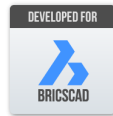


# GeoTools

## GeoTools Commands List

**"Super-charging BricsCAD and AutoCAD user productivity since 1999"**
































**Now available for ZWCAD & ARES Commander also!**













**ZWCAD**






### Polyline Tools



























Join			
	GT_PLJOIN	Join - 2D polylines	
	GT_3DJ	Join 3D Polylines	
Change 2d>3d>2d			
	GT_CH2D3D	2D-to-3D	
	GT_CH3D2D	3D-to-2D	
Identify			
	GT_INTERSECT	Mark intersection points along lines, polylines, arcs.	





	GT_3DINT	Find 3d intersections	
	GT_JUNCTION	Mark junction points in a network of linear objects	
	GT_PL_0	Identify Zero elevation Vertex	
	GT_VXDROP	Highlight elevation differences in polylines	
	GT_INTBUFFER	Create a buffer [opening] around each intersection	
	GT_INTRESOLVE	Resolve 3D intersections at ends of lines	
<b>Process</b>			
	GT_PL_INTER	Assign Interpolated Z values to vertices	
	GT_MERGEPOLY	Merge adjacent closed polylines	
	GT_INOUTOFFSET	Offset closed polylines INwards/OUTwards	
	GT_POLYINSVX	Polyline 'Insert Vertex' Tool	
	GT_TRANSFER_PLELEV	Transfer corresponding vertex elevations in two polylines	
<b>Inquiry &amp; Statistics</b>			
	GT_PL_STAT	Compute detailed polyline statistics	
	GT_LAYERAREA	Compute summed polyline areas from selectedLayers	
<b>Vertex Management</b>			
	GT_DENSIFY	Densify vertices	

	GT_FIXCLOSED	Add / Remove redundant closing vertex in polylines	
	GT_PL_PLACE	Place Points/Blocks along vertices	
	GT_DELSVP	Delete single vertex polylines	
	GT_VXALIGN	Align vertices [make collinear] with first and last	
	GT_DISTANGWEED	Weed (remove) vertices based on distance and angle	
	GT_REM_LINVERTS	Weed (remove) collinear vertices from polyline	
	GT_SLOPEDISTWEED	Weed (remove) vertices based in 3D slope and distance	
<b>Create/Edit</b>			
	GT_AUTOPAN	Draw 2d/3d polylines with auto-edge panning	
	GT_LINPOLY	Draw linear polylines from arced polylines	
	GT_MPEDIT	Multiple Pedit	
	GT_XV	Express Pedit	
<b>Direction Control</b>			
	GT_FLIP	Flip (Reverse) direction	
	GT_PL_DIR	Find out direction of polyline vertices	
<b>More Tools</b>			
	GT_XPSPL	Explode Splined	















	GT_ZPOLY	Zoom to Polyline	
	GT_FIXUCS	Fix line/polylines with different UCS	

## Conversion








	GT_LINE2PL	Convert lines and arcs to polylines	
	GT_PLARC2PL	Convert Arc Polylines to linear segment polyline	
	GT_BLKSH2P	Convert Blocks/Shapes/Text/Circle to Points	
	GT_P2BLKSHP	Convert Points/Text/Circles to Blocks/Shapes	
	GT_SPL2PL	Convert Splines to polylines	 
	GT_PL2SPL	Convert polylines to Splines	
	GT_BL2BE	Change Properties ByLayer-to-ByEntity	
	GT_0LEN2PNT	Convert 0 Lengths to POINTs	
	GT_3DF2PL	3DFaces to polylines	
	GT_3DF2PFACE	3DFaces to polyface mesh	
	GT_PFACE2PL	Polyface mesh to polylines	
	GT_SCALE_Z	Scale Z values	
	GT_ASN_PROP	Assign Properties	  
	GT_ASS_EL	Automatically Assign contour elevations	 
	GT_ASS_EL_AUTO	Assign contour elevations automatically (text->contour polyline)	
	GT_ASS_EL_TEXT	Assign contour elevations from text objects	




