

Introducing MSAxis Version 2

Mintec is proud to announce the release of MineSight Axis Version 2. MSAxis V2 streamlines the great functionality of the four modules in Version 1, into two main modules: MSAxis Grade Control, and MSAxis Drill & Blast. At several sites, implementation of the system exposed overlaps between some of the products.

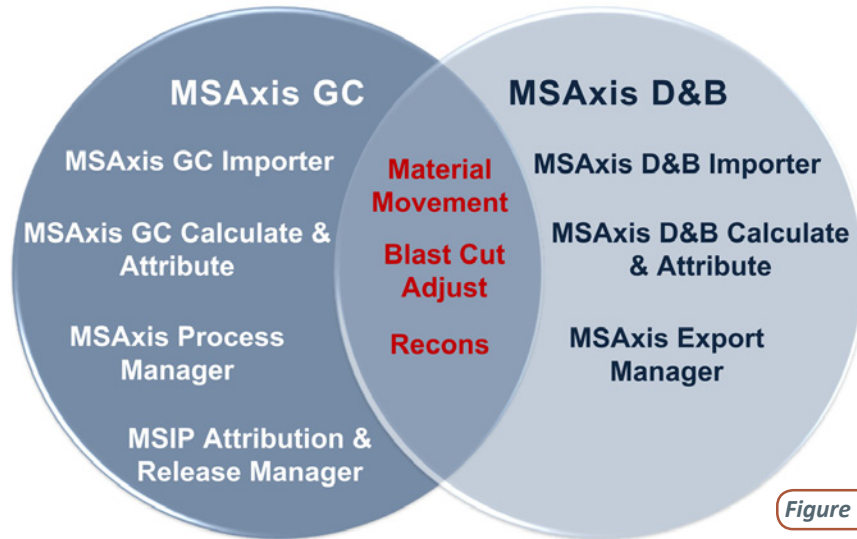


Figure 1 MineSight Axis V2

Figure 1 ↑

Not all sites require tools for model-to-model reconciliation (Recons), blast movement tracking (Blast Cut Adjust), or mined and broken material reporting (Material Movement). These tools are now offered as add-ons and can be included with either MSAxis Grade Control or MSAxis Drill & Blast.

MSAxis V2 has been fully integrated with MStorque V1.1. Key to the functionality is tools for importing data to the MStorque database from many different sources and formats. The import data type formats available are MS3D Blast Pattern Editor geometry object (msr), comma delimited ASCII, and SQL Server view.

Using configurable templates, one tool can be used to load data from any of the formats. This eliminates the need for site-specific utilities to get different types of data into the MStorque database.

The screenshot shows a software interface with a dropdown menu for 'Template' set to 'BHCALCS'. The dropdown list includes: BHCALCS, BHCALCS-1, BHCALCS-DRILLED, BHCALCS-LOAD EXPLOSIVES, BHCALCS_DRILLED_NO_PLUGS, HOLE_BOTTOM, FWATER, and <New Template>. Below the dropdown is a table with columns for 'Blasthole Type', '=', and 'Value'. The 'Blasthole Type' cell contains 'PLANNED'.

← Figure 2

Figure 2 Template Selection

Attribution can be applied at the same time as the location information. Attributes can be added using several methods, including manual assignment, MineSight geometry object (e.g. polygon element name, material, object name), SQL Server database view, or comma delimited ASCII file. Experience shows that source does not always contain all the information necessary to properly name a blasthole. A good example is survey input with just a sequential blasthole ID. To make the blasthole name unique, it is common practice to add a bench and shot identifier to the hole. The MSAxis V2 import tools allow a prefix or suffix to be added at the time of execution. This eliminates the need for external manipulation of the import data.

