

# GEOVIA SURPAC 2024 RELEASE NOTES

## ENHANCEMENTS

### Geology

#### Allow partial percentages to handle touching trisolations

Now, the BM partial percentages function also supports touching trisolations of the same object by selecting the Allow touching trisolations check box.

#### Create single drillhole by defining collar and toe coordinates

You can now create a single drillhole in the Graphics (appears as a drillhole layer in the Layers panel) by defining collar and toe coordinates in the Create drill hole parameters form. To access the form, select Design > Drillhole Design > Create Drillhole menu or using the CREATE DRILLHOLE (CDHL) function.

#### Create single drillhole with multiple depth intervals

You can now create single drillhole with multiple depth intervals, using the Multiple survey option (Survey section) in the Create drill hole parameters form. Also, a drillhole layer appears in the Layers panel when you select the Single option in the Create drillhole section.

#### Create multiple parallel holes

You can now create multiple parallel drill holes by selecting the Multiple option in the Create drillhole parameters form. The drill holes are equally separated by the distance you enter in the Distance field and the collars align with the azimuth angle you enter in the Azimuth field.

#### Create multiple cone or fan drillhole patterns

You can now create cone or fan drillhole patterns in the Graphics using horizontal incremental angle or distance between toes. You can perform the operation using the Cons/Fans option in the Specify drillhole Pattern section, on the Create drill hole parameters form.

#### Extend holes where holes enter or exit the solid or surface

You can now extend the toe points of drillholes up to the selected surface or up to entry to solid or exit from solid.

#### Clip drillholes with surface or solid

You can now clip drillholes where drillholes intersects to the surface or solid. In case of intersecting solid, you can clip drillholes where drillholes enter into or exits from solid.

#### Clip drill holes above or below a specified elevation

Now you can clip drill holes above or below a specified elevation using the Elevation field. To access the field, run the CREATE DRILLHOLES function and on the Create drill hole parameters form, select Target and then click Clip holes.

#### Name the multiple drillholes

You can now name the multiple drillholes by adding the prefix, seed, increment, and suffix values, on the Create drill hole parameters form. To access the specific fields, click Design and then select Multiple.

#### Saving drillholes as strings

You can now save survey records in a string file. The SDM file survey information is saved as metadata such as: HoleId, Dip, Azimuth, MaxHoleLength and in case of .str file, it is saved as D1, D2, D3, D4 at the collar point of each segment.

- D1 is used for HoleId
- D2 is used for Dip
- D3 is used for Azimuth
- D4 is used for MaxHoleLength

In case of multi-survey holes, all the dip and azimuth values are saved using the "|" separator.

#### Save drillholes to database

Now, you can upload the newly created drillholes (using the CREATE DRILLHOLE function) to a

geological database using the UPLOAD DRILLHOLES TO DATABASE (UDD) function.

#### Option to rescale or not the graphics viewport after creating drillholes

New checkbox is added into create drill hole form, when ticked the drillhole layer will be rescaled else not.

#### Clipping and extending of drillhole with the triobject or trisolation id option

Now you can choose the triobject or trisolation id option for clipping and extending of drillhole by triangulation.

## Tools

#### Use the new GEOTIFF IMPORT (GTI) function

You can now use a new function GEOTIFF IMPORT (GTI) to load a GeoTIFF image in Graphics. To load the image, enter the location and default elevation of image in the Import GeoTIFF form. Surpac renders the image on a surface which is created dynamically for the specific GeoTIFF image. GEOTIFF IMPORT supports single page GeoTIFF file only.

#### View warning message for unsaved data

When there is an unsaved data in the current layer and you switch, create, or delete planes, a warning message now appears. The warning message appears only when you have selected the check box Display save warning on switching plane or section in the Applications > Applications tab on the Settings form (Customise > Default preferences).

When you click on the Yes button for the warning message, the Save File form appears and you can save the unsaved active layer data. When you select the Don't ask me again check box for the warning message for the next plane or section switch the save active layer warning message will not appear for the duration of the planes function being active. This will reset when you execute the end planes function.

## Engineering

### Cave planning manager

This new role includes long term planning tools for Block caving and Sublevel caving. This enables the long and medium-term planning of a caving operation, including detail analysis per draw point, flow model analysis, and calibration.

The new Caving menu contains the sub-menus for Block caving and Sublevel caving functionality.

### Cave footprint finder

This new role enables planners to quickly and effectively evaluate the different footprints at different elevations of block and sub level cave operations, before a more detailed footprint with explicit draw points is set up.

The Footprint finder can be accessed from the new Caving menu or the FOOTPRINT FINDER command.

### Use the new polygon selection tool

You can now view a new data-centric tool Polygon selection tool, similar to the Box selection tool on the Tools toolbar. You can use the tool to make a selection on a digitized polygon and then modify the selected points by right-clicking on the data and selecting a toolbar option.

