

# Geocomp Update N

for Terramodel® 10.61

## Release Notes

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Software for  
Civil Engineers  
and Surveyors



Version N  
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## Release Notice

Release Notes (Revision 15) for installing Geocomp Update N on Trimble Terramodel® 10.61.

# Introduction

**Terramodel 10.61** 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 N** is an update and extension for Terramodel 10.61 that significantly improves the capabilities of Terramodel with new and modified commands and other features.

Terramodel and Geocomp Updates are available from Geocomp Systems.

After you install Geocomp Update N, Terramodel will look the same as before. Your toolbar buttons, function keys, workspaces, colours, pens, carousels, prototypes, linetypes, plotter configurations, blocks and macros are not changed by the installation. These can all be user-defined or imported.

These release notes describe **how to install Geocomp Update N, for those who have already installed any Terramodel 10.61**. If you have not installed 10.61, please refer to our *Release notes: Terramodel 10.61 Full installation*.

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

## How to install

### Terramodel 10.61

Start Terramodel and then, from the Help menu, select About. If the version shown is not 10.61, exit Terramodel and complete the installation of 10.61.

### Customer Care Membership

The new and modified commands from Geocomp Systems require Customer Care Membership. Commands are enabled by adding Terramodel key numbers to the Geocomp Update N licence file. Key numbers with current Customer Care Membership on 1 December 2020 are included in the installer for Geocomp Update N. If you add or renew memberships later, we supply a new licence file with instructions to replace the original one.

If you do not have Customer Care, but want to renew, purchase or enquire about membership, please email [support@geocomp.com.au](mailto:support@geocomp.com.au).

### Installation

If you have current Customer Care Membership from Geocomp Systems, download TERRAMODEL\_10.61\_GEOCOMP\_UPDATE\_N.EXE from [www.geocomp.com.au/geocompupdate](http://www.geocomp.com.au/geocompupdate).

Install Geocomp Update N by executing TERRAMODEL\_10.61\_GEOCOMP\_UPDATE\_N.EXE.

If you are prompted for a folder in which to install files, accept the default C:\TMCUSTOM\.

Installing Geocomp Update M places files for new commands in the C:\TMCUSTOM\GEOCOMP and C:\TMCUSTOM\MACROS folders, an uninstaller in C:\TMCUSTOM\ and updates some files under C:\PROGRAM FILES (X86)\TRIMBLE\.

After displaying these release notes, select Finish to complete the installation.

Then start Terramodel 10.61. Enter commands at the command line, from menus, or by buttons on the toolbar or in toolboxes.

Geocomp Systems can supply this installer with Terramodel 10.61 on USB drive by request.

## TMCustom

C:\TMCUSTOM\ folder is where we suggest you place your custom configuration files such as prototypes (.PRO), workspaces (.WS), blocks (.BLK) and AutoDraft (.ADC) and AutoCAD (.ACF) configuration files.

The first command to enter is TMCUSTOM. This enables Geocomp Update M by adding the folder C:\TMCUSTOM\GEOCOMP to the Terramodel Search Path (TSP), if this has not already been done. Restart Terramodel if prompted.

## GCHelp

At the command line, enter GCHELP for the command which displays details of the current Geocomp Update and configuration.

## Prototype file

New projects are based on your prototype .PRO file. Copy your prototype file to C:\TMCUSTOM, then use SYSTEM command to select it. If you do not have your own prototype, create one by copying one of our .PRO files from C:\TMCUSTOM\GEOCOMP\ to C:\TMCUSTOM\, renaming and making any changes. Our "WITH-OBJECTS" files include sample layer names and sheets. Our "WITHOUT-OBJECTS" files have no objects and just the POINTS layer.

## Initialisation file

The user-interface configuration is defined in the initialisation file TMODWIN.INI.

TMODWIN.INI controls the Terramodel Search Path and the appearance and operation of the toolbar, menus, toolboxes, coordinate scroll, display, printing, line thicknesses, text, reports and function keys.