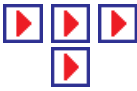








	GT_ATT2XD	Attributes to Xdata	
	GT_CONVERTPOLY LIGHT	Heavy-Weight to Light-Weight	
	GT_CONVERTPOLY HEAVY	Light-Weight to Heavy-Weight	

## Export









	GT_IMPEX	Import/Export points and lines	 
	GT_VIEWLINKED	View handles-linked ASCII data	
	GT_READDEM	Import-read ARC ASCII DEM files	
	GT_WRITEDEM	Export-write ARC ASCII DEM files	
	GT_MULTEXPORT	Multiple drawing export in various formats	
	GT_NIKON2DWG	Import NIKON survey raw data	
	GT_IMPORTSDR	Import Sokkia SDR raw data format	
	GT_EXTRACTGMLFEATURES	Extract GML features from master-file	
	GT_READGMLFEATURES	Import single GML feature from file	
	GT_INSOLE	Import image(s) as OLE objects	





## Drawing Cleanup

	GT_DELDUP	Delete Duplicate Objects	
	GT_OVERLAP	Remove overlapping segments from a line selection	
	GT_ZTREND	Analyze and fix polyline elevation trends	
	GT_NODELINESNAP	Linear and Node Snap (MAGNET)	 















	GT_KINK	Identify intersecting segments (kinks) in polylines	
	GT_BREAKX	Break crossing objects at ends	
	GT_INTEX	Lineworks Intersections Processor	
	GT_DANGLECHECK	Detect free ends (dangles) of lines, polylines and arcs	
	GT_HSQUARE	Create right angle corners	
	GT_POINTWEED	Weed points based on spacing	
	GT_ENDELEVCHECK	Check for coincident (XY) endpoints with varying Z	
	GT_SET_Z_PL	Set out-of-range elevation values to nearest valid elevation values	
	GT_PLANARPOLY	Make polylines/3dfaces planar	



















## Draw

	GT_DRAWGISPOLYGON	Draw polygons (for mapping, GIS)	
	GT_SORTEDPOLY	Draw a polyline by joining points in sorted order	
	GT_HELI	Helix	
	GT_EASY3DPOINT	Easy 3dpoint	
	GT_EMBHATCH	Draw Embankment hatch slopes pattern	
	GT_VEGLINE	Draw vegetation cover symbols	
	GT_COORDSTABLE	Coordinates Table	
<b>Parcel-Lots</b>			







	GT_LOTMAKER	Draw Parcel-Lots Tool	
	GT_LOTSLABELER	Parcel-Lots Labeling	
	GT_CLINE	Draw center-lines from guidelines	
	GT_EDGECLOSE	Clean lot boundaries by snap/trim	

## Build















	GT_ROWMAKER	Make Right-of Way/Pavements/Ramps	
	GT_CENTLINE	Draw Center-Lines from road R-O-W	
	GT_3DOFFSET	Offset 3d polylines	
	GT_3DOFFSETSDSLOPE	Offset 3d polylines by slope/elevation	
	GT_3DOFFSETSECTION	Offset 3d polylines along section	
	GT_MVMEASURE	Multi-Variable Measure	
	GT_MVOFFSET	Multiple Variable polyline segment offset	
	GT_JNE	Join nearest ends of lines, polylines	
	GT_EDGEBUILDER	Build common edges along closed, adjacent polygons	
	GT_PTINTERMANUAL	Interpolate point elevation from neighboring polylines - manual pick	
	GT_PTINTERAUTOMATIC	Interpolate point elevation from neighboring polylines – automatic	
	GT_POLYLINETEXTTELEV	Assign 3d vertex elevations from text along polylines	