### Cave management system

The new Cave management system role includes functions to support the Block caving and Sublevel caving workflows in the Caving > Midterm Planning menu. You can use the Undercut Tools function that has been implemented with the transfer panel.

### Cave Scheduler role

The new Cave scheduler role includes functions and tools to support the scheduling of Block and Sublevel caving information. The Caving Operations Scheduler menu contains functions for Short interval control and Sample trend estimation by LSQ.

## Applications

### Open Surface Volume commands from 3DEXPERIENCE

You can open a DTM (XCAD 3DPart only) file from the 3DEXPERIENCE platform for the following Surfaces Volume command:

- Cut and Fill between DTMs
- Net Volume between DTMs

## Documentation

### Use new functions in the box select points selection mode

You can use new functions in the box select points selection mode. The functions are currently single select operations. The functions are:

- SELECT BY POLYGON (SBP): Selects all points within an existing closed segment.
- SELECT BY DESCRIPTION: Displays a form to define a description field. You can then select a point that displays all points with the matching description value highlighted.

## ISSUES FIXED

### Geology

#### Database name characters limit

The database table names have now a minimum limit of 11 characters and a maximum limit of 18 characters, when using the DRILL HOLE INTERSECT DTM function.

#### Set an upper and lower bound for real type field

You can now set the upper and lower bound when inserting a new real-type field in a new table in drillhole database.

#### Identify Drillhole displays co-ordinates up to 3 decimal points

The IDENTIFY DRILLHOLE function displays the decimal points for co-ordinates for up to 3 digits, similar to the function IDENTIFY POINT (IDP).

#### Write composite to database form accepts new data types

Now Write Composite to Database form accepts integer as well as real data types apart from the character data types. You can access the form using the WRITE COMPOSITES function.

#### Surpac displays warning message when database does not have a primary key

When a primary key is not set up for a database that is used in Surpac, the performance of the database can be poor. A warning message now displays that a primary key must be added to the data source for better performance.

#### BM PARTIAL PERCENTAGE function improvement

The BM PARTIAL PERCENTAGES function works even when the file name does not contain an ID value.

#### DB MAPPER maps database even if the folder is not set as the current directory

When you use the DB MAPPER function to map a database that is in a non-working directory folder, an error message no longer appears, and you can map a database from any folder even if the folder is not set as the current directory.

#### Validation issues in solids (exported by some of the third party softwares) because of presence of skinny triangles have been addressed

Validation issues in solids (exported by some of the third party softwares) because of presence of skinny triangles have been addressed.

#### While creating drill holes and using multiple survey, the drillhole is successfully created

While creating drillholes, if the collar and toe co-ordinates are the same and you provide multiple survey, the drillhole is successfully created without any warning message by adjusting the toe position according to the surveys.

#### A database is created successfully even when a database is already connected

A database is created successfully even when a database session is already connected to Surpac.

#### Constrained block model supports .sdm file types

When you create a constrained block model with the BLOCK MODEL OPEN function, Surpac now supports .sdm file types for 3DM, DTM, and STRING type constraints.

#### Apply attributes for the active block model only

When you use the DRAW BM PLANE ATTRIBUTES function, you can select the new Select attributes of active BM check box to apply attributes for the active block model, only. If the attributes are present in the active block model, Surpac

displays the attributes for the model. A warning message no longer appears when the attribute is not common to all connected block models.

## Configuration

### View warning message for specific data

When you load data with large XYZ coordinate differences, the points on the graphics canvas appear at a lower precision. A warning message now appears when the coordinates for the loaded data in Graphics are far from each other. In this scenario, start a new graphics session to resolve the issue.

### Styles are applied to drillholes correctly

When you now use the EDIT DRILLHOLE STYLES function and apply the styles to drillholes, the error is now resolved, and the styles are correctly applied to drillholes.

### The original file that appears in the File name field is highlighted on the Save a File form

When you click the ellipsis button to select a file in the File name field on the Save File form, the Save a File form appears with the original file in the File name field, highlighted.

## Tools

### CLASSIFY SDM function works for different versions of SDM

When you use the CLASSIFY SDM function, both versions (1 and 2) of .sdm files now work in the same way for all types of metadata (integer, real, or text).

## Support for FIT\_INT16 images while loading GEOTIFF files

You can now load and display GEOTIFF files with a file type of FIT\_INT16 in Graphics, successfully.

## Miscellaneous

### Java installation

The Surpac installer installs the Eclipse Temurin Java Development Kit (JDK) 17.0.7+7 if it is not installed in your computer.

## Engineering

### The DTM filename panel is available when selecting Auto expand by height or Auto expand by elevation

The DTM filename, Object, and Trisolation fields are available only when you select Auto expand by height or Auto expand by elevation as a design method.

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