



# Capability Statement



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## About Calibre Controls



Calibre Controls is a results-focused production automation specialist, providing "*Intelligent Production*" control and information management solutions for optimal plant throughput and "*Increased Asset Utilisation*".

We provide technical engineering, project management and support services for automation, SCADA, Industrial Communications and Information Technology, Manufacturing Execution Systems (MES), production optimisation, specialist consulting and training services.

Calibre Controls OreTracker product provides a unique ability for mining operators to streamline mine production by tracking the movement of ore in real time.

Calibre Controls is part of Calibre Global, a group of complementary businesses including Calibre Projects, Calibre Safety Services and Calibre Engenium Joint Venture.

Calibre Global businesses provide Project Management, Engineering and Consultancy Services to major resource and infrastructure companies throughout Australia and overseas.

Over the past five years Calibre Global has delivered in excess of A\$10 billion in capital projects. During this period, Calibre Controls has consistently delivered high quality, tightly scheduled information systems and control system projects to the mining and resources sectors.

Calibre Controls workforce has now grown to over 80 personnel, predominantly engineers and technical support staff based in Perth and Brisbane.

## Our Value to Clients



Key to our approach is working closely with clients to fully understand their needs from a corporate and operational perspective. By forming this close relationship we can better understand the issues involved and help deliver the right outcome.

### Independence

Many consultants offer advice and many vendors offer their products but Calibre's unique ability to be independent is what adds total value to your business and sets Calibre apart from the others. Calibre Controls can become a trusted advisor to investigate, assess, recommend, manage, represent, deliver and support.

### Mining and Processing Expertise

We understand the mining and materials handling industries. We understand the key drivers and enablers required for business success, framing our solutions accordingly and provide relevant commercial justifications, so that real business benefits can be demonstrated.



### Risk Reduction

Control Systems are often managed at a localised level with the performance and health of the system not evident to management until a failure occurs.

Calibre Controls fully evaluates the business exposure by reviewing:

- Business continuity / disaster recovery
- IT security & user access control
- Change management processes
- Control systems maintenance management
- Alarm management & reduction
- System support management

## Our Value to Clients

- Standards compliance & documentation
- Training
- Site services and support
- A complete health report and prioritised corrective action list allows you to focus your efforts to reduce your risk exposure.



### Throughput Improvements

In order to maximise the throughput of the plant it is necessary to understand the plant and operational constraints. By controlling the plant to optimise the constraint points the overall system performance is improved. This not only increases throughput but protects systems from peaks and surges that can create plant upsets leading to downtime or quality loss.

Constraints may also include operational practices which can be a major cause of opportunity loss. By analysing the operational practices and their interface into the control systems a complete solution can be implemented.

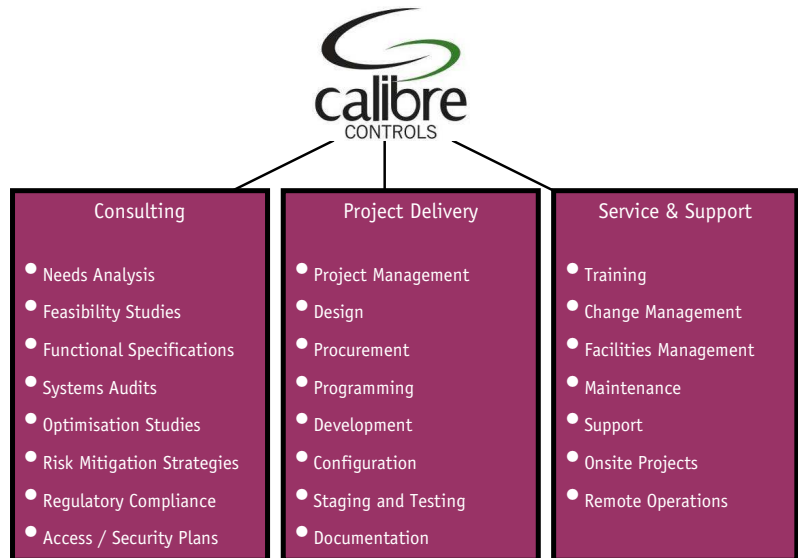
In order to capture and report on the improvements gained we can provide our own statistical analysis or alternatively can use your existing in house improvement methodologies.