Installing Geocomp Update N does not change your initialisation. Keep your current initialisation or import sections from a TMODWIN.INI. Copy a TMODWIN.INI from your previous computer, prepare with a text editor or select from those supplied by Geocomp Systems.

To import an initialisation, use EDITINI command to "Show Old INI file", browse to select an initialisation file and then import the relevant sections.

To select all sections, use Left Click on the first section and then Shift-Left-Click on the last.

To copy an initialisation, use the Copy button in EDITINI on the old computer. Then take the copy to the new computer and use EDITINI to import.

Our recommended initialisation files can be selected from  
 C:\TMCUSTOM\GEOCOMP\:

* <b>_TMODWIN.INI FILE</b>	<b>RECOMMENDED FOR</b>
GEOCOMP_AUST_DEFAULTS_TMODWIN	Australian users
GEOCOMP_USA_DEFAULTS_TMODWIN	American users
TRIMBLE_DEFAULTS_TMODWIN	Original Trimble appearance
HDMS_DEFAULTS_TMODWIN	Hydrographic charting
FIELD_DATA_TMODWIN	Field data module commands
VIEWER_TMODWIN	Viewing projects

These initialisation files are for specific purposes:

* <b>_TMODWIN.INI FILE</b>	<b>Recommended for</b>
P3PAD_REPORT_TMODWIN.INI	Configuring reports only
DELETE_COLORMAPS_TMODWIN.INI	Deleting colormaps only
DELETE_PALETTES_TMODWIN.INI	Deleting palettes only

Sometimes, changes to your initialisation will not take effect, due to Windows making the changes to a copy of tmodwin.ini in the hidden VirtualStore instead. This can also happen to ALIAS.INI and import and export scripts (see below). To prevent this, right-button click on the Desktop icon, select Properties then Advanced, turn on “Run as administrator” and always start Terramodel through this shortcut, or a copy on your taskbar or start menu. You might need to reimport your initialisation. If your IT department blocks this setting, there are other solutions.

## System

The [System] section of your initialisation includes your company name and address for the heading of reports. Use SYSTEM command to configure that heading and also the maximum number of objects on a project (up to 20,000,000), the undo size (19999), your prototype file name, and whether to display toolboxes when you start Terramodel.

## Aliases

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

## Menus

Installing Geocomp Update N does not change your menus. Menus are defined in menu files. Your menu file matches your modules unless a menu file is defined in the [System] section of your initialisation file. To discover the name of your current menu file, if any, use GCHELP. To select a new menu file, use MENUCFG command.

Consider selecting one of these menu files from C:\TMCUSTOM\GEOCOMP.

GEOCOMP.M	For users outside USA, with menus for survey and construction
GEOCOMP_US.M	For users inside 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 inside 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 inside 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\... folders. Any new scripts are hidden from the Download/Import and Export/Upload menus until you use the Import and Export Script Managers to turn on scripts you want. Turn off scripts that are not relevant.

Popular scripts include the various Geocomp AutoCAD and instrument-specific scripts. If the Browse buttons on AutoCAD scripts are not visible, install MS Sans Serif font.

## MS Sans Serif font

The Terramodel display font is the regular 8-point font of the MS Sans Serif typeface. If menus and other text are bigger, bolder or blurrier than you expect, this font might not be installed, especially on newer computers. To open the installer of this font, enter SSERIFE at the command line.

## Zoom and pan using your mouse wheel

If you cannot use your mouse wheel to pan and zoom, go to Windows 10 Settings | Devices | Mouse and turn off “Scroll inactive windows when I hover over them”.

## 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. To add coordinate systems, use ADDMAPSY command or email the details to Geocomp Systems so we can include them for everyone.

## Hatch patterns

Commands that create blocks of hatching read their available hatch patterns from the first TMODEL.PAT file on the TSP. If Geocomp Update N is installed, this file is in C:\TMCUSTOM\GEOCOMP\. If you have defined your own hatch patterns, copy your own TMODEL.PAT to C:\TMCUSTOM\ and rename C:\TMCUSTOM\GEOCOMP\TMODEL.PAT to \TMODEL-GC.PAT.

