Surpac

Release Notes

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Surpac 2021 Refresh 1

Enhancements

Geology

- **Validate data as a surface**

  Validate any data loaded in **Graphics** as a surface when you use the SOLIDS REPAIR OPEN function and select the new **Validate as surface** check box. The validation of the data also validates and reports foldbacks in the data for further checks.

- **Reduce the point cloud density before exporting as a new file**

  You can now use the new **Cloud density reduction** tab on the *Point cloud edit* form to reduce the density of a point cloud file before exporting it as a new file with the CLOUD EDIT function.

- **Additional information messages for CLOUD EDIT functionality**

  When you use the CLOUD EDIT function, additional information messages on **Cloud layer** and **Cache folder** are now displayed in the **Message** window.

- **Generate mesh without cloud data points in the selected segments of string file**

  When you use the CLOUD 2D MESH or CLOUD EDIT function to select a string file containing one or more segments that do not contain any cloud data points, the output mesh file is generated correctly. The segments without cloud data points are ignored while meshing the file.

- **Import and export SDM files**

  You can now use the following functions to import and export SDM files:

  - ASSIGN MULTIPLE DOMAINS
  - INTERSECT DTMS
  - DTM BOUNDARY
  - LOAD DTM SURFACE

  You can save the output as an SDM file when you:

  - specify the output file name with a **.sdm** extension
  - select the **Set .sdm as default file extension** check box on the **GEOVIA-SDM** tab on the *Plugin Defaults* form

- **Ignore the presence of foldbacks during surface validation of DTM files**

  You can select the new **Ignore foldbacks** check box to ignore foldbacks in the DTM file for the surface validation checks. You can find the new check box on the following paths:

  - **Customise** > **Default preferences** > **Settings** > **Applications** > **Applications** > **Triangulation validation**
  - on the *Validate as DTM* form when you use the VALIDATE AS DTM function.

- **Detect foldbacks in any trisolation**

  The following enhancements have been added to all **.dtm** and **.sdm** read and write functions:

  - when you use the VALIDATE AS DTM function, foldbacks can be detected in the selected file
  - if any foldbacks are detected in the trisolations of a **.dtm** or **.sdm** file, a **Foldbacks** attribute is added to the metadata and the value is saved as **true**
  - when you import a **.sdm** file containing a trisolation with foldbacks and select the trisolation, the **Foldbacks** metadata field can be viewed in the **Properties** pane

- **Set the number of logical processors that are available**

  On the **Customise** > **Default preferences** > **System Options** > **Application defaults** > **Application settings** tab, a new **Number of logical processors** field is now available where you can assign the number of logical CPUs that will be used concurrently for performing operations on Surpac.

  The default value is set to the maximum number of cores of your computer, it is recommended that you set the value to the penultimate number of cores. If you enter a negative value in this field, Surpac works on only a single core.

- **Support for SDM files in block model functions**

  You can now select SDM files as an input for the following block model functions:

  - BM GRAPHICS CONSTRAIN ADD (BMGCA)
  - BM PARTIAL PERCENTAGES

- **BM VOL TON REPORT (BMVTR) allows complex surfaces for Geometric Grouping Between DTMs**

  BM VOL TON REPORT (BMVTR) now support complex surfaces to process for Geometric Grouping Between DTMs operation. Complex surfaces resembles two surfaces are intersecting or of different sizes, overhang surfaces.

- **SDM files supported in Blast design and Nearest Neighbour functions**

  You can now select SDM files as an input for the following Blast design functions:

  - BLAST TRUE BOUNDARY (BTB)
  - BLAST SOLID (BSOL)
  - BLAST SINGLE

- **Read and write SDM files**

  You can now:

  - import and export **.sdm** files in DTM CLIP (DTMC) function
  - select the **Get extents from string file?** check-box on the **Block model** > **New / Open** > ***Select model*** > *Creating new block model definition* form to fetch the coordinate extents for block models.

Engineering

- **Track the progress of the SSOM function**

  An additional column **Progress (%) -**indicating the progress completion in percentage made by each project in the background has been added on the *Run multiple stope shape optimization projects* form when you use the STOPE OPTIMIZER MULTIPLE (SSOM) function.

- **GENERATE SDM FOR MINESCHED supports specifying SDM attribute**

  You can now control the naming convention of SDM metadata attributes at the trisolation level to make them MineSched compatible. Use the **Select a material attribute** checkbox on the *Select attributes and name trisolations* form (from GENERATE SDM FOR MINESCHED function), to enable the adjacent list to select the material attribute from the linked SDM file.

Tools

- **Save unlimited number of layers at once**

  When you use the SAVE ALL LAYERS AS function, you can now save any number of layers. The earlier limit of saving less than 500 layers has now been removed.

