

Shaping New Dimensions

Mining Solutions & tailored support

Company Overview

Position Partners is Australia's premier provider of positioning and intelligent machine systems for surveying, mining, civil works and building. At Position Partners, we are committed to increasing productivity for our customers and building lasting business relationships around high calibre positioning activities.

A full range of leading instruments and systems is backed by a complementary range of services and application expertise to provide customers the support and advice they need for any project.



Position Partners was formed in 2008 from a merger of five statebased companies to create a national, cohesive business.

With more than 270 people throughout Australia, New Zealand and South East Asia, Position Partners is the largest Australian-owned company that focusses entirely on the implementation and support of geospatial and machine solutions.

Acting local keeps us focussed on individual customer requirements and providing customised solutions.

Thinking regional creates wider initiatives, wiser investment and drives innovation. As an example, we developed a custom-built solution to track construction machinery using satellite communications in remote areas of Western Australia and this is now being deployed regionally.

Our customers choose Position Partners because our professional teams have the specialist service expertise to ensure quick project start and maximum uptime. Every challenge is an opportunity to work together to deliver systems that exceed expectations.

Our Services The Position Partners difference

Systems and data management consulting

Prior to, and during, major projects our advice has contributed to successful project quality and delivery. Technology solutions can provide high productivity gains, but the choice is broad and expert advice is paramount to successful deployment.

On-site service

At Position Partners, we understand that even the most robust equipment needs maintenance every now and then. When it does, trained field service engineers are on-hand to provide corrective action and advice for minimum downtime.

With offices in every state and territory and more than 80 technicians throughout Australia, New Zealand and South East Asia, Position Partners is on hand to help. Regional support hubs at remote locations in Queensland and Western Australia have been established in response to specific projects.

All field service engineers are trained by product manufacturers to give unrivalled technical expertise. We provide flexible Support Level Agreements (SLAs) that cover on-site installation and support, calibration, network interfacing, maintenance and repairs, plus remote diagnostic capabilities with Tokara Link.



Workshop Services

Comprehensive product service, maintenance, repairs and advice are provided via our local service centres. We guarantee all our work and can supply calibration certificates to meet QA requirements.



Training

Initial "getting started" training is provided on all systems. Subsequently, a comprehensive range of Campus courses are tailored for beginners to advanced users, either at our offices or on site



Hire or lease options

The full range of systems, from pipe and grade lasers, to world leading Topcon surveying and 3D machine control systems can be hired or leased to suit any application and provide financial flexibility.



Fleet Management System



Know the Who, What Where and When of every machine across your site in real-time. iVolve's Mine4D focuses on operational efficiency improvements directly related to production and maintenance management. This ensures increased productivity, reduced costs and minimised risk across every site.

Mine4D Production

iVolve's *Mine4D Production* provides operator feedback to optimise loading and haul operations, automatic data collection, and immediate access to real-time information enabling you to take control of your operations.

- Automatically records all data for the haul truck load cycle.
- Real-time monitoring and management of the fleet by dispatch personnel and supervisors.
- Excavator load assistance via an in-cab display enabling optimal loading of each truck.
- Position tracking, operator logins, delays management, queueing etc.



Mine4D Production enables real-time production decision making by monitoring and recording each step of the haul truck load cycle (Loading, Travel Loaded, Dumping, Travel Empty, Stopped, and Queued). This data is sent via the Nexis™ network to the iVolve Server for real-time access by site personnel as well as for informal and scheduled reporting purposes.

As a training aid Mine4D Production gives shift leaders unparalleled remote access and overview across site on a vehicle-by-vehicle basis. Each new operator's performance can be remotely monitored and appraised, with informal reporting forming the basis of one-on-one training.

Mine4D Maintenance

iVolve's Mine4D Maintenance provides real-time access to machine data to support proactive maintenance to reduce the impact of in-service failures and unscheduled down-time.

- Interface to on-board vehicle management systems for real-time machine health.
- Machine events (eg. fault conditions).
- Parameters (eg. temperatures and pressures).
- Real-time data presented via iControl and iReport.
- Event investigation via iControl replay.