Any proposed improvements are provided with defined business benefits and risk assessments allowing you to make informed business decisions.

## Our Services



Calibre Controls provides a full suite of services to assist our clients in the various stages of the resource asset lifecycle.



## Technologies

Calibre Controls has considerable technical expertise in the following technologies:

- Plant control and automation
- PLC, DCS, specialist controllers, HMI and SCADA systems
- Industrial Communications and Information Technology
- Network design, fibre optics, Ethernet, telemetry, wireless, voice radio, long haul telecommunications, satellite links
- MES (Manufacturing Execution Systems), data collection, management and presentation
- Web portals, process reports, historian, downtime accounting, KPI displays, performance reporting
- CCTV, access control and security systems
- Instrumentation
- Computer Based Training and e-learning. Technical writing and production of technical training plans and content.

## Our Services



### Project Delivery

All of our projects are delivered according to the Calibre Controls rigorous and successful implementation methods and structures. Whilst our expertise extends into many dimensions, our methods guarantee a successful project result no matter what.

Calibre Controls employs a dependable delivery structure which combines the established practices of leading companies with our own internal methods. Those practices are augmented in turn with a suite of tools which enhance consistency. Our processes have achieved the following important certifications, both in our own right and as part of the Calibre Global group of companies:

- AS/NZS ISO 9001:2000 Quality Management Systems – Requirements
- AS/NZS 4801:2001 Occupational health and safety management systems - Specification with guidance for use

With dedicated professional project managers allocated to every scope of work, our teams are built up with the right people doing the right tasks every time. Our reputation is built upon reliable delivery, with established processes across the entire services domain:

- Consulting and optimisation reports
- Development of feasibility studies
- FEED work (Front-End Engineering and Design)
- Professional project management
- Design
- Project engineering
- Technical hardware and software engineering
- Materials procurement
- Hiring and contracting staff
- Testing
- Construction management
- Installation supervision
- Commissioning

## Our Services



Calibre's core strength in project management has ensured that we have robust controls and processes for schedule, cost, scope and quality management, without compromising the essential safety and environmental aspects of the project. Calibre Controls' methods support complex automation, process controls and information systems projects, encompassing specific procedures for:

- Project Management
  - Resource capability assessment and prioritisation
  - Project communications
- Quality Management
  - Engineering management
  - Peer review
  - Systems and structures alignment
- Risk Management
  - Risk identification and classification
  - Risk mitigation and monitoring
- Estimating
  - Costing development
  - Cost forecasting
- Scheduling
  - Critical path identification
  - Resource allocation and planning
- Engineering
  - Systems design review
  - User requirements specifications
  - Integration requirements definition
  - Application functional specifications
  - System configuration
  - Issue resolution
  - Change management
- Procurement
  - Vendor selection and purchasing
  - Contract management
  - Vendor review and signoff

## Our Services

- Commissioning, Handover and Support
  - Factory acceptance testing
  - Integration testing
  - Site installation and commissioning
  - Use acceptance testing
  - Go-live communications plan
  - Post go-live support
  - Transition to support and maintenance

In the application of our project management techniques to technology oriented projects, personnel with specialised knowledge and experience in the required technologies are employed to ensure appropriate outcomes. This takes place at all project phases; project definition, delivery, technical design, implementation, testing, training, on site commissioning and support.



### Consulting

Our consulting group is able to perform many and varied services to assist in early planning, optimisation and higher level design functions, including:

- Needs Analysis
- Feasibility studies
- Functional specifications
- Audits
- Optimisation studies
- Regulatory compliance
- System security plans
- Technical standards
- Operational methods
- Constraints analysis
- Remote operations
- Alarm management
- Alarm rationalisation
- Root cause analysis
- Lean/Six sigma

## Our Services



### Industrial Communications and Information Technology

As part of Calibre Controls, the Industrial Communications and Information Technology (ICIT) group is a solution driven communications and IT consultancy business providing network and IT solutions tailored to suit its clients requirements.

The ICIT group provides engineering, consultancy, technical and project management expertise in the areas of communications and information technology.