## Documentation

Our new menu files include Index, Documents, TML List and GCHELP commands. For details of commands, please refer to the TML List.

## Alt

The C:\TMCUSTOM\GEOCOMP\ALT\ folder contains alternative files that are available for selection when recommended by Geocomp Systems to solve problems.

# New commands and changes

## AddMapSy

New. Add your own coordinate systems for use with CoordCon and GCCoord.

## AusGeoid

Import AUSGeoid elevation differences. Now can limit to a boundary.

## Barrier

New. Report on the installation of pre-cast barriers.

## \*.BLK

Standard Terramodel block files have been copied into C:\TMCUSTOM\GEOCOMP so those blocks are shown on the TSP and can be easily selected by browsing.

## Color and Colour

New and modified TMLs. Color and Colour commands now modify colours however you spell the command and regardless of the installation language.

## ConvDMS

Convert coordinates from Degrees, Minutes and Seconds to Decimal Degrees. Now can convert decimal to DMS.

## Coordcon

Transform geodetic coordinate systems. Added and updated coordinate systems in Mauritius and Western Australia.

## Count

New. Count objects by type and view. Replaces OLIST.

## DeadSets

New. Show and create dead regions.

## DelCross

Delete objects that cross a line between locations. Now deletes any object type.

## DepthDTM

New. Create a depth surface DTM from plines with elevations representing depths.

## DRNVolms

New. Compute volumes of drainage ponds in a DTM.

## DTMInfo

Reports DTM status of selected points. Now considers all views.

## DTMVista

New. Project sets onto a DTM.

## EditINI

Edit TMODWIN.INI to set background colour and reset defaults.

Fixup now turns on toolbar colours and layer.

Now imports plot configurations.

Can now import into rather than simply replace sections.

## F7, F8, F9 and F11

Toggles point labels. Now automatically adjusts the view scale so the labels are always legible.

## Filt3DPt

New. Filter points by 3D tolerance.

## GC02

Change point name to include chainage and offset. Now offset EAT code and chainage | station labels are configurable.

## GC12Din

Import 12D archive files. Can now skip TINs.

## GC12Dout

Export 12D archive files. Now writes arcs differently. Now can include feature attributes.

## GC29UTM

Compute ellipsoidal distance and direction. Now allows for New Zealand.

## GC30A

Report difference between points and DTM. Now reports metres or decimal feet.

## GC3DRot

Rotate in 3D. Now easier to use.

## GC65file

Imports points by chainage, offset and elevation. Now allows for chainage only, 2D distances along HAL or 3D distances along VAL, vertical or perpendicular distances to VAL, and joining the points with a set.

## GC86

Move points towards or away from an alignment. Now can move towards or away from a point.

## GC91

Extend a DTM by distance. Improved.



## GCAddBlk

New. Insert block graphically with interpolated elevation.

## GCAreas

New. Reports areas, lengths and volumes for plines by regions and layer list.

## GCChord

Create point and chords along curves. Now faster.

## GCCoord

Transform geodetic coordinate systems. Now reports more detail when Listing a selected coordinate system. Added and updated coordinate systems in Mauritius and Western Australia. See also AddMapSy command.

## GCCopy

Copy to a layer. Now can update the reference object.

## GCCSVin

Import coordinates from .csv files. Allows for fewer columns.

## GCElev

Modifies elevations of objects. Now modifies the elevations of blocks.

## GCExplod

Explodes objects. Now can explode dynaviews.

## GCFillet

New. Insert arcs at each point in sets and insert or adjust arcs at each vertex in plines.

## GCHelp

Report versions and settings of Terramodel and Geocomp Update. Now can select the prototype project.

## GCIncTxt

Create incrementing text. Now increments letters or numbers.

## GCInside

New. Report areas subtracting internal areas.

## GCKMLin

Import .KML data from Google Earth and similar. Now imports elevations from ExtendedData fields.

## GCKMLout

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

## GCLabGrd

Label grids in plotboxes. Can now specify number of decimal places and horizontal or vertical labels.

