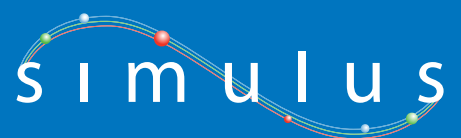
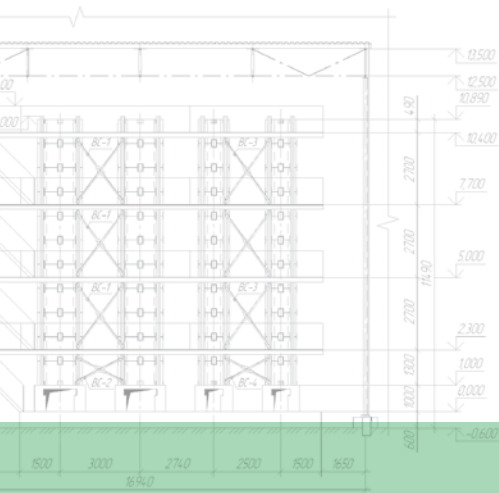


At Simulus we provide our clients with tailored engineering solutions for informed decision making and improved project outcomes.

**Proven engineering capabilities + leading simulation skills
= cost effective, lower risk projects**

TWICE THE TRADITIONAL ENGINEERS





We bring clarity to complex engineering projects by simulating all scenarios, evaluating the trade-offs, and finding the greatest value for our clients.

How do we do this?

Integrated systems and engineering know-how deliver a more efficient service from project scoping and feasibility stage, through to detailed design, construction and commissioning.

Detailed Engineering Design

We concurrently focus on constructability, operability, maintainability and optimisation of project net present value. This is achieved by combining our repeatable design philosophy and operational experience.

All relevant disciplines are engaged in the design process, with engineering outcomes reflected in a detailed 3D model, from which construction drawings are extracted. This ensures simpler construction, rapid ramp up and greater ease of operation and maintenance for the end user.

This reduced complexity often results in reduced capital and operating costs.

Engineering Redefined

We've developed an integrated project simulation, capital and operating cost estimation tool, so that once your project has been incorporated, we can rapidly complete new capital and operating cost estimates for multiple flowsheet options and project throughputs.

Imagine being able to quickly and accurately modify project features and flowsheet selections early in a project's life to identify and rapidly assess alternatives and maintain this ability throughout the design process.

Scoping to Feasibility

The project simulation tool is used from scoping through to feasibility to generate all key study deliverables. This ensures consistency from process flow diagrams (PFDs) through to capital and operating cost estimates and removes the time lag typically associated with PFD changes being reflected in other associated project deliverables.

A 3D model is linked into our tool, providing a visual representation of your project.

Our feasibility studies provide comprehensive information about your project. There are no hidden factors or allowances.

We believe in providing our clients the information and confidence to purchase long lead time items at the completion of a feasibility study, not months into the detailed design.

This makes the detailed phase of a project a chance to reduce costs by fine tuning the design, not a time to include what was overlooked earlier.

This is how we do things better at Simulus.

Our clients are informed. You have the options and we have the engineering tools to deliver much faster and cost effective results than traditional, manual methods.



Example flotation area 3D model snap shot

Technical and Operational Support

Our dedicated team of engineers provide site support, undertake plant trials and commissioning services as required by our clients.

Experienced team members are skilled in various roles, including operations, engineering, maintenance, supervision and commissioning.

We believe in “a better way of doing things” and a collaborative, team approach to all that we do. This is how we ensure that our clients are making informed decisions and are fully supported.

Process Simulation

At Simulus, we are proud of the significant expertise our team has in the development of process simulation models, and the benefits this provides to our customers.

Process modelling is a specialised skill and should not be seen as an isolated task.

The fundamental model of a continuous process flowsheet is the steady state mass and energy balance.

All information about material and energy flows, stream composition, chemical reactions and physical separations is combined into a single model. The model generates flow, temperature, pressure and composition on a stream by stream basis.

The key is understanding how a process behaves.

This is how we at Simulus can generate the greatest value and benefit for our clients.

By modelling a flowsheet, we can help our clients determine which options are clearly uneconomic, which are marginal and which are robust.

The simulated project model is flexible enough to deal with alternative configurations, changing reaction conditions, different ore compositions, higher/lower tonnages and various other constraints.

At Simulus, our models are directly linked to capital and cost estimating databases, greatly reducing the time to develop project studies and increasing the number of project options you can investigate with minimal impact on the project cost.



Dynamic Modelling

Simulus is a leading provider of dynamic models. Dynamic models account for the key economic drivers over time and show the real variability that occurs through mining, processing and transportation operations. Simulus' dynamic models fall into two broad categories – plant level and operation (enterprise) level.

PLANT LEVEL MODELS

A plant level dynamic model applies discrete events and dynamic constraints to a flowsheet mass and energy balance. Model outputs mimic the real production data of interest to the operation, such as tonnes processed, plant utilisation, surge and availability, and delay times. The models are used to simulate plant operation over several years and show the likely range production profiles for each scenario considered.

ENTERPRISE LEVEL MODELS

Dynamic models can simulate an entire operation from the mine to the final customer combining continuous and discrete event operations. The most common application is production and supply chain logistics for bulk commodities such as coal and iron ore. The outcome is better use of capital, higher production and more efficient operations. Financial returns on the simulation investment are often measured in thousands of percent.

Metallurgical Consulting

Our metallurgists and process engineers boast extensive experience and expertise in their chosen fields providing our customers with a wide range of metallurgical and/or process engineering consultancy skills.

We have delivered consulting services for greenfield and brownfield projects, expansions, operations, efficiency improvements, debottlenecking and addressing of throughput, recovery or operating cost related issues.

We also assist our clients with metallurgical support for public listings - providing the required documentation for ASX, AIM and TSX listings such as the required NI 43-101 disclosure document.

We undertake the processing aspects of competent person reporting, due diligence investigations, independent reviews, process audits, post commissioning nameplate capacity reviews and other similar compliance support.

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