DASSAULT SYSTEMES | The 3DEXPERIENCE® Company

GEOVIA Minex Course Catalog India

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Contents

Minex Foundation	
Available	Classroom and on-demand
Duration	5 Days
Level	Fundamental
Audience	The Minex Foundation course is designed for new and existing users of GEOVIA Minex. This introductory training course will give you the skills you need to perform common functions in Minex and use it productively. It covers concepts and procedures that will allow the user to perform basic functions in the software, and will serve as a basis for more advanced training.
Objectives	Upon completion of this course, you will be able to accomplish the following: • Customise the GEOVIA Minex graphical interface & icons • Use the basic components of the system for setting up and viewing data. • Understand data types, concepts and file structure • Create new data for points, lines and surfaces • Display & interrogate string & borehole data in 3D • Understand the concepts of grids & generate them • Generate simple volume calculations between surfaces • Display and create basic solids • Create simple plots in plan & section
Prerequisites	Before taking this course, you require the following: Knowledge of Microsoft, Windows, file management Knowledge of ASCII format files and Microsoft® Excel® The GEOVIA Minex menu structure and graphical user interface (GUI) are similar to most Windows-based packages and therefore a basic knowledge of the Windows operating system and environment is necessary.
Course Structure Flow	Overview • What is GEOVIA Minex? Installation & the essentials • Installing the software & licensing Familiarization with the GEOVIA Minex interface Organising your data • Recommended project folder configuration • Concept of project manager • Setting a local origin • GEOVIA Minex data & file types Working with surfaces; concept of triangles & grids • What are triangles & grids? • Creating & different displaying methods of surfaces • Manipulating & editing grids & triangles

Course Structure Flow	Creating string data in 3D • Importing & exporting geometry data • Creating strings & points • Displaying & querying geometry data GEOVIA Minex borehole database • Introduction to GEOVIA Minex borehole database • Overview of borehole database data types/variables Working with Borehole data • Loading & validating collar data • Displaying boreholes in 3D • Loading different data into borehole database Preparing gridded surfaces • Preparing topo & weathering surfaces • Creating a seam/layer sequence • Validating grids against source data Interpolation • Correlating & modelling borehole seams • Ply splitting Faults Modelling; Unfaulting & Refaulting • Using seam floor grids to interpret faults • Defining fault strings and displacements • Generating the fault block model Building the geological model • Multi seam/multi variable gridding • Building the uncut model • Building the cut model Creating a coal quality model • Statistics of quality attributes • Compute coal quality grids • Calculating distance grids Creating plans in 2D • What is map mount? • Creating a map mount • Plotting grid & triangles using line and shade contours Creating Sections in 2D • What is a section mount? • Creating a section mount • Displaying triangles, grids and seams on a section Reserves Estimation • In situ reserve reporting • Detailed reserve reporting Pit design • Define the bench list • Generate benches • Generate pit shell • Calculate in situ resources • Generate strips & blocks Interpolating • Interpolating missing seams Building the geological model • Multi seam/multi variable gridding • Building the uncut model • Building the cut model

Minex Open Pit & Dump Scheduling

Available	Classroom and on-demand
Duration	5 Days
Level	Intermediate
Audience	The Minex Open Pit and Dump Scheduling course is designed for existing users of Minex who are well versed with Minex Pit design.
Description	This advanced training course will give you the skills you need to perform critical functions in the software and use it productively. It covers concepts and procedures that will allow the user to perform short term and long term production scheduling.
Objectives	At the completion of the course, you will have been exposed to the following topics and concepts: • Process of Pit designing & Reserve Validation • Short Term & Long Term Production Scheduling
Prerequisites	Before taking this course, you require the following: • Knowledge of Microsoft, Windows, file management • Knowledge of ASCII format files and Microsoft® Excel® The GEOVIA Minex menu structure and graphical user interface (GUI) are similar to most Windows-based packages and therefore a basic knowledge of the Windows operating system and environment is necessary. And the mandatory part is the understanding of GEOVIA Minex geological modules and pit design.
Course Structure Flow	Scheduling Overview • Concepts and objectives of scheduling • Types of scheduling within Minex Preparing for scheduling • Creating and editing the calendar file • Schedule wizard • Displaying mining blocks in 3D • Defining equipment and production rates Target scheduling • Nominating targets and time periods • Creating the sequence file and schedule path • Running a target schedule • Schedule playback Reporting and schedule results output • Detailed schedule report • Residual reserves report • Creating face positions surfaces Detailed scheduling • Defining scheduling rules • Review of the equipment file and properties • Detailed interactive scheduling • Target monitor setup • Using a date control file • Create auto equipment for mining thin seams Reporting and schedule results output • Equipment productivity report

- Schedule calendar report
- Exporting face positions

Managing the schedule database

- Branching schedules
- Merging schedules
- Deleting schedules

Minex Pit Optimization & Open Pit Design

Available	Classroom and on-demand
Duration	5 Days
Level	Intermediate
Audience	Existing users of Minex
Description	This advanced training course will give you the skills you need to perform critical functions in the software and use it productively. It covers concepts and procedures that will allow the user to perform optimization and open pit designing & reserve database functions in the software.
Objectives	At the completion of the course, you will have been exposed to the following topics and concepts: • Validation of Geological Model • Pit Optimization • Process of Pit designing & Reserve Validation
Prerequisites	Before taking this course, you require the following: • Knowledge of Microsoft, Windows, file management • Knowledge of ASCII format files and Microsoft® Excel® The GEOVIA Minex menu structure and graphical user interface (GUI) are similar to most Windows-based packages and therefore a basic knowledge of the Windows operating system and environment is necessary. And the mandatory part is the understanding of GEOVIA Minex introductory part and geological modules.
Course Structure Flow	Pit Optimization Overview • Pit optimization theory Geological model validation • Create Merged Model • Methods for checking the geology model for validity before optimizing • Rationalize the geological model into a mining model • Create merged model Identify optimization parameters • Identifying mining and physical constraints • Establish revenue and sale price on a quality variable (e.g. calorific value) • Setup fixed cost model for mining/processing • Setup variable cost model for mining/processing Pit optimization • Optimiser menu introduction • Run pit optimizer Reporting results • Create report template • Report pit optimizer result Pit design overview • Rationalize the geological model • Examine outcrop / subcrop of seams • Calculate the merged model

- Create cross sections through merged seams
- Identify design constraints

Create bench grids

- Geotechnical parameters (wall angles and berms)
- Identify bench surfaces, bottom seam, bench height
- Create bench grids

Pit design

- Define the bench list
- Generate benches
- Generate pit shell
- Calculate insitu resources
- Generate strips and blocks

Validating

- Block editing
- Validating blocks
- Displaying pit geometry data

Building reserves

- Create a reserves database
- Defining codes and layers
- Add quality variables
- Generate in-situ reserves
- Update quality variables with modelled data

Reserves validation

- Report reserves
- Methods for validating reserves


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