Figure 3 MSAxis Grade Control Importer



Figure 4 MSAxis Drill & Blast Import Tool

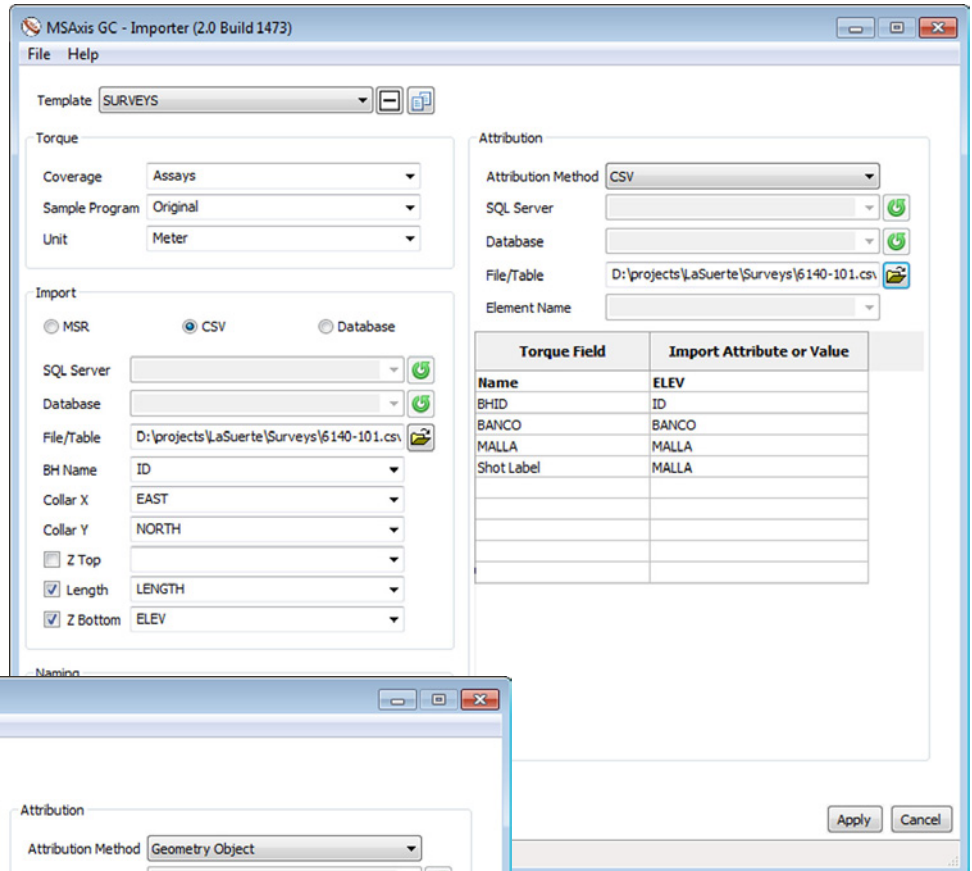
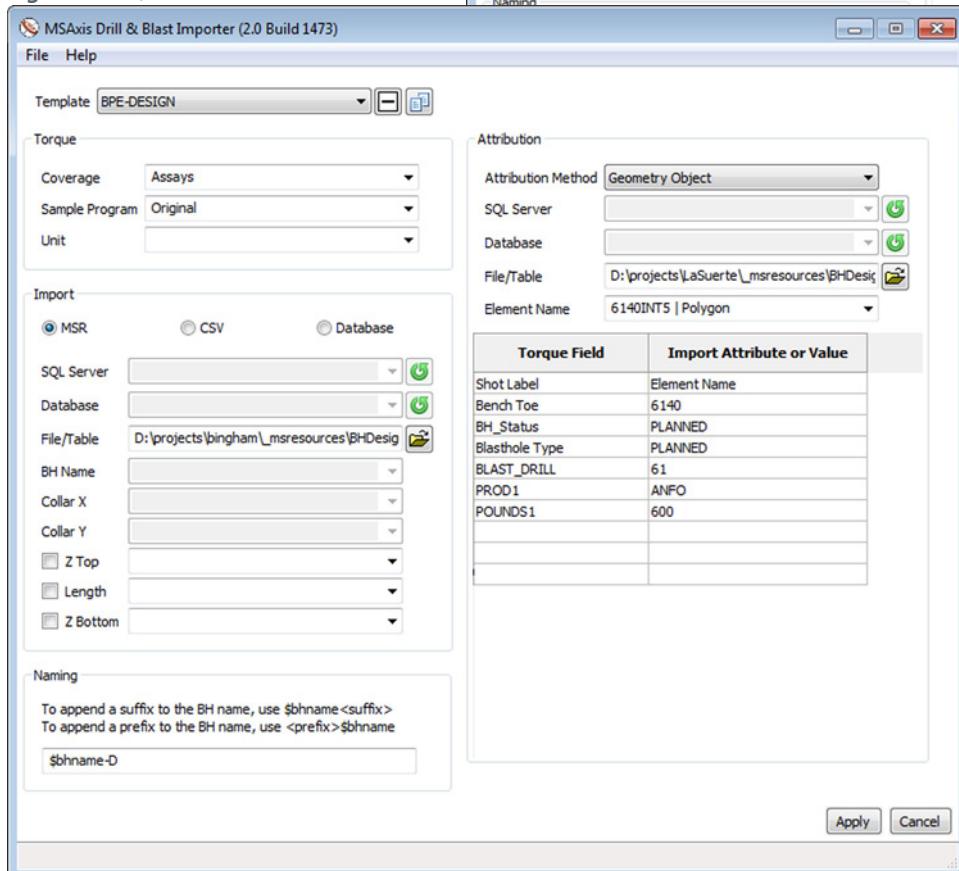


