

Tool (Alias)	Description	Script file name (.py)	Rev.
Alignment			
StackObjects	Stack objects (bottom of next touches top of previous) along X, Y or Z axes	StackObjectsAlongAxis	1.0
AlignBottomTo0	Moves object(s) vertically so thier lowest point is at Z0 - Active Cplane or World relative	AlignBottomToZero2	1.0
Import			
AsciiGridImport	Import ASCII Grid files and create point cloud, mesh or surface	ASCIIGridImporter	1.0
ImportXYZRGB	Import XYZ RGB color point files	XYZRGBImport	1.0
BatchImportWSubs	Batch import various file types - preserve layer structure (1 master layer plus subs for each file)	BatchImportWithSublayers	1.0
Export			
ExportSTLbyObj	Export STL files "by object" (one file per object) ; 4 preset meshing settings (coarse-extrafine)	BatchExportSTLByObjWSett	1.0
ExportSTLbyLayer	Export STL files "by layer" (one file per layer) ; 4 preset meshing settings (coarse-extrafine)	BatchExportSTLByLayerWSett	1.0
ExportDXFbyLayer	Export DXF files "by layer" (one file per layer) ; uses ACAD current export scheme	BatchExportDXFByLayer	1.0
Layer Tools			
DupLayerPlusObjs	Duplicates individual layers and objects on them	DupLayerPlusObjs	1.0
DupLayerSubLayersObjs	Duplicates layer, plus all its sublayers in the tree and the objects on them	DupLayerSublayersAndObjs	1.0
ScrollLayersSelectObjs	Scrolls through layer list and selects all objects on each layer successively (Enter to continue)	ScrollThroughLayersSelectObjs	1.0
BoundingBox			
BBSize	Creates a 2D or 3D bounding box with dimensions as text dots, plus area(2D) or Volume(3D)	BoundingBoxWithSize	1.0
Point Functions			
PointGrid3D	Generate ordered grid of points in 1D, 2D or 3D along any of the principal axes X,Y,Z	PointGrid3D	1.0
Random3DPoints	Generate a collection of randomly spaced points in 1D (line), 2D (rectangle) or 3D (box)	RandomPointGenerator3D	1.0
ColorPointCloud	Creates a colored point cloud from colored points	CreateColorPointCloud	1.0
ExplodeColorPointCloud	Explodes a colored point cloud into colored points	ExplodeColorPointCloud	1.0
BitmapToPointCloud	Creates a rectangular grid pointcloud with one pixel-color point per pixel *very slow on MAC	CreateBitmappedPointCloud	1.0
MapImageToPointCloud	Maps an image's colors to a point cloud (interpolation). Works in 2D/3D, also irregular shapes	MapImageToPointCloud	1.0
AvgPoints	Average a set of points and/or point clouds, returns "center" point	AveragePoints	1.0
Offset Curves			
OffsetCrvs2SidesEnds	Offset multiple curves both sides with end choices	OffsetMulticrvs2SidesWEnds	1.0
OffsetClosedCrvsInOut	Offset multiple closed planar curves inside, outside or both	OffsetMultiClosedCrvsIO	1.0
Curve Tools			
ScaleCircles	Scales selected circles by a factor	ScaleCircles	1.0
ReplaceCircleDia	Replaces circles of specified diameter with circles of new diameter (or radius)	ReplaceCircleRadDia	1.0
ChangeCircleDia	Replaces all selected circles with circles of new diameter (or radius)	ChangeCircleDia	1.0
PlanarizeCurves	Makes "near planar" curves planar (best fit or active Cplane)	PlanarizeCurves	1.0
Curve Repair			
ReducePolylines	Reduce polyline point count within specified tolerance	ReducePolylines	1.0
ConvertReducePolylines	As above, plus non-polylines will be converted to polylines.	ConvertAndReducePolylines	1.0
Surf Functions			
MakeQuadSrfs	Make untrimmed quad surfaces from closed 4 sided polylines and/or trimmed 4 sided surfaces	MakeQuadSrfs	1.0
SimplifyPlanarFaces	Replace planar surfaces or polysurface faces with trimmed planes if possible	SimplifyPlanarFaces	1.0
PlanarizeSrfs	Makes "near planar" surfaces planar (best fit or active Cplane, plus projection)	PlanarizeSrfs	1.0
Region/Solid Functions			
HatchBoolean	Boolean operation with hatch objects (like for curves with CurveBoolean)	HatchBoolean	1.0
Copy/Array			
CirclesToPoints	Creates a circle of user specified diameter at all selected points	CirclesToPoints	1.0
SpheresToPoints	Creates a sphere of user specified diameter at all selected points	SpheresToPoints	1.0
CopyObjToPoints	Copies one object from one picked point to a group of selected points	CopyObjectToPoints	1.0
ArrayDiagonal	Arrays a set of objects along an XY or XYZ diagonal (Active Cplane dependent)	ArrayDiagonal	1.0
Split/Trim			
TrimCrvsBoundary	Trims curves inside or outside one or more closed boundaries (nested also!)	MultiNestedBoundaryTrimCurves	1.0
SplitAllObjs	Split all selected objects with each other (curves, surfaces, polysurfaces, no points or meshes)	SplitAllSelected	1.0
SplitObjsWCPlane	Splits objects with active Cplane	SplitObjsWithCPlane	1.0

