

Geocomp Update M

for Terramodel® 10.61

Release Notes

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Software for
Civil Engineers
and Surveyors



Version M
September 2018

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Release Notice

These release notes are for the Geocomp Update M for Trimble Terramodel® 10.61. This is Revision 4 of these release notes.

Introduction

Terramodel is an application from Trimble for surveyors, civil engineers and others to display, design, draft, edit and convert terrain and alignment models of land, stockpiles, roadways, railways, sea floors and so on.

Geocomp Update M is an update and extension for Terramodel 10.61 from Geocomp Systems which significantly improves the capabilities of Terramodel with new and modified features.

Like previous Geocomp Updates, Geocomp Update M adds and replaces commands. Unlike previous Geocomp Updates, ***your user-interface is not changed by the installation.*** Your user-defined toolbar buttons, function keys, workspaces, colours, pens, carousels, prototypes, linetypes, plotter configurations, blocks and macros are not changed—unless you change them afterwards or you had modified default configuration files without changing their names.

After you install Geocomp Update M on Terramodel 10.61, Terramodel will look the same as before, whether you or not had made changes to configuration, and whether or not you had installed any Geocomp commands, toolbar and function keys with a previous Geocomp Update.

These release notes describe **how to install Geocomp Update M, for those who have already installed any Terramodel 10.61.** If you have not installed 10.61, or you are a system administrator, please refer to the *Release notes: Terramodel 10.61* or *Release notes: Terramodel 10.61L Full installation including Geocomp Update* which cover the installation from scratch, licencing, dongles, and so on.

These notes also summarise the most significant changes since 10.61L. See **New commands and changes** below.

How to install

First install Terramodel 10.60 and the update to 10.61. Then, if you want the toolbar buttons from Geocomp, install Geocomp Update L. The software is available on USB drive and from www.geocomp.com.au/geocompupdate.

Use ABOUT command from the command line or Help menu to confirm that you have already installed Terramodel 10.61. If you want a Geocomp-style user interface, run GCHHELP to confirm that you have installed Geocomp Update L. Then run *Terramodel_Geocomp Update M installer.exe* to copy new files and **then run TMCUSTOM command (see below) to enable the new commands.**

To confirm that Geocomp Update M has been installed, start Terramodel and run GCHHELP from the command line. The title of the report should read **GCHelp Report for Terramodel 10.61M.**

Installing Geocomp Update M places files for new commands in the new C:\TMCUSTOM\Geocomp and C:\TMCUSTOM\Macros folders and updates some files under C:\Program files (x86)\Trimble.

Licence file

The new and modified commands from Geocomp Systems require your Terramodel key numbers to be in the Geocomp Update M licence file. For your licences that had current Customer Care Membership with Geocomp Systems in September 2018, the licence file installed with Geocomp Update M already has those numbers. If you add or renew memberships later, we supply a new licence file with instructions.

TMCUSTOM

To enable commands supplied with Geocomp Update M, type TMCUSTOM at the Terramodel command line and then restart Terramodel. This command adds the folder C:\TMCUSTOM\Geocomp to the Terramodel Search Path (TSP). Otherwise, the new commands will not run.

User-definable configuration files

Use C:\TMCUSTOM folder for your user-defined configuration files such as prototypes (.PRO), workspaces (.WS), blocks (.BLK) and AutoDraft (.ADC) and AutoCAD (.ACF) configuration files. New prototypes include
C:\TMCUSTOM\Geocomp\prototype-tm10.61M_with_objects.pro.

Aliases

Geocomp Update M replaces the alias file ALIAS.INI to add hundreds of commands. If you have your own aliases, re-enter them afterwards with ALIAS command or edit C:\TMCUSTOM\GEOCOMP\ALIAS.INI. Do not simply replace ALIAS.INI with your own otherwise some new commands will not run.

Menus

Geocomp Update M does not change your menu file name. If you had previously installed a Geocomp Update, your menu file is updated. To determine the name of your current menu file, if any, run GCHHELP. To select a new menu file, run MENUCFG. Consider selecting one of these menu files with new commands from C:\TMCUSTOM\GEOCOMP.

