

Reach and exceed production targets through the use of sophisticated yet simple tools to increase equipment utilisation.

iVolve Mine4D Production enables real-time decision making in two ways: by providing real-time feedback to operators in-cab; and by monitoring and recording in real-time all parameters of the haul truck load cycle.

VALUE

INCREASE PRODUCTIVITY

- Empower management to make quick adjustments by tracking production data in real time.
- Enable real-time, in-cab feedback for operators.

ENABLE EFFICIENCY

- Eliminate paper systems.
- · Collect SMU in real time.
- Improve vehicle "working" state.
- Easily locate equipment.
- Improve operational and tactical decision making.
- Minimise the gap between planned production vs actual production.

MANAGE COSTS

- · Monitor haulage and loading costs.
- Manage penalties due to dilution and ore recovery.
- Reduce administration for data entry, analysis, and reporting.
- Simplify training and reduce reliance on skilled personnel.

ENFORCE SAFETY

- Investigate incidents with playback.
- Meet or exceed regulatory requirements.

USE "BIG DATA"

- Create & schedule custom reports specific to site needs.
- Access "big data" to enable focused studies across many areas.

PRODUCTION CAPABILITIES

Load assist

Displays load pass and total tonnage, BCM, material, location, and center-of-gravity data directly to the excavator (or loader) and truck operators via an in-cab screen, which assists optimal loading of every truck.

- Load data collected automatically from the truck's on-board strut sensors or via operator entry.
- Tonnage or BCM data is rechecked as the truck moves off via the second gear rear-weigh.
- Data is retransmitted to the excavator to ensure the operator receives the most correct payload value.
- Trucks automatically "pair" with the excavator based on GPS proximity and the truck's operating state, resulting in an effortless operator experience.
- Operators can monitor their progress with immediate on-screen statistics including rates, load count, and total tonnage or BCMs.



Operator Screen

Cycle monitor

Captures and reports individual components that comprise a payload cycle.

- Load cycles are visualised in the Timeline tool in iControl (iVolve's map-based visualisation software).
- Each load cycle is reported to the iVolve Server and stored in the database.



PRODUCTION FEATURES

- Automated real-time data capture, including load cycle, activity and delay, SMU, and more.
- Real-time data visualisation of the operation both in-cab and in the office.
- Instantaneous feedback for operators during the loading process provides critical information including each bucket pass, target tonnage, tonnage remaining to hit target, and center of gravity of the truck load.
- Shift statistics are displayed to both the operator and the supervisor via dashboards for shared knowledge and tracking.
- Standard and customised reporting capability for both scheduled and ad-hoc reporting.



The Production Dashboard in iControl.

HAULING PRODUCT O Hauling C Coal RECENTS Hauling RECENTS Hauling Meal Breck O No Group To C No Group

iVolve Display: Remote Horn active

OPTIONAL MODULES

iVolve Mine4D Remote Horn

- *S*ilent horn option for areas where noise pollution is a high concern.
- Removes the need for external air-horns.
- Configurable radius.
- Implemented either through additional in-cab horn hardware, or by using the speakers on the iVolve in-cab screen.



iVolve Display: Prestart

iVolve Mine4D Prestart

- A simple electronic tool in the cab of the machine that operators use to record the results of their prestart checks.
- Information uploaded in real-time to the server for immediate assessment of results.
- Converts paperwork into a simple "click and submit" system.
- Operators quickly log any issues with their machine for immediate notification rather than trying to radio in any concerns
- Available as a single "pass/fail" list or a multi-check list.

iVolve Mine4D PRODUCTION

do more. save time. work safe. simple.



Established in 1995, iVolve is an Australian industrial technology company delivering real-time machine intelligence to the resources sector, enabling our clients to make educated quick decisions to increase productivity, reduce costs, and minimise risk.

iVolve Mine4D records and presents crucial operational data for the monitoring and management of a mining fleet. This provides all levels of the mining operation the knowledge to back smart decisions.

The experienced R&D team at iVolve are passionate about research and keeping the company at the forefront of innovative, intelligent, yet simple solutions for our customers. As a result, the company has built a solid reputation over the years as a leader in its field.

If there is an opportunity for productivity improvement within your operations, iVolve is here to help.

For further information, contact info@ivolve.com or head to www.ivolve.com.

