



The Transforms Package

for CARRARA 4,5 & 6

Version 0.1

The Transforms Package contains some very simple but time saving scene commands for moving objects around during assembly. They are particularly useful when putting complex machines together. Several of these commands are there in the vertex modeler - now they can be used in the scene as well.

To install the plugin extract the contents of the compressed zip package into the Carrara\Extensions sub-folder. The plugin must also be installed into the ..\Extensions folder of all render nodes. To remove the Transforms Package Carrara 4 users must delete the Transforms.mcx and Transforms.dta files from the ..\Extensions folder. Carrara 5 and 6 users must delete the Transforms.mcx, Transforms.dat and Transforms.txt files.

Once installed the Transforms Package commands can be found in the menu under Edit | Sparrowhawk3D in the Assemble room. All of them can be applied to multiple selections and can be undone.

Rotate

Select one or more objects then choose Edit | Sparrowhawk3D | Rotate from the menu. Type in the exact degree of rotation in one or more axes or leave the axis set to 0 then hit [Ok] to turn the object precisely about its hot point. No need to add up the rotation in your head or loose the decimal places in the rotation boxes when you know exactly by how much you need an object to rotate.

Offset

Select one or more objects then choose Edit | Sparrowhawk3D | Offset from the menu. Type in the precise amount in each axis in scene units to move the selection. If you have an object lined up or need to move a duplicate an exact amount this saves adding it up and losing decimal precision. This is also a time saving command when you have a number of ungrouped objects to all to move at once by an exact amount.

Jump Hot Point To

Select one or more objects then choose Edit | Sparrowhawk3D | Jump Hot Point To from the menu. Type in the name of the target object and with the default settings the geometry of the selection will stay where it is in the scene but the hot point will move to the hot point of the named object. Uncheck the option to Move the Hot Point and the geometry will move but the hot point will remain where it is. Either jump can also be made to the centre of the target object's geometry.

Jump Object To

This has a similar function to the Track modifier. Select one or more objects then choose Edit | Sparrowhawke3D | Jump Object To from the menu. Type in the name of the target then choose using the options whether to move the selection by its geometric centre or its hot point onto the hot point or geometric centre of the target object. This is useful for fitting wheels onto axles and pins into joints.

Point At

This works much the same as the Point At modifier however the objects try to maintain a more natural facing. Select one or more objects then choose Edit | Sparrowhawke3D | Point At from the menu. Type in the name of the target and select which axis to orientate with. Check any of the restrict axes boxes to limit the rotation. This is useful for taking large selections of 'billboards' or distant 2D prop trees or effects in a still and pointing them to face at the camera. When using the X or Y axis to point with, objects will turn to face the target as if they were like a person. When pointing with the Z axis the object is assumed to behave as a standard Carrara camera or light where the Y axis is used for banking only.

Drop To Floor

Select one or more objects then choose Edit | Sparrowhawke3D | Drop To Floor from the menu. Enter the absolute ground level for objects to stop at if they do not collide with any geometry. Leave the *Align with Ground Normal* checked for objects to re-orientate their Z axis perpendicular with the surface they come into contact with. Set the step size to be about 10% of the height of the smallest object in the selection in scene units. Using a small step size and detailed scene geometry may take a long time to process. Existing and available surface replicators are the best way to cover terrain with trees but in those cases where you know where you want objects to be use this command rather than trying to get the camera in close and find exactly where the object collides with the ground. Getting the object close or just into the ground then using this command to make the final adjustment is advised.

Planned Improvements

- For 'Drop To Floor' to check the height of each object selected and use that for faster lowering and collision iterations then use a lower % of size to make fine adjustments.

Support

Sparrowhawke3D is an amateur project so I can't make any promises regarding support, however I'm keen to improve my simple practical plug-ins and share them with the Carrara community.

The Transforms Package is absolutely free, you can use it in any project, commercial or otherwise. You may not repackage and sell the Transforms Package.

For comments, feedback and suggestions email me, Jeremy@Sparrowhawke3D.com.