

IVOLVE

Mine4D GUIDANCE



A new generation of machine guidance.
Simple and seamless integration with our industry-leading
fleet management system.

iVolve Mine4D Guidance is an innovative approach to the application of technology in mining. Specifically designed to optimise operator activities, **Guidance** seamlessly integrates machine guidance and fleet management tasks.

Guidance combines the benefits of real-time operational data with the precision of advanced machine guidance and control. Start with iVolve's flagship FMS **iVolve Mine4D Production** which extracts, records, and presents crucial operational data for the monitoring and management of a mining fleet. Integrate machine guidance to extend the capability of **Production** for dozer, excavator, loader, grader, and surface miner operators.

do more. save time. work safe. **simple.**

www.ivolvement.com



iVolve Mine4D Guidance excavator screenshot.

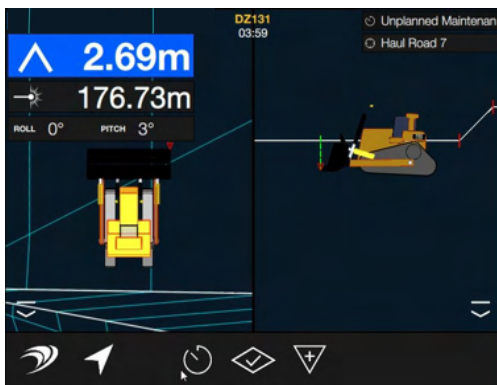
EXCAVATOR & LOADER

Operators can maximise their accuracy from both the digging and loading phases at a glance with key information on a single screen.

With **Guidance**, operators can see, in real-time, how the position of the teeth of the bucket compares to the finished design, an invaluable advantage in deep cuts or blind excavations. The operator can “see” the machine’s exact position on the site, and the bucket’s position at all times. Excavate with confidence in the most challenging of environments.

Operators have constant design guidance from within their machines. The operator can view real-time cut and fill values on the iVolve display.

Extend **iVolve Mine4D Production** capability with **Guidance** or operate **Guidance** as a stand-alone system.



iVolve Mine4D Guidance dozer screenshot.

DOZER & GRADER

With **Guidance**, operators are empowered with a new level of elevation control through intuitive visualisations and metrics to make corrections in real-time. Cut and fill every bench, road, and ramp with high precision. Guidance optimises operator behaviour with a simple modern interface, instantly familiar and engaging for operators.

Guidance benefits the efficiency of the whole site operation:

- Minimises machine wear and tear with even surfaces.
- Sends design files from the office straight to the vehicle.
- Eliminates time-consuming survey activities and set out requirements.
- Records surfaces as mined with topographic survey capability.

Extend **iVolve Mine4D Maintenance** capability with **Guidance** or operate **Guidance** as a stand-alone system.



iVolve Mine4D Guidance grader screenshot.

SURFACE MINER

With **Guidance**, operators can see in real-time how the position of the cutting head compares to the finished design, which is essential when dealing with undulating seams and for preventing contamination of material loads. **Guidance** gives operators the advantage of “seeing” the angle of the feed conveyor relative to the machine and the vehicle’s exact location within the design.

Operators are empowered with a new level of elevation control through intuitive visualisations and metrics to make corrections in real time. Operators have constant design guidance from within their machines and can view real-time cut values on the iVolve display.

Guidance benefits the efficiency of the whole site operation:

- Minimises machine wear and tear with even surfaces.
- Sends design files from the office straight to the vehicle.

Extend **iVolve Mine4D Production** and **Maintenance** capability with **Guidance** or operate **Guidance** as a stand-alone system.



iVolve Mine4D Guidance surface miner screenshot.

VALUE

SIMPLIFY YOUR OPERATION

- Eliminate the complexity of dealing with multiple vendors with **one integrated system** for all your on-board vehicle intelligence.
- **Easily control your production data and work plans** from one system without leaving the office.
- **Eliminate complex & time-consuming analysis** of your operations with a single data source for reporting.

IMPROVE OPERATOR EFFECTIVENESS

- Stay **focussed on working to plan** while still hitting production targets.
- **Optimise operator behaviour** with a simple and modern interface, instantly familiar and engaging for operators.
- Empower operators with **intuitive graphics and metrics** to make corrections in real time.

SIMPLIFY INSTALLATION & MAINTENANCE

- **Reduce system complexity** for simpler installation and maintenance.
- Mount equipment with **greater flexibility** of placement options.
- Streamline maintenance with **fewer components** & excellent **on-board visual diagnostics tools**.

IMPROVE LOADING &

SURFACE MAINTENANCE WORKS

- **Reduce GNSS surveying labor** with mine-to-plan capability within dozers, excavators, loaders, graders, and surface miners.
- **Improve ore grades** through accurate selective mining.
- **Reduce rework** caused by over- or under-cutting or filling.
- **Extend working hours** in poor lighting or weather conditions.

ICONTROL FILE TRANSFER

The simplest, most reliable tool for managing design files is here. With iVolve's Project File Transfer tool, users can drag and drop projects onto machines, or machines onto projects. It is that simple. There is even a handy one-step "Replace" feature for pushing updated or new designs to the same machines in the same area.

Guidance-enabled vehicles have the latest files pushed out to them or removed from them automatically. Files are compressed and partitioned to ensure rapid transfer over low-reliability mesh network links. Operators do not need to know how it works, just that they always have the latest designs available to them.

GUIDANCE FEATURES

- Clean and simple user interface that is easy for operators to use.
- See target surface over top-down and cross-section mine views.
- Ensure material is moved only once by using real-time cut and fill indication, pitch and roll measurements, and unit position.
- Track machine utilisation and analyse machine tasks.
- Work to design targets or use offsets to create buffer areas.
- Set slopes from the iVolve display to create ramps or flat bench on the fly.
- Record utilisation and production data on-board when out of range.
- Troubleshoot issues with the in-built diagnostics panel.



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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 with 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.

IVOLVE
MINE4D
mining made simple



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