- **Apply styles to SDM files**

  You can use the new **Styles file name** field in the **Input** section on the *SDM classification* form, to select and apply styles file to any SDM file during the classification process.

- **Rename and create unique names for trisolations**

  When you now use the GENERATE SDM FOR MINESCHED function, you can now select the **Rename trisolations** check box on the **Naming** tab on the *Select attributes and name trisolations* form to enable the **Trisolation naming** pane. You can use the **Prefix**, **Start At**, **Suffix**, and **Label separator** fields to create unique names for each trisolation. This functionality is optional.

- **Support for .tridb and .str files**

  You can now import or export Micromine **.tridb** and **.str** files with attributes information.

- **Load SDM file type for any Surface functions**

  You can now use the DTM BOUNDARY and LOAD DTM SURFACE functions to import and export a **.sdm** file type. If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

- **Read and write SDM files in solid and surface tools**

  The following functions now import and export SDM files:

  - TRISOLATION FILE 3DM/3DM INTERSECT
  - TRISOLATION FILE 3DM/3DM UNION
  - TRISOLATION FILE 3DM/3DM OUTERSECT
  - TRISOLATION FILE 3DM/DTM INSIDE
  - TRISOLATION FILE 3DM/DTM OUTSIDE
  - TRISOLATION FILE 3DM/DTM ABOVE
  - TRISOLATION FILE 3DM/DTM BELOW

  If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

- **Import and export SDM files**

  You can now use the below-listed functions to import and export SDM files:

  - DTM VOLUMES (DTMV) &
  - BM VOL TON REPORT (BMVTR)
  - DTM CENTROIDS (DTMCENT)

  If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

- **Read and write SDM files in solid and surface tools**

  The following functions now import and export SDM files:

  - TRISOLATION FILE DTM/DTM UPPER
  - TRISOLATION FILE DTM/DTM LOWER
  - TRISOLATION FILE DTM/DTM INTERSECT

  If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

Configuration

- **Edit the metadata of trisolation files**

  You can now edit the metadata of a trisolation that you select on the **Graphics** window directly in the **Properties** pane in the **User Data** section.

- **Indentation for metadata in the Properties pane**

  When you now view the metadata for any file open in the **Graphics** window, all the data in the **Properties** pane is left-aligned.

Applications

- **Create a new layer from multiple files with the Ctrl key**

  When you use the Ctrl key to select and drop multiple files from the Enterprise Collaboration panel into the **Graphics** window, all files open in a single layer in the **Graphics** window.

- **View the revision number and maturity state in the document name**

  When connected to 3DSpace, on the **3D**EXPERIENCE Enterprise Collaboration tree, the document name now displays the revision number and maturity state along with the document name.

- **View all revisions and versions information of an Enterprise Collaboration document**

  You can view all revisions and versions information of a document on the new *All versions and revisions* form. You can access this form by right-clicking the document on the **3D**EXPERIENCE Enterprise Collaboration tree and selecting the new **All revisions** command.

- **View the document name without extension on the Enterprise Collaboration tree**

  The **3D**EXPERIENCE Enterprise Collaboration tree now displays the document name without extension appended with the revision number and maturity state.

- **Change in file path for Check out and Sync commands**

  When you use **Sync** and **Check out** commands in the **3D**EXPERIENCE Enterprise Collaboration tree, the file path of the saved document now displays the document ID folder name appended with -rev and the revision number (for example, ***<document name>*-rev*<revision number>***).

Issues Fixed

Geology

- **Loading Vulcan Block Model caused Surpac to exit unexpectedly**

  Surpac no longer exits unexpectedly when you load an invalid Vulcan Block Model (**.bmf**) file. Instead, a warning message is now displayed in the message window.

- **Secondary points are no longer displayed when total cloud data points exceed 50 million**

  When you now load a point cloud data containing more than 50 million data points in the **Graphics** window, the secondary points are no longer displayed for smoother operation.

- **Overlapping solids were not identified when validating a DTM file**

  If you select the **Ignore coincident trisolations** checkbox on the **Customise** > **Default preferences** > **Settings** > *Applications* form, the validation check for coincident trisolations will be ignored when applying solid constraints on block models.

- **Consistent Solid validation and volume report**

  When you use the NEIGHBOURS AND VALIDATE OBJECT (NAVO) function, the NAVO and Object report function are now consistent. Valid solids with 0 volume are now considered as open, so the Validation status is set as **True.**

- **Incorrect Last values displayed for all fields in SDM classification form**

  When you use the CLASSIFY SDM function and right-click on the **Classification name** field on the *SDM classification* form, the values in the **Last value for all fields** are correctly displayed.

