



INTEGRATED EXTRACTION SIMULATOR (IES)

EVALUATING MINERAL RECOVERY WITH SEAMLESS VALUE CHAIN SIMULATION

The Integrated Extraction Simulator (IES) is an innovative simulator that enables rapid evaluation of processing scenarios across the mineral extraction value chain to enhance plant productivity, optimise economic value, and minimise the environmental impacts of mining activity and mineral recovery.

By seamlessly integrating physics-based equipment models with machine learning, IES enables optimisation of all or part of an operation. Accessible via a web-based platform, it delivers operational insights to guide short, medium or long-term design or optimisation goals.

orica.com/IES

Integrated Extraction Simulator can deliver sustainable improvements which:



Assess and reduce environmental impacts



Optimise outcomes for the entire operation

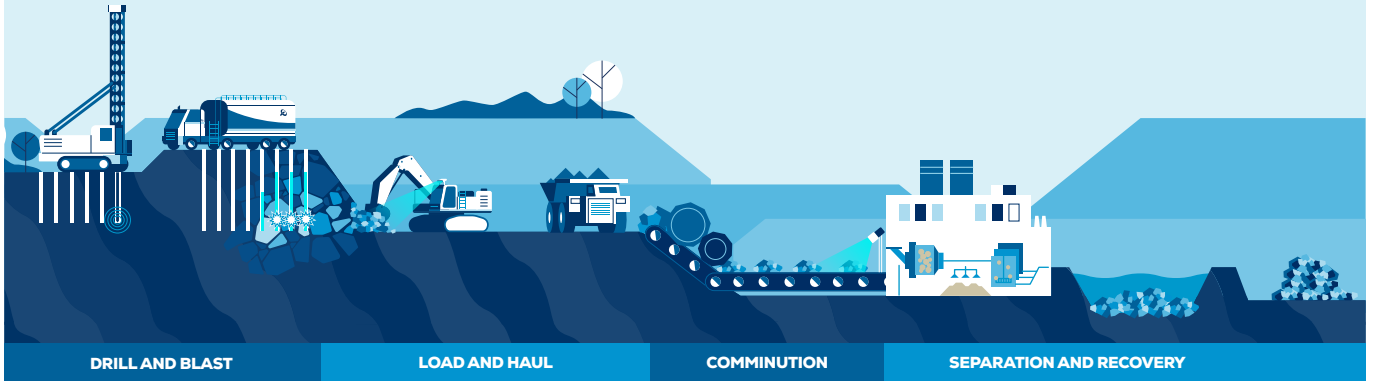


Drive cost efficiency



Enhance productivity

IES gives unparalleled insight into end-to-end processing stages, simulating and streamlining operations from blasting to crushing and grinding, through to downstream separation.



FEATURES AND BENEFITS

HOLISTIC OPTIMISATION

IES has the unique and innovative capability to integrate all parts of an operation into one simulation platform, enabling optimisation across either the entire value chain, or a smaller segment. Integrated simulation to identify and understand interdependencies between unit operations allows for informed decision-making and promotes best overall operating practices.

FLEXIBLE AND STREAMLINED FLOWSHEETS

With the ability to easily configure multiple flowsheet options and run mass simulations, IES enables rapid processing of high-volume data for efficient scenario evaluation. Explore mine planning options and blending strategies, or use geometallurgical block models to predict throughput and recovery over the mine life, using a single powerful tool.

DEFINE CONSTRAINTS, SET-POINTS AND OUTPUTS FOR TAILORED SIMULATIONS

IES features user-defined set-point ranges, calculated outputs and customised constraints based on known limitations. This functionality ensures simulation results are practical and realistic, are more easily implemented for real-life performance gains, and are reported according to user specifications.

MODEL DIVERSITY

IES offers inbuilt industry-standard models and the ability to import additional models. For challenging or innovative unit operations or circuits, the machine learning module provides a user-friendly interface for rapid model creation. This range of options gives users the power to build a model of any part of an operation with greater flexibility and speed.

To learn more about IES and how it can support your operations, contact your local Orica Digital Solutions representative today or visit orica.com/IES



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