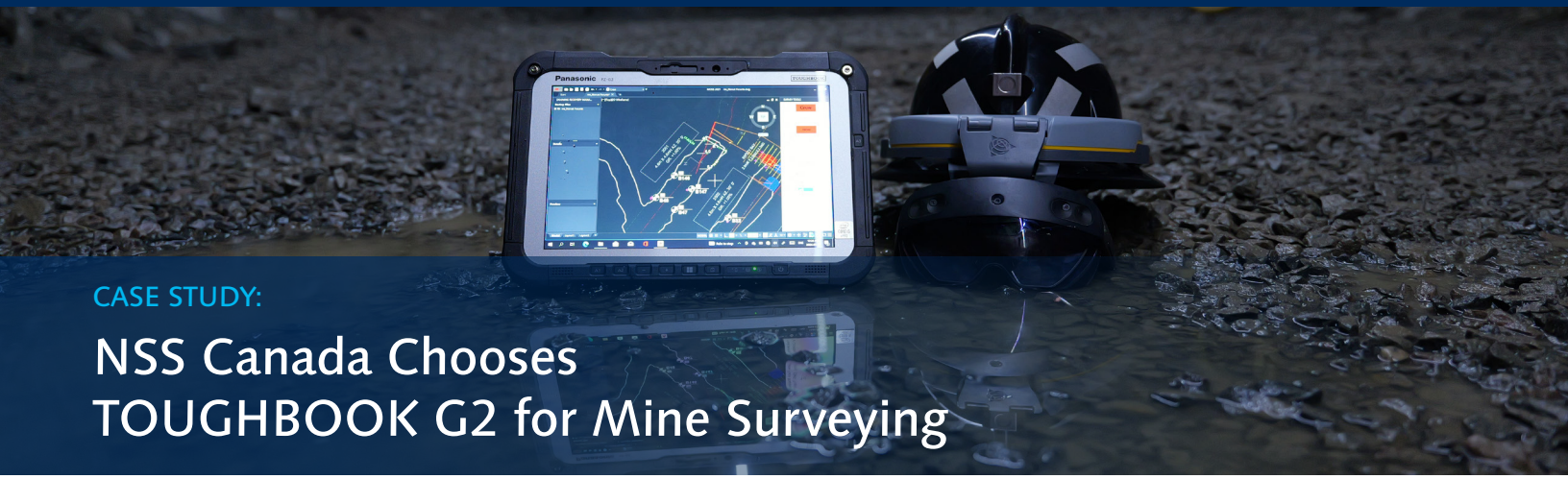
Panasonic CONNECT

TOUGHBOOK

MOBILITY SOLUTIONS FOR CONSTRUCTION AND MINING DEALERS



CASE STUDY:

NSS Canada Chooses TOUGHBOOK G2 for Mine Surveying

NSS Canada, located in Sudbury, Ontario, specializes in cutting-edge underground mining technology. The company pioneered the Miner Operated Survey System (MOSS), a software application for automated survey stations that miners use to collect data and prepare an active face for drilling and blasting. The MOSS solution speeds up cycle time by enabling one miner to perform surveying tasks in 10–20 minutes, a dramatic improvement over the previous two-hour completion time required by a survey crew. On average, MOSS reduces overbreak by 15–20% and decreases cycle time by 75%.

CHALLENGE

NSS Canada needed to find a mobile device they could incorporate into their mine survey solutions. The device had to be capable of both running their innovative MOSS software application and surviving the harsh working conditions in an underground mine.

SOLUTION

The company chose fully rugged TOUGHBOOK G1 and, more recently, G2 tablets for their durability and processing power. TOUGHBOOKs connect to NSS Canada's automated survey stations via Bluetooth®, allowing miners to set up quickly and do their work from the safest location.

RESULTS

Like TOUGHBOOK G1, the G2 has exceeded all expectations. NSS Canada and their customers have used many of their TOUGHBOOK tablets for years on end, in underground mines around the world. Standout features include impressive Bluetooth range and long battery life.

FINDING A POWERFUL MOBILE DEVICE THAT WON'T BREAK

NSS Canada was looking for a mobile computing device that they could integrate with their automated mine survey stations—but not just any device would do. The company needed a high-performance model with enough processing power to smoothly run MOSS, a resource-intensive, CAD-based software application they were about to launch. The device had to be large enough to deliver a good user experience with the program's graphical interface, which was designed to guide miners step-by-step through each workflow.

