

Entertainment

Case Study

GETAC V110 HELPS CIRQUE DU SOLEIL JUGGLE DOZENS OF JOBS, SAFELY.

Challenge

Cirque du Soleil doesn't just rely on the amazing feats of athleticism and artistry, there's also a massive, high-tech infrastructure behind the scenes that ensures the show looks great and keeps everyone safe – even when the weather is awful outside the big top.

Solution

The Getac V110 is a fully mobile, rugged computer that can be used by showrunners to troubleshoot problems whether they're outside in the rain, on a catwalk 40 feet over the stage, or in the pitch black of a show in progress.

Benefits

Water and shock-proofing features, along with a resistive touchscreen that can be used with gloves on, are essential to ensuring that shows run smoothly and that performers can be certain that the stage is safe.

Photo: Martin Girard / shootstudio.ca Costumes: Philippe Guillotel © 2014 Cirque du Soleil



Case Study - V110 Fully Rugged Convertible

/ Challenge /

A single Cirque du Soleil show like Kurios, now touring North America, requires a small town's worth of infrastructure. The production is operated by more than 100 employees, including three full-time chefs, two physical therapists, and teachers in a traveling school.

At showtime each night, the focus shifts completely to the performers. In the back of the house, a small army of employees scurry to ensure the sound is right and the lighting is perfect. One of the most critical jobs falls on David Greatrex. As Head of Automation, he's in charge of the systems that hoist performers into the air – and bring them back to earth intact. As well, safety nets must be raised at the right time and kept at the proper tension, lest a performer landing on one hit the ground – or be bounced off too explosively.

/ Challenge /

Managing the winch systems requires a complex configuration of computers that has to be designed for absolute reliability in order to ensure the safety of the performers. That starts with daily inspections and testing and continues with real-time monitoring of the winches during the show. "Each guy-wire has a sensor that electronically reports its tension so we can track down any problems," says Greatrex.

While Kurios is typically monitored from a wired control booth, Greatrex and other technicians need to be able to go mobile at all times in order to track down trouble in, the maze of catwalks high above the stage or outside in the middle of a snowstorm. (Cirque shows generate 100 percent of their own power onsite and the tent is rated to withstand over 75km per hour winds, so cancellations are extremely rare.)



David Greatrex (Head of Automation) shown using V110
Photo Credit: Ingrid Young

/ Solution /

Greatrex began his tenure with Cirque du Soleil as part of a different show that had already been running for nine years... and which was still using the same computers that had originally been deployed for the production, which is typical for Cirque. When Greatrex got the chance to join a new show, Kurios, he knew he'd need a laptop that could handle the rigors of the job for a decade or more. He made the case for the Getac V110, and corporate agreed. "I wanted a laptop that would last for the life of the show," he says.

For Greatrex, it's not just a question of durability. He also needed a machine that performed well. "Having a balance between productivity and ruggedness is key for us," he says. For example, equipment carried up into the lighting grid has to be secured via a safety tether to the technician's harness to

prevent it from falling down onto an unsuspecting audience member and can bang into all kinds of obstacles on the way up the ladder. At the same time, the computer has to offer speedy enough performance in order to keep up with the fast pace of the show.

"It's not about fighting fires, it's about reliability," says Greatrex. "If I ding it or drop it, I have to know it's not going to break."

/ Benefit /

The Getac V110 gets put to use as soon as crews arrive in town to erect the iconic blue-and-yellow tent, a five-day process. Unlike the construction industry, work is never delayed due to weather. Whether rain is beating down or it's minus-20 degrees outside (as Greatrex recalls during a setup in Montreal), the show must go on, and the V110 is at the ready to ensure wire tensions are within tolerance by reading sensors wirelessly.

Inside the tent, Greatrex praises the relative lightness of the V110, which allows him and other technicians to be extremely mobile with the computer. Sometimes that means delving beneath the seating area, where the winches and power systems are physically located. Besieged by a hail of oily, buttery popcorn, the winches are kept covered, but Greatrex and the Getac V110 are not so lucky. The Getac has to be able to resist anything that might come down through the cracks on top of it.

Greatrex says he uses the V110 about half as a laptop and half as a tablet. Because it's completely dark while the show is running, the backlit keyboard is essential. And because Greatrex and his team often wear gloves, being able to use the non-capacitive touchscreen without having to remove them is an added bonus.

With the company's obsessive focus on safety and monitoring, Greatrex says he's never encountered a disaster on the show. Another one of the Getac's capabilities: It's available as a backup for the other computers in the automation department, so if another system fails, a portable replacement is immediately at hand.



Photo: Martin Girard / shootstudio.ca
Costumes: Philippe Guillotel © 2014 Cirque du Soleil

CIRQUE DU SOLEIL BY THE NUMBERS

Year founded: 1984

Current number of employees:
4,000, including 1,300 artists

Total admitted to Cirque shows
to date: 150 million

Longevity of each "big top"
Cirque show: 10 to 12 years

Number of tractor trailers
needed to transport Kurios: 66

Power generated on site:
1.8 megawatts

Total length of all power
cables: 40,000 feet

Weight that performer winches
can support: 500 pounds

- At a top speed of:
10 feet per second
- Which typically perform a total
of: 187 motion sequences per
show
- For a sustained daily
operational time of about:
12 minutes