ARTLANTIS TRAINING
FOR NEW USERS

ARTLANTIS

This training program reviews the main features of Artlantis. You will learn about the various presentation types such as still images, iVisit 3D panoramas, VR objects and animations, learn the principals, and the main settings.

MAIN TOPICS OF THE TRAINING

- Interface
- Shaders
- Heliodon
- Lights
- Objects and layers
- Presentation types: Perspective views – Parallel views – VR Objects – Panorama – Animation
- Artlantis Batch Renderer
- Import – Export formats, plug-ins
- Save an Artlantis object

ARTLANTIS

INTERFACE

THE REAL TIME PREVIEW WINDOW

By default, the real time preview window displays the scene in radiosity mode.
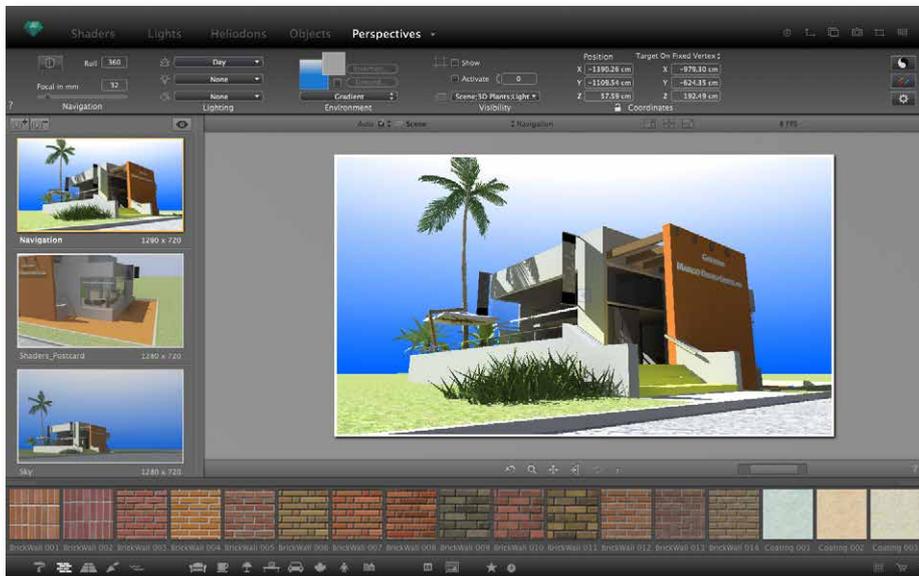It can be enlarged or reduced with these icons.

INSPECTORS

Change inspector by switching to that of shaders, artificial lights, Heliodon or Objects. Each inspector has a drawer storing lists of the relevant items available in the scene.

CATALOG

The Catalog stores the Artlantis library parts called Media. They can be shaders, objects, billboards and images.

To benefit the largest preview possible, you can hide the drawers and the catalog. Hover your mouse over the borders to make them appear again and move it away to slide them back. To anchor them on the screen, click on the dotted stripe.
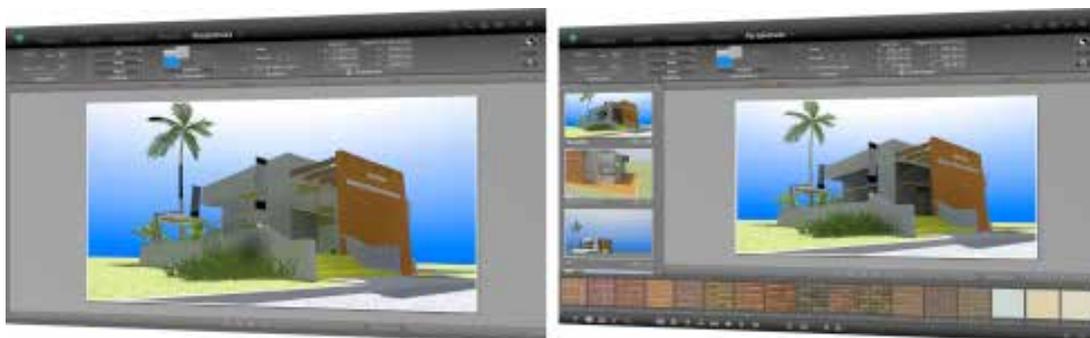
Use your mouse buttons to navigate in the preview window. You can also zoom in, pan or jump back to the last saved camera position with these icons:
You will work most of the time in the real time preview window. From time to time you may need to open the 2D window, too, which can be reached with this icon.

PERSPECTIVE VIEWS INSPECTOR

This inspector is the main organizer of your presentations. Each camera position can have independent parameters; as a result, you can prepare various presentations in a single file.