Figure 3

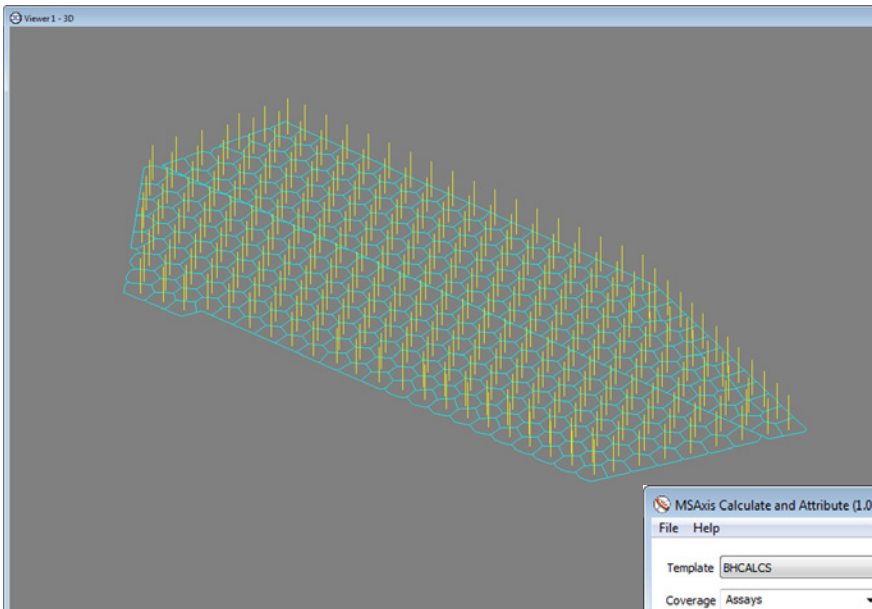
Figure 4



Whether it's grade control or drill and blast, data flow depends on flexibility when it comes to adding data to an existing blasthole in the MStorque database. Data comes in a piecemeal fashion. The MSAxis Calculation and Attribution tool does complex calculations or assigns attributes to any existing hole in the MStorque database. The data can be filtered by any existing sample attribute value, or by a limiting polygon. This polygon can be either a MS3D geometry object, or an attributed polygon in the MineSight Planning Database.

Calculations are performed using values from the MStorque database fashioned into tokens. Equations using these tokens are written using Python syntax.

The tool will also create blasthole area-of-influence polygons in a MS3D geometry object if specified. These polygons are constructed using perpendicular bisectors of surrounding holes. They are elementally attributed with the name of the blasthole.



