HARMONY DISTRIBUTION

INSTRUCTION OF USE

SUMMARY

- This is a script that distributes rotation, scale, displacement and jitter (randomness) aspects to a cluster of objects, either defined by a constant or by a control-surface acting as a delta gradient.

MENU SYSTEM

-Equidistant: Distribute an equidistance aspect between all objects along the chosen axis. The objects will be spaced equally either between their handles or between their boundingbox edges.

-Align: Distribute an alignment aspect to all objects. Each member of the cluster will be aligned to the chosen axis at the chosen offset distance. If surface alignment is chosen, the objects will move to meet (stick to) the control surface and the cluster will take the shape of the surface. (1)

-Move: Distribute a displacement aspect to all objects. This is no different than the standard move command... except when surface control is enabled. Each object will move by an amount of delta in the x,y and/or z direction. The effect can be free-style or maybe forced within the bounds of the outermost objects in which case the relative positioning of the inner obects changes while the outer objects do not move.

-Rotate: Distribute a rotation aspect to all objects by the specified amount in the x,y and/or z direction. If surface control is chosen then the x,y,z input is interpreted as a multiplier to the object-surface delta.

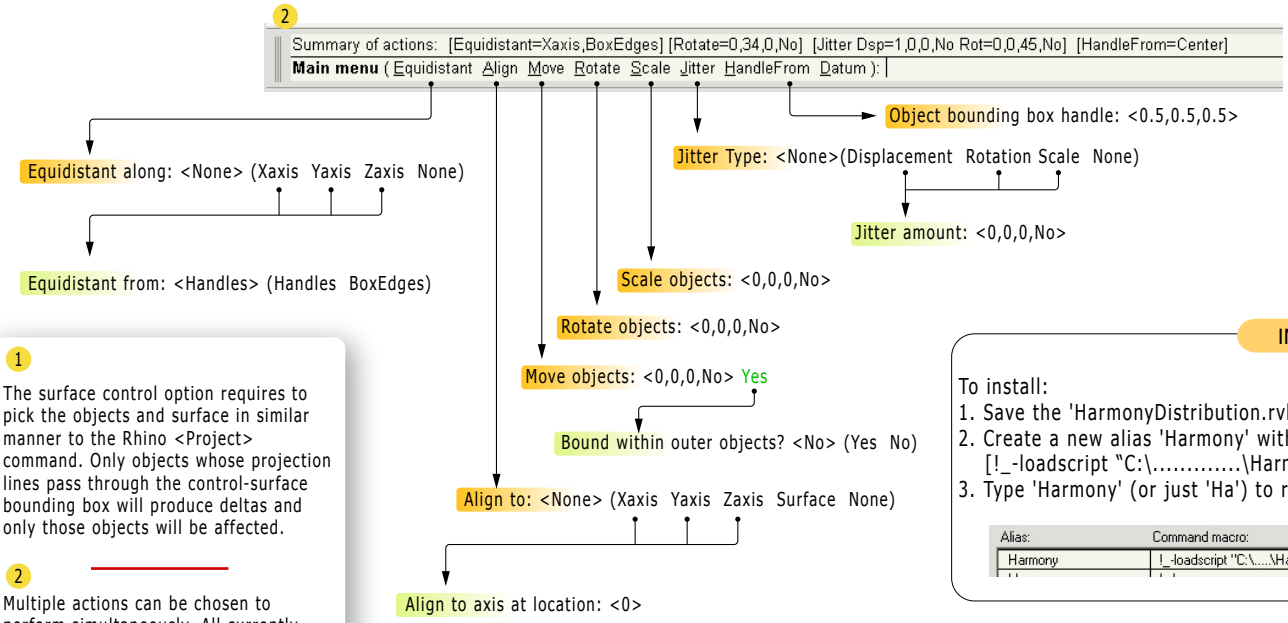
-Scale: Distribute a scale aspect to all objects. Each object is scaled by an x,y and/or z percentage (negative values will shrink the objects). If surface control is chosen then the x,y,z input is interpreted as a multiplier to the object-surface delta.

