# Release history for Geotec

## Geotec 8.12.2: Version of 2023-11-15

#### NEW:

- DBM: New task to Convert depths and lengths from International System (meters) to Imperial System (feet) and vice-versa
- Piezocone test:
  - Support of non-hydrostatic U0 defined by the user
  - Addition of UH predefined curve to display hydrostatic U0

#### **MODIFICATIONS:**

Deletion of tables STRATI\_CODE, MISC\_CODE, SAMPLER and NIL via a database update in DBM

#### **CORRECTIONS:**

- When printing in PDF (other than via Adobe) for borehole logs with multiple pages, for certain computers using Windows 11
- When adding a sample after a sub-sample (the sub-sample number was previously copied)
- When using the vertical bar in SQL statements for queries
- When displaying the license information window after deactivating a removable license
- When entering 1023 characters in the Long Text field of an MS Access database

## Geotec 8.12.1: Version of 2023-08-17

#### NEW:

- In DBM, after the preview in the data transfer task, you can double-click on any field with an underlined value (number > 0) to see the list of corresponding records
- CSV file import: Addition of a preview to see the number of records that are existing, or that will be
  inserted, modified or replaced. After the preview, you can double-click on any field with an
  underlined value (number > 0) to see the list of corresponding records

#### **MODIFICATIONS:**

- In DBM, the data transfer is done for all data checked, no matter which tab is selected
- In DBM, removal of the option Transfer all records. The transfer always validates the existence of the records
- Renamed field PEAK to CONFIDENCE (TROMINO table)
- Associated the barometer number and default B1 value to the boring instead of the piezometer (table BORING instead of table PIEZOMETER)
- Added a checkbox labelled "Inactive" to indicate that a piezometer is not longer monitored
- Support of chainage with + for values smaller than 1000 (ex: 0+125)

## **CORRECTIONS:**





- When using the elev() function written with a capital letter, and when the depth is an integer with one character (1 to 9)
- In the new LID licensing system when the Window username has accented characters
- In Time, to the data redraw when individual points with text are displayed

# Geotec 8.12: Major release dated 2023-05-26 (Geotec.exe)

- Includes all additions up to 2023-05-26
- Removal of executable files relating to previous licensing protected by PIN (wstcode.exe, srvfile.exe, srvcode.exe and SKM.exe)

## Geotec 8.12.0: Version of 2023-05-26

#### NEW:

Use of online licensing with license identification (LID).
 Licenses with PIN remain functional.

#### **MODIFICATIONS:**

- Display of borings on profile views even if Z is null or 0 (displayed at z = 0)
- Default directory for text reports set to Geotec/Transactions for new installations

#### **CORRECTIONS:**

- When redrawing tables in Navigation mode in the Lab module mainly
- To the information shown for Double type fields, and to the number of decimals displayed by default for those fields

#### Geotec 8.11.7: Version of 2023-04-11

#### NEW:

- Addition of seismic line projection in Pro
- Support of <<B>>, <<U>>, <<I>> and <<r> tags used in the gINT software for bold, underline, italic and right align attributes, respectively

#### **IMPROVEMENTS:**

- Piezocones: To the equation between zones 2 and 3 for SBT
- When data is displayed in Navigation mode in Pro and Site

#### **CORRECTIONS:**

- (April 21): When doing a query with multiple selections (> 20 characters)
- (April 21): In the display of the Management data in the Sieving and Hydrometer tabs of the Grain size entry form
- (April 14): Removal of foreign key between AXIS\_STRATA and MATERIAL tables for quicker CSV import → Database must be updated via DBM
- If the NAD or coordinate system entered has more than 10 characters
- When adding a new sub-sample if the field SUB\_SAMPLE was increased to more than 1 character
- When using line feeds in SQL statements





## Geotec 8.11.6: Version of 2023-02-23

#### **CORRECTIONS:**

- (March 2): Modified piezocone data retrieval with an ordering on depth for the calculation of test results
- To continue supporting NOKEY codes
- In the display of borings as a function of chainage and offset to the axis (borings without coordinates) in Pro and in Site
- In the display of equidistant borings if the X-axis limits are rounded
- When adding new records in the Boring methods form to not copy the previous type
- When selecting a value in a drop-down list if its number of characters is greater than the field length. Value is then cut to the maximum length of the field
- When there are no cumulative records yet in the contract in SKM
- When a modal window is outside the main monitor, reposition the window to the center of the main monitor (for the issue when changing the number of monitors).