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Utilising on-board vehicle management systems, Mine4D Maintenance provides real-time equipment health data feeds. This data is displayed graphically via iReport dashboards at fleet and individual asset levels, with full data history available for informal and scheduled reporting.

In the event of site-specified alerts, Mine4D Maintenance provides onscreen alerts within iControl providing true, real-time decision making capability. Mine4D Maintenance will improve your machine availability while decreasing maintenance and lost production costs associated with in-service failures.





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iControl is the iVolve map based visualisation tool displaying your fleets' real-time data for a complete overview of the state of the fleet and assets.

- Locate & view detailed live data for each device.
- Manage shift load cycle data.
- Manage site configurations.
- Replay function for incident investigation.

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iReport

iReport is the iVolve reporting tool, providing on-shift real time production and maintenance data.

- Real-time dashboards provides an instant snapshot.
- Historical reports both standard and customised.
- A data analyser tool providing ad-hoc, in depth data analysis capability.



iVolve Display

Give your operators the capability to interact with iVolve Mine4D within the machine, via an easy to use in-cab display. Operators can communicate information back to the office in real-time and ensure they meet their production targets every time.

Mine4D Guidance



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Combine the power of an FMS solution with high precision machine guidance to ensure ultimate efficiency and productivity across your mine site. By giving your operators the ability to mine to the design without waiting on supervisors and surveyors, you can drastically reduce rehandling and associated delays.



High Precision Machine Guidance

With real-time accuracy of +/- 50mm across your fleet of dozers and excavators, machine guidance provides realtime positioning information to operators on an easy-to-use, easy-to-understand interface inside the machine cab.

Benefits

- Eliminate delays waiting for in-field surveys or for supervisors to check status
- · Give your operators the power to mine to the latest design
- Dramatically reduce rehandling by ensuring operators get it right the first time
- Rapid response to design changes by uploading the latest file to all machines, simultaneously
- Easy to see interface to operate accurately in all light and weather conditions
- •One user friendly control box for operators to use FMS and machine guidance tools via a single screen



High Precision Dozer

With real-time accuracy of +/- 50mm across your dozer fleet, machine guidance provides precision positioning information to operators via a refreshingly simple and user-friendly interface. Monitor and record all vehicle operational data including utilisation (working, idle, off), activity/delay codes and SMU (engine) hours.

- Real-time cut/fill mapping eliminates rehandling and ensures material is moved once, and moved right
- Reduce machine idle time
- Increase safety and save time by eliminating the need for in-field survey
- Increase efficiency through optimised push strategies



Supervisor Kit

Keep track of site progress across the fleet with iVolve's Mine4D supervisor kit. With the ability to check grade, compute volumes and monitor machine activity relative to design, supervisors can proactively manage site operations.

- Check position and levels quickly and easily
- Ensure machines are working accurately to the latest design
- Respond to design changes faster with instant file transfers to all machines, from the office
- Reduce the need to suspend work while personnel visit or work near machines
- Accurate information at your fingertips





Mine4D Guidance



Turn your excavator into a loading control centre

Position Partners has combined iVolve Mine4D machine guidance with RDS hydraulic scales to transform your mine excavator into the central control point for loading operations.

With real-time cut and fill information along with accurate weighing of every bucket load, operators can keep trucks calibrated and maintain weight records for trucks that do not have scales.

- Maximise excavator capacity
- Maintain accurate weight records
- Save time and minimise rehandling













High Precision Excavator

Operators can view the position of the bucket teeth compared with the finish design, in real-time. Particularly important for deep cuts or blind excavations, high precision technology benefits excavation applications by:

- Eliminating over/under excavation and associated rehandling
- Reducing fuel usage and machine wear
- Saving time and enable operators to accurately excavate even complex designs
- Minimising intervention from surveyors and supervisors

It not only makes your operators more effective, it also reduces the workload for other mine site personnel! By combining machine guidance with FMS technology, operators can maximise their accuracy from both the digging and loading phases at a glance with key information on the one screen.

Monitor and record all aspects of the haul truck load cycle including tonnage, load pass details, material, load and dump location, activity/delay and loader vehicle state.

On-Board Weighing

Keeping your mine excavators at the centre of the loading process increases productivity and maximises the capacity of the machine. RDS Technology hydraulic machine scales deliver precise weight information to the operator, ensuring trucks are optimally loaded to minimise wear and tear whist maintaining accurate reports.

