



## MODEL THE SUSTAINABLE PLANET WITH GEOVIA



## **About GEOVIA**

GEOVIA provides end-to-end digital solutions focusing on the intersection of natural resources, infrastructure and urban planning. We empower a diverse community of geoscientists, earth engineers, and urban planners to access the information and insights they need to make informed decisions that balance economic, environmental, and social considerations, ensuring the responsible use and development of the Earth's resources.



#### With GEOVIA, you can:



Create detailed models from accurate, auditable, and secure data

Reduce risk

by simulating

your operation

before making

key decisions



Generate robust plans you can rely on



Unlock more value by bringing people and data together in a contextualized environment



Support and engage employees, suppliers, communities, and customers by offering a single, unified source of truth on your operation



Improve collaboration and transparency across disciplines, locations, and organizations for the life of your operation

# Get the Full Power of the **3D**EXPERIENCE® platform

The **3D**EXPERIENCE platform offers organizations a comprehensive, real-time view of their business activity and ecosystem, seamlessly connecting individuals, ideas, data, and solutions within a single collaborative and interactive environment. It empowers you to assess your project's value before breaking ground, enabling you to design and optimize it effectively before construction begins.

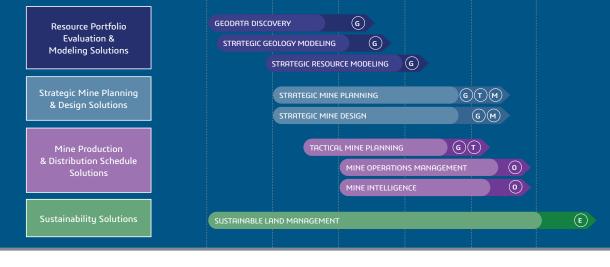
Moreover, **3D**EXPERIENCE contains the tools to facilitate the analysis of the sustainability of your operation, centralize all your data, and work collaboratively with colleagues from anywhere in the world. With solutions integrated across the mining value chain from geosciences to earth engineering, you can embed sustainability throughout operations to build a sustainable mine of the future.



## GEOVIA Solutions Expand Across the Mining Value Chain



Our dedicated industry solution experiences deliver transformative new ways of working, where everything starts with the digital representation of the data in an interconnected virtual twin experience.



Desktop software available in the market include:

G Geology and mine planning

(т)

Tactical scheduling Mine optimization

Mine operations and analytics

(o)

E Earth resource management

## Resource Portfolio Evaluation & Modeling

The following GEOVIA solutions assess and manage the Earth's mineral resources sustainably through accurate resource definition, permitting betterinformed exploitation decisions.

- Geodata Discovery discovers and reveals your exploration geoscience data assets to improve geoscience and engineering downstream processes.
- Strategic Geology Modeling rapidly generates 3D geological models of the subsurface environment with the ability to test multiple hypotheses.
- Strategic Resource Modeling creates and validates resource models from geological data to reduce risks associated with economic evaluation.



## Strategic Mine Planning & Design

The following GEOVIA solutions maximize mine profitability with a safe and sustainable design strategy.

- Strategic Mine Design designs the safest and most efficient mines and associated infrastructure that meet operational and environmental specifications.
- Strategic Mine Planning creates the most economically feasible and robust strategic mine plans for surface and underground mining.



# Mine Production & Distribution Scheduling

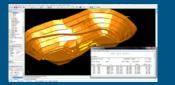
The following GEOVIA and Dassault Systèmes solutions monitor all mine activities in real-time to improve visibility, control and synchronization of mine production.

- **Tactical Mine Planning** creates practical and executable tactical mine plans for surface, underground, and caving mining.
- Mine Operations Management provides real-time monitoring for all mine operations, material reconciliation, and asset performance programs and reliably links all data sources – from fleet management to weighbridge, laboratory to stockpiles, and everything in between – into one single source of truth.
- **Mine Scheduling** produces long and short-term schedules that meet capacity and material quality targets. Schedule from pre-created block, grid, and polygon models that originate from many different mine planning systems.