Of course, the device also had to be tough because miners operate in some of the harshest working conditions on the planet. Their equipment has to withstand constant exposure to extreme heat, dust, grit and water. Throughout each 12-hour shift, the miners' gear gets bounced around and subjected to vibration inside their trucks.

Downtime is very expensive, so mining companies purchase equipment with the expectation that it will work whenever miners need it, wherever they need it, every single time they turn it on. If a device breaks or prematurely runs out of battery power, miners have to drive back up to the storage depot for a replacement, wasting valuable time.

Working in the heat and dust, under pressure to achieve results, miners often get impatient. "They're super rough on all their equipment," confided Ben Rantala, Technical Support Specialist at NSS Canada. Rantala regularly visits customer sites, training miners how to use automated survey stations. "At some sites, they just tear down the station and throw the components off to the side of the drift."

NSS Canada knew that if they were going to package a mobile device with their survey stations, it would have to operate without fail in exceptionally difficult conditions and provide a reasonable service life to their customers.

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NSS CANADA TRUSTS TOUGHBOOK G2 AT 9000FT DOWN

Panasonic TOUGHBOOK tablets were NSS Canada's first and only choice for running MOSS in harsh underground environments. Unlike consumer-grade tablets, TOUGHBOOK G2 is a fully rugged device with the processing power and operating system that the CAD-based software requires. Every TOUGHBOOK G2 ordered by the company comes with a high-capacity battery that can power the tablet for up to 18 hours.

"We get our TOUGHBOOKs right off the shelf," said Rantala. "We literally just turn them on, run updates, delete any programs we don't need, and load our software. We offer a full underground survey package that comes with the total station and accessories, plus the TOUGHBOOK G2 tablet, and we set up everything here in the office before it goes to site."

NSS Canada designs their solutions to help miners complete tasks as efficiently as possible. For instance, they configure TOUGHBOOKs to automatically connect with survey stations via Bluetooth, so miners don't have to waste time with cables. The company also offers a sturdy metal tablet case that quickly hooks onto the station's tripod. Miners can either slip the TOUGHBOOK G2 into the case or hold it in their hands, if they want to stand farther away from the face. At the end of each shift, miners bring their TOUGHBOOK G2 back to the Panasonic docking station, where MOSS automatically syncs up with the server.

"I've seen a TOUGHBOOK get run over by a scoop and still work. I've seen them dropped in water, and they work just fine after being dried off. TOUGHBOOK G2s give me confidence to bring them places where any other tablet or laptop would get destroyed right away."

BEN RANTALA
Technical Support Specialist
NSS Canada

TOUGHBOOK G2 JUST WORKS… NO MATTER WHAT

During his seven years at NSS Canada, Rantala has trained hundreds of miners at dozens of sites around the world, so he's had ample opportunity to judge TOUGHBOOKs' durability. "I've seen a TOUGHBOOK get run over by a scoop and still work," he recounted. "I've seen them dropped in water, and they work just fine after being dried off. TOUGHBOOK G2s give me confidence to bring them places where any other tablet or laptop would get destroyed right away."

Performance-wise, TOUGHBOOK G2 has also impressed Rantala. "The tablets are always set to the highest display resolution and performance settings—and battery life is still amazing. MOSS runs faster on a TOUGHBOOK G2 than on my laptop because it's a dedicated device, with nothing else slowing it down," he explained. "And TOUGHBOOK's Bluetooth signal strength is unreal compared to other devices. I've never lost a Bluetooth connection—ever."

When asked about his experience with Panasonic support, Rantala couldn't offer an opinion. "Believe it or not, I've never had to reach out to Panasonic for support with our tablets," he said. "It's very rare we see a TOUGHBOOK come back. Even when customers upgrade their survey equipment, they just stick with their current TOUGHBOOK. One of our customers has been using the same G1 tablets nonstop since 2017."

NEXT STEPS

As NSS Canada looks forward to the release of MOSS Augmented Reality (AR), the next generation of its popular surveying software, they remain committed to supplying their customers with TOUGHBOOK G2 tablets. NSS Canada feels that Panasonic's new 10-inch G2 model is a particularly good fit for helping miners display virtual markups in the improved MOSS AR interface. With MOSS AR, miners won't have to carry a total station with them, only a TOUGHBOOK G2.

Interested in learning more about the Miner Operated Survey System (MOSS)?
Contact NSS Canada at info@NSSCanada.com or visit www.nsscanada.com