What's new in Minestis 2018?

With its brand-new module for Ore Control, Minestis 2018 is more than ever the quintessential software for Mineral Resource Estimation, **offering the complete workflow project and resource geologists need on site**. The new release also provides additional data exchange interfaces and estimation techniques and increased flexibility in resource reporting.

Ore Control modeling

Quickly deliver polygons per material

No need to be a specialist in geostatistics to handle the new Minestis Ore Control application. Local blasthole or borehole information with parameters already defined for the long-term model (i.e. variogram model, neighborhood parameters and SMU grid) are automatically used to compute the **Ore Control model** through ordinary kriging.

Based on this model, **allocation of material in different classes** is flexible and done by setting simple uni- or multivariate criteria applied to grade estimates and any variable stored in the grid. Complete statistics are computed and reported for each defined class of material: ore, waste and stockpile for instance.

For each bench, you then draw the **polygons that will be used to set the material**

destination. These polygons may be exported in OGR (library providing read access to a variety of GIS databases and vector file formats) or Datamine format.
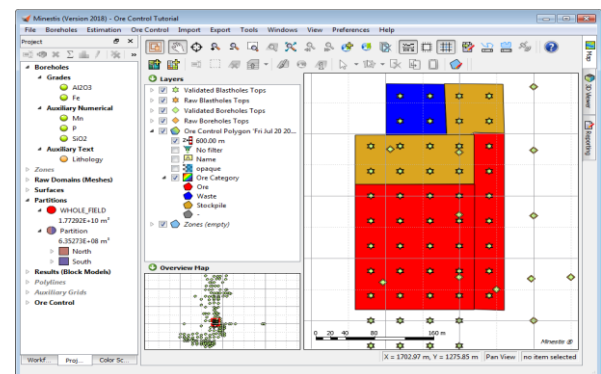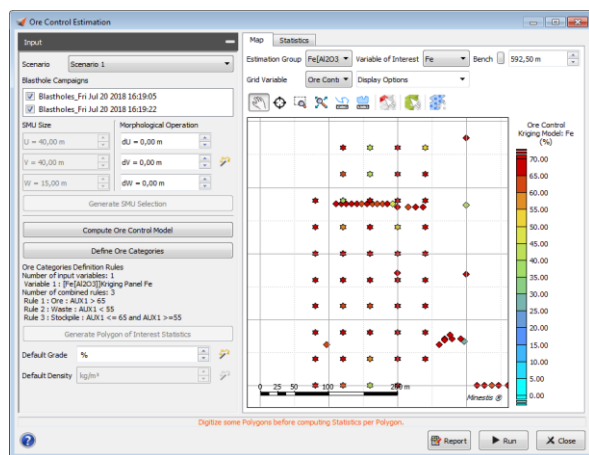
Update models easily

From local information, this new tool helps refine domain boundaries by letting you modify block allocation to a given domain.

It can also be used wisely **to create a short-term model based on the long-term model** that you can update continually with ore control data collected regularly.

Keep control

Adding this new step, Minestis ensures consistency is kept all along the resource estimation process, from domain modeling to ore control.

And because the Ore Control application is **fully transparent and auditable** and let users check parameters whenever they need (like the

whole Minestis), you are certain to keep the knowledge updated.

Increased flexibility in recoverable resource reporting

Resource reporting can now be made for a set of grade categories combined to a set of resource classes. For each of them, you can define your own rules of class assignment using simple syntax applied to estimated variables. Tonnage, metal quantity, mean grade, benefit function and global volume are computed for each grade category and resource class.

More import/export interfaces for fast data exchange

A new import interface allows **loading borehole data stored in a single file** containing both the collar and the assay information (with From/To information).

Besides, additional import and export interfaces have been made available:

– **Import of Datamine Block Models into Minestis auxiliary grids** that can be used for setting up Minestis grids.
– **Import of grids in CSV or Excel format** as Minestis auxiliary grids.
– **Import of polygons in OGR**, **Gocad and Datamine formats**. These polygons will be used as **Zones** in Minestis.
– Reciprocally, **export of Zones to OGR or Datamine files**. This includes **Ore Control Polygons**.
– **Export of a set of simulation realizations as an Isatis Macro Variable** or as many individual Isatis variables.

New estimation techniques

Two estimation techniques have been made available in Minestis 2018:

Two-dimensional resource estimation

2D estimation is well suited to narrow vein or tabular deposits, for which grade continuity is much more important parallelly to the layer. It delivers **grade, thickness, density and/or accumulation estimates** (grade x thickness).

This current version of Minestis 2D workflow is designed for horizontal layered deposits and involves:

– **2D domaining** from a categorical variable.
– **2D estimation pre-processing** which converts assay grades to **2D accumulation variables**.

– The choice between **univariate estimation or multivariate estimation**.

Inverse distances

The inverse distance algorithm is now available for resource estimation. Inverse-distance weighted estimates can be plotted against kriging estimates to check their reliability.

New tools for QC and validation

– When setting a **kriging neighborhood**, you can test the defined parameters and display estimation results for a target block by picking it in the 3D view.
– **Simulation results** can be validated by comparing the input gaussian model to the output results.
– **Grade tonnage curves** derived from kriging, simulation and/or Uniform Conditioning results can now be superimposed to check consistency.