## GEOVIA Flagship solutions

The GEOVIA portfolio is a comprehensive suite of software tools designed to optimize mining operations and enhance decision-making in the mining industry. It consists of several powerful applications, including Surpac, Minesched, and Whittle, and the roles in the **3D**EXPERIENCE platform.



#### **GEOVIA Surpac:** Integrated geology and resource modeling with mine planning and production

The most popular geology and mine planning software in the world, GEOVIA Surpac addresses all the requirements of geologists, surveyors, and mining engineers in the resource sector through powerful 3D graphics and workflow automation. This easy-to-use software supports open pit and underground operations and exploration projects in more than 120 countries while being flexible enough to suit every commodity, orebody, and mining method.

#### **GEOVIA MineSched:** Tactical mine planning

MineSched is a scheduling software for surface and underground mines that allows companies to develop practical, tactical schedules to maximize productivity and minimize cost. Intuitive, rapid setup and guided workflows take the complexitu out of tactical mine planning and put the decision-making power back in the hands of engineers and mining operations to produce long and short-term schedules that meet capacity and material quality targets. MineSched can schedule from pre-created block, and polygon models that originate from many different mine planning systems, including GEOVIA Surpac.

## **GEOVIA Whittle:** Strategic mine planning

Our industry-leading strategic mine planning solution helps exploration and mining companies evaluate the financial viability and optimal mine strategy for a deposit. Considering real mining constraints, it can help determine investment strategu and deliver robust mine plans that maximize profitability. Whittle delivers trusted results and is used in scoping, feasibility, life-of-mine scheduling, and the ongoing re-evaluation of mine plans through the production phase to closure. Whittle provides an integrated suite of tools to optimize the mining value chain, enabling significant project value increases over and above pit optimization.

## GEOVIA tools in the **3D**EXPERIENCE platform

As part of the **3D**EXPERIENCE platform, GEOVIA offers the tools to create virtual twins of the earth's surface, subsurface and infrastructure that enable users to analyze and visualize the impacts of their decisions through a dynamic and comprehensive view of assets and processes, helping to improve operational efficiency and optimize resource utilization through real-time monitoring, predictive analytics, and continuous improvement.

### **Geology:** Model, simulate and monitor the natural world

**Geology Modeler** accelerates the creation of 3D geological models of the subsurface environment with the ability to rapidly test multiple hypotheses and make repeatable and rapid updates when new geoscience data is available.

#### Geoscience Referential

**Manager** defines and manages the geoscience data referential from geoscientists, consultants and contractors.



#### **Earth Design:** Sustainably plan, design and manage industrial projects that impact the Earth

#### Surface Mine Designer

generates and evaluates multiple pits, pushback and ramp designs through an automated parametric process.

**Pit Optimizer** maximizes the company's Net Present Value (NPV) by creating and evaluating multiple scenarios for optimized pit and pushback phases and mining schedules.

#### Earth Engineering Coordinator

consolidates and federates geoscience and engineering information for seamless downstream consumption.

### **Urban Planning:** Plan, simulate and monitor the urban landscape and supporting territories

#### **City Referential Manager**

creates and manages the territory's common data referential and virtual twin.

**City Contributor** explores, discovers and shares insights with the ecosystem over the virtual twin of the city.

**City Data Engineer** transforms and prepares geospatial data for insightful data visualization in context.

**City Viewer** allows users to play city experiences in a collaborative environment that connects all city ecosystem stakeholders.

## GEOVIA: Model the Sustainable Planet

GEOVIA is driven by a vision to model a sustainable future where technology and data analysis play a crucial role in promoting responsible natural resources management, improving the quality of life for all people, and safeguarding the planet for future generations.

## Connect with us







# Our **3D**EXPERIENCE<sup>®</sup> platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating virtual twin experiences of the real world with our **3D**EXPERIENCE platform and applications, our customers can redefine the creation, production and life-cyclemanagement processes of their offer and thus have a meaningful impact to make the world more sustainable. The beauty of the Experience Economy is that it is a human-centered economy for the benefit of all –consumers, patients and citizens.

Dassault Systèmes brings value to more than 300,000 customers of all sizes, in all industries, in more than 150 countries. For more information, visit vvvv.3ds.com

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