

THE TECHNOLOGY OF CONSERVATION

RTI Solutions Provide Simple, Intuitive Control Over State-of-the-Art AV Experience at Revamped Mon Repos Turtle Center



Located outside Bundaberg on Queensland's coast, the Mon Repos locality supports the largest concentration of nesting marine turtles on the eastern Australian mainland and has the most significant loggerhead turtle nesting population in the South Pacific region. The Mon Repos Turtle Center has long hosted tours during breeding season, allowing visitors to see nesting sea turtles on the beach at night and hatchlings emerging from their nests.

Recently, the Center underwent a \$22 million renovation, with the goal of turning it into a year-round attraction. Opening just in time for the latest season, the revamped facility relies on AV technology to provide a state-of-the-art experience that fully immerses visitors in marine turtle research and conservation. The upgraded space is packed with interactive touchscreen monitors and tablets, new digital signage, two monumental LED walls, external LED signage and its crown jewel: an immersive theater that recreates the turtle nesting and hatchling experience. The high-tech makeover was provided by exhibit design and build company Focus Productions, in partnership with RTI integrator Code Red Smart Technology.

The Turtle Center's new theater consists of four LED screens on the walls and ceiling, joining together to occupy a total of 100 square meters. Synchronized custom content from six BrightSign digital signage players is delivered by a combination of LED video walls and Epson projectors, while surround sound is provided by two Powersoft 4-channel amplifiers. Outside the theater, the facility features over 20 Philips commercial monitors and touchscreens ranging from 32 inches to 55 inches, LED walls comprised of custom metal frames and Absen panels, with content delivered via onboard android systems with internet connectivity or through Bright Sign players. Additional equipment includes eight NovaStar LED controller units, two Kramer presentation scaler/switchers, and a DMX lighting controller.



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Matt St. John

Owner, Code Red Smart Technology

During the project’s planning stages, a primary concern was providing simple, intuitive control over the Turtle Center’s technology, which would be operated by park rangers and volunteers with varying levels of tech savviness. A solution was required that would automate the powering on and off of the facility’s systems, while allowing staff to easily select the content they wished to play, operate the complex equipment in the theater, and make system changes on the fly as needed. In addition, park rangers wanted the ability to send “group call” notifications to selected displays simultaneously to announce a turtle nesting or hatching event. Finally, Code Red required remote monitoring and troubleshooting capabilities, as its offices are a six-hour drive from the Center. To meet all of the requirements, the company relied on control solutions from RTI.

“While many control manufacturers focus on making their solutions easier to program — which is certainly appreciated — they don’t allow their interfaces to be customized to the specific needs of individual installations. That’s a major limitation in the custom world, and the user experience suffers as a result,” said Matt St. John, Owner of Code Red Smart Technology. “In addition to providing exceptional reliability

at a lower price point, RTI’s solutions can be completely customized to meet any user need, which is why they are our solution of choice for residential and commercial projects.”

The Turtle Center’s control system is powered by RTI’s XP-6s processor, in conjunction with an RCM-4 relay module. To schedule systems to power on and off during various times of the year, Code Red utilized a schedule driver. A PLink driver provides IP control over the Center’s projectors, while the RF-11iQ driver, delivers control over four Thor Power controllers. For devices without drivers, Code Red utilized RTI’s Two-Way Strings driver for TCP/IP control, in addition to RS-232 control for lighting. Center staff interact with the system via a KA11 11-inch touchpanel located in the reception area and a KA8 8-inch touchpanel in the immersive theatre, both of which provide single-button operation over the facility’s AV and lighting systems. The controllers require a passcode, allowing park rangers to keep them in easily accessible locations without worrying about unauthorized users manipulating