Geocomp.m	For users outside USA with menus for survey and construction
Geocomp_us.m	For users in USA with menus for survey and construction
Geocomp+.m	For users outside USA with menus for survey and construction including Tunnel, Hydro and Pipe
Geocomp+_us.m	For users in USA with menus for survey and construction including Tunnel, Hydro and Pipe
Geocomp+hdms.m	For users outside USA with menus for hydrographic survey and channel construction
Geocomp+hdms_us.m	For users in USA with menus for hydrographic survey and channel construction
Viewer.m	For clients and managers to view Terramodel project (.PRO) files

Import and Export scripts

Import and Export scripts are installed to C:\Program files (x86)\Trimble\Shared directories. All new scripts are hidden from the Download/Import and Export/Upload menus until you use Import and Export Script Managers to turn on scripts you want. New “.CSV” scripts were not in previous Geocomp Updates.

.DWG and .DXF conversion

The .DWG and .DXF file Import and Export commands have been updated and now import formats up to 2018.

New “Geocomp AutoCAD” and “Geocomp BricsCAD” import and export scripts retain similar colours when exchanging between Terramodel with Geocomp_64 colour palette and AutoCAD or BricsCAD with default colour palette.

Coordinate systems

The COORDSYS, DATUMS, ELIPSOID and .LUT files for coordinate conversion commands COORDCON (for USA) and GCCOORD (for Australia and New Zealand) have been updated. Use these commands to list all the available coordinate systems. New systems include MGA2020. If you have coordinate systems that are not included, please email the details to Geocomp Systems so we can include them.

Documentation

The new menu files include updated Index + search, Documents, TML List and GCHELP commands. For details please refer to the TML List.

Alt

A new C:\TMCUSTOM\GEOCOMP\ALT folder contains alternative files that are not used unless Geocomp Systems recommends them to solve a particular problem.

New commands and changes

AusGeoid

Import AUSGeoid elevation differences. Now supports AUSGeoid2020.

BlockDir

Modify the direction of blocks.

BlineChk

Check for crossing breaklines. Moved to Reports menu.

CentreV

Recentre views by chainage of active alignment.

Cmd

Open a Windows command prompt.

Coordcon and GCCoord

Transform geodetic coordinate systems. Added Australian MGA2020. Added or reclassified many Australian USA, British and European systems.

CrossChk

Check for crossing lines. No longer creates points at vertices.

CSV2Tab

Create table of text in a .CSV file.

DelBlks

Delete missing external blocks. Now also deletes missing external text files.

Dim

Dimension. Can now label when distance is 0.000.

Documents

Document and sample data selection. Added stylesheet to export from Leica Captivate.

DRNGrade

Label grade of a drain. Now units are controlled by UNITSSET.

EditINI

Edit TMODWIN.INI to set background colour and reset defaults. Can now edit frame size and Search Path (TSP) and import sections (such palettes and carousels) from previous .INI files and .INI files for use with HDMS and Geocomp_64.

EvalDTM

Report problems with breakline formation. Now checks points in sets for wrong layer.

Export

Export surveys using scripts. New DWG and DXF scripts. New .CSV scripts.

FixDTM

Fix breaklines connected to points in other layers. Now also copies points.

GC02

Change point name to include chainage and offset. Can now add prefix.

GC03

Report chainage and offset from HAL and VAL. Fixed column headings in report.

GC3DSets

Find closest or perpendicular distance in 3D.

GC10

Report multiple lengths and areas. Can now show alternative areas.

GC12Din

Import .12DA.files from 12D. Now imports trimeshes, longer text, shortens layer names with common abbreviations, reports settings, moves apart near-vertical walls in TINs, imports vertex IDs as point numbers and imports nulled triangles as dead regions.

GC12Dout

Export to .12DA. Now exports point numbers with spaces, colour 0 as layer colour, text name as layer name and arcs in new way.

GC20

Compute volumes between DTMs. Now warns if volume unit does not match volume ratio.

GC28

Create points along alignments using 2D distances. Now includes sag and create points.

GC28_3D

Create points along alignments using 3D distances.

GC29

Report bearings and distances between points in 3D. Now shows sheet units in Sheet view and allows entry of point numbers.

GC30A

Report difference between points and DTM. Now colours text. New bandwidth settings.

GC33

Create DTM from higher or lower of two DTMs. Can now limit to a boundary.

GC37

Create and report points in sets at xlines. Added commas to report. Added run:rise or %.

GC41

Show obstructions in profile. Can now add clash points to Plan View.