↑ **Figure 5**

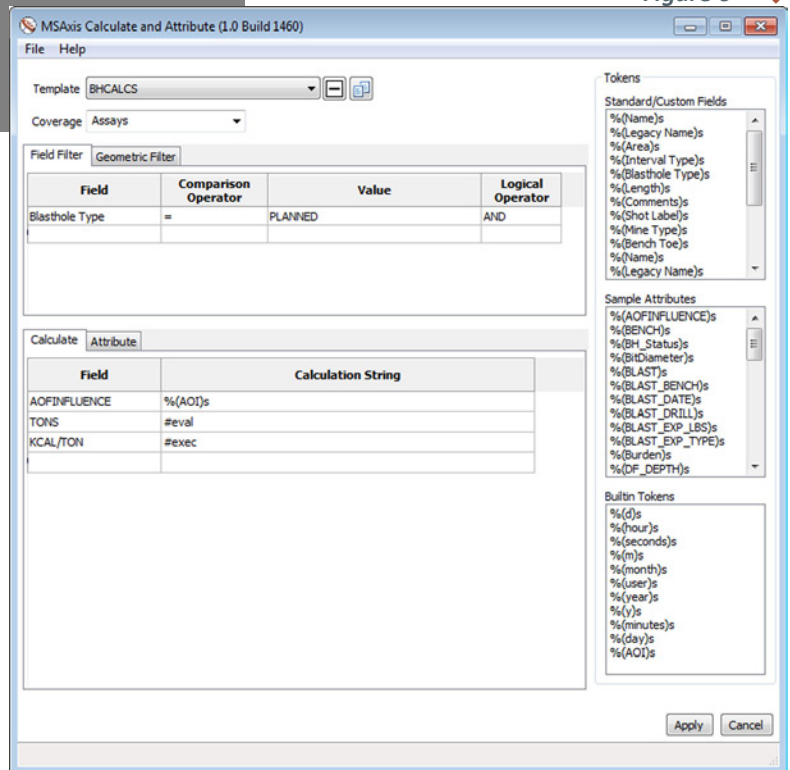


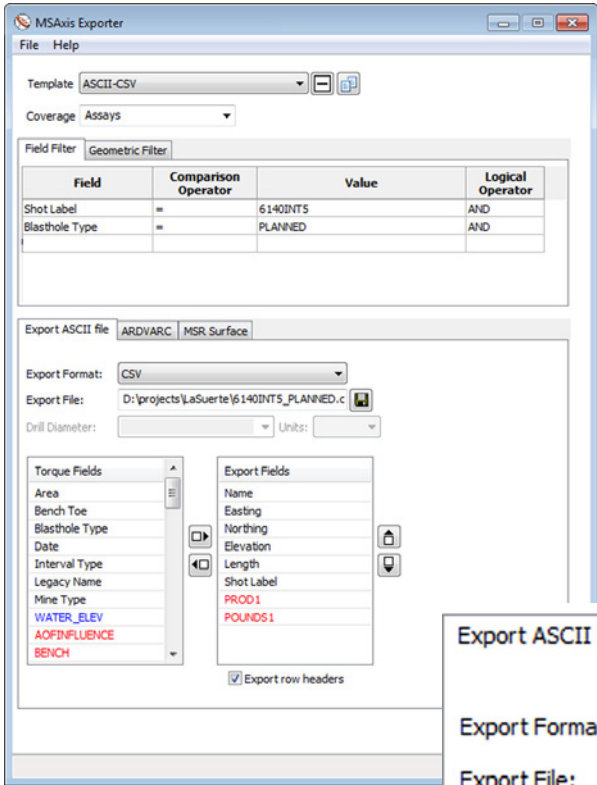
Figure 6 ↓

Figure 5 Area of Influence Polygons

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Figure 6 MSAxis Calculate and Attribute Tool

The final piece of the puzzle is to export data out of the system for location in the field. The MSAxis Exporter tool outputs a wide variety of formats. Several options are available for ASCII output as well. Figure 8 details the available ASCII formats.

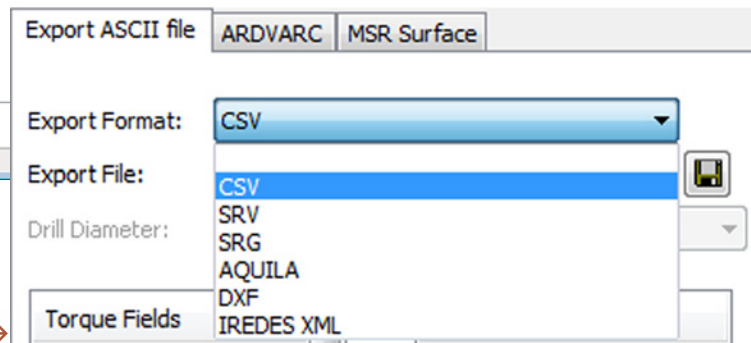


← Figure 7

Figure 7 MSAxis Exporter Tool



Figure 8 ASCII Output Formats



→ Figure 8

Mintec has worked closely with Flanders Electric to develop direct population of the ARDVARC drill system database. This eliminates the need for ASCII export from MSAxis, and import to ARDVARC. Filtering by sample attribute value or by polygon is available in MSAxis Exporter, just as it was with MSAxis Calculate and Attribute.

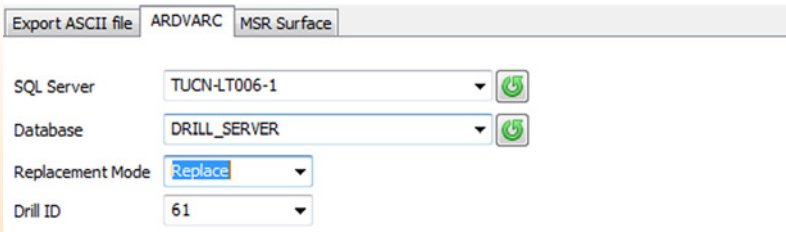
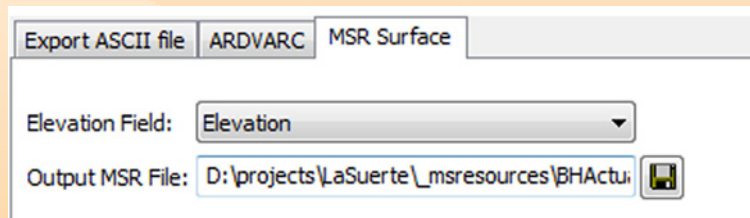


Figure 9 ARDVARC Database Population

← Figure 9

Three-dimensional surfaces can be useful in visualizing problem areas like short or wet holes. The MSAxis Exporter tool allows any elevation attribute value for a blasthole to be triangulated to a MS3D surface. Common examples are water elevation and hole bottom.



← Figure 10

Figure 10 Surface Creation

Sites already using MSAxis Grade Control or MSAxis Drill & Blast should [contact us](#) to determine their system status and the upgrade path.

Sites that previously implemented MineSight Operations, and that are using acQuire as their relational database manager system, rest assured that MSAxis V2 is 100% compatible.

[Contact us](#) to find out more about MSAxis V2.