



### Drone Designer

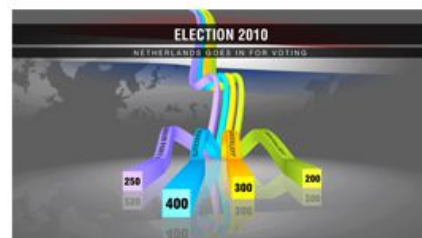
Drone Designer is the graphics creation environment of the WASP3D workflow. Drone Designer unleashes a graphic artist's creative power to generate, manipulate, animate and visualize 3D objects with great ease. A highly intuitive interface minimizes the learning curve while expanding the graphical expression capabilities of design professionals.

Drone Designer is built for speed and quality in the rapid creation of rich, data driven 3D graphics. It features a complete, self-contained, graphical development environment that can be used as an all-encompassing design tool or fit a multi-vendor workflow by importing files from popular applications. Drone Designer imports Autodesk (.FBX, .3DS), Rhino3D (.3DM), Microsoft DirectX (.X) mesh files along with their materials and UVW mapping negating the need to recreate such attributes. Moreover, NURBS surface (using via .FBX format) is tessellated with steps; and Adobe Illustrator (.AI) splines as well as other formats can be imported.

### Application Features:

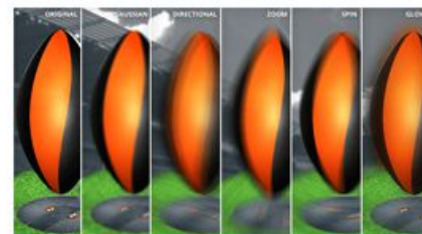
#### Mirror-Reflections

The render target texture enables creation of flat, mirror-like perfect reflections on virtual set or graphic surfaces in minimal steps without the need to create mesh copies.



#### Blur Texture

The Blur Texture feature offers a diverse library of shaders to aide designers in creation of various effects, ranging from a simple gaussian blur to more advanced shaders like depth of field, ambient occlusion etc.



#### God Rays

Witness a whole new level of visual richness to designs with the God-Ray shader. With control over parameters like blur size, length, direction and sampling, graphic artists can create brilliant streaks of light or blur around specific textures or objects.



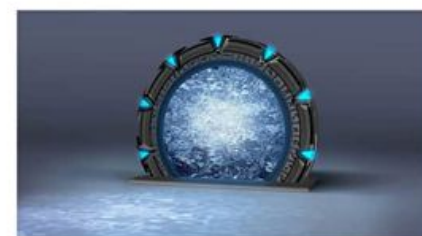
#### Depth of Field

Add a surreal dimension of photo-realism to graphics and virtual sets with the Depth of Field Shader. This shader emulates the blur created on camera lens to the scene elements moving in and out of focus.



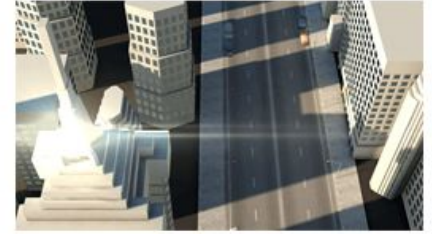
#### Water Ripple Shadder

Simulate realistic, water-like flow on various surfaces including ripple and heat haze textures with the Water Ripple Shader. Moreover, 3D scene elements can be targeted on the shader to create various effects like reflections on surface of water, water falling along the edges etc.



### Cast Shadow

Create a better sense of depth and spatial positioning in scenes by allowing realistic shadows of scene objects to be cast upon multiple surfaces. The cast shadow feature, creates shadows that correspond to directions of light(s) and gives artists control over feathering and transparency.



### Skeletal Animation

The Skeletal Animation feature allows the use of Motion Capture datasets in real-time. Motion Capture sequences can be dynamically applied as behaviours on 3D models to recreate life-like simulations in news re-enacting, sports analysis or game shows. This feature eliminates the need to "bake" a single animation to a 3D model thus reducing the load on the GPU and making it possible to "puppeteer" a 3D model by applying a variety of Motion Capture data sets in real-time.



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### 3D Imports

Achieve greater flexibility and compatibility in workflow by importing assets created in third-party authoring tools like - .X, 3DS, FBX, 3DM and DAE.



### Ai/Shape Polydata Hit

Import complex shapes or map in .SHP or .AI file (latest version support) formats with complete access to the data contained within the file. Use the polygons to color as per data or trigger interactive graphics.



### Candle Graphs

Added for Financial Data graphics. It is a combination of a line-chart and a Bar-Chart that can be used to show a range of price movement over a given time interval.



### Character Animation

Animation created for text elements in a scene, can be easily applied per character. With complete control over animation offset, direction and more, graphic artists can create unique animation styles with complete independence from preset libraries.



### Screen Space Ambient Occlusion (SSAOO)

Generate uber realistic perception of 3D meshes and graphic elements by physical simulation of the effect of contact shadows with the screen space ambient occlusion.



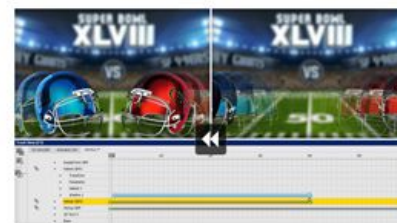
### Shift Copy Objects

Duplicate scene elements by simply holding the SHIFT key and dragging an object in the viewport. In case of animated objects, user have controls over offsets in position, rotation, scaling and in frames. The array creation dialog also provides control over creation of copies of materials used along with options to either make copies or clones of used textures. Triggers applied to an object may be copied as well. results of duplication process can also be previewed before committing to changes.



### Reverse Play

The Reverse control key allows graphic artists to add out-animations to scenes with just a couple of clicks. Once playback for a scene has been completed the Reverse control key simply reverses the animation for selected elements or entire scene.



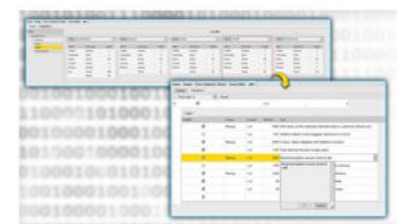
### Table Text

For speedy design and animation of tabular graphic elements such as league tables, result tables etc. the Table Text feature in the drone designer truly delivers. It can be easily populated using data sources such as excel files and SQL databases using a simple drag and drop over the table text itself. Users can control the text attributes such as fonts, font weights, color atc. for each column/row individually.



### User Defined Tables (UDT)

UDT or User-Defined Tables is a hierarchical database management architecture that can be accessed from within the Drone Designer, DataBuzz and Sting Client modules of WASP3D. Users can create customized tables to manage relational data for various projects that use analytical graphics such as elections, sports events and other data driven applications. Data cells from these UDTs can be wired (i.e. linked) to graphic elements contained within templates. This same architecture provides an interface for quick data-entry to populate tables generated by users.



### Unified Basic Template (UBT)

Making custom "data input" forms specific to any particular scene is as easy as using Window's "drag & drop" feature without any programming required. These forms can address many basic data driven graphics requirements and simplify how day to day operators can make changes to content in any graphic in a scene. In the template creation process, a graphic designer can use this workflow feature to link scene elements such as texts, images, parametric attributes etc. with User Tags and Custom Variables. In turn, these variables become the control elements in the data entry form in order to populate templates on to scene specific, customized forms. Applications with complex data requirements are addressed through the use of the Comb Builder module.



### Normal Maps

Normal map mode has been added to the texture types. This mode work with the skeletal meshes with Bi-normal Tangents only. When a normal map texture is applied to a 3D mesh, it add detail to the mesh without adding any more polygons or tessellations.

