



**SIMMINE**

# SimMine modules

## **A Simulation Tool**

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SimMine ® functionality list is a list of functions that SimMine provides to the user, or which can be simulated.

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# About this list

This document lists all modules that exist for SimMine and their main functionality.

## Shared functionality

### Overview

Shared functionality is available in all modules. Each module adds functionality to the shared functionality

### Description

This module provides basic functionality to setup a layout and vehicles to perform different activities in the mine.

The shared functionality is divided into two areas: Mine layout and vehicles. The layout functionality includes (but not limited to):

- Import or alter a layout
- Insert points in the layout for specific handling, such as meeting points, cement station etc

Shared functionality for vehicles includes:

- Define new vehicles
- Specify how fast a vehicle can work with a task
- Specify which tasks a vehicle can perform (within certain limits)
- Set up shift schedule, mechanical availability, preventive maintenance and other factors that affect how and when it can work.
- Set costs for the vehicles

## SimMine development package

### Overview

This package contains the functionality to setup development activities and sections to be developed in the layout

### Description

This module provides functionality to setup a layout and vehicles to perform development in the layout.

This functionality provided includes (but not limited to):

- Adds activities used for development
- Set start and end dates for development sections
- Set which activity cycle to perform for the development
- Assign rock properties
- Assign face profile
- Set costs for materials used

# SimMine production package

## Overview

This package contains functionality for long hole drilling production methods. It allows the user to specify activity to be done for stopes etc.

## Description

This adds the same activities as for development. It also adds locations which can be placed in the layout, such as production points for long hole drilling methods. It also adds the long hole drilling activity.

# Graphics+

## Overview

This module contains functionality for improved graphics.

## Description

The graphics+ adds the following functionality:

- Set a 3D model for a vehicle
- Assign different 3D models for different states of the vehicle (empty, loaded etc)
- Assign textures on sections
- The section's width in animation is equal to the width of the assigned face profile

# Mine2-4D/Deswik connection

## Overview

This module provide functionality to import layouts directly from Mine2-4D files, or from Deswik XML files, together with some properties

## Description

This module can import layouts from the mine2-4D/Deswik format, which has the following advantages:

- Any user set dependency is imported directly
- Rock properties are imported
- Face profiles are imported

The above decreases the time and effort to setup a new simulation.

# Runtime

## Overview

The runtime limits the functionality for the user. The runtime is used to run an existing model. This is used together with a full version of SimMine, which is user to build the models.

The runtime license will disable any production module functionality

## Description

The runtime has the following limitations:

- Cannot change any global data (in the setup menu). The global data can be viewed, but not changed.
- Cannot change any assigned activity cycle, rock property, face profile or precheck configuration for an activity cycle.
- Cannot add/remove vehicles from a simulation, but can change if an already existing vehicle shall be used or not in the simulation
- Cannot change the layout (which includes):
  - Import/delete of layout string
  - Create new sections in the layout
  - Place or remove objects from the layout