The drawer stores thumbnails of each camera. To create a new camera, duplicate an existing one by clicking on the sign in the upper side of the drawer. With the sign you can erase a selected camera from the drawer.

CUSTOMIZABLE PARAMETERS FOR CAMERAS

The inspectors of different presentation types (perspectives, parallel views, iVisit 3D panoramas, VR objects or animations) group the similar parameters for a camera:

Navigation:

‒ Architect camera
‒ Focal of the camera

Three different light types:

‒ Heliodon
‒ Artificial light
‒ Emitting shaders

Environment:

‒ Backgrounds and foregrounds (Individual background types can be assigned for each camera; also, each camera can have its own background or foreground image.
‒ Infinite ground

Visibility:

‒ Clipping Box
‒ Layers (Different object combinations can be set as visible or can be hidden for each view separately through layers)
‒ Coordinates

Rendering options:

‒ Tone correction
‒ Post process settings
‒ Rendering parameters

SHADER INSPECTOR

The shader inspector highlights parameters of different shaders.

WHICH ARE THE MOST FREQUENTLY USED SHADERS?

For complex surfaces such as glass, use the Glazing Fresnel shader. Apply the Diffuse Fresnel to simulate car paint, and for neon surfaces we recommend the Light Plane shader. All are part of the Miscellaneous category in the Catalog.

For a realistic environment, choose those shaders from the Natural category: Fresnel Water or the lawn shaders.

The key parameter for all Fresnel shaders is the Fresnel transition slider. It mixes the values for transparency and reflection of the surface.

Glazing Fresnel

Water Fresnel
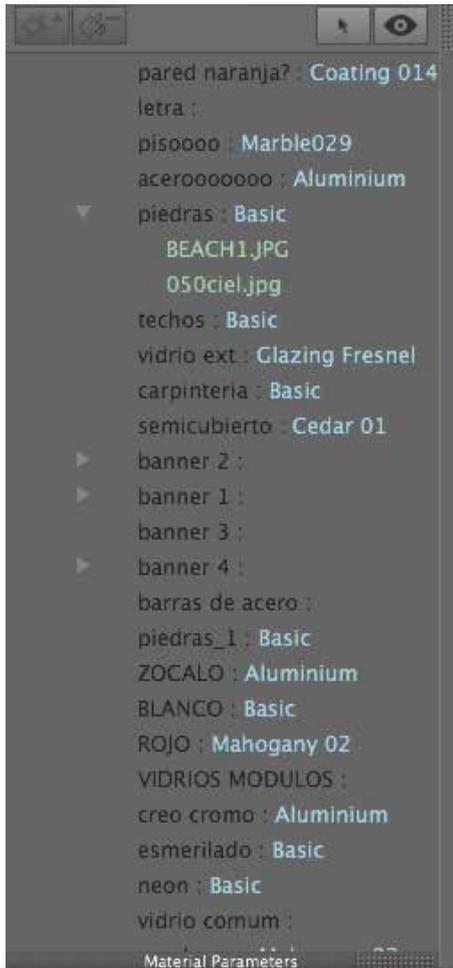
THE DRAWER CONTAINS THE LIST OF ALL MATERIALS PRESENT IN THE SCENE

- black letters: represent the name of materials given in the CAD;
- if it is followed by a second name, it means that an Artlantis shader has been mapped on that surface, and the name will be that of the shader;
- textures mapped on shaders are highlighted as sub-items to the shader. You can select them in the list and delete them with the Backslash key on your keyboard.

You can filter the list with this icon:

It will hide from the list all those shaders and textures that are not visible in the preview window.

HELIODON INSPECTOR

In Artlantis, you can create several Heliodons and activate them independently for views.

The suns are listed in the drawer. You can assign one Heliodon to a view.

Use the + and − signs to duplicate an existing Heliodon or to delete one from the list.

By scrolling down the list below a Heliodon, you will see the names of views sharing the same sun.

THERE ARE THREE TYPES FOR THE HELIODON

— The sun located at an exact geographical location
— The manual sun
— Sun at 45˚

THE POWER OF THE SUN IS MANAGED BY TWO SLIDERS

— Sun: is about the direct light only
— Sky: is about the light emitted by the sky dome
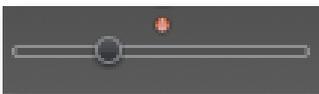
The mid point of the slider indicates a default value of the light from which you take off by sliding the cursor to the left, or add more power by sliding it to the right. If the power differs from the average suggested value, the mid point turns red. You can click on it and the cursor will jump back to the default value.