#### Geotec 8.11.6: Version of 2022-12-07

#### **IMPROVEMENTS:**

- To the use of Float fields which caused problems in SQL Server with the ODBC driver SQL Server version 10.00.19041.2251
- Faster data retrieval in PROPERTY\_VALUE entry form when using the value format for each property

#### **CORRECTIONS:**

- (December 12): in displaying text vertically (angle of 90 degrees) in Pro
- To the Spec entry form to not send a message for data deletion and update when modifying the grain size requirement

## Geotec 8.11.6: Version of 2022-11-15

- Entry forms:
  - Addition of automatic creation of layers from samples
  - Support of colors and patterns for ranges of numerical values (ex: color X for RQD of 0 to 20)
  - Focus in 1<sup>st</sup> field when activating Query mode (F7) and after executing the query (F8) in all 3 display modes
  - Addition of fields Type and Method in the Boring methods entry form (CASING table)
- Log:
  - Ability to display the depths of samples only, sub-samples only, or samples and sub-samples, via the "Series" of the DEPTH curve
  - Support of vertical texts without "word wrap"
- Pro:
  - o Correction after unchecking borings for those that were not visible on the plan view





 Automatic creation of LIST\_BORINGS group after a data query to be able to display information about the borings in a table

#### DBM:

- Addition of a few grain size specifications, sieving methods and hydrometer calibrations only if the corresponding box is checked
- Modification of primary key of table CASING to include only SITE\_NO, BORING\_NO and DEPTH\_TOP

#### SKM:

- Modification of the access to the Geotab licence database (to avoid port 1433)
- o Addition of current user in the Geotab tab (can be modified with admin password)

#### Graphics:

- o Correction when refreshing the graphic report when adding a new record
- Correction in texts and text zones of multiple lines when there is an equation and empty fields that were indicated as "0"
- o Correction of SQL statements if "FROM" was in lowercase

#### Geotec 8.11.5: Version of 2022-10-18

- Combine button of Grain size entry form deactivated except in Lab
- Correction to drop-down lists in Hydrometer tab after changing DB
- Force the type of selection for Code1 and Prop in Sample and Stratigraphy entry forms
- Correction when using the drop-down list of Code1 in the matrix
- Display the list of type 'S' patterns (soils) in Code1 in Sample entry form
- Correction in Limits entry form with several samples when clicking on a tab at the bottom
- Correction when changing the display mode in Limits entry form which gave an SQL error when selecting a sample number

## Geotec 8.11.5: Version of 2022-09-02

- Fix (Sept. 21): addition of rows in Datasheet mode for samples must not generate default values if the state is empty and Sample sampler is not active
- Fix (Sept. 21): calculation of the depths of samples was not done in the Concentrations form
- Fix (Sept. 21): CORR field of GRAIN\_SIZE\_POINT table must be filled only if it's a reading, not when it's a value calculated with the composite correction
- Fix (Sept. 21): F factor was not taken into account correctly in batch calculations of grain size curves
- Fix (Sept. 9): addition of rows in Datasheet mode for sub-samples was not working (Sample form)
- Fix (Sept. 9): tables numbered > 100 were redrawn in red when navigating (Lab)
- Fix (Sept. 7): message after selecting the sieving method was shown twice (Grain size form)
- Fix (Sept. 7): description was regenerated when changing the code or proportion (Sample and Stratigraphy forms)
- Fix (Sept. 6): copy of incorrect B coefficient in the creation of default hydrometer calibrations (DBM)
- Graphic outputs





- o Corrected use of top depth in Log
- Increase of the maximum number of points per polyline from 6400 to 10000
- o Correction to fixed primary and secondary steps of X and Y axes
- Improved detection of formats in tables and objects, for example with the use of quotation marks or the period in alphanumeric texts
- Corrected display of patterns for "U" type layers (USCS)
- o Corrected detection of sub-layers when grain size and gradation are used
- o Corrected display of the Step mode in Pro

## • Entry forms: General

- o New buttons to toggle between Tabs, Datasheet and Columnar formats
- o New general calculation window opened by calculation functions
- o Calculations without the need to display data graphically (piezocone, grain size analysis, etc.)
- Support of % for queries on dates in SQL Server and Oracle (ex: 2022-04%)
- o New batch calculation of sensitivity Su / Sur in Swedish Cone and Vane entry forms
- Saving sample depths and lengths with 4 decimals instead of 3 to avoid rounding inaccuracies following feet – meter conversions
  - Default length for remolded and intact samples is 0.6096 meter (2 feet)
  - Default length for grab samples is 0.3048 meter (1 foot)
- o New field CLIENT NO in CONTRACT table to create the link with the defined client
- o Reorganization of several entry forms in Tabs format

