ and FBX import formats and updated DXF, DWG and 3DS plug-ins, Artlantis seamlessly interacts with all the leading CAD software as well. Themed collections of materials, parametric textures, and objects available on CD-ROMs and online round out the innovative product line (Artlantis Media). A recognized leader in preview window technology, Artlantis is the rendering software used by over 167,000 architects, designers and urban design professionals in more than 80 countries. For more information about Artlantis, please visit www.artlantis.com.

This tutorial helps you to discover the main functions of Artlantis. In the present ARTLANTIS folder you can find:

- A folder entitled Tutorial containing:
  - Tutorial.atl file (Artlantis Studio 2 file with the final settings)
  - Tutorial_START.atl
  - Three folders containing the various Artlantis Media
- A folder entitled Postcards
- A folder with examples

To begin, please open: Tutorial_START.atl.
A/ The Interface of Artlantis Studio

Customizable Toolbar
With a right-click you can add or remove buttons from the toolbar

Real-Time Preview Window
One of the strengths of Artlantis is its real-time preview window. Every change you make to camera positions, shaders, textures, objects, sun, lights, etc. will immediately appear in the preview window. It displays scenes in permanent radiosity that are consistent with the final rendering.

Camera Inspector
This is the main organizer of your presentations. Each camera position can have different sun, light, background or other customized parameters. This way you can work and store day scenes and night scenes in the same file.

Catalog
Here you can find all the Artlantis library features known as Media: shaders, objects, pictures/textures, and postcards. Organized in three main partitions, the Catalog offers a very user-friendly interface that reflects the structure of your hard drive. New folders can be added by clicking the + sign in the bottom right-hand corner of the Catalog.

NOTE: The size of the real-time preview window can be enlarged or reduced. You can even organize your work on two screens as there is no limitation in size. In the main menu go to Display > Enlarge; or Display > Reduce
B/ What are Artlantis Media?

The Media are the library parts of Artlantis:

All Artlantis Media can be applied with a simple drag & drop into the scenes.

To apply them, open the Catalog by clicking on its icon in the Toolbar, or from the menu: Windows > Catalog.

To make the Media you’ll work with in the Catalog appear, click on the + sign in the bottomleft-hand corner of the Catalog. Browse for the Tutorial folder, select it and click Open. All three subfolders containing Shaders, Objects and Pictures will appear with the appropriate content.
C/ Navigation

Each Inspector has a drawer with a list of the appropriate items present in the scene. The list in the Perspective Camera Inspector will highlight the existing camera positions.

In the upper part of the drawers you will find + and x signs. Click on the + to duplicate a camera.

1/ Set the right camera position:

Use a three-button mouse to navigate directly in the preview window.

For an easier navigation turn on the OpenGL accelerator. Don’t forget to turn it off after navigation, otherwise it will block further functions for you.

D/ Radiosity

Activate Radiosity in the toolbar! At that very moment the preview will be recalculated and displayed in permanent radiosity. The image is consistent with the final rendering.

NOTE: If the checkbox is not visible, right-click on the Toolbar and select it from the list. You can also customize the toolbar.

E/ Shaders

Shaders are parametric textures applied to surfaces of the 3D model. To detect the right one, simply click on its surface in the real-time preview window.

Choose the Shaders icon in the toolbar and go to the shaders’ inspector.

Choose a surface directly in the preview window and the settings of the material will be automatically highlighted in the inspector. Change the parameters and the preview window will display the changes instantly.

Apply shaders from the catalog. Choose a shader (from the middle part of the Catalog) and drag & drop it on a surface directly in the preview window. To change the shader, drag another one from the Catalog and drop it onto the same surface.
Procedural Shaders are those defined only by colors. They can simulate beautiful glass or water surfaces. Choose the Fresnel Glazing shader for the glass surface of the building.

**Fresnel Glazing Shader**

This very special shader perfectly imitates large glass surfaces. You can set independent color to transparency, reflections, and define the shininess of the material. This shader can detect the windowpanes and the distortion of the reflected image individually in each pane. You can also set the distance for the reflected elements. It can be infinite, so the limit is = 0.

You can map textures on surfaces to imitate different effects. Let’s check the wall of the tower, so click on it to make the settings in the inspector appear. It is composed of an image texture mapped on a shader. (To delete image files from surfaces you have to delete them from the list of materials with the X sign.)

**F/ Postcards**

Postcards are small .jpg images that memorize the settings of shaders. To create a postcard go to Tools > Create Postcard….

You can save it in a default folder created by Artlantis:

**On Windows:** C: > Program Files > Artlantis Studio 2 > Media > Postcards
**On Macintosh:** Applications > Artlantis Studio 2 > Media > Postcards

You can change the name and the location at any time, and there are an unlimited number of saves.

