GEOVIA SURPAC™ RELEASE NOTES 2023

ENHANCEMENTS

Geology

Connect multiple databases

You can now view, connect, and work on multiple databases in the new Databases pane.

View report for multiple databases that are connected

When you are connected to multiple databases and use the DATABASE SUMMARY function, the summary report output file now displays the database tables summary for all the connected databases.

Auto adjust domain codes

When you run the ASSIGN MULTIPLE DOMAINS function, you can now use the Auto adjust check box to reflect the «depth from» and «depth to» values of the domain table in the comparison table according to the tolerance value you specified.

Report overlapped intersections between multiple solids

When you run the ASSIGN MULTIPLE DOMAINS function, you can now use the Save overlap check box to report the overlapped intersections of drill holes between two solids, in the field that you specify in the Domain overlap field.

ASSIGN MULTIPLE DOMAINS uses the new constraint engine

Now, you can use the new constrain engine when using the ASSIGN MULTIPLE DOMAINS function.

Use new function to highlight points not available in drillhole intervals

You can now use the COMMON POINT HIGHLIGHT (CPH) function to highlight points, in a digitized string file (in the active layer), that are not located in drillhole intervals in an active database, according to the tolerance value you specify.

COMMON POINT ADJUST (CPA) adjust the points that are not coincident with drillhole intervals

COMMON POINT ADJUST (CPA) adjust the points in the digitized string loaded in active layer, that are not coincident with the drillhole intervals of active database, within some given tolerance limit.

Combine the active database constraints with AND and OR operators

You can now combine the constraints in an expression, for an active database, with the AND and OR operators.

Save constraint file in .xdbc format

You can now save a database constraint file in the new .xdbc file format and display the drillhole data with the applied constraint. The fields in the new .xdbc file are stored in an .xml format which can be viewed in a text editor.

Select drillholes spatially with a new database constraint type

Now, you can select geological database drillholes spatially by using the new constraint type 3DM

on the Define query constraints form.

Select drillholes spatially with new TABLE database constraint type

Now, you can select geological database drill holes by using the new constraint type TABLE on the Define query constraints form. This is used to constrain drill holes with all tables in geological database which contains hole_id as a field name.

Select drillholes spatially for DTM files with new database constraints

When you constrain database of type DTM on the Define query constraints form, you can now select the check boxes Above and Keep drillholes partially in the constraint to display the geological database drill holes spatially. Selecting or clearing the Above check box displays drill holes that are above or below the surface respectively, for specific trisolations. Selecting Keep drillholes partially in the constraint displays drill holes which are intersecting the trisolation. You can access the form by running the function CONSTRAIN DRILLHOLES.

Select drillholes spatially with a new database constraint type

Now, you can select geological database drill holes spatially by using the new constraint type STRING on the Define query constraints form. This is largely used to constrain drill holes that are completely or partially within a horizontal polygonal boundary such as a pit or lease boundary.

Certain functions support multiple database processing

GRAPHICS EXTRACT PLANS FOR PLOT and GRAPHICS EXTRACT SECTIONS FOR PLOT functions support the processing of multiple databases. The output file contains information for function outcome on all the connected database sessions. The functions populate the combination of all the:

- tables present in multiple databases

- fields present in a selected table across the multiple databases.

Use GRAPHICS DRILL HOLE LAYOUT for multiple databases

When you use the GRAPHICS DRILLHOLE LAYOUT function, you can view the data that is extracted (for all the databases) from the collar table, in the Graphics window.

Activate a database

When you connect to multiple databases, you can now use the DB SELECT ACTIVE (DBSA) function and then choose a database from a list, to activate the database. You can also use the following path to activate a database: Database > Database > Select active.

Activate a block model

When you load multiple block models, you can now use the new BM SELECT ACTIVE (BMS) function and then choose a block model from a list, to activate the block model. You can also use the following path to activate a block model: Block model > Block model > Select active.

Use .dbc file to apply database constraint

You can now constraint a geological drill hole database with a .dbc file by clicking Load and browsing a file for TABLE constraint type in the Define query constraints form.

Apply database constraint with .xdbc extension

You can add a constraint file with new extension .xdbc to a database and display the drillhole data with the applied constraint. To add constraint, click Database > Display > Add new constraint.