	GT_CREATECENTROID	Create centroid marks inside closed Polygons	
	GT_BOUNDARY	Create a boundary (closed polygon) around a point	
	GT_CCPOLY	Create closed polylines from a mass of networked polylines	
	GT_CONTOUROFFSET	Create mathematical offsets between two contours polylines	
	GT_NETNODES	Place points along linear network	
	GT_DRAPEPOLY	Drape a 3D polyline across a set of intersecting linear objects	
	GT_BUFFERPOLY_SPLIT	Split parcel polygons along buffer boundary polygon	
	GT_POLYGONCUTTER	Cut a polygon into two using a slicing line	
	GT_POLYAREASPLIT	Split a polygon into smaller ones based on Area	
<b>GeoTools Object Data Management</b>			
	GT_DATAMAN	Object Data Manager: Create, Edit, Import, Export data Tables	
	GT_ATTACHDATA	Attach Object Data	
	GT_DETACHDATA	Detach Object Data	
	GT_EDITDATA	Edit Object Data	
	GT_COPYDATA	Copy Object Data	
















	GT_LABELDATA	Label Object Data	
	GT_QUERYDATA	Query Object Data	
	GT_CPOD_EXPORT	Export Object Data	
	GT_CPOD_IMPORT	Import Object Data	
	GT_CPOD_TABLEDATA	Create CAD TABLE from object table data	
	GT_CPOD_ATT2OD	Transfer attributes to GeoTools Object Table Data	

## Annotation









	GT_LENTEXT	Create/update length annotation	
	GT_VXLABEL	Label polyline vertices	
	GT_SEGLABEL	Label polyline segments	
	GT_CONTLABEL	Label contour polylines	
	GT_PL_DATAABL	Label polylines with attached data	
	GT_IDXYZ	Label points	
	GT_ANNOTPOINTS	Annotate points, based on layer names	
	GT_CREATEANNOT	Create annotations at intersections	

## Blocks

	GT_ATTXFER	Transfer Attributes between blocks	
	GT_TXT2ATT	Transfer Text strings to Block attributes	









	GT_ATT2PROP	Transfer Attributes to CAD properties	
	GT_PROP2ATT	Transfer AutoCAD properties to Blocks Attributes	
	GT_ATTEDIT	Global Attribute Editor	
	GT_ZOOMTXT	Search and replace text/attributes	
	GT_ATTEXT	Extract Block attributes to file	
	GT_TAGREN	Rename block attribute tags, prompts and defaults	
	GT_TAGDEL	Delete block attribute tags from block definition	
	GT_UPDATEPOINTBLK	Update 'Coordinates Block' attributes	 






## AutoCAD Map Tools (in the BricsCAD version)

















	GT_BC_OEDIT	Edit object data from AutoCAD Map	
	GT_XFER_OD_XD	Transfer Object Data / Xdata between two objects	
	GT_OD_LABEL	Run GT_ODLA command - aft. GT_OD_XD_LABEL	
	GT_AOD	Run GT_AOD command - aft. GT_ATT2OD	
	GT_ODA	Run GT_ODA command - aft. GT_OD2ATT	
	GT_XO	Run GT_XO command - Transfer Object data between objects	





## AutoCAD Map Tools (in AutoCAD Map version)

### Data Convert/Transfer






	GT_OD2ATT	Transfer Object Table Data to Block Attributes	
	GT_XFER_OD_XD	Transfer Object Data / Xdata between two objects	
	GT_ATT2OD	Transfer Block Attributes to Object Table Data	
	GT_DB2OD	Transfer database linked data to object data	
	GT_OD2XD	Convert Object Table Data to Xdata	
	GT_PROP2OD	Transfer AutoCAD properties to Object Data	
	GT_Xd2Od	Convert XDATA to Object Table Data	

<b>Export</b>			
	GT_OD_EXTRACT	Export Object Table Data to ASCII files	
	GT_OD_STRUCEXT	Export Object Table Field Structure to ASCII files	
<b>Create</b>			
	GT_AUTOINCROD	Create auto-incrementing object table data	
	GT_OD_XD_LABEL	Create text labels from Object data / extended entity data	
<b>Object Data</b>			
	GT_OD_EDIT	Global Object Data Editor	




