

MAINTENANCE AND SUPPORT

Software updates 2017



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POINT CLOUD SUPPORT

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| Import of LAS, ASC and XYZ files for display in graphics | Dramatic performance improvements over existing visualization methods. Remove need for external application to manage point clouds |
| 2D/3D meshing of point cloud data | Volume calculation from point clouds directly within Surpac removing the need for external applications |
| Point cloud clean | Noise and error reduction to improve data quality |
| Deviation analysis between triangulation and point cloud data | Visualization of deviation allowing fast identification of changes |
| Texture mapping OBJ triangulation plugin | Support for third party photogrammetry and scanned data, allowing users accurate mapping away from remote and high risk areas |
| Creation of a point cloud from a solid or surface trisolation | Compatibility with external point clouds tools for further processing of data outside Surpac |
| File based function to clean a point cloud and remove outliers | File based functions allow bulk processing of point cloud files |
| Edit point cloud function to selectively export a point cloud in the active layer to an .asc or .xyz file format | Interoperability with other applications as subsets of large point clouds can be extracted for higher performance in downstream analysis |
| Redisplay point cloud layers in graphics using draw strings or markers after running the clear screen function | Graphics performance improvement |
| Triangulate a selection of a point cloud at a user defined resolution | Faster survey volumes in targeted areas |

SOLIDS MODELING

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| Mesh tools module moved to surfaces and solids | More users can access mesh tools at no charge if they already have solids modeling module |
| Solid centroid function to create a centroid for a closed solid trisolation | Amalgamate data from a solid object to a single point for reporting or calculations across multiple solids |
| Slice solid using plane group function to generate solids from a group of planes | Create individual solids for each plane from an existing larger solid, allowing easy splitting for benches or progress reporting |
| Supports the read and write functionality of SDM format data files—file format designed to contain the content of .STR, .DTM, and .SSI file | Greater interoperability with other applications. Increased data integrity by allowing data to be more portable |
| Improved block model image to a DTM file function | Improved performance and reliability |

CAD TOOLS

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| Non-uniform rational B-spline (NURBS) curve designer function | Allow the user more efficient curve design |
| Geometry object designer | Interactively create curves and solids by drag and drop with subsequent editing |

Segment centroid creation

Calculate the centroid and average of numeric description fields, allowing the amalgamation of information from a line to be condensed to a single point for reporting or calculation purposes

New explode functions to explode a segment, string, and layer into single point or two points segments

Easy editing of individual line segments

MISCELLANEOUS

Create a new block model using the CSV file function

Usability improvement to create a model space appropriate to the CSV data contents

Save blocks as constraint option

New mechanism for constraint creation allowing you to save selected blocks of a block model as a constraint (.con) file

Multi domain analysis function to generate a box and whisker plot

Quick and easy way to compare data from different domains

Point/Triangle/Block select tool to inspect and edit the block attributes of a block model

Quick and effective way to select multiple blocks and average numerical attributes

GEOVIA GEMS™

NEW FEATURES • IMPROVED CAPABILITIES

BENEFIT

DRILLHOLE PLANNING

Move collar positions onto a surface

Reduced need to manually edit survey records

Create multiple records downhole based on other existing holes

Improved flexibility when designing new holes

Edit designed drillholes with multiple survey records

Greater control over drillhole surveys

Clip multiple deviated drillholes to a base elevation or object

Permit holes to target existing defined geometry

Graphically edit drillholes by moving its collar

Improved visual feedback when completing complex drillhole design

MISCELLANEOUS

DXF/DWG AutoCAD® support

Greater interoperability

Installation of the correct block model convertor depending on the x86 and x64 platforms used

Performance improvement

Support the .LICZ license file along with .XML format

Broader file format support

GEOVIA License Manager supports .LICZ file along with .UDT and .TOK files

Broader file format support

MSXML 6.0 updates for pack and go

Compliant with Windows 7 onwards

Drillhole and traverse type workspace now permit cut and copy functions

Greater usability

Interpolation profiles can now target up to 100 rock codes

Improved flexibility during resource estimation

Managing and mapping attributes improvements

Greater flexibility when managing and mapping attributes

Drillhole intersection improvements with design objects

Greater accuracy when updating workspaces

GEOVIA MINESCHED™

NEW FEATURES • IMPROVED CAPABILITIES

BENEFIT

UNDERGROUND USER EXPERIENCE

Multiple underground files import

Improved operational flexibility. Greater control over design file integration

See when changes have been made to the source files and use a Refresh tool to instantly update MineSched