New command to edit database constraints file

You can now use a new command EDIT DB CONSTRAINTS to edit the database constraints files of format .xdbc.

Display drillholes spatially along the X and Y axis

To constrain geological database drill holes spatially, you can now constraint a file along the X, Y, and Z axis when STRING is the Constraint type on the Database query constraints form. To access the form, run the CONSTRAINT DRILLHOLES function.

Scl database extension commands to set and get an active database

You can activate and get the active database name using the SclSetActiveDatabase and SclGetActiveDatabase commands, respectively.

Applications

Save .sdm files in specific bookmarks

You can save a .sdm document file in a specific bookmark folder by clicking the Assign bookmark folders icon on the Save to **3D**EXPERIENCE form and then selecting a specific folder.

Open multiple files in single layer and clear MySession list

You can now open multiple files from MySession in a single layer in the Layer Manager. To perform the operation, drag and drop a single file to the Graphics window and then for next files drag and drop while pressing the CTRL key. The multiple files appear in a single layer. Also, when you click Reset graphics, the MySession file list is cleared.

Open EC Document in Surpac from 3DDashboard in browser

You can now open an EC document in an existing or new Surpac session from the Bookmark Editor app in the 3DDashboard open in a separate browser.

Save EC documents to the 3DEXPERIENCE platform

You can now save an EC document whose file format is .mdl, .con, .ddb, .sdb, or .grd to the **3D**EXPERIENCE server by clicking Save Active Window from the action bar in MySession and then selecting specific bookmarks using the Assign bookmark folders icon.

View updated files in MySession

The specific block models appear in MySession when you:

- create a new block model (with or without constraints) using regular functions
- drop a block model (with or without constraints) from the Navigator in the Graphics window.

Also, you can save a block model in the **3D**EXPERIENCE platform by clicking Save Active Window from the action bar in MySession. You can remove a block model from MySession by closing the block model. After the file is saved on the **3D**EXPERIENCE platform, you can right-click the file in MySession and view Maturity and Properties.

View updated status for locked and unlocked files in MySession

When you upload a file on the **3D**EXPERIENCE platform from MySession and you refresh MySession, you can now hover over the Status column of a file and view tooltip: Not locked, Locked by me, and Locked by other user. The tooltips indicate the status of a file.

Java upgrade

Java has been upgraded to AdoptOpen version 11.

Replace content of the open file

When using the **3D**EXPERIENCE PLM Services panel, you can now replace the open file content with any other file content by selecting Tools > Replace content in the action bar and then selecting a part to replace the selected part.

3DEXPERIENCE Collaboration modes improvement

The collaboration mode enables Surpac to operate with the **3D**EXPERIENCE platform in the following ways:

- Model-based collaboration mode provides a 3DEXPERIENCE Unified Product Structure integration through the PLM Collaboration Services embedded panel in Surpac. This requires a Collaborative Design for Surpac Role license.
- Document-based collaboration mode provides access to former file persistency and management capacity in 3DSpace through Enterprise Collaboration panel.

To set the 3DEXPERIENCE collaboration mode, click Customise > Default preferences and in the Settings form click Applications > **3D**EXPERIENCE. The default option in the Collaboration mode list is Model based.

New button to browse files from the 3DEXPERIENCE platform

When using the **3D**EXPERIENCE PLM Services panel, you can now view the Open from **3D**EXPERIENCE **button in various forms. You can use the button to browse files in the 3D** EXPERIENCE platform and open the files in the Graphics window. The Open from **3D**EXPERIENCE button is available in the forms of the BLOCK MODEL OPEN, DHL DATABASE DEFINITION, SURVEY DATABASE DEFINITION, BLAST OPEN DATABASE, VARIOGRAM MODELLING, DRILL HOLES, SELECT GRID, BM MAKE CONSTRAINT, MACRO PLAYBACK, and AUTOPLOT functions.

View error message when using incorrect function for a collaboration mode

As accessibility and management of Surpac files have some difference in between model-based and document-based collaboration modes, some commands or macros managing Surpac files might remain specific to one of those

modes. When the collaboration mode in the Settings form (Customize > Default preferences) is Model based and you run a document-based function, an error message appears in the Message window "Command {0} unavailable for the "Model Based" collaboration mode." Similarly when the collaboration mode in the Settings form (Customize > Default preferences) is Document based and you run a model-based function, an error message appears in the Message window "Command {0} unavailable for the "Document based" collaboration mode."