The ICIT group is made up of a diverse set of industry professionals, collectively with over 120 years experience in the communications and IT business. Our highly skilled team possess a wide range of technical and consulting skills that make the ICIT group the “go to” people for Industrial Communications and IT solutions, leaving our clients free to concentrate fully on their core business with confidence in the advice and services we provide.



### Manufacturing Execution Systems

Calibre Controls has proven capabilities in the consulting and project delivery of MES applications in the resources sector. Our workforce possess sound understanding of the various MES functional areas such as operations scheduling, production accounting, loss accounting, reconciliation, quality management, asset management, data historisation, KPI management and integration with business layer applications such as ERP and supply chain management systems.

MES applications are key cornerstones in enhancing the operational responsiveness of the supply chain, increasing asset efficiency and in turn improving business performance.

Calibre Controls’ portfolio of successful MES solutions include the implementation of data historians, delay accounting, production reporting and the integration of systems.

# Our Services



## Support Services

Success in business does not end with the completion of a capital project. After commissioning, not only is ongoing maintenance required, but so are ongoing repair, upgrade, continuous monitoring and improvement services. Service excellence in these areas greatly aids the management of assets to ensure optimal production levels are achieved and maintained.

With our commitment to service excellence and a desire to add value to your business through our services, the Calibre Controls Site Services Team can draw on a wealth of expertise. With experience encompassing a wide variety of PLC, SCADA and DCS systems, HMI design, electrical engineering, process control and instrumentation systems, the Site Services Team can provide your business with a wide range of swift, efficient and effective maintenance and support services tailored to suit your individual operational requirements.

- Periodic Maintenance
- Scheduled Maintenance
- Remote Support
- On-call Services
- 24/7 Response
- Leave Cover
- Emergency Cover



**Figure 1: Calibre Controls Site Services Group Capabilities**

## Our Services



### Integrated Training and Documentation

Calibre Controls Integrated Training and Documentation group have broad capabilities in the area of operator and process training. Also, our technical writers are capable of developing, upgrading and as-building technical documentation, Computer-Based Training materials, e-learning content and other materials which contribute to lower maintenance costs.

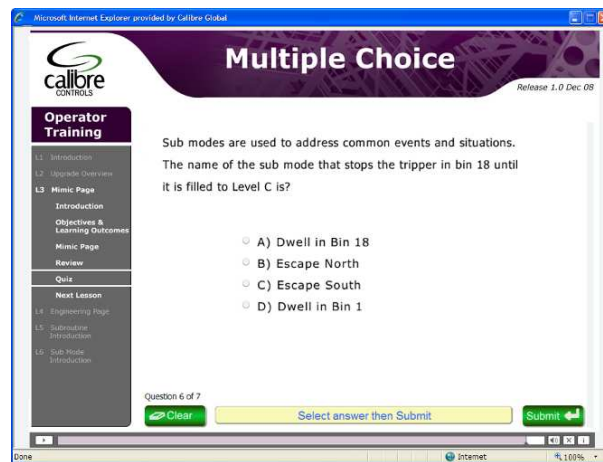


Figure 2: Sample e-Learning Display

Having developed general purpose training as well as site specific tailored training materials with defined learning outcomes and assessment criteria, Calibre Controls' clients have reported very high levels of satisfaction with training outcomes in the important context of commissioning and operating a new facility at its optimum level within a very short period.

Not only is technical equipment and vendor product training available, but Calibre Controls is also able to deliver course material in the areas of:

- Fault finding and diagnosis of complex systems
- Communications and networking
- Process operation e.g. for control room operators
- Equipment maintenance
- Optimisation and constraint control

## Our Experience



Calibre Controls employs over 80 personnel with current and relevant experience in the delivery of complex projects, production enhancements, business strategies, training and support services for major resources clients.

Calibre Controls is the specialist automation business unit of Calibre Global, which employs over 750 personnel and is able to perform a complete EPCM project delivery.