	GT_GT_EASYOD	Multiple-Choice Object data editor	
	GT_EASYOD_SETUP	Multiple-Choice Object data editor Setup	
	GT_MERGETBL	Merge two object tables	
	GT_REM_DUP_RECS	Remove duplicate object data records within objects	
	GT_REN_OD_FLDS	Rename Object Data Fields	
	GT_OD2ELEV	Assign elevations from object data	
	GT_TXT2OD	Transfer text strings to Object Data	
	GT_OD_LIST	List Object Data	
	GT_OD_SEARCH	Search and replace Object table data	
	GT_NODATA	Check for no Xdata / Object Data	
	GT_AMAPBREAK	Break object but retain object data in both broken parts	
	GT_COPYODTABDEF	Copy Object Table definition	
	GT_DEFATTOD	Define Object Table from block attributes	
	GT_DEFODATT	Define Block (with attributes) from object table data	
	GT_DEFDBOD	Define object table from linked database table	
<b>AutoCAD Map</b>			
	GT_ADEDEFDATA	Define object data	







	GT_ADEATTACHDATA	Attach/Detach object data	
	GT_ADEEDITDATA	Edit object data	
<b>BricsCAD / plain AutoCAD compatibility tools</b>			
	GT_QUERYPROC	Format text labels queried with 'Alter properties'	
	GT_TOPOSELECT	Select Topology objects graphically	












## Extended Entity Data

	GT_REMXD	Remove Xdata	
	GT_XD_SEARCH	Search and replace extended entity data	
	GT_SHOWXD	Display extended entity data from picked object	
	GT_XD_EXTRACT	Extract extended entity data to ASCII files	




## Civil Tools

<b>Surfaces Tools</b>			
	GT_TRIANGULATE	Create TIN Surface (Delauney triangulation) and voronoi polygons	
	GT_IMPORTSURFACE	Import a TIN Surface (GeoDTM)	

















	GT_EXPORTSURFACE	Export a TIN Surface (GeoTDTM)	
	GT_ELEVATESURFACE	Change the elevation of a surface	
	GT_COPYSURFACE	Copy a TIN surface	
	GT_DELETESURFACE	Delete a TIN surface	
	GT_SURFACEVOLUME	(Cut/Fill) Volume between surfaces	
	GT_DRAPEBOUNDARY	Create boundary around surface/points	

Grading Tools			
	GT_CREATEGRADING	Create a grading object	
Map Sheet Tools			
	GT_SHEETINS	Create and Place Map Sheet Index Block	
	GT_MAPSHEETMAKER	Create Map Sheets from (around) Center-Lines)	 
	GT_MAPSHEETLAYOUTS	Create layouts from map sheets	
	GT_MAPSHEETPLACE	Place map sheets along a linear geometry	
	GT_MAPSHEETZOOM	Zoom to Map Sheet	
	GT_MAPSHEETTRIMMER	(Auto) Trim outside map sheet	






















## Road Design

	GT_CREATECARRIAGEWAY	Create road carriageway in 3d	
	GT_DRAWHCURVES	Draw horizontal alignment curves	
	GT_DRAWVCURVES	Draw vertical alignment curves	

## Geographic Tools








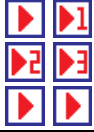











	GT_GEIMPORTPOINT	Google Earth Point Import	
	GT_GEIMPORTIMAGE	Google Earth Image Import	
	GT_COORDTRAN	Coordinate Transformation	
	GT_COORDTRAN_SETUP	Coordinate Transformation-Setup	
	GT_DWG2KML	DWG2KML - Interactive (Google Earth Export)	 
	GT_KML2DWG	KML2DWG - Interactive (Google Earth Import)	
	GT_DWG2KML_BATCH1F	DWG2KML - Batch 1 Feature	
	GT_DWG2KML_BATCHMULTF	DWG2KML - Batch Multiple Feature	
	GT_GERSHEET	Rubber Sheeting with Google Earth Control Points	
	GT_GERSHEETWITHCTRLPOINTS	Rubber Sheeting w. Drawing Control Points	
	GT_GEIMPORTELEVATIONS	Import elevations from Google Earth	
	GT_INSPHOTO	Insert a geo tagged photo	