Faster update cycle—mine design updates are immediately incorporated into the next schedule

Modify the direction of underground heading and export the files with the changes to design packages

Consistency of information—synchronize MineSched and design information and ensure both reflect actual mine build

Allow all stope volumes and grades to be depleted based on any headings that intersect them when the evaluate locations function is run

Usability improvement by removing the need to first cut holes in each stope to ensure that the associated tonnes and grade are not counted twice

MISCELLANEOUS

Haul points—a pit and fill point can be defined on each haulage route to force trucks to travel through to specific points before deviating to the destination

Better control by ensuring the haulage schedules are more practical and realistic

Visualization tools upgrade and new rendering options

Improved object clarity and crispness. Better utilization of available graphical processing unit

Block models evaluation improvements

Faster evaluate process; up to 80 times faster than previous versions

Use the period_work_days parameter to quantify the number of days each resource spent working for each period

Better tracking and reporting of operations data

Use polygon ranges in the polygon and bench polygon mining methods for fill locations

Improved accuracy and control of dump scheduling

GEOVIA MINEX™

NEW FEATURES • IMPROVED CAPABILITIES

BENEFIT

Updated pit optimizer—seam defaults and sale value, cost and area limits, and slope features

Improved accuracy of results through the use of individual seam default definitions. Greater control for defining pit slopes leads to increasing resource recovery within the pit optimizer to design stages

Faults upper limit update—grid compute now supports up to 1000 faults

Geological model accuracy improvements to address the need to model at an increasing level of detail

Improve granularity and editing for reserves compaction factor

More realistic results can be achieved saving both on design time and dump space

Improved seam grid statistics reporting

Better reporting

Added period selection for dump scheduling truck cycle time

Save design time when calculating truck cycle times by selecting the relevant time period and focusing on the area of importance

Enhanced grid geostatistics with kriging scan distance

Improved cross validation for grid calculations

4-digit year format report display

Improved usability for scheduled detailed and equipment sequence reports

General Improvements for open pit, seam modeling, dump scheduling, borehole, underground, coal washability, drill and blast, and graphics display

Improved stability

GEOVIA WHITTLE™

| NEW FEATURES • IMPROVED CAPABILITIES | BENEFIT |
|---|---|
| New Pseudoflow algorithm to run the pit optimization process—for large and complex scenarios, it can create optimal pit shells in a fraction of the time the LG process takes | More robust planning process by running a large number of “what if” scenarios when going through a feasibility study, or a mine re-forecast |
| Capex optimization for the simultaneous optimization process—powerful tool to explore potential improvements to the NPV through simultaneously increasing the mining or processing limit | Improved mining engineers productivity when quantifying future capital expenditure decisions resulting in potentially improved NPV |
| General improvements | Improved stability |

GEOVIA INSITE™

| NEW FEATURES • IMPROVED CAPABILITIES | BENEFIT |
|---|---|
| SQL Server 2016 and Windows Server 2016 support | Improved software support |
| Cube reports on mobile devices | Mobile device support |
| Standardized modern controls | Improved usability |
| Smart filtering in grids | Advanced row filtering |
| Activity data rejects | Improved usability |
| Improved application performance and reduction in client side processing | Faster response time |
| Visual enhancements such as new design, color theme | Improved usability |
| Dashboard visualization | Improved usability |
| Additional policy permissions | Improved security robustness |
| Inspect and correct updated—edit data within the inspect and correct page, including pick lists, date pickers, and business validation | Improved usability |
| End of month reconciliation enhancement | Improved performance in Material Balance update |
| Responsive user interface design | Mobile device support |

| NEW FEATURES • IMPROVED CAPABILITIES | BENEFIT |
|---|---|
| New undercut tool—the tool models each undercut rings, and depletes the tonnes and grade following a specified sequence. Once the undercut has been sequenced, it can be used to sequence the draw points and in production scheduler | Sequencing of undercut rings using operational constraints |
| Footprint finder for sub level caving mine added to PCSLC and footprint finder license | Quick evaluation of sub level caving footprints directly from the block model. Does not require detailed tunnel and ring design |
| Task page complete reorganization | Better user experience |
| Layout creation enhancement | Generate Excel map automatically |
| Ring solid clipping enhancement | Automated ring solid clipping |
| Ring file enhancement | Grade names checks |
| CA3D PCSLC 64-bit support | Support sub level cave with advanced flow model |
| CA3D new task page | Improved user experience with new display tools |

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