#### Entry forms: Laboratory tests

- Limits entry form: Modification of the Swedish cone test to allow to enter up to 4 penetration values, and addition of an initial reading to be subtracted from values, if applicable.
- Improved entry of grain size specifications
- Modification of field type from 7.3 to 11.3 for masses in Grain Size and Proctor (mould) to allow masses greater than 10,000 grams
- o Hydrometer entry form: Added times of 30 seconds and 1 minute
- o Hydrometer entry form: Addition of F correction factor for density
- o Grain Size entry form: Better management when changing sieving method
- Sieving Method entry form: Reorganization of the definition of diameters and their sieve group
- Proctor entry form: Can indicate a passing % at a certain diameter if the grain size test was not done

#### • Entry forms: Soil matrix

- Added « saturated » checkbox for moisture
- Correction when saving the density or consistency code after changing the soil material

#### • Entry forms: Piezometers

- o Support of Leveloggers including calculations and graphic representation
- Addition of barometric correction via the BAROMETER table for vibrating chord piezometers and Leveloggers
- Addition of labels for point data in Time





## • Entry forms: Piezocone tests

- Addition of CONDUCTIVITY field and calculation between electrical conductivity (mS/m) and resistivity (ohm-m) based on resistivity = 1000 / conductivity
- o Correction in the initialization of few variables in the calculations

## Google Maps

- o Improvements when adding axes and limits interactively with the mouse
- o Improved initialization of the map position and zoom
- Addition of axis creating without prior query
- When creating an axis, conversion from longitude/latitude to geodesic coordinates based on coordinate systems of the selected site
- Optimized display of the map and geotechnical entities based on coordinate systems

#### Rock data

- Modification of the Joints and Runs entry forms and calculations
- Modification of the entry form and addition of calculations for point load test
- Addition of UCT entry form (uniaxial compression test) and of calculations
- o Addition of Rock entry form (ROCK table) for default parameters in rock mechanics
- o Addition of ROCK\_SET table to define default joint sets
- New predefined curve for table ROCK\_JOINT to display the number of joint per meter or per fraction of meter based on data entered
- New predefined curve for table ROCK\_JOINT to display the average joint spacing per meter or per fraction of meter

#### • Import External Data

- Option to import into archived sites or borings active only if an archived site or boring exists in the database
- Ability to edit the values in the Import Data window before inserting them in the database, and to resave the .csv file if desired

#### DBM

- Corrections in the dictionary produced for Oracle
- Correction for Oracle for dates
- Deletion of COORD\_SYST and NAD fields in AXIS
- Option to import into archived sites or borings active only if an archived site or boring exists in the destination database
- o Addition and modification of several fields and tables via the update
- Addition of default records when creating and updating databases (sieving methods, hydrometer calibrations and grain size specifications)
- Addition of warning messages in the update and transfer tasks
- o Correction in transfer loops when tables are unchecked
- Modification of the default N4\_VERTICAL view to show only N1, N2, N3, N4 and the remark one below the other

#### SKM





- o Correction to the uses available with the admin password (Geotab tab)
- o More explicit information on the licence or maintenance expiration of Geotec network licences

#### Geotec 8.11.4

Not published for compatibility of version numbers between Geotec and Geotab

## Geotec 8.11.3: Version of 2022-02-23

- Samples:
  - o Length or bottom depth to be entered for each sub-sample A.
  - Number of 1<sup>st</sup> sample suggested as 01 instead of 1
  - Addition of "Same sampler" checkbox to copy the type and length of the previous sample when adding new samples
- Matrix:
  - o Improvements in the use of the "Copy from previous" button.
  - Modification of "black earth" for "topsoil"
  - Cohesive soil by default only for
    - Clay as main component
    - Clayey silt with no other main component
- Modification to the shortcuts in the entry forms:
  - o [Home] to go to beginning of field
  - o [End] to go to end of field
  - [Ctrl]+[Home] to go to first record
  - o [Ctrl]+[End] to go to last record
  - [Arrow up] and [Arrow down] to go to previous or next record in Datasheet mode, or to go to previous or next field in Columnar or Tab format
  - o [Page Up] and [Page Down] to change page in the borehole report
- Lab:
  - Correction of labels in grain size combination entry form
  - o Correction in the display of test points for the liquid limit (Casagrande and Swedish cone)
- DBM: Addition of comparison of Required field
- Time: Correction when doing a query in PIEZOMETRIC LEVEL table

# Geotec 8.11.2: Major release dated 2021-12-22 (Geotec.exe)

- Includes all additions up to 2021-12-22
- Correction to the link between LIMITS and LIMITS\_POINT tables
- Correction in Pro after query returning no result

## Geotec 8.11.2: Version of 2021-12-09

- Lab: Correction to the samples displayed in the tables in style files for Atterberg limits
- Lists:
  - Correction when parsing on a space in the LIST tables for sample state





