

Commissioning in the Heart of the Jungle: Three Months in a Brazilian Gold Mine



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A story of human, technical, and cultural adventure

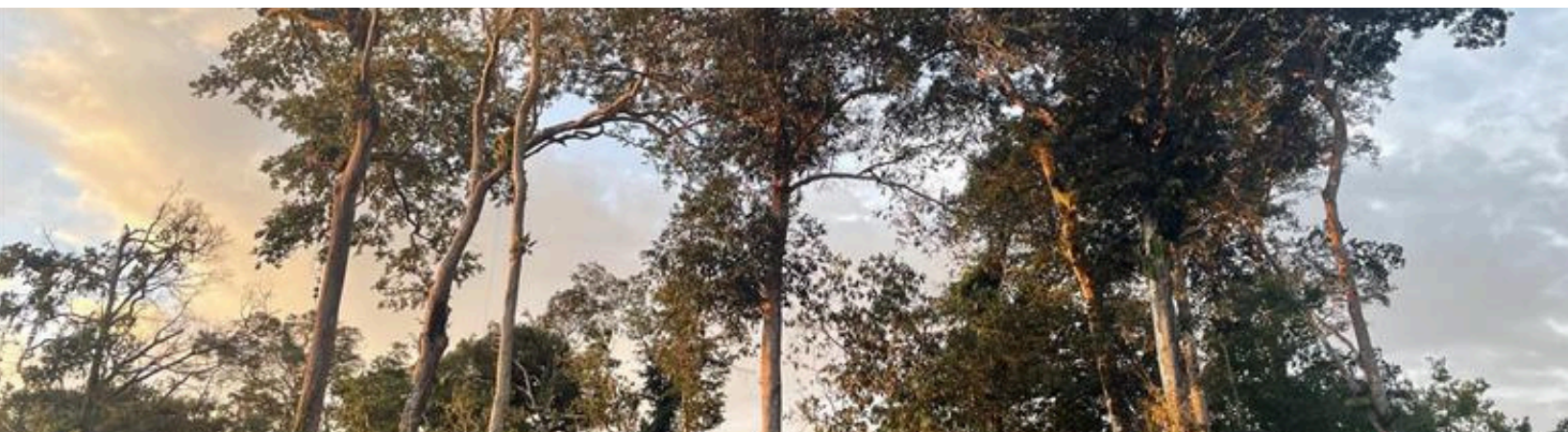
At the beginning of 2024, an unexpected opportunity came up: a multinational mining company was looking for a SCADA specialist to handle the **commissioning of a brand-new gold mine**. One small detail, it was located deep in the Amazon rainforest, in Tocantinzinho, Brazil. The software in use: **Ignition**, a modern and powerful SCADA platform I'm very familiar with.

The challenge was significant and the departure, imminent: only three weeks to prepare. The contract was intense, consisting of three rotations of three weeks each, with twelve-hour workdays, followed by three weeks of rest. The opportunity was too unique to pass up, so I packed my bags and dove into the adventure.

The journey

Getting to **Tocantinzinho** was far from a typical trip. From Montreal, I flew to Panama City, where I took advantage of a 10 hours layover to briefly explore the city, an intriguing place full of contrasts between modern neighborhoods, colonial remnants, and ever-present tropical heat.

Next stop: Manaus, a large city in northern Brazil, right in the heart of the Amazon. But the adventure was just beginning, reaching the mine required boarding a small charter plane for a two-hour flight over a vast, uninterrupted jungle. This aerial crossing was one of the most striking moments of the journey: no signs of human presence, just a deep green, living, and mysterious carpet of forest.



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Arrival on Site

Upon arrival, the change of scenery was total. The mining site was massive, but still under construction. For the first rotation, I was set up in a temporary tower, as the final control room wasn't yet operational. The work environment was raw and chaotic, with people running everywhere. Testing and installations overlapped, all while maintaining a strong focus on worker safety.

From day one, a major issue slowed down my work: the SCADA application was unusually slow, which stalled the entire commissioning process. In addition, communication with the mostly Portuguese-speaking workers proved more complex than expected. It took a few days for the network infrastructure to be optimized before real progress could begin.

The Technical Challenge

Technical challenges quickly piled up. The electrical team was moving slowly with the connections needed to start up the equipment. My role was to juggle the demands of the process team—who wanted to test material flow area by area—and the field commissioning team, which was validating sensors, motors, conveyors, and safety devices.

The language barrier slowed everything down. Although I spoke English, many of my counterparts didn't understand it. It wasn't until the middle of the second rotation that a translator was assigned to my team, greatly improving communication.

One of the main technical obstacles involved the **VFDs (variable frequency drives)** for the motors. Wiring was sometimes done incorrectly or left incomplete (for example, missing IP addresses). On several occasions, I had to head down to the floor and troubleshoot directly with the electricians, an experience that was both disorienting and incredibly instructive.

At the same time, I worked on the **PLC (programmable logic controller)** side, updating the program to match the realities on the ground. This more hands-on approach significantly sped up problem resolution and allowed me to rapidly build real-world automation engineering skills.



Living Conditions

Living in the Amazon jungle is no small thing. The site was organized with a **strict hierarchy**: expatriates, visitors, and workers were housed separately. I stayed in a simple room with shared facilities, a minimalist setup, but enough to recover after 12 hour days.

The setting was both fascinating and unsettling: macaws and parrots flew near the buildings, while giant beetles and moths were common sights. Some colleagues even reported spotting a jaguar prowling near the fences at night...

As for the food, meals were hearty but repetitive, with the same breakfast every day. A certain monotony set in, but the essentials were there to meet the physical demands of the job. Fortunately, a fully equipped gym helped release stress after work and maintain both mental and physical fitness.

Security was ever-present: the Brazilian army and police constantly monitored the site's entrance with regular patrols—a reminder that even in this remote area, precautions were essential.

The Technological Context

From a technology standpoint, the contrast was striking: a brand-new mine equipped with modern installations. We were using **Ignition**, paired with **Control Expert V15** for PLC programming. Everything had to be built from scratch, but the environment was well thought out, which gave us good flexibility.

Here, the challenge wasn't dealing with legacy systems, but **getting the most out of a new**, still-maturing system.



Conclusion

This mission in Brazil will remain one of the most intense experiences of my early career. It required rapid adaptation, real physical endurance, but most of all, a strong ability to improvise and collaborate in a multicultural and multilingual environment.

Despite the long days and many unexpected challenges, it was a **deeply enriching adventure**. I sharpened my technical skills in the field, learned to manage teams in an international context, and discovered a side of the world few get to see up close.

This first big international leap confronted me with intense culture shock, different realities, but also exemplary professional solidarity. One thing is certain: never underestimate the logistics and collective effort needed to carry out large-scale projects. A true precision job... in the heart of the jungle.