THE CLOUD EDITOR: activate it and open the dialog

Mix the four cloud types to generate a 360º sky dome. You can reorganize the clouds by clicking on the dice; by checking the Clouds Mask Sun option, the clouds will behave as in real life and hide the sun.
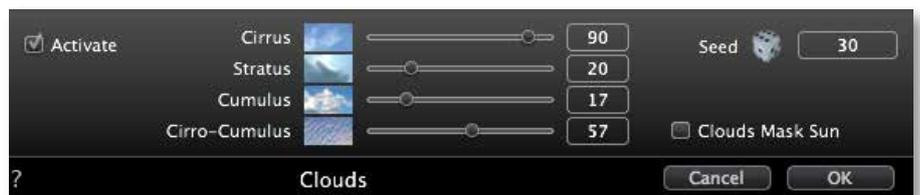
ARTIFICIAL LIGHTS

Light sources are organized into light groups. These groups can be set active or not to perspective views, parallel cameras, VR objects, panoramas or animation sequences.

Use the + and − signs from the upper side of the drawer to create new light groups and light sources.

The first light source will always overlap the camera. Open the 2D window to change its position. As soon as it becomes visible in the preview, you can adjust its position, angle and target.

In Artlantis, there is one single light source that can be converted into a bulb (the lighting angle is 360º) or a spot light (the lighting angle is less than 360º).

Duplicate light sources: hold down the Alt key on your keyboard and drag a copy in the 2D window. When duplicating, grab the light's axis instead of the source point.
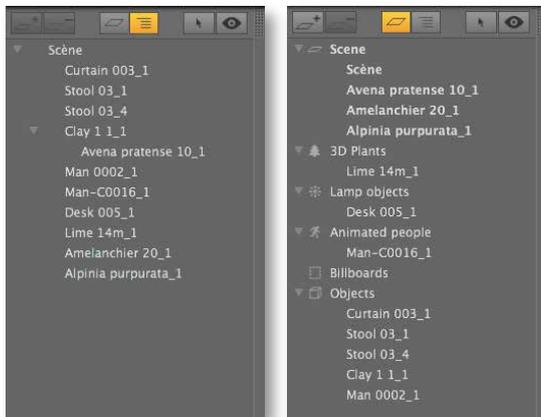

Activate the Light Cone function and add lighting effect to your scene.
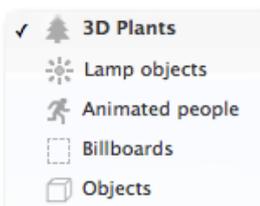
ARTLANTIS
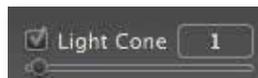
OBJECTS

Objects and billboards can be managed in the Object inspector.
The parameters will change depending on the object type or billboard.

The object inspector is the only one with a double drawer.
You can switch between the **Hierarchy** and **Layers**
by choosing one of these tabs from the upper side of the drawer.

Each tab will display the list of the objects and billboards from
your scene but in a different aspect.

— Hierarchy: allows you to group objects
— Layers: display the layers on which the objects and billboards are placed
  Here you can create or delete layers, assign them personalized behaviors,
  or hide them in a view with a right click.

IN ARTLANTIS, WE HAVE THE FOLLOWING OBJECT TYPES:
— Simple objects
— Objects featuring 3D plants
— Animated people with personalized behaviors
— Lamp objects including light sources
— Billboards

Layers can store different kinds of objects or only one specific object type.

The automatic distribution of objects can be deactivated and you can change
to a manual placement of objects on a specific layer.
To deactivate the automatic function, go to the toolbar and uncheck
the Auto checkbox. From the list, choose the layer on which you wish to place
the additional objects.

DIFFERENT PRESENTATION TYPES

Scroll down the list and choose a different presentation type.

Artlantis Render will contain the perspective and parallel views only.

Artlantis Studio will also include the panoramas,
VR objects and animations.

Similar to perspectives mode, all other inspectors will include drawers with thumbnails about the existing cameras. The inspector contains those parameters, which can be assigned separately to each camera.
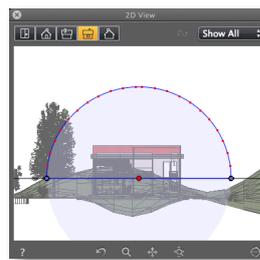
The camera has a different representation in the 2D window in each mode.
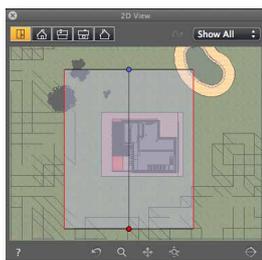
PARALLEL VIEWS

The red dot represents the camera and the two red lines show the visibility limits. You can stretch them by grabbing and dragging them in the 2D window.