- o Correction when using cumulative lists as to not repeat the same value
- Application of the format and type of list of each property for its values and remark
- Correction to the window considered as current following a navigation when two windows are opened
- Correction in marker editing for arcs and pie objects
- CSV import:
  - Allow inserting only part of the records of a CSV file
  - Support the carriage return
  - Create the PROPERTIES associated to the records imported in PROPERTY\_VALUE if the option "Create parent record" is checked
  - o Addition of an option to allow or prevent the import into archived sites or borings
- DBM:
  - Correction to the boring selection after switching tab (Duplicate)
  - Addition of an option to allow or prevent the transfer into archived sites or borings
- SKM: Addition of the Geotab version installed on each tablet

## Geotec 8.11.0: Version of 2021-11-05

- Correction when changing the language in DBM
- Correction to the display of the fillings (Ic and Isbt) for superimposed piezocones
- Correction to the use of 'distinct' for superimposed borings
- Correction when adding tables in Time

## Geotec 8.11.0: Version of 2021-10-19

- Soil description matrix:
  - o Display of current sample or sub-sample #, or of depths of current stratigraphic layer
  - Several additions:
    - Category (Till, Fill, etc.)
    - % of cobbles, boulders, organic matter and debris
    - Maximum diameter of cobbles or blocks
    - List of debris
    - Grain size (sand and / or gravel)
    - Gradation
    - Density (if material is > 50% sand or gravel) or Consistency (if material is < 50% sand or gravel) can be modified via Cohesionless / Cohesive button</li>
    - Plasticity
    - Grain shape (gravel, cobbles or blocks)
    - Carbonate content
    - Oxidation state
    - Structure, inclusions and evidence of contamination





- Suggested description: Category. Material (size), gradation, shape, color, oxidation, density / consistency, plasticity, moisture, calcareous. Structure. Presence (%) (list of debris). Inclusions. Evidence of contamination.
- Samples and sub-samples
  - When adding a sample, must first select its state (Grab G, Remoulded R, Intact I or Core C)
    - Sample numbering based on previous sample
    - Type and length added automatically based on selected state
    - Preferred type and length can be defined via drop-down list of STATE. In LIST\_ENG, edit the DESCRIPTION of states G, R, I and C by specifying:

## Label comma Type comma Length in meters

Ex:	Value	Description
	G	Grab, GB, 0.3
	R	Remolded, SS, 0.61
	С	Core, CR, 1.524
	I	Unremolded, ST, 0.61

- Addition of a new sample only from deepest sample
- Addition of sub-samples via "Add a sub-sample" button
- o Batch calculation of sample descriptions based on their matrix
- o Addition of a various properties table, specific to a sample or sub-sample
  - Properties defined in the PROPERTIES table
    - Displayed in Sample if their type is "3" (Sample type)
    - Ranked based on their "Order" use an order of 0 to not display it
    - Can also be hidden via a right click for each user
    - Definition of a numeric format and units per property
  - Values automatically saved in PROPERTY\_VALUE table
  - Batch calculation of value depths based on the samples via PROPERTY VALUE
- Laboratory tests:
  - Support of sieving and hydrometer calculations in all modules of Geotec
    - Support of 3 calculation methods for the dry mass (hydrometer)
    - Support of the reading correction by control solution
    - Addition of meniscus correction
  - Support of Proctor calculations in all modules of Geotec
    - Support of 5mm normalizing correction and stone percentage correction (20mm)
  - Support of Atterberg limits calculations in all modules of Geotec
    - Addition of raw data for water content, plastic limit, Casagrande liquid limit and Swedish cone liquid limit
    - Support of all calculations in the same entry form
    - Presentation of calculation graphs for liquid limit tests (Lab)
  - Implementation of "X" in the Transfer field to discard a point from the calculation (Lab)
  - o Sample ordering in the tables based on sample number **OR** sample depth





- In the tables, automatic translation of the fields from HYDROMETER\_POINT and SIEVE\_POINT based on the DB language
- Style files (Log, Pro and Site):
  - o Support of CODE1 display for samples (code for simplified classification)
  - Support of top (period = 1) and bottom (period = 3) alignment for points and polylines for values taken on samples or between two depths
  - Support of **bold**, *italic*, <u>underline</u> and UPPERCASE for 3 new elements for stratigraphic or sampling descriptions:
    - Categ: material category (Till, Fill, etc.)
    - Prim: primary material (proportion 1)
    - Second: secondary material (proportion 2)

#### Graphic editing:

- Addition of a red color to show modified fields (before saving)
- Addition of function elev() to get the elevation of a DEPTH in the database
- o Deletion of link to obsolete Oracle forms (selection window)
- o Correction when selecting a pattern from the scrolling lists in the patterns editing window
- o Display of the style and database version and language with format 8.11.0 instead of 8.110
- o Correction when closing a window after using the Apply button
- o Automatic closing of all opened windows when changing the interface language or the database

