### **Blast Design Software**

# Optimizing blast design



geo-konzept offers a comprehensive range of software packages for quarrying - from planning borehole positions to detonation plans to volume determination.

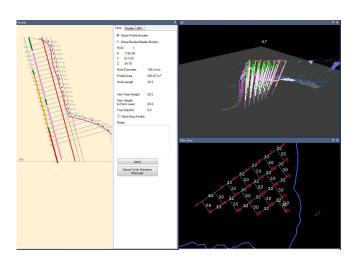
The software packages we offer are continuously improved in-house. We also implement customer-requested changes or additional functions. Furthermore, we offer fast and knowledgeable support



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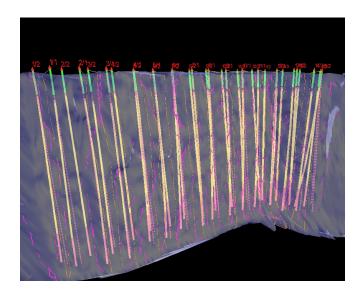
## QuarryX - Safe & efficient blasting

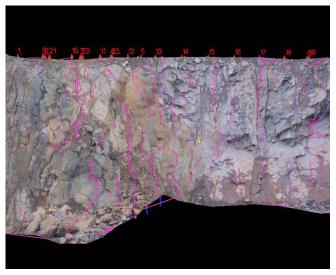
QuarryX has one purpose: Safe and efficient blasting! Data from 3D face scanning, borehole and GNSS surveys are collected here and provide a comprehensive, three-dimensional picture of your blasting project. QuarryX provides various tools and analyses for planning boreline and borehole positions. Parameters, such as drill angle, hole depth, hole direction, subdrill as well as desired specifications can be optimized and adapted in real-time. As a result of planning, a bore plan can be printed, in addition to other standardized printouts containing all relevant blasting data.



The BurdenMaster function offers a high degree of safety when identifying critical burdens along the entire quarry face and not just in the profiles. From different views, this can aid in the identification of unsafe planning areas and their elimination through parameter adjustments.

A novelty of this function is the additional identification of large burdens, which can prevent poor material fragmentation.





### Advantages

- Full integration with BlastManager
- Easy to use
- Intuitive planning tools
- BurdenMaster function
- Standardized profile printing for documentation

- Detailed drilling instructions
- IREDES support
- Volume determination
- Import quarry face survey, hole deviation survey and GNSS borehole data

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### QuarryDetonator - Blast planning

The efficient detonation planning program, QuarryDetonator, offers greater safety at an unbeatable price-performance ratio. Highly complex firing sequences can be simulated and tested. The QuarryDetonator PRO add-on also offers the option of designing explosives charge columns. You can use this software to plan and document your blasting operations precisely and reproducibly.

Data for all established detonators, surface delay detonatos and explosives are already part of the included and expandable database. Monitoring of timing overlaps and safety fuse lengths are just some of the functions that support firing sequence creation.

Display of local specific charges in relation to geological information helps prevent fly-rock.

Complete integration into **BlastManager** and **QuarryX** enables flexible workflows. Thus, individual process tasks, such as explosive and detonation planning, the addition of hole deviation data or GNSS data, can be performed in almost any order. The software adapts to your workflows and provides a clear overview of all necessary information at any time.

### Advantages

- Comprehensive detonation and blast , planning
- Complete integration into QuarryX and BlastManager with flexible workflows
- Simple and complete documentation
- Vibration prediction

### BlastManager - Management

The BlastManager software acts as an interface between QuarryX, QuarryDetonator and QuarryPocket. Many preparatory steps that previously needed to be performed manually have been automated.

**BlastManager** enables the exchange of scanning, hole deviation and GNSS survey data between handheld and PC. The automated data transfer is fast and simple.

Furthermore, **BlastManager** provides automated processing of survey data, so that these are available for further processing even sooner.

Vibration measurement data documented with QuarryDetonator can be analyzed easily and flexibly and applied to a vibration prediction formula.

A detail cost summary enables you to maintain a financial overview of your blasting operations.

### Advantages

- Simple exchange of scanning, hole devia tion and GNSS data between handheld and PC
- Organized management for blast related data
- Regression calculation for creating vibration prediction formulas
- Cost overview for individual and multiple blasts

#### geo-konzept

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