GC42AB

Compare as-built points with road design. List coordinates or slopes. Create difference text. Control point colours.

GC44, GC44S and GC44CSV

Report surface area by slope and chainage. Now reports dead regions.

GC82

Compute horizontal and surfaces areas with optional boundaries. Excludes dead regions. Can omit slope ranges.

GCArc

Create arc. Now connects mid-point of three-point arc.

GCBox

Create a rotated pline box by three locations.

GCConTxt

Modify elevations of labelled contours. Now treats spaces as decimal points.

GCCopy

Copy to a layer. Now copies points attached to selected blocks.

GCDamVol

Report volumes of dams. Can now report volumes in cubic metres, cubic yards, cubic feet, litres, megalitres, US gallons or acre-feet.

GCDTMEdg

Edit a DTM edge set by removing edge triangles.

GCFilter

Filter points along sets. Can now filter along arcs.

GCFollow

Create sets that breaklines or triangle sides along an alignment. Now gets the colours from the current layer.

GCGrdVol

Compute volumes within grids or regions. Now uses volume ratios. Can label grid names. Can colour and shift labels. Cumulative volumes in CSV if using xlines. Reports maximum cut and fill depths.

GCHelp

Report Terramodel and Geocomp Update versions and settings. Fixed button links. Now lists any HDMS or TV modules. Now lists menu file.

GCKMLout

Export .KML data to Google Earth and similar. Now can match Terramodel colours, enter icon scale and name, fill closed plines and move text with leader lines, borders or subjects onto points.

GCOBJout

Export points to Wavefront .OBJ point-cloud files.

GCLabGrd

Label grids in plotboxes. Can now specify decimal places. Now uses chainage format in Profile view.

GCLASin

Import lidar data in .LAS and .LAZ formats. Now always correctly displays the extents. Can now limit by boundaries, alignments, colours and intensities and divide extents into cuboids.

GCLPts

List points. Now left-justifies point names.

GCptsIn

Import points from various formats. Now imports points from Trimble RTX .XML.

GCptsTxt

Create points from text. Now treats spaces as decimal points.

GCQP

Quick profile command with Line, Rotate, Shift and Alignment modes.

GCSTLout

Export DTM layers to .STL models for 3D printing.

GCTable

Create a coordinate table from points. Improved settings.

GCTXTout

Export text to a file. Replaces TXTOUT.

Import

Import surveys using scripts. New DWG and DXF scripts. Improved Leica TLF scripts for Captivate. New .CSV scripts.

IR_Bay

Irrigation bay design.

LabGrade

Label grades between points. Now can delete old text, add prefix and suffix for grade and distance and label vertical distances and grades.

LayerNew

Create a new layer from the command line or a toolbox.

ListRef

List reference files. Now allows for long names.

LLRpt

Report layer lists. Now reports project file name.

MG1

Create points with elevations from slopes. Now reports to four decimal places.

MultiOff

Create parallel sets at multiple offsets.

NSWSCIMS

Import NSW SCIMS survey marks.

OffelevM

Create sets offset from multiple sets. Fixed offset sign problems.

Pts2ADC

Create points for texting AutoDraft.

QuikLset

Quickly select layers. Now reports number of objects on layer in other views.

ReNumRec

Renumber records to bring them to the front. Now works with dynaviews.

SCS900in

Import Trimble SCS900 data in record.text file. Now imports new station setup records.

SelectPt

Select points not in sets.

ShadeDTM, ShadeSlp and ShadeIso

Shade DTMs by elevation, slope or isopach with coloured hatching. Now excludes for dead regions. Now names the legend boxes to match the names of the range boundaries.

Shadow

Compute shadows from sets on given azimuth and altitude (vertical angle from horizon) to sun.

Text2Pnt and Text2Pt

Create points at text. Now treats spaces as decimal points.

TextDir

Modify text direction. Replaces TDIR.

TextWrap

Modify multi-line text to fit width.

TMCustom

Add C:\TMCUSTOM\Geocomp folder to Terramodel search Path.

TMXIn

Import Terramodel exchange (.TMX) files. Now retains contourability of points and attachment of blocks to points.

TxtHtDif

Recompute elevation differences and update text labels.

TxtScale

Scale height of text. Can now scale offsets to reference points.

XSectPts

Turn on only points in XSect view at active chainage.