#### • Entry forms (varia):

- Addition in field ROCK\_DEPTH of BORING table of the top depth of the first rock layer entered. It can be modified manually.
- o In the PIEZOMETER table, by selecting a code, copy of its description in the field Tube type, Filter type and Protector type (based on table of LISTS).
- o Addition of the type of drop-down list, applicable by field, namely:
  - 0: Default (like before)
  - 1: Distinct (existing values in the database for the current field)
  - 2: Value (value from LIST\_ENG table for the current field, only one choice)
  - 3: Description (description from LIST ENG table for the current field, only one choice)
  - 4: + Value (same as 2, but the choices are concatenated after each selection)
  - 5: + Description (same as 3, but the choices are concatenated after each selection)
  - 6: None (no list opens)
- Addition of menu opened via right click on a field to directly edit the format and type of dropdown list, to protect the field or to freeze it (Datasheet mode)
- Use of the software language for the drop-down lists
- Addition of double-click in a field to open the LIST table on the values of its drop-down list, except for fields with type of list 1 (distinct) or 6 (none)

### • Database (DBM):

- o Addition of SLOUGHING DEPTH field (BORING table)
- o Addition of PP field (SAMPLE table) for pocket penetrometer value
- o Addition and modification of several fields used in the matrix





- o Addition of PROPERTIES table to defined the properties of the PROPERTY\_VALUE table
- Addition and modification of several fields for raw data (lab tests)
- Deletion of several obsolete queries (views)
- Skipping sys\* views of SQL Server
- SKM: Addition of the last deactivation date for Geotab licences

### Geotec 8.105: Version of 2021-03-26

- Pro: correction when exporting to AutoCAD to the filled symbols identifying the borings
- Selection of graphs 200 and tables 300 with the mouse in the preview area of the graph and curve editing windows
- DBM: removal of two tasks: unit conversion and longitude/latitude calculation

## Geotec 8.104: Version of 2021-02-08

- Addition of an update tool for registry values (for technical support if needed)
- Correction to the translation of table and field names if saved in the wrong language
- Correction when retrieving data of type MEMO (more than 255 characters) in SQL Server
- Correction during the update of table PROCTOR\_POINT when adding field I\_POINT

## Geotec 8.104: Version of 2020-12-17

- DBM: addition of a confirmation message before data transfers
- Pro:
  - o Support of MTM projections onto an axis defined in longitude / latitude
  - o Correction to the initial calculation of the vertical scale (Y axis of profile) following a query
- Lab:
  - o No display of SPEC list in "saved" mode
  - o Correction when opening the combination window
- Graphic editing:
  - o Correction to the display of calculated fields (background and font colors)
  - o Deletion of Datasheet+ and Columnar+ modes
- Additional protection against massive destruction of data from a table

#### Geotec 8.103: Version of 2020-11-17

- SKM:
  - Management of Geotab licences
- Database:
  - o Renaming of fields FLOATING\_ to NAPL\_ in BORING table
- DBM:
  - o Correction when opening file via "View selection..."
  - o Validation at creation of an SQL Server or Oracle database if Geotec tables already exist
- Site:
  - Addition of bedrock calculation based on rock depths of borings (.xyz file)





- Lab:
  - Complete support of Proctor test from raw data
- Entry forms:
  - Correction when doing a query in the views
  - Correction when updating records from PIEZOMETRIC\_LEVEL with a .db3 database (error due to date)
  - o Correction when adding codes in LIST\_tables via a cell
  - Correction when adding the MATERIAL based on the CODE selected in PIEZOMETER\_SEAL (do not replace a modified value)
  - o Correction to the display of selected color numbers
  - Correction in GRAIN\_SIZE to not recalculate results if no curve point is entered
  - o Calculation of the grain size description only when the field if empty or with the Calculate button
  - o Correction to the alias fields in Datasheet+ and Columnar+ modes
  - Allow vertical bar for line feed in all key fields except SITE\_NO, BORING\_NO and AXIS\_NO
- Graphic editing:
  - Application of the "black and white" option to texts
  - Application of all text and background colors in the fields and cells (appearance of entry forms)
  - Automatic switch of the link in tables #300 based on the language of the database dictionary
  - o Addition of Tabloid format (11x17) in the list of page formats

## **Geotec 8.102**

Not published for compatibility of version numbers between Geotec and Geotab

#### Geotec 8.101: Version of 2020-07-28

- Lab:
  - o Correction when clicking the USCS button in the Limits entry form
  - o Correction to the legend and keywords for the Limits test
  - o Correction when launching the calculation of consolidation results
- Correction to the tooltip display for borings in Google Map
- Deletion of automatic saving (not systematic) via CSV import
- Deletion of Apply button in the attributes window
- Deletion of the conversion of numerical values in Text type fields