## General

	GT_CONTOURBUILDER	Create contours from TIN model	
	GT_DEMGRID	Create DEM Grid	
	GT_CHAINAGE	Annotate chainages along a route	
	GT_PROFILE	Draw cross-sectional profile from 3D Polyline	
	GT_L-SECTION	Cross Section from Excel data	
	GT_CS-SCANNER	Create cross-section polyline by scanning points	
	GT_ADJUSTLEVELS	Adjust cross-section elevations	
	GT_DRAWGRADE	Draw Graded polylines	
	GT_STEPPED3DPOLY	Create Stepped 3d polylines	
	GT_TRAVADJ	Perform traverse error adjustment	
	GT_CROSSSECT	Multiple Cross Section Tools	
	GT_ALIGNMENTCF	Alignment (Cut/Fill) Volume	
	GT_VOLUME	Volumetric Analysis	
	GT_VOLUME3DFACESURFACES	Volume Between Two Surfaces	
	GT_ANNOGRID	Create Map Grid	
	GT_BEARINGDIST	Bearing and Distance	
	GT_BRGROUND	Round off bearings	
	GT_SLOPEDISPLAY	Color-coded Slope Display (of TIN faces)	






	GT_FINDSLOPE	Find slope of a single TIN face	
	GT_FINDSLOPELINE	Find slope of line between two 3d points	
	GT_VORONOI	Draw Voronoi polygons	
	GT_TINEXTRACT	Extract contours, points, faces from BricsCAD TIN Surface	
	GT_LANDXML2CSV	Convert Civil 3D LandXML to CSV data	
	GT_C3D_PropEdit	Edit Civil 3D Property Set	
	GEOL_TUNNELMAKER	Create 3d tunnel models	
	GEOL_RUNNINGPATTERNS	Draw geological patterns	
	GEOL_DRAWHEAVE	Draw Heave	
	GEOL_FAULTSHIFT	Fault Shift	
	GEOL_3POINT	Strike-Dip Calculator (3 point solution)	
	GEOL_MININGSYMBOLS	Mining Symbols	
	GEOL_MINEX2DWG	Import (read) a MINEX coal reserves data file	
	GEOL_LEASEAREADRAW	Draw Lease Area Map Elements	
	GEOL_LEASEAREAPLANNER	Specify and plan mining lease area data	
	GEOL_AREAVOLCALC	Area-Volume Calculation	
<b>Dimensional Stone Tools</b>			
	GEOL_ROSEDIAGRAM	Draw Rose Diagram/Stereonet	
	GEOL_PLACEDIPSTRIKESYMBOL	Place dip/strike symbols	


	GEOL_CHANGEDIPANGLE	Change Dip Angle	
	GEOL_FLIPDIPDIRECTION	Flip Dip Direction	
	GEOL_UPDATEDIMAZIMUTH	Update Dip Azimuth attribute values	
	CGEOL_DIMSTONE_SETTINGS	Settings	
<b>Bore-Hole Tools</b>			
	GEOL_BOREHOLELOGGER	Import bore-hole data	
	GEOL_STRATABUILDER	Draw bore-hole strata [LITHOLOGY] in different ways	
	GEOL_BOREHOLESTRATA	Draw bore-hole cross-section strata	
	GEOL_BOREHOLESECTION	Draw bore hole sections	
	GEOL_BOREHOLE-X-SECTION	Draw bore-hole cross-section profile	
	GEOL_BOREHOLEPLANNER	Bore Hole Planner - Across lease area	
	GEOL_BOREHOLEINSERT	Insert bore hole along a section	
	GEOL_BOREHOLETEXTSMALLER	Make bore hole text smaller	
	GEOL_BOREHOLETEXTBIGGER	Make bore hole text bigger	
	GEOL_BOREHOLESECTIONRENAME	Rename a bore-hole section	
	GEOL_BOREHOLESMAALLER	Make bore hole size smaller	
	GEOL_BOREHOLEBIGGER	Make bore hole size bigger	
	GEOL_MAKE3DSECTIONS	Make 3D bore-hole cross-sections	