Transforms			
CompressExpandSpace	Compress or expand the space between objects by scaling their distance from a given point * the above does not check for interferences produced by the scaling, objects may overlap	CompressExpandSpace	1.0
ScaleObjsCtr	Scales objects uniformly in 3D about their bounding box center (BoxEdit type function)	ScaleObjsAboutCtrs	1.0
ScaleObjsCtrRandom	* Scales objects about their centers randomly in X, Y, and Z (with max and min in each axis)	RandomScale	1.0
RotateObjsCtr	Rotates selected objects about their centers with specified angle (BoxEdit type function)	RotateObjsAroundBBCtr	1.0
RotateObjsCtrRandom	* Rotates selected objects about their centers randomly (with angle limitation)	RandomRotateObjsCPlaneZ	1.0
QuadMirror	Mirrors objects 4 ways around a picked point (CPlane dependent, history enabled)	QuadMirrorWHistory	1.0
MoveObjCtrTo0	Moves an object from its bounding box center to world 0	MoveObjBBCtrToW0	1.0

Display Color Functions			
ColorObjsRandom	* Applies a random color to objects (display color)	RandomColorSimple	1.0
ColorObjsRandomRange	* Applies a random color within a specified color range to objects	RandomColorRange	1.0
ColorObjsProgressive	* Applies an interpolation between a picked color and black or white to selected objects	ProgressiveColorRange	1.0
ColorObjsInterpolated	* Applies an interpolation between two colors to selected objects	InterpolateColorRange	1.0
ColorToByObject	Sets objects current display color to "by object"	ColorToObject	1.0
ObjColorToRenderMat	Applies display color as a basic render material (flat color)	ObjColorToRenderMat	1.0

Select by Object Type			
SelPolyline	Selects only polylines	SelPolyline	1.0
SelArc	Selects only arcs	SelArc	1.0
SelCircle	Selects only circles	SelCircle	1.0
SelEllipse	Selects only ellipses	SelEllipse	1.0

Select by Object Property			
SelPlanar	Selects planar curves and surfaces	SelPlanar	1.0
SelPlanarCrvs	Selects planar curves only	SelPlanarCrvs	1.0
SelPlanarSrf	Selects planar surfaces only	SelPlanarSrf	1.0
SelCrvsByDegree	Selects curves which have a given degree	SelCrvsByDegree	1.0
SelCrvsByLength	Select curves by length criteria (greater than, less than, equal to, etc.)	SelCrvsByLength	1.0
SelCrvsByArea	Select closed planar curves by area (greater than, less than, equal to, etc.)	SelCrvsByArea	1.0
SelLinesByLength	Select line segments by length (greater than, less than, equal to, etc.)	SelLinesByLength	1.0
SelByRadius	Select arcs or circles by radius (greater than, less than, equal to, etc.)	SelByRadius	1.0
SelSameRadius	Select all arcs or circles with same radius as the one picked	SelSameRadArcsCircles	1.0
SelSrfByArea	Select surfs or polysurfs by area (greater than, less than, equal to, etc.)	SelSrfByArea	1.0
SelSrfByVol	Select surfs or polysurfs by volume (greater than, less than, equal to, etc.)	SelSrfByVol	1.0
SelMeshesByArea	Select meshes by area (greater than, less than, equal to, etc.)	SelMeshesByArea	1.0
SelMeshesByVol	Select meshes by volume (greater than, less than, equal to, etc.)	SelMeshesByVol	1.0
SelLayerTree	Selects objects on layer and all its sublayers (on Mac limited to 1 top layer choice)	SelLayerTree	1.0
SelHatchByPattern	Selects hatches of chosen pattern	SelHatchByPattern	1.0
SelHatchByScale	Selects hatches of chosen scale	SelHatchByScale	1.0
SelHatchByRotation	Selects hatches of chosen rotation angle	SelHatchByRotation	1.0
SelByLinetype	Select curves by linetype	SelCrvsByLinetype	1.0
SelCrvsByPrintColor	Select curves by print color	SelCrvsByPrintColor	1.0
SelCrvsByPrintWidth	Select curves by print width	SelCrvsByPrintWidth	1.0
SelTextByFont	Selects text blocks by font	SelTextByFont	1.0
SelTextByHeight	Selects text blocks by height	SelTextByHeight	1.0
SelLightsByType	Selects lights by type (directional, etc.)	SelLightsByType	1.0

View and Display			
SetBackgroundColor	Sets all viewport backgrounds to preset grays or picked color (Mac specific version)	SetBackgroundColorMac	1.0
SetObjDisplayModeAll	Sets object display mode for selected object(s) in ALL viewports.	SetObjDisplayModeAllViewports	1.0
RemObjDisplayModeAll	Resets object display mode for selected object(s) to "use view" in ALL viewports.	RemObjDisplayModeAllViewports	1.0
ChangeLensLength	Changes camera lens length in a perspective viewport	ChangeLensLength	1.0

* DO NOT use in Mac Rhino V 5.0.2 - will likely crash. Should work without problems in V 5.1+