# Geotec 8.100: Version of 2020-06-16

- Log:
  - Addition of CSV export of a borehole log (all columns of a style)
- Lab:
  - o Addition of a K vs e graph and calculation of Ck line
  - o Calculation of ei, e0, ec, ef, pf in consolidation test
  - o Calculation of grain size analyses from sieving and sedimentation data
  - Addition of equipment, hydrometer calibration, sieving methods





- Association of a material, sieving method and envelope to each grain size analysis
- Calculation of Proctor tests from raw data

#### Site:

- Addition of 2D view rotation with the mouse
- Support of the "North" oriented marker in the plan view in Northing-Easting mode
- Addition of the Latitude-Longitude mode
- Calculation of rock surface based on rock depths of boreholes
- o Support of coordinates in latitude-longitude or in x/y for polygonal limits

#### Dbm:

- o Reorganization of the window
- Addition of transfer of all records (without pre-validation)
- Creation of a backup database upon deletion, containing the data deleted
- Display of number of existing records in each table during the Transfer task

#### Database:

- Renaming of MATERIAL table to COSTS (specific to Dam)
- o Addition of a table and entry form for Tromino test
- Addition and renaming of raw data fields for lab tests
- o Connection for Oracle databases via ODBC only ora.dll files no longer required

#### Entry forms:

- o Addition of a scrolling list of codes for piezometric seals
- o Better management of the modification of archived data and queries
- Deletion of the Query mode (filter) in the Selection window
- Addition of the double-click in a key field (site, boring, sample, axis, piezometer) to open the
  parent or the associated table (client, project, contract, region, material) on the current record
- Differentiation between calculated field (saved and modifiable) and aliases (not saved)

#### Graphic editing:

- Interactive editing of dimensions and positioning of graphs and their attributes (legend, axes, titles)
- Modification of Object mode to keep access to zooms and style editing options
- Deletion of Insert menu from Normal mode
- Improvement of snap grid
- Addition of Alt use to temporarily disable the snap grid
- o Improvement of object editing
- Drop-down list of objects showing objects off-page in red
- Addition of Apply button to see changes before closing the editing window
- Addition of graphs #200 to display a property function of another
- Addition of tables #300 to display tables of values, CSV files or SQL files
- Addition of SQL window to perform Select queries and for objects, tables and graphs editing
- Support of simple mathematic equations
- Support of the space and comma as thousands symbol
- Support of chainage with "+" format





- Support of latitudes and longitudes with "degrees-minutes-seconds" format
- Use of Ctrl (instead of Alt) for zooms
- o Addition of Null attribute per curve, as well as in the global preferences
- Addition of the quick button "show all / show one"
- Display of the type of database connected
- CSV files:
  - Detection of MAC and UTF-8d files (import)
  - o Display of the number of existing records and of invalid records (without keys) (import)
  - Support (export and import) of CSV files with quotation marks around values containing the column separator
  - Choice of column separator for CSV export (via preferences)

#### Geotec 8.097: Version of 2020-02-12

- Correction when closing the deletion confirmation message with X (DBM)
- Time:
  - o Modifiable alignment and identification for the natural ground elevation (horizontal line)
  - Modifiable alignment for the bottom depth of each filter (groups of piezometers)
  - o Display of shallowest to deepest piezometer in a boring (several graphs per page)
  - Correction to the automatic Y axis for several graphs per page
  - Improvement of the use of markers for point data
- Addition of depth calculation corrected based on a reference other than the natural ground
- Detection of contours with Google map (Site)
- Correction to the naming of PDF files produced with the Parent boring option (Log)
- Correction when batch printing with the Parent boring option (Log)

## Geotec 8.096: Version of 2019-10-16

- Correction to the support of site and boring numbers of 20 characters
- Correction in the interactive editing and support of English dictionary (Dam)
- Correction to the activation / deactivation of axes
- Correction to the exportation of CSV files from tables (Lab)

#### Geotec 8.095: Version of 2019-07-05

- Correction when displaying field OXIDATION\_DEPTH\_BOTTOM (Log)
- Time:
  - Display of natural ground elevation with a horizontal line
  - Display of bottom depth of each filter (for groups of piezometers)
  - Display of several graphs per page with one piezometer per graph
  - Adjustment of axes limits (for critical periods)
  - Addition of a maximum interval between measurements (in days)
- Calculation of Pc and Pc max based on MTQ method (LC22-301 standard) (Lab)





- For exports, addition of a preview to view the number of records read, inserted and modified per table before executing the export (DBM)
- Automatic printing in Landscape when the page width is greater than its height
- Correction when creating IGS files for borings without coordinates (Site)
- Geotec database:
  - o Addition of FILE\_NAME field in BORING\_TYPE table
  - Addition of METHOD field in CONSOLIDATION table
  - Addition of GAP field in PIEZOMETER table

