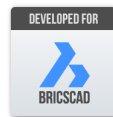


GeoTools

GeoTools Commands List

“Super-charging BricsCAD and AutoCAD user productivity since 1999”



Now available for ZWCAD & ARES Commander also!

ZWCAD



Polyline Tools

➤ Join



GT_3DJ

Join 3D Polylines



GT_PLJOIN

Automated Join - 2D polylines

➤ Change 2d>3d>2d



GT_CH2D3D

2D-to-3D



GT_CH3D2D

3D-to-2D

➤ Vertex Management



GT_DENSIFY

Densify vertices



GT_REM_LINVERTS

Weed (remove) collinear vertices from polyline



GT_FIXCLOSED

Add / Remove redundant closing vertex in polylines



GT_DELSVP

Delete single vertex polylines

➤ Optimization/Cleanup



GT_DISTANGWEED

Weed (remove) vertices based on distance and angle




GT_REM_LINVERTS

Weed (remove) collinear vertices from polyline

➤ 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

➤ Process



GT_PL_INTER

Assign Interpolated Z values to vertices 




GT_MERGEPLY

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

➤ Inquiry & Statistics



GT_PL_STAT

Compute detailed polyline statistics  



GT_LAYERAREA

Compute summed polyline areas from selected Layers

➤ More Editing




GT_MPEDIT

Multiple Pedit

➤ Direction Control



GT_FLIP

Flip (Reverse) direction 



GT_PL_DIR

Find out direction of polyline vertices

➤ Create/Edit



GT_AUTOPAN

Draw 2d/3d polylines with auto-edge panning



GT_LINPOLY

Draw linear polylines from arced polylines







GT_XV

Express Pedit























➤ Presentation

 GT_PL_PLACE Place Points/Blocks along vertices












➤ Others

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

Conversion

 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_0LEN2PNT Convert 0 Lengths to POINTs
 GT_3DF2PL 3DFaces to polylines
 GT_LINE2PL Convert lines and arcs 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_FLATTEN Flatten - Convert to 0.0 elevation
 GT_ATT2XD Attributes to Xdata 
 GT_CH_H2L Heavy-Weight to Light-Weight
 GT_CH_L2H 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_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_ZTREND

Analyze and fix polyline elevation trends



GT_OVERLAP

Remove overlapping segments from a line selection



GT_DELDUP

Delete Duplicate Objects



GT_NODELINESNAP

Linear and Node Snap (MAGNET)



GT_KINK

Identify intersecting segments (kinks) in polylines



GT_BREAKX

Break crossing objects at ends



GT_INTEX

Line works 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_EASY3DPOINT

Easy 3dpoint



GT_EMBHATCH

Draw Embankment hatch slopes pattern



GT_VEGLINE

Draw vegetation cover symbols



GT_SORTEDPOLY

Draw a polyline by joining points in sorted order

➤ Parcel-Lots



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



GT_COORDSTABLE

Coordinates Table

Build



GT_ROWMAKER

Make Right-of-Way/Pavements/Ramps



GT_CENTLINE

Draw Center-Lines from road R-O-W





















GT_3DOFFSET

Offset 3d polylines (by distances)














GT_3DOFFSETSLOPE















Offset 3d polylines by slope/elevation

	GT_3DOFFSETSECTION	Offset 3d polylines along section
	GT_CREATECENT	Create centroid marks inside closed Polygons 
	GT_MVMEASURE	Multi-Variable Measure
	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_CCPOLY	Create closed polylines from a mass of networked polylines   
	GT_BOUNDARY	Create a boundary (closed polygon) around a point
	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_POLYAREASPLIT	Split a polygon into smaller ones based on Area














➤ GeoTools Object Data Management

	GT_DATAMAN	Object Data Manager: Create, Edit, Import, Export data Tables
	GT_ATTACHATA	Attach Object Data
	GT_DETACHDATA	Detach Object Data
	GT_EDITDATA	Edit Object Data
	GT_COPYDATA	Copy Object Data
	GT_LABELDATA	Label GeoTools 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_VXLABEL	Label polyline vertices 
	GT_PL_DATALBL	Label polylines with attached data
	GT_SEGLABEL	Label polyline segments 
	GT_CONTLABEL	Label contour polylines 
	GT_IDXYZ	Label points 
	GT_ANNOTPOINTS	Annotate points, based on layer names
	GT_LENTEXT	Create/update length annotation 
	GT_CREATEANNOT	Create annotations at intersections 