To create postcards, you can also use the icon from the toolbar.
The new postcard will appear automatically in the Postcard folder of the Catalog. To apply the attributes of a material from the postcard, simply drag & drop it into the preview window on the desired surface.

**Drag and drop**

Drag the postcards you’ve received with this tutorial in the same folders with the existing ones to make them appear in the Catalog (or you can reorganize the folders any way you like).

**NOTE:** If you need to refresh the contents of any folder in the Catalog, select it and right-click on Reload Favorites.

Let’s apply settings from these postcards into the scene:

- **building support**
- **glass surface**
- **infinite ground**
NOTE: These postcards are independent of your projects; you can use them at any time. You can even send them to your colleagues, store them on a server, and share them with others. They will remember the stored information until you re-save or edit them.

G/ Backgrounds

Go to the Perspective Inspector and choose the following camera position from the drawer: General View
In the Inspector you will find a list of possible backgrounds:

- **Heliodon Sky:** allows you to use the “Ground”, and “Clouds” features as well as to display a night sky
- **Gradient:** the background is composed of three colors
- **2D Image:** any photo can be used as background. The preview window will be stretched automatically to the appropriate size.
- **3D Image and 3D Cubic:** 3D images can also be applied as backgrounds.

1/ First, let’s set a 2D image as a background. How?
- Drag and drop the photo directly into the preview window (in the background and not on a surface), or
- Drag and drop the photo directly into the square that represents the background. A little thumbnail of the image will appear; (or you can also double-click in the background square and choose the photo file from your hard drive.)

The list will change automatically to “2D Image.”

2/ Duplicate the present camera position by using the + sign from the drawer. Artlantis will set a name: General_1. If you want to rename it, just double click on the name and change it.
Let’s apply a different background to it:

This time we will choose the Gradient Colors from the list of Backgrounds. Three different boxes for the colors composing the gradient will appear. Right-click on the color box on a PC / one click on a Mac / to get the detailed color settings box; set the background you wish.

3/ Create a third camera position by duplicating this one: click on the + sign in the drawer. We will apply a different background from the list: Heliodon Sky. The background will turn blue.

As you can see, we’ve created three different camera positions with different backgrounds. In addition to backgrounds, cameras may have other individual parameters:
1. Camera: settings, check elements to activate.
   - Focus Distance (mm): by using the cursor or entering a value (Change the camera angle).
   - Depth of Field: click on the slider, in the Preview window, click to define the near point of the scene, with the rest remaining blurred. The cursor adjusts the blur quantity.
   - Clipping Box: for defining clipping planes.
   - Show: in the 2D View
   - Activate: Preview Representation

2. Lighting: To handle light schemes linked to the view, select them from the drop-down menus.
   - Heliiodon: links a heliodon to the view. The "None" item deactivates the heliodon.
   - Light Group: links one or more light groups to the view. The "None" item deactivates the light groups.
   - Neon Shaders: links one or more Neon Shaders to the view. The "None" item deactivates the lighting.

3. Environment: handles the background and foreground of the scene.
   - Defining a background: Background type: Heliiodon Sky, Gradient, 2D Image, 3D Image, 3D Cube.
   - Foreground Images
   - Site Insertion Tool: automatically sets the camera with a background image.
   - Click on to open the dialog.

4. Coordinates:
   - Camera XYZ Position
   - Aim Point XYZ Position. Clicking on locks them and clicking on unlocks them.

NOTE: Whenever you have questions, click on the question mark at the bottom right-hand corner of each inspector. The Artlantis Help will open up automatically at that particular chapter.

H/ Heliodon

As you may notice already, the Sun can be an independent parameter for a camera.

![Sun Icon](image)

Go into the Heliodon inspector (Heliodon = Sun in Artlantis)

If you open the drawer of this inspector, you will notice that there are already a few “suns” available for this project. The one highlighted in bold is the active sun for the present camera.

Use the + sign, and duplicate it. Double-click on its name and change it: Monday

There are two ways to activate it for the present camera:
- Go back to the camera inspector and choose this sun from the list
- Stay in the Heliodon inspector and right-click on the name of the sun, and choose "Activate for current view" from the menu. The name will turn bold.

There are three different ways to set the sun:
- Based on a geographical location: "Location"

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- 45°: the sunrays and the camera axes will form an angle of 45°

1/ Set the sun based on a geographical location
Choose Location and set a city, a time of year and a time of day

NOTE: You can always add a new location to the list. Click on the button next to the list and you will accede to the appropriate palette. Check Google Earth to find the exact geographical coordinates.

2/ Set the Sun manually
Switch to the “Manual” option.

Open the 2D View from the Toolbar, or go to Windows > 2D View
Drag the sun into the viewing angle of the camera in all three projections until it appears in the preview window. When it’s done, grab the sun directly in the preview window and drag it wherever you please.
Activate Clouds:

With the dice you can reorganize the repartition of the clouds in the sky. Checking “Clouds Mask Sun” option: when clouds are in front of the sun, shadows will disappear from the scene, the same as in reality.