- **Generating the volume report of a block model caused Surpac to exit unexpectedly**

  When you generate a block model volume report using the BM VOL TON REPORT function, Surpac no longer exits unexpectedly if there is insufficient memory. Instead, an informational message with suggested workarounds is displayed.

- **Long processing time for generating reports of large block models**

  The processing time to generate reports for any large block models is now much faster than previous versions.

- **An SDM output file was not generated while using the SAVE ALL LAYERS AS function**

  If you select the **Set .sdm as default file extension** checkbox on the **Customise** > **Default preferences** > *Plugin Defaults* form, and use the SAVE ALL LAYERS AS function, you can now generate multiple layers as an SDM output file.

Tools

- **Additional information for failed DTM clipping**

  When you use the GRAPHICALLY CLIP DTM function and encounter an error involving zero area triangles, the error message displays the approximate coordinates defining the zero area triangle. To correct the error, move the specified points, save, and rerun the function again.

- **Data was missing when using Autoplot**

  Autoplot now correctly displays data that has been filtered in the **Graphics** window.

- **Modifying GuidoButtons by -height option failed in Surpac 2019 (V7.0)**

  You can now successfully modify the height of any GuidoButtons using the -height option.

- **Surpac exited unexpectedly when a .GIF file was used in Plot Sheet Setup window Title Block**

  Surpac no longer exits unexpectedly when you load any supported file types (.**jpeg**, **.gif**, **.jpg**, **.tif**, **.png**, **.bmp**) in the Plot Sheet Setup window Title Block.

- **Blank .dwf files were created when the working directory was read-only**

  A blank **.dwf** file is no longer created when you set the working directory as read-only and plot a **.dwf** file from another accessible directory. A plot file with the correct data is saved at the selected output path.

- **Extracting sample data from database tables caused Surpac to exit unexpectedly**

  Surpac no longer exits unexpectedly if you extract data using the **Database** > **Extract** > **Sample data** > *Extract sample data* form.

- **Long processing time for loading SDM files with large attributes**

  You can now load SDM files with large objects, attributes, and trisolation number on Surpac much faster than before.

- **Surpac lost GEOVIA license when Autoplot was used**

  If you select GEOVIA Licensing and work on the **Autoplot** window, Surpac retains the license when you return to the **Graphics** window.

- **Load SDM file type for any Surface functions**

  You can now use the CL SECTION DTM, DTM TREND OUTLINES and EXTRACT CONTOUR functions to import and export a **.sdm** file type. If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

- **Styles information were not displayed for SDM output**

  When you now generated a **.sdm** file, the styles information for the file is retained and displayed correctly.

- **CONTOUR SMOOTH function now works for SDM files**

  You can now use the CONTOUR SMOOTH function to import and export a **.sdm** file type. If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

- **Extending surface tools to support SDM files**

  You can now use the surface commands SECTION DTM and DTM CUT AND FILL VOLUMES to import and export a **.sdm** file type. If you do not specify the output data type, the output is generated as per the default extension defined in the *Plugin Defaults* form.

Surveying

- **The default value for all date fields was inconsistent on Surpac**

  When you use the VIEW TABLE or EDIT TABLE function, the default value for all empty date fields in the table is set as 1900-01-01.

Configuration

- **The File Browser Field pop up was not working**

  When you edit a row in a table on any form and use the **...** button (an ellipses button in a field to browse and open a new file), the *Open a File* form field appears successfully.

- **Logs now contain system RAM and Windows version information**

  The usage log now includes information of the system RAM and Windows version for your computer.

- **Using DSLS in computers with large number of CPU cores caused Surpac to exit unexpectedly**

  You can now use Dassault Systèmes License Server (DSLS) in computers with large number of CPU cores.

Applications

- **The Triobject field for Triangulate Shape tool was uneditable**

  When you use the **Triangulate Shape** tool to digitize points in Surpac and open it in the **Autoplot** window, the **Triobject** field under the **Tool properties** pane on Surpac is now editable. The field will be editable only when the **New triobject** checkbox has been cleared.

- **Upgrading Boost third party library**

  The Boost library in Surpac has been upgraded to version 1.74.0.

- **Surpac POWER'BY could not sync a complete block model**

  When you now connect to the Surpac POWER'BY and sync a block model from a workspace folder, the complete block model is successfully synced and uploaded to 3DSpace.

- **Poor performance while uploading and downloading files from ENOVIA Collaborative Space**

  The performance has now improved when you upload and download files from Surpac to ENOVIA Collaborative Space.

- **Operations on files with Cyrillic characters were incorrectly performed when the check box for using Unicode UTF-8 was cleared**

  In the **3D**EXPERIENCE Enterprise Collaboration tree, you can now check-in, check-out, download, and sync files with Cyrillic characters even if the **Beta: Use Unicode UTF-8 for worldwide language support** check box in the Region settings is cleared.