#### Geotec 8.094: Version of 2019-03-27

- Entry forms:
  - Deletion of automatic calculation of longitudes and latitudes if both X and Y coordinates are not yet entered (Region, Site and Boring entry forms)
  - o Correction to the description of calculated SBT zones
  - Correction to the depth increment in Sample
  - Addition of an automatism to increment the borehole total depth with data insertion. It can also be modified manually.
  - o Addition of batch calculation in the Run table (for RMR, Barton Q, classification and description)
  - Addition of default depths in the Piezometer Seals table: the bottom of the first material equals
    the total depth of the boring, and the bottom of the following materials equals the top of the
    previous. The materials are listed from deepest to shallowest.
  - o Correction when changing the display type of the Group of records entry form
  - Improvement to the lists of values
- Google Map:
  - o Improvement when adding boreholes in Group of Records in Google mode
  - o Improvement in the creation of entities and in the zoom management in Google Map
- CSV files:
  - Modification of the CSV export via data sheets to include only checked records
  - Support of characters;, Tab ~ @ # \$ ^ & as separators for the importation of csv files
- Log:
  - o Correction when using a parent boring
- Pro:
  - o Display of symbol for end of borehole on Rock if applicable
  - o Correction in the display of profiles for multiple axes
- Time:
  - o Correction to the initialization of the X axis
- X3D interface:
  - Support of concatenation of a text and textual value with %s
  - Implementation of font size from the preferences for all windows of the interface
  - Correction when saving changes in the Graphs, Curves and Axes editing window if more than one window was opened





• Improvement to SKM to clean outdated licences

## Geotec 8.093: Version of 2019-01-18

- Secure password with ## in the database connection window
- Addition of zones minimum and maximum values for sites and borings (1 to 60)
- Correction to the display of tables without data (Lab)
- Correction to the legend for the concatenation of boring and piezometer numbers when greater than 20 characters (Time)
- Use of sample depths in the calculation of the boring's maximum depth (Log)
- Improvement of the table selection window and preferences windows (DBM)
- Improvement of the file selection in the import window
- Correction to the insertion of the parent record when importing into SEL\_tables
- Corrections to the management of lists

## Geotec 8.092: Version of 2018-12-11

- Correction when using equivalences with empty expressions
- Improvement of import window
- Correction when importing DRF (piezocone) and PRF (seismic profiles) files
- Correction when importing a directory of application files
- Correction when saving the modification date in the entry forms with calculations
- Correction when exporting CSV files for the current date in the NULL dates
- Correction when inserting records in double forms
- Modification of the deformation modulus E in the PRESSIOMETER table to a "double" decimal field
- Automatism to create the Exploration tables (DBM)

## Geotec 8.091: Version of 2018-10-29

- Correction when printing DXF files if "prompt for filename" is checked
- Correction to the list of records after calculations of coordinates
- Correction to the graphic display after a modification in the BORING table
- Support of "SCOPQ" coordinate system in the calculation of longitudes / latitudes (like MTM)
- Customized format names forced to uppercase (preferences)

## Geotec 8.090: Version of 2018-10-17

- Creation of Time module for monitoring of piezometric levels over time
- Lab / Log / Pro / Site modules:
  - o Improvement of integrated Google Map (all)
  - Addition of types 'Color', 'Pattern' and 'Step' for the curves (all)
  - Addition of "page up", "page down", "home", "end" to navigate through pages (Log)
  - Addition of Google map as background map (Site)
  - Addition of query via Axis (Site)
  - Addition of Tunnel Construction monitoring in profile views (Pro)





- o Addition of the plan view rotation to follow the current axis with an oriented marker (Pro)
- Addition of vertical and horizontal scales (Pro)
- Modification of the numbering in the boxes of boring identifiers (Pro, Site)
- o Correction in the entry form of grain size envelopes when inserting rows (Lab)
- Calculation of grain size curves including percentages of cobbles and blocks from the STRATIGRAPHY table (Lab)
- o Correction when including samples with a property specified in a table (Lab)
- Ordering of samples in the tables done by site number, then boring number, then depth instead of sample number (Lab)

#### DBM module:

 Modification when exporting data with the option to update all different values: no replacement done by a null value (empty field)

#### • Import of CSV files:

- o Improvement in the batch import of several files
- Addition of a test in CPTU\_POINT for values of FS <- 999 to be imported as NULL</li>