The sky you are simulating is a background of 360°!

Add additional effects you can find in the palette that you can open from the Heliodon Inspector:

**I/ 3D Objects**

- Go back to the Perspective inspector of still cameras and change view to Ground_level.
From the Toolbar select the Objects inspector.

- Open the folder called Objects in the Catalog belonging to this tutorial and search for the one called “Plane”. Drag it into the scene. From this plane you will create a sidewalk, so you have to change its dimensions, and position and set an appropriate shader to it:

Dimensions can be changed in the inspector:

X = 10 m; Y = 60 m; Z = 0.10 m

You may need to elevate the plane, so you need to change its Z coordinate:

Z = 0.10 m

**NOTE:** You can change the working units in the Artlantis Preferences. To open the Preferences, On Windows go to Edit > Preferences On Mac go to Artlantis > Preferences

You have to position it correctly so open the 2D Window

Objects are represented by green dots. The selected one is blue.

Set a shader to this sidewalk from the shader folder from the Catalog. Simply drag and drop it on the plane. The sidewalk is ready; you can drag some other objects to animate the scene even more.

Go back to the Objects folder and drag the car, the 3D person and the street lamp. You can drag even more of them, set their shaders and lights.

**NOTE:** Objects may include light sources like this street lamp. When you place such an object in the scene, the lights will be automatically set for that particular camera position.

**NOTE:** Another group of objects are composed
of 3D plants. These plants can behave in four different ways depending on the time of year.

**NOTE:** In the 2D window you can duplicate objects. = Drag a copy of an object

### J/ Parallel Views

Open the drop-down list in the Toolbar and choose the Parallel Views Inspector. The Inspector box looks similar -- each camera can group different settings for the sun, lights, background, etc.

Among the rendering parameters for parallel views you will find that for the scale. This way your renderings can become part of your building documentation.

### K/ Panoramas

Open the drop-down list in the Toolbar and select the Panoramas Inspector. The Inspector box looks similar -- each camera can group different settings for the sun, lights, background, etc.

The camera revolves around a fixed point. Use it for interior scenes.

### L/ QT VR

Open the drop-down list in the Toolbar and select the VR Objects Inspector. The Inspector box looks similar -- each camera can group different settings for the sun, lights, background, etc.

The model is still while the camera revolves around it. Use it to present volumetry.

### M/ Animations

Open the drop-down list in the Toolbar and select the Animations Inspector. The Inspector box looks similar -- each camera can group different settings for the sun, lights, background, etc.

When you create an animation you can set:
1/ a path to the camera
2/ different actions on the timeline
1/ Create a path

- Open the 2D window. To create paths you will always work in the 2D window.

  Activate the Edit Path function in the 2D window’s toolbar. (Don’t forget to deactivate this command after you’ve ended the edition of the path!)

- The initial location of the camera will serve as the starting point of the path. Drag it to the end point of the path. Tangents help you to edit the path. You can add new control points with a right-click. When finished, switch off the Edit path function.

Create a very simple linear path:

2/ Set actions on the timeline

What is the timeline?

1 - Title bar: Shows the name of the current sequence.
2 - Time scale: Gives duration of the scene with a slide bar and cursor for positioning and editing keys and sequences.
3 - Recorder: Controls recording and playback of animations.
4 - Sequence duration control: Used for editing the duration and rate of images.
- Record an action that will affect the background color:

1. Place the camera at the starting point on the timeline
2. Start the recording mode by clicking on the red button 🔄 There is a background color set for this point. Keep it as it is.

3. Drag the camera to the final point of the animation
4. Click on the color boxes and change them
5. Close the recording mode by clicking on the red button 🔄

Play the animation!
**NOTE:** To set actions means to define the events linked to different positions of the camera on the timeline. *Artlantis will calculate the steps in-between automatically.*

You can animate almost everything in Artlantis, as you can see on the list below:

- **Camera:** Position, target, focal, rotation, depth of field, ambient, atmosphere
- **Objects:** Position, orientation, rotation
- **Shaders:** Color, shiningness, reflection, individual parameters, animated texture mapping
- **Lights:** Position, orientation, color, intensity, off and on, effects
- **Heliodon:** Sun study for a day or a year, intensity and color of the sun, intensity and color of the sky illumination, effects
- **Background**
- **Clipping Box**
- **Post Process:** Image settings, Exposure, Grain, Edge and Pastel

**CONCLUSION**

For more details consult our website: [www.artlantis.com](http://www.artlantis.com)
Visit our user gallery and share your renderings with us!
Chat with users on our forums, share your experiences and learn even more!

We all wish you great success with Artlantis.

*Team Abvent*