-Jitter: Distribute a displacement, rotation and/or scale randomness aspect to all objects. Each object is randomized by an x,y and/or z value. If surface control is chosen then the x,y,z input is interpreted as a multiplier to the object-surface delta (the jitter will vary depending on the surface contour).

-HandleFrom: This option allows defining of a custom handle point relative to the bounding box of each object in the cluster. By default all handles are the center of each object bounding box. An option of 0,0,0 will handle all objects from the corners (origin) of their bounding box.

-Datum: Allows to define a custom datum level from which surface deltas are calculated. By default the datum is at the base of the surface bounding box.

(2)



(1)

The surface control option requires to pick the objects and surface in similar manner to the Rhino <Project> command. Only objects whose projection lines pass through the control-surface bounding box will produce deltas and only those objects will be affected.

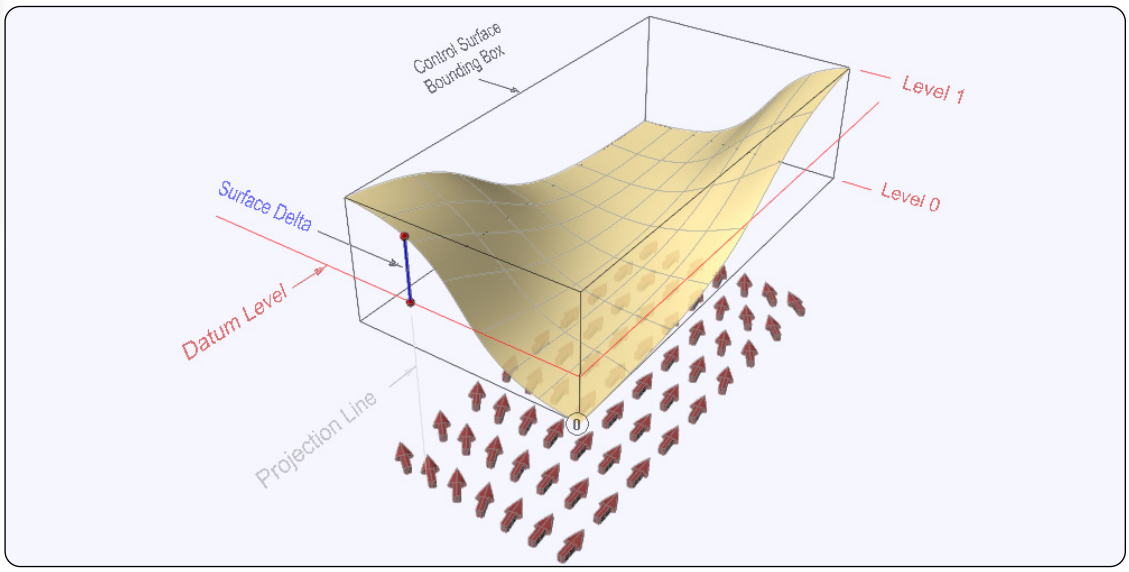
(2)

Multiple actions can be chosen to perform simultaneously. All currently chosen actions are seen in the summary above the active command line.

For more predictable results the control-surfaces should be untrimmed and have a rectangular shadow. Instead of polysurface, it is best to use 'drape' to convert the polysurface to a single, untrimmed surface.

INSTALLATION

To install:
1. Save the 'HarmonyDistribution.rvb' file to a directory
2. Create a new alias 'Harmony' with a macro: -->
   [!_-loadscript "C:\.....\HarmonyDistribution.rvb"]
3. Type 'Harmony' (or just 'Ha') to run.



Examples:

"**Rotate 0.5,0,1,Yes**" will multiply the surface deltas by 0.5 for the x-axis, 0 for the y-axis (no y-axis rotation) and by 1 for the z-axis.

"**Scale 0,1,0.5,No**" will scale by 0% the x-axis (no effect) by 100% the y-axis (double the size) and 50% the z-axis