## GCLabLot

Label closed sets with names or lot numbers. Can now label closed plines.

## GCLASin

Import lidar point clouds data in .LAS and .LAZ formats. Now with faster import and better reports.

## GCLayCol

New. Modify layer or colour by name using a mapping file.

## GCMapin

New. Import contour in .MAP file format.

## GCMarker

New. Display temporary vertex markers. Like MKV but for all visible plines.

## GCMulVol

Compute volumes between multiple layers. Now compares layers in pairs or from the top down.

## GCOBJout

Export points to Wavefront .OBJ point-cloud files.

## GCProfil

Create profiles from multiple HALs and DTMs. Now uses active alignment where no HAL and visible layers where no layer list to better replace PROFILE command.

## GCRunway

New. Report on conformance of a runway.

## GCScale

Multiply X, Y or Z coordinates. Now scales dynaviews.

## GCSpot

New. Report elevations of a DTM at the cursor.

## GCStyle

Change style of text. Now changes default text style.

## GCSubDTM

Create subgrade DTM from plines with elevations for thickness. Now can report volumes.

## GCTxtOut

Export text to a file. Now exports multi-line text with a separator.

## GCUPM

Validates key numbers for Geocomp Update. Now also checks for missing prototype, too many linetypes and “suspend lock driver” on.

## GCXtie

New. Create a set at intersection of slopes from two sets. Replaces XTie.

## **GEOCOMP.WS**

Suggested workspace. Now only open a few toolboxes by default.

## **GridPlan**

New. Transform coordinates between geodetic coordinate systems and ground-based coordinate systems.

## **HDMS**

Hydrographic data mapping. Now allows for more user-defined blocks.

## **HeatMap**

New. Show elevation differences with colours.

## **IsClosed**

New. Select open or closed sets or plines.

## **JoinText**

New. Join text with nearby text.

## **LabelOff**

New. Label offsets with EAT text.

## **LabGrade**

Label pairs of points with grades or distances. Now with some improved labels.

## **LidarIn**

Import point clouds from lidar. Now can select multiple files and .csv files.

## **LineTypes**

Create samples of loaded linetypes. Now in alphabetical order. Now reports when too many linetypes.

## **LSec1**

Label long sections. Now can label in multiple views for multiple scales.

## **MacroList**

New. List and describe keystroke macros for MacroPlay.

## **MapIn**

Import MapInfo data. Now imports more object types and symbols.

## **MOSSin**

Import GENIO files. Now can separate multiple models from one file.

## **MultiOff**

Create sets or plines at repeated offsets. Now can fix or adjust radii.

## **MultiPin**

Import Multiplane data. Now imports FieldLevel .XML data.

## **NamePts**

New. Rename points in sets to match sets.

## OffAll and OnAll

Turn on or off all objects. Now can select by view.

## Ovality

New. Create circle from average radius and report offsets.

## PlinFilt

New. Filter excess vertices from plines by offset.

## RoadRun

Export road strings in .XML to suit Leica. Now selects a roadjob instead of HAL.

## SCS900in

Import Trimble SCS900 survey data. Now can import point names as point numbers and import .CSV with .FXL files as points with attributes.

## ShadeDTM, ShadeSlp and ShadeIso

Shade DTMs by elevation, slope or isopach with coloured hatching. Now works with DTMs in views other than Plan. Now faster.

## ShadePts

New. Colour points by elevation range.

## ShowDir and ShowDirn

Show direction of a set or pline. Now displays a new directional linetype. Fast and reliable.

## ShowDyna

New. Shows objects on dynaview layers.

## SNRFile

Find and replace text in an external file. Now recognises codes for special characters such as degree signs.

## StaOrChn

New. Configure station | chainage convention for use with other commands.

## TextRnd

Round dimension text. Now can round bearing and distance in the same record.

## TravPln

New. Create plines by traversing or radiating.

## TriSwap

New. Swap adjacent DTM triangles.

## XSLLabel

Label add labels on cross sections at objects. Now has more control over old and new labels.