

## **Complete mine automation: A new paradigm in mine operation**

Automation is still a new process in mine operation, although it has been consolidating itself on the global industrial segment in the last 30 years. Automation is now a reality in the oil industry, chemical industry and especially in the automobile industry-one of the most advanced in this requisite- where a process control integrates all the production phases creating a holistic vision.

In the mining sector, as in industries, the plants are already automatized, but this is not the case with the mine. It is estimated that 20% of all mining companies manage their own fleet, which does not represent the complete automation desired. Mining companies started the automation process only from the mine front to the primary crusher. This is one of the most expensive stages of the mine, hence why it was the first to receive attention.

In Brazil, the level of automation in loading and transport systems in the mine is one of the world's highest, alongside Chile and Australia. However, the loading and transport system management is only one step in mine automation. Extreme and Smartmine.UG, launched by Devex at the end of 2011, during Exposibram, are two new solutions that precisely address the automation of mobile assets under this broader paradigm of the whole mine as a single process.

What Extreme does for open pit mines and Smartmine.UG for underground mines is to go deep in the concept of optimization and process automation. They are solutions that offer the entire platform for automation of all mining operations, which goes far beyond the management of a fleet or dispatch.

Extreme and Smartmine.UG optimize and automatize not only loading and transport, but all the equipment and systems in the mine, whether fixed or mobile, auxiliary or productive, mining fronts and even people and their activities.

Both systems are the result of Devex's 15 years of experience in the mining sector. Our challenge now is to use these new concepts to bring the new released systems to our clients in order to maximize results and improve costs.

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