	GEOL_BOREHOLEEXPORT	CSV Export bore-hole section / points data	
	GEOL_BOREHOLESECTIONDELETE	Delete bore hole sections / points	
	GEOL_INFLUENCE	Compute Influence area around a bore-hole section	
<b>Strata/Seams</b>			
	GEOL_STRATAVIEWER	Select and view strata/seams	
	DRAW_3D_STRATA	Draw 3D strata from embedded data	
	GEOL_STRATACONNECT	Connect lithology strata	
<b>Map Annotations</b>			
	GEOL_PLACEBOUNDARIESBLK	Place Boundaries Annotation	
	GEOL_PLACESIGNOFFBLK	Place Signoff Block	

## TRANSMISSION LINES DESIGN




	TR_CATENARY	Sag template design	
	TR_SPANDRAW	Draw hot/cold/GC curves between spans	
	TR_PLACEPOLE	Place a transmission pole in elevation view	





## Miscellaneous

	GT_CONTBREAK	Break(Split) objects along a polyline	
-------------------------------------------------------------------------------------	--------------	---------------------------------------	--






	GT_ROUGHEN	Roughen a Line	
	GT_SURFAREA	Compute Surface Area of 3DFACEs	
	GT_XP_RETDAT	Explode objects - Retain Object Table and extended entity data	
	GT_HATCHAREA	Report on areas covered by HATCH objects	
	GT_GEO	Enter geographical coordinates-Latitude, Longitude, Height	
	GT_CONTAREATABLE	Contour Area Table / CSV	
	GT_CONTCLASS	Classify Elevation Contours	
	GT_DELETELAYOUTS	Delete paper-space layouts	
	GT_CONTDIST	Contour Spacing Distance Tool	
	GT_CSVEDITOR	Edit CSV files	
	GT_HATCHBOUND	Re-Create Hatch boundaries from HATCH object	
	GT_GEO_INS	Insert a geo-referenced image	
	GT_IMAGESCAN	Scan selected image files and build image boundary list	
	GT_IMAGESEARCH	Insert geo-referenced image corresponding to selected AOI	

## Selection







	GT_PLFILTER	Polylines based on properties	
	GT_ESELECT	Enhanced Entity Selector	
	GT_MAKESEL	Build Selection Set	

















	GT_FINDZRNG	Find objects in selected Z range	
	GT_SL	Select Current Layer	
	GT_SS	Select Current Style	
	GT_LASTSEL	Put last GeoTools selection in "previous" sel. set	

## Inquiry

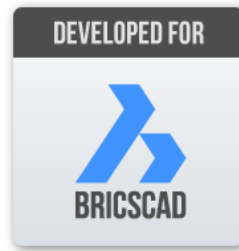
	GT_CGRAV	Compute Center of Gravity	
	GT_DWG_STAT	Display Drawing Statistics	
	GT_VISIT	Object Selection Browser	
	GT_DXY	Enhanced DIST command	
	GT_ISLANDAREA	Island Area Detection	

## More Options

	GT_GENSET	Settings	
	GT_HELP	help	
	GT_CMDHELP	Command Help (online htm)	
	GT_TUTORIAL	Tutorials	
	GT_APPKEY	Display Application Key...	
	GT_WORKSPACESETUP	Workspace Setup	

	GT_LOAD	Load GeoTools	
	GT_UNLOAD	Unload GeoTools	
	GT_REGRESET	Reset command defaults in registry	
	GT_CMDSEARCH	Search GeoTools/CADPower commands	
	GT_CMDLIST	List GeoTools/CADPower commands	
	GT_ABOUT	About GeoTools	
	GT_LANGSWITCH	Change Operating Language	
	GT_README	Readme and Installation	
	GT_CHECKUPDATES	Check for GeoTools updates	
	GT_ACTIVATELICENSE	Activate GeoTools license	
	GT_ACTIVATECLOUDLICENSE	Activate GeoTools Cloud License	
	GT_REMOVELICENSE	Remove GeoTools License	
	GT_DISPLAYLICENSEINFO	License Info	
	GT_DEBUGINFO	Display debug info	
	GT_ORDER	Ordering Info...	
	GT_VIDEOS	GeoTools Videos	

## Supported CAD platforms:



**ZWCAD**



## Product Page URL:

<https://www.thedesignsense.com/geotools>