Blocks








	GT_ATTEDIT	Global Attribute Editor 
	GT_ZOOMTXT	Search and replace text/attributes
	GT_ATTTEXT	Extract Block attributes to file
	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_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_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

➤ Export

 GT_OD_EXTRACT

Export Object Table Data to ASCII files


 GT_OD_STRUEXT

Export Object Table Field Structure to ASCII files

➤ Create


 GT_AUTOINCROD

Create auto-incrementing object table data

 GT_OD_XD_LABEL

Create text labels from Object data / extended entity data

➤ Object Data

 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

➤ AutoCAD Map

 GT_ADEDEFDATA

Define object data



 GT_ADEATTACHDATA

Attach/Detach object data






 GT_ADEEDITDATA

Edit object data

➤ BricsCAD / plain AutoCAD compatibility tools










	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










➤ Surfaces Tools

	GT_TRIANGULATE	Create TIN (Delauney triangulation) and voronoi polygons 
	GT_IMPORTSURFACE	Import a TIN Surface (GeoTDTM)
	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
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➤ 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 

	GT_CONTOURBUILDER	Create contours from TIN model
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	GT_PTINTERAUTOMATIC	Interpolate point elevation from surfaces
	GT_DEMGRID	Create DEM Grid
	GT_CHAINAGE	Annotate chainages along a route
	GT_PROFILE	Draw cross-sectional profile from 3D Polyline 
	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_ANNGRID	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







➤ Road Design






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

➤ Civil 3D Tools

	GT_LANDXML2CSV	Convert Civil 3D LandXML to CSV data
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Geographic Tools

	GT_COORDTRAN	Coordinate Transformation
	GT_COORDTRAN_SETUP	Coordinate Transformation-Setup
	GT_DWG2KML	Export Google Earth KML file – Interactive Version 
	GT_KML2DWG	KML2DWG-Google Earth Import 
	GT_DWG2KML_BATCH1F	DWG2KML - Batch 1 Feature
	GT_DWG2KML_BATCHMULTF	DWG2KML - Batch Multiple Feature
	GT_GEIMPORTIMAGE	Google Earth Image Import
	GT_GEIMPORTPOINT	Google Earth Point Import






















 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











Geological/Mining (Additionally priced module)

➤ Dimensional Stone Tools



 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

➤ Dimensional Stone Tools




 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_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_BOREHOLESMALLER	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
 GEOL_BOREHOLESTRATA	Draw bore-hole cross-section data

	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

➤ Map Annotations




	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








➤ Images

	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





	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_CONTBREAK	Break(Split) objects along a polyline
	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














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

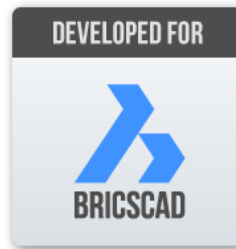
	GT_CGRAV	Compute Center of Gravity
	GT_DWG_STAT	Display Drawing Statistics
	GT_DXY	Enhanced DIST command
	GT_ISLANDAREA	Island Area Detection

More Options

	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_README	Readme and Installation
	GT_CHECKUPDATES	Check for GeoTools updates
	GT_ACTIVATELICENSE	Activate GeoTools license
	GT_REMOVELICENSE	Remove GeoTools License
	GT_DISPLAYLICENSEINFO	License Info...
	GT_DEBUGINFO	Display debug info
	GT_ORDER	Ordering Info...
	GT_VIDEOS	GeoTools Videos

	GT_HELP	Display help about GeoTools
	GT_CMDHELP	Command Help (htm)...
	GT_TUTORIAL	Tutorials...
	GT_APPKEY	Display Application Key...

Supported CAD platforms:



ZWCAD



Product Page URL:

<https://www.thedesignsense.com/geo-tools>