

# IES Baseline - Next Generation Minerals Processing Simulator

PROJECT P3-001

The Integrated Extraction Simulator (IES) Baseline project is focussed on maintaining existing investment in IES and adding functionality to extend the impact of the tool in the industry.

Participants from mining companies, METS and researchers currently using IES must be supported in the form of help desk services, training and bug fixes.

Additional functionality must be developed to support the transition of industry towards analysis and work practices that utilise the power of IES platform for production planning and operational improvement.



## Project Scope

During CRC ORE's first term Version 1 of IES was developed to address shortcomings in current simulation technology:

- Integration of Blasting, Comminution and Flotation.
- Introduction of Multi-Component Material Streams (multi-mineral, multi ore).
- Calculation of power and water consumption, financial and environmental costs.
- Implementation of an open platform to accept models from multiple sources.
- Deployment of mass simulation as a pathway to operational use of IES.

In the current term of CRC ORE, the IES Baseline project will maintain functionality developed in CRC ORE's first term. Further, it will further support industries practices for individual model development and calibration along with support for integrating flowsheets for parts of the processing circuit into larger integrated flowsheets for entire sites.

## Project Outcomes & Learnings

The architecture of IES in the form of Software-as-a-Service (SaaS) allows for rapid diffusion of the technology throughout the industry.

IES continues to broaden the user community for minerals processing simulation and is the catalyst for a cycle of ongoing improvement through the gathering of better and more timely data and iterative review of operational scenarios with different resolutions of data. With more users comes more potential use cases and requests for additional functionality that, when developed, benefits all users of the platform.

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Timing:	July 2015 – Jun 2018
Participants:	CRC ORE, JKMRC, BHP, Anglo American, Teck, Anglo Gold Ashanti, JK Tech



Image: IES models being workshoped at a Sponsors Review Meeting.