## • Entry forms:

- o Addition of longitude and latitude calculations for sites and regions
- Addition of CSV export directly in the entry forms
- Addition of depth increment in Sample
- o Addition of calculation of Barton Q-value, RMR and rock classification in the RUN table
- o Addition of the bottom depth of major structures in the ROCK\_JOINT table
- Combined lists including values from the LIST\_ and other values from the DB
- Support of % in the LIST\_ tables
- Deletion of lists for the key fields in "saved" mode
- Deletion of the possibility to use accents in key fields. Characters accepted include A to Z in uppercase and lowercase, 0 to 9, parentheses (), dash -, dot . and underline \_

## Geotec database:

- Addition of COLOR and PATTERN fields in the LIST\_tables
- o Addition of LONGITUDE and LATITUDE fields in the REGION table (and entry form)
- Renaming of STABLE\_ and WATER\_CASING to STABLE\_ and CASING\_DEPTH in the BORING table
- o Addition of REMARK in CASING table
- o Addition of tables for Tunnel Construction
- New icons for all modules
- Support of time zones (server licences)

## Geotec 8.082: Version of 2017-11-17

- Addition of field ST (sensitivity) in table VANE\_POINT
- Correction in the Vane Test form to the display of the test date
- Addition of the Sensitivity calculation = Su / Sur if both values are entered for the Fall Cone and Vane tests





- Addition in the RUN table of the Barton Q-value calculation if all values are entered as  $Q = \frac{RQD}{J_n} \times \frac{J_r}{J_a} \times \frac{J_w}{SRF} \text{ where RQD is the maximum between 10 and the RQD value entered}$
- Correction to the display of upper and lower caps of piezometers on several pages
- Corrections to the editing window of grain size envelopes
- Modification of the term "block" for "boulder"
- Modification of the soil moisture terms
- ODBC correction for \*.accdb databases

## Geotec 8.081: Version of 2017-10-06

- Deletion of the clipping on the BORING column in the Pro and Site modules
- Modification of the length of the COEFF\_A field for vibrating wire piezometers
- Modification of the polynomial equation to use COEFF A instead of the value x 10<sup>-6</sup>
- Correction to the batch deletion of sites, borings, samples and axes in DBM
- Addition of details in the transaction journal for data exportation in DBM

## Geotec 8.080: Version of 2017-09-05

- Correction to the Grain Size entry form for SQL Server and Oracle
- Increased performance of .db3 files

# **Geotec 8.080: Version of 2017-08-18 (with Geotab)**

- Support of SQLite databases (.db3 files) used in our Geotab application
- Improvements in Log, Pro, Site:
  - Display from left to right of shallowest to deepest piezometer using alignment '2' for curve #102
     (Tip) of Piezometer graph
  - o Display of the 'Lost' symbol in STATE column when the recovery is 0%
  - Display of top line of the layer based on value in the new field LINE. The use of the value in CODE3 remains functional, secondly
  - Display of up to 6 codes for the simplified classification
- Improvements in the entry forms:
  - o Possibility of creating multiple customized formats of the entry forms, as required. Management of the format to use in the preferences window
  - o Archiving of borings via their State (A) when archived, no modification is possible
  - o Calculation of X, Y coordinates and zone of borings, based on their longitude and latitude
  - Automatic concatenation of the generic number and sub-sample in SAMPLE\_NO
  - o Calculation of piezometric level based on pressure if no reading is indicated
  - Addition of the polynomial equation for electric piezometers (in addition to the linear equation)
     and new fields in the DB
  - Automatic entry of the boring's MODIFICATION\_DATE when a modification to a record belonging to the boring is saved





- Automatic entry of the CALCULATION\_DATE (when clicking 'Calculate') and of the MODIFICATION\_DATE (when saving a modification) in the entry forms with a calculation function
- o Calculation of the compression index per loading for the consolidation test
- Reordering of the buttons in the selection window
- Support of numbers with more than 9 decimals (ex: 2.43e-14). Modification in the DB of all fields that could have values with more than 9 decimals.
- Addition of a selection matrix for samples and stratigraphy including the simplified classification, compaction or consistency, color, humidity. Automatic description based on the selections.
- Modification of the Trench entry forms to include data from the Ground entry form (Ground still exists).
- o Addition of + NEW option to insert values in the lists of data
- Additions to the Geotec DB:
  - o OBSERVATION table for the field observations at a given depth
  - o TEST DATE, REMARK and BLADE fields added to the VANE table
  - o Depth of the casing and time of stabilization for both water measurements in BORING
  - o TUBE NO in the SAMPLE table
  - Permeability K, permeability variation index CK and initial natural water content W0 for the consolidation test
  - Addition in the key of the field DESCRIPTION for tables LIST\_ENG and LIST\_FRE, for the use of single lists (with VALUE equal to the point (.))
  - o % of cobbles and blocks and maximum dimension in the STRATIGRAPHY table
  - Lengthening of MATERIAL field in STRATIGRAPHY to 20 characters