The particularity of parallel views is the possibility to calculate the renderings up to a scale. You can set it in the rendering options for parallel views. Artlantis will automatically adjust the rendering size according to the new scale.

iVISIT 3D PANORAMA

A panorama contains multiple nodes. Each node is a still camera, which can be linked. Links will appear in the preview as well. Navigate in the preview the same as you navigate in a final panorama. Panoramas will be rendered in html format.
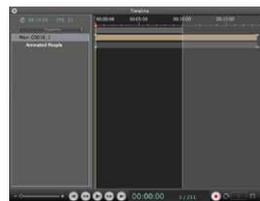

VR OBJECT

In this case the model stays still and the camera will rotate on a huge sphere. You can adjust the size of the sphere and the number of steps to smooth the navigation.
A VR object will be rendered in html format.

ANIMATION

The camera looks the same as in perspective views. For an easy adjustment of actions and paths, open the hierarchical timeline.

OPENING FORMATS

Artlantis can open the following file formats:

atl	Artlantis native file format
atlo	Artlantis object file format
atla	Artlantis archive file format
dxf	AutoCAD file format
dwg	AutoCAD file format
dwf	File exchange format for Autodesk products: AutoCAD Architect, Revit, 3DS Max, VIZ; Windows version only
fbx	Autodesk file format for interoperability
skp	SketchUp file format
3ds	Autodesk 3D Studio file format
obj	Wavefront file format

In addition to these opening formats, you can transfer your 3D model created in ArchiCAD, Vectorworks, Revit, and SketchUp through dedicated plug-ins. Visit www.artlantis.com to read the detailed export tutorials and to download these plug-ins.

EXPORT FORMATS

Artlantis can save the following file formats:

atl	Artlantis native file format
atlo	Artlantis object file format
atla	Exports all media of the Artlantis project
dwf	Vector graphics file format for AutoCAD 2D, and 3D
fbx	Autodesk file format for interoperability
obj	Wavefront file format
skp	SketchUp file format
Universal 3D	(U3D) Standardized file format for the universal exchange of 3D files

The final rendering will be saved in the following formats:

STILL IMAGE RENDERINGS

JPEG, BMP, TGA, PICT, TIFF, Piranesi, Photoshop

PANORAMAS, VR OBJECTS

html	Flash-based presentation mode

ANIMATION

mov	QuickTime movie
avi	Windows movie format
tga	Uncompressed images per frame
jpeg	Uncompressed images per frame

RENDERING PARAMETERES

The Radiosity settings include two groups of parameters.

The first group defines the accuracy of the calculation by setting the number of test points Artlantis uses to calculate the final rendering.

- Long range: is the general sampling on the entire surface of the rendering;
- Short range: means an oversampling in parts with no direct light in order to calculate the radiosity shadow for nearby surfaces.

WARNING: high accuracy settings will increase the rendering time.

The second group fine-tunes the overall lighting of the scene.

Artlantis uses two different calculation method of light behavior:

- Physical Camera (default calculation method). It calculates the real behavior of light resulting in sharper images with high fidelity of color saturation and brightness.
  Specific parameters:
  • ISO: sets the sensitivity of the "camera" sensing the scene
  • Shutter speed: Set the exposure time

- Automatic Light Adjustment or Auto Lighting turns active in the moment the Physical Camera is unchecked. It can be compared with an automatic digital camera always calculating equilibrated images in term of lighting.
  Specific parameters:
  • Long range: the power of the light bumping into a surface for the fist time
  • Short range: the power of the reflected light

Other parameters for lighting:

- Attenuation: the level of light absorption by surfaces;
- Color bleeding: the level of color transmission.

ARTLANTIS BATCH RENDERING APPLICATION

When you decide to launch the final calculation, you have two options:

— You can launch the calculation right away and wait until Artlantis finishes it.
— You can choose the Render Later option, which will postpone the calculation of the final rendering and you can continue your work without any delay.

Back to Artlantis, you can review the queued renderings by choosing Inspector > Batch Rendering… or through this icon: This menu will open a palette where you can delete, change the output format or folder.

To launch the calculation, open an independent application called Artlantis Batch Renderer. This is installed by default with Artlantis and the clock on its icon shows that it's ready to start the race at any time.

The Artlantis Batch Renderer has a very simple interface. It displays the same list with the already calculated and queuing items. You can make similar changes here, too, and then launch the final calculation. The calculation can be interrupted any time. To preview the calculation process, click on the eye icon and open a preview.

This very simple interface allows your computer to concentrate all the available memory to this calculation and finish it as quickly as possible. Launch it at the end of the day, after you are finished working with the computer. When you restart your work, your renderings will be waiting for you in the assigned folder.

Visit our website at www.artlantis.com and learn more about Artlantis. Check out the Artlantis tutorials, participate in the Artlantis forum and get online tech support from the free Support Center.

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Artlantis is a 3D
Rendering Software
powered by ABVENT