Our people's experience comes from a wide range of industries including:

- Aluminium
- Automotive
- Materials Handling: especially Iron Ore and Coal
- Defence
- Food and beverage
- Industrial chemicals
- Information & Communications Technology
- Manufacturing
- Marine
- Minerals processing: gold, nickel, lead, zinc, copper etc
- Oil & gas downstream/upstream exploration & production
- Power Generation
- Rail
- Smelting: ferrous and non-ferrous
- Underground mining and open pit mining
- Water & wastewater

Calibre Controls and Calibre Global in-house engineering resources are complemented by delivery partners and subcontractors where appropriate. Our extensive project experience includes the delivery of brown fields projects and an understanding of the balance between construction timelines and the continuity of production. We have successfully completed major extensions to operating processing plants due to planning with operations staff and the preparation of a shutdown plan managed by Calibre's experienced construction management team.

## Our Products

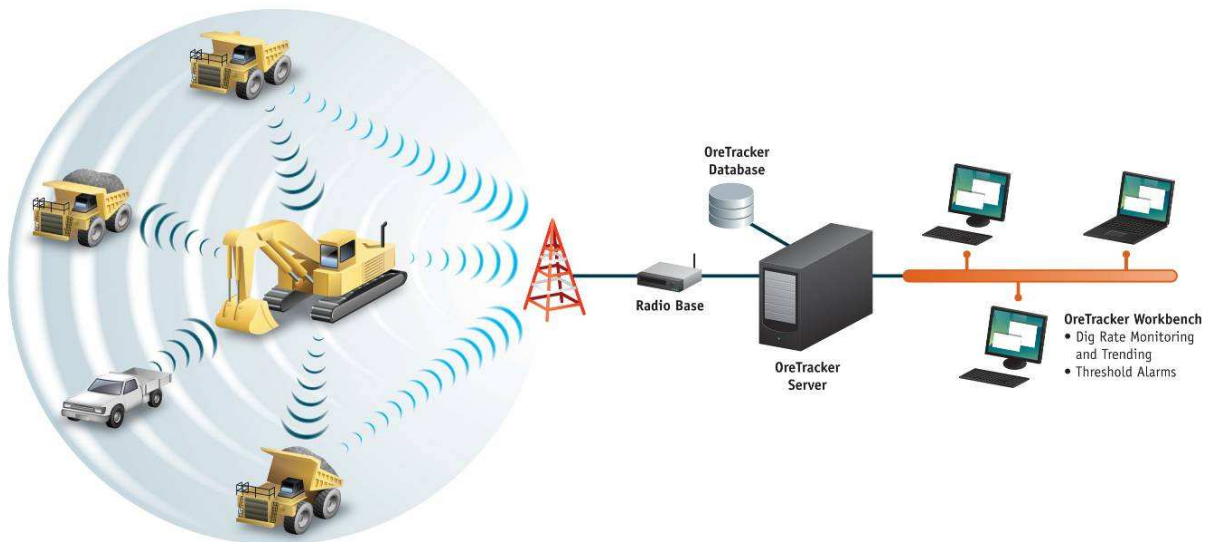


OreTracker provides simple and cost-effective real-time tracking of material movements for mining operations.

### Right Time. Right Place

With OreTracker, all ore loads are tracked to their correct destinations and mis-dumps practically eliminated.

The system provides electronic reconciliation of production data (end-of-period reporting), as well as real-time monitoring of production efficiency with in-shift reporting as well as a real-time fleet view.



**Figure 3 - OreTracker System Diagram**

Ore Tracker employs several communications structures to ensure that the data flows quickly and correctly; GPS for live positioning, latest generation mesh technology between vehicles in close proximity and highly reliable UHF for long haul communications.

## Our Products



OreTracker can also be integrated with the mine production management, be it for performance management, short-term assignments or whole production scheduling . Common production data, such as loading times and truck cycle times, down times, usage and availability are all available from the OreTracker server to objectively establish production key performance indicators.



**Figure 4 –OreTracker console showing driver warning display**

OreTracker also offers a real-time view of the production resources to either external applications or its own supervisory console. The machinery operators are provided with a simple real-time display on a touch-screen monitor, including an intuitive GPS-based moving map which assists them to move around the mine to their correct destination. Material properties are pre-assigned to loads (without requiring real-time input from the driver) in a simple workflow which is fully customisable through a Workbench environment on the OreTracker server.

# Calibre's Corporate Directory



## Calibre Global

### Business Units

#### Calibre Global Pty Ltd

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#### Calibre Projects Pty Ltd

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#### Calibre Safety Services Pty Ltd

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#### Calibre Engenium Pty Ltd

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