RCT’s complete focus is on achieving optimal safety, productivity and profitability within mining operations through the advantage of smart technologies. RCT’s offering ranges from automation and protection systems for mobile equipment to information systems with the ability to harvest, transport, and store data; along with tailored data analytics solutions.

This statement articulates RCT’s approach to interoperability and how RCT systems can integrate well within a mine’s ecosystem. In particular, besides achieving its functional performance within a mix-fleet environment (viz., device interoperability), RCT systems will also be able to interface and exchange information with and between other systems, ensuring that the value of relevant data can be utilised (viz., data interoperability).

INTEROPERABILITY STATEMENT

Interoperability can be defined as the ability of a system to work with or use the parts or equipment of another system. One of RCT’s key values has always been in its systems’ ability to operate with any machine, regardless of make and model. Recently, RCT has innovated to allow its systems to operate with any mine’s individual communication networks where desired.

Now, as the mining industry is embracing the use of digital information, RCT makes sure its systems can play an integral part of the customer’s digital ecosystems, without compromising safety and system integrity. Firstly, RCT promotes data interoperability by defining a set of system health and operational data generated by RCT systems that can be shared with the customers, via pre-defined interfaces. This can be achieved through various industry standard interfaces and pathways, at a site level and within the cloud environment. Secondly, powered by RCT’s proprietary PolyMesh technology, EarthTrack®, RCT’s information system, can provide the transportation of data from and to multiple locations (e.g., from mobile machines to a central server for analysis), with or without network coverage. Furthermore, EarthTrack® information systems can read in, store, and utilise data from other third-party systems.

AUTOMATION SYSTEM DATA

In order to ensure the safe operation of the automation system and to protect RCT’s intellectual property, RCT do not allow direct access into the ControlMaster® automation systems. Any unauthorised access to RCT systems could cause uncontrolled movements resulting in damage to the equipment and/or control systems. Nevertheless, ControlMaster® system health and operational data (defined by RCT and/or in mutual consultation with customers) will be accessible via a service of RCT’s information system, EarthTrack®.

INFORMATION SYSTEM

RCT’s information system, EarthTrack®, comprises of data logging, transferring, storing, and analytic solutions. It has been engineered to interface with our ControlMaster® and Muirhead® products along with machine OEM and third-party systems. RCT’s ControlMaster®, Muirhead® and EarthTrack® solutions work together in an integrated on-board system that allows information about equipment operation, production, location and environment to be relayed to a network.

As its services, EarthTrack® can share data with third-party systems, in formats such as XML and JSON. Schemas are defined via EarthTrack®. Data received from non-RCT systems can also be harvested, transported and analysed.

To ensure the highest level of privacy and security, RCT has defined a data privacy policy in accordance with Australian Privacy Principles¹ and relevant EU General Data Protection Regulation (GDPR) privacy laws and regulations. This policy ensures the customers have more control over the information related to their use and application of RCT systems, and also allows RCT to benefit from the data for product and service enhancement purposes.

¹ The Australian Privacy Principles are contained in scheduled 1 of the Privacy Act 1988.
For example, RCT might use the data to continually improve a client’s equipment and automation system availability. This will be achieved through monitoring RCT systems, back at RCT as part of our continual product improvement program.

The customers retain all rights, title and interest in or to any data that is made available to them through EarthTrack® service.