Customize layer name for model-based collaboration

You can now customize the name of the layers in the Layer Manager by editing the Customize display field in the Settings form (Default preferences > Applications > **3D**EXPERIENCE), for the files you open from the **3D**EXPERIENCE Collaborative Space.

Cache implementation for EC documents

A cache is now maintained when you open an enterprise collaboration document in the **3D**EXPERIENCE PLM Services panel. This prevents recurring downloads when you reopen the file.

Connect to multiple databases on the 3DEXPERIENCE platform

You can now view multiple database entries in MySession when you open multiple databases from the **3D**EXPERIENCE platform using the Select database form. When you select File > Close and then select a geological or survey database, the entries for the specific databases are now removed correctly, one by one, from MySession. You can access the Select database form using the DHL DATABASE DEFINITION (DHLDBDEF) function.

View file opening options in the Tools tab

In MySession, when you click Tools > Options, you can view two options in the Documents and 3DParts list (Drag and drop behavior section): Open and Open for Exclusive Edit. Clicking Open opens the file without locking content and Open for Exclusive Edit opens the file with content locked for concurrent users modification.

Log in and log out using the 3DEXPERIENCE icon

When the collaboration mode is model based, you can log in and log out of the **3D**EXPERIENCE PLM Services panel using the Log in/Log out of **3D**EXPERIENCE icon available in the File toolbar.

Upload geological and survey database to the 3DEXPERIENCE platform

The specific geology and survey database entries appear in MySession when you:

- drop a geology (.ddb) or survey (.sdb) database file from the Navigator into Graphics
- open a database from Database > Database > Open/ New

Also, you can upload a geology or survey database to the **3D**EXPERIENCE platform by selecting Save Active Window in the action bar, then Assign bookmark folders on the Save to **3D**EXPERIENCE form and then selecting a bookmark folder.

Upload new grid file to the 3DEXPERIENCE folder

When you create a grid file (.grd) (File tools > Grid tools > Define new grid), the new file appears in the MySession widget. You can upload the .grd file to the 3DEXPERIENCE platform by selecting Save active window icon in the action bar, Assign bookmark folders on the Save to 3DEXPERIENCE form, and then selecting a bookmark folder.

Tools

Rename description field labels for specific functions

You can rename description field labels for an input file using the following three new functions:

- EDIT STRING DESCRIPTION LABELS
- EDIT STRING RANGE DESCRIPTION LABELS
- EDIT DESCRIPTION LABELS

Rename description field labels using SCL commands

You can rename description field labels using the following SCL commands:

- SclSetDescriptionFieldLabelByName
- SclSetDescriptionFieldLabelByIndex

For the above commands, you can update the description field labels using index or name of a field.

Edit description field label

When you run the IMPORT FROM TEXT function, you can now edit the description field labels in the Fields form and generate .sdm files from any file input. You can view the updated description field names in the Properties pane when you drop the output file in the Graphics window.

View description field labels in the Desc Labels list

For an .sdm file input, you can view the complete description field labels instead of the d-fields (d1,d2, and so on) in the Desc Labels list (click the Load button) in the forms that appear after using the following functions:

- • BM FILL NEAR NEIGHBOUR
- • BM FILL OK
- • BM FILL SK
- • BM ASSIGN FROM STRING

View description field labels with database composite functions

When using the database composite functions COMPOSITE DOWNHOLE, COMPOSITE BY GRADE, and COMPOSITE BY GEOLOGY you can now view the complete description field labels in the .sdm output, instead of the d-fields (d1, d2, and so on).

Database extract functions export the description field names

You can now view the complete description field labels instead of the d-fields (d1, d2, and so on) when exporting a file in .sdm format after using the following database extract functions:

- DRILL HOLE LAYOUT (DHL)
- ZONE THICKNESS (ZT)

View complete description field names for database discrete functions

You can now view the complete description field labels instead of the d-fields (d1, d2, and so on) for database discrete sample functions. For example, if d1 represents samp_id, you can view samp_id in the Properties pane instead of d1.

Block model report functions export the real attribute names to .sdm files

You can now view the real block model attribute names instead of the d-fields (d1, d2, and so on) in an .sdm format output file after using the following functions:

- BM BLOCK REPORT (BMBR)
- BM STRING REPORT (BMSR)

View description field names for .sdm files

You can now view the complete description field labels instead of the d-fields (d1, d2, and so on), when exporting a file in .sdm format after using the following functions:

- EXTRACT PLANS FOR PLOT
- EXTRACT SECTIONS FOR PLOT
- EXTRACT PLANS FOR CALC
- EXTRACT SECTIONS FOR CALC

Database export functions export the real attribute names to .sdm files

You can now view the real database attribute names instead of the d-fields (d1, d2, d3, and so on) in

an .sdm format output file after using the following functions:

- EXTRACT SAMPLE DATA
- EXTRACT SAMPLE DATA WITHIN GEOLOGY
- ORE TO WASTE RATIO

View complete description field names for database composite functions

You can now view the complete description field labels instead of the d-fields(d1, d2, and so on) for database composite functions. For example, if d1 represents Hole ID, you can now view Hole ID in the Properties pane instead of d1.

ISSUES FIXED

Geology

Surpac is able to load point cloud files with cyrillic characters

Surpac is able to open and render point cloud files whose file paths contain cyrillic characters.

Connect to geology and survey database concurrently

You can now connect to a geology and survey database concurrently.

Clear button on the Define query constraint works correctly

When you have not defined any field on the Define query constraints form and click the Clear button, Surpac no longer stops responding.

View all database table and Hole IDs in Structural suite forms

You can now view tables and hole IDs respectively, from all the connected databases, in the specific forms when you click:

- Database > Structural suite > Data visualizer menu and then Data source tab
- Database > Structural suite > Locate drillhole

Connect multiple databases

You can now connect to multiple databases when you open a database file from the:

- Navigator panel
- File > Open > Geological database menu
- File > Open > Survey database menu

ZOOM ALL function works correctly for multiple connected databases

For multiple databases connected, when you run the ZOOM ALL function, the drillholes from all the connected databases are now displayed correctly in the Graphics window.

View description field labels correctly

You can now view each description field label correctly in a single line in the Description labels list (Data source specifications form). Previously, the label was splitting into multiple rows.

Zero width intersections are omitted

While assigning multiple domains, intersections of zero width will be omitted from the process and the report.

Surpac successfully creates 3DM result files

When you use a file intersection function and one of the 3DM files is located in a non work directory or in a sub folder, Surpac no longer displays an error message and creates a 3DM result file successfully.

Miscellaneous

View project file name in message window for SSO form

You can now view the project file name as a warning message, in the Message window, when the project name you defined in the Stope shape optimization tool form is invalid.

Tools

Improvements in the IMAGE DRAPE function

When you use the IMAGE DRAPE function and select a registration file, you can now move the registration markers to new locations without the markers disappearing. You can also view the correct values in the new Z Data column on the Review registration point coordinates form.

Use an SCL command to create an .sdm file output

You can now use the SCL command SclSwaSaveDtmFile to create a .sdm file output in a non-work directory or a sub-folder when the input file is logical.

Export markers to 3D PDF

You can now export markers present in a string file to 3D PDF when using the EXPORT TO 3D PDF function.

Improvement in the IMPORT FROM TEXT function

When you run the IMPORT FROM TEXT function, you can now view the column headers Description label and Position on the Fields form.

View macro recording on the icon

The Start/end recording an SCL script icon now flashes when you start recording a macro.

Improved error management in the DTM VOLUMES function

An access violation message no longer appears, when you now run the DTM VOLUMES function and the object ID and trisolation ID for the first and second DTMs i.e. default Object 1 & Trisolation 1, does not exist in the specified data.

Applications

Surpac uses the latest CATPolyhedral library R425Rel

Surpac has been updated to use the latest CATPolyhedral library R425Rel enabling the following

functionality (appearing in previous releases) when you open a Point Cloud file in the Graphics

window:

- creation of a DSCache and a matching .dspc file
- display of the file specific layer in the Layer Manager

Also, a new functionality enabling the removal of duplicate points is available.

Configuration

View ID range for the CLASSIFY STRINGS (CLASS) function output

For the CLASSIFY STRINGS (CLASS) function, when you enter the file name, ID range, and file extension in the output location path in a macro script, the Message window now displays the output file name appended with the ID range.

Hoops upgrade

The third-party software, Hoops, has been upgraded to 26.21.

Our 3DEXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

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