- Keep haul trucks calibrated
- Centralise loading records
- Weigh truck loads that do not have on-board scales

With the ability to handle multiple material types, jobs and attachments, the RDS Loadex 100 solution is versatile and easy to use, enabling accurate record keeping, traceability and stock management. With 2-way communication to the office, the system integrates with the iVolve FMS solution to offer seamless reporting to a single interface.

Survey & Geospatial

Having pioneered the introduction of many technology releases in Australia, Remotely Piloted Aircraft Systems (RPAS) for high resolution imagery and mapping are the most recent. Position Partners continues to search for and monitor the latest developments from around the world to further enhance safety and productivity for the industry.





Remotely Piloted Aircraft Systems (RPAS)

RPAS technology facilitates fast, efficient and safe aerial surveys for a wide range of applications including stockpile volumes, road and pipeline corridor mapping, site progress reporting and environmental monitoring.



3D Laser Scanning & Mobile Mapping

High resolution 3D modelling enables users to capture reality in minutes. A range of handheld, static or vehiclemounted scanning solutions is available to scan every asset from small objects and complex structures through to whole of site.



Robotic Total Stations and GNSS

Topcon's leading range of GNSS and total station solutions gives you unparalleled accuracy and reliability to increase your productivity in the field. Compact and durable, these tools are designed to go the distance even on the toughest of jobs.



Data processing, visualisation & analysis

From easy to use software on your survey tablet through to state-of-the-art post processing and modelling solutions, we offer a comprehensive range of services to enable you to analyse, visualise and manage your mine site data.

Monitoring solutions



Manage risk with accurate deformation monitoring solutions that incorporate industry leadingfeatures and ultimate reliability. Position Partners offers comprehensive solutions including hardware and software to ensure fast deployment and maximum productivity improvements.

Deformation Monitoring

Position Partners offers a combination of hardware and software components designed specifically for deformation monitoring in mining and major infrastructure applications.

Using the advanced Topcon MS AX II series monitoring robotic total station, along with GNSS technology and sensors, the Topcon Delta solution also features easyto-use software for data analysis, reporting and alarm management.

If critical changes occur, automatic warning and alarm messages are sent via email or SMS to enable immediate action.

Senceive World-First FlatMesh technology

FlatMesh technology represents a step change in wireless condition monitoring solutions, with devices that work cooperatively and intelligently across the site.

- Very high precision and stability
- Unique ability to provide automatic triggering of increased reporting rates down to 15 secs.
- Data is available to display or download on easy to use web based remote visualisation.
- Better trend analysis
- Multi-level text and email alerts.
- Fast and easy to deploy
- •10 year sensor battery life
- No mains power requirement



Making Safety No.1

Position Partners is committed to achieving minimum Lost Time Injuries and zero damage to the environment at all sites. In addition, we aim to provide a quality service to our customers.

Position Partners uses a risk management methodology in relation to our quality, safety and environment management plan. This involves assessment of the risks and implementing mitigation activities. Hazards and safety risks are controlled by a 'Safe Work Method' statement, where field service engineers and other stakeholders are consulted.

Management is accountable for ensuring that only qualified electrical persons perform work on electrical equipment, and for ensuring that qualified electrical persons have the required training and approved equipment and PPE. Similarly, Material Safety Data Sheets (MSDS) may be obtained for all chemical substances prior to use in the workplace.

Our People

Position Partners has formed a unique blend of IT, surveying, engineering, electronic, mechanical and construction machinery expertise. From the Board to executive management and operations, the combination of these skills permeates all aspects of the company's activities. Position Partners' sense of purpose is to earn the respect of customers so a professional approach with high service standards guides our day-to-day actions. On-going investment in our people's training and development sustains this unique capability.

All personnel, including subcontractors working for Position Partners, are trained in our systems and products to ensure the highest professional capability. A training analysis is conducted for employees on an annual basis to ensure on-going training and development in line with evolving technology and changing customer requirements.





Get in touch today: 1300 867 266

info@positionpartners.com.au www.positionpartners.com.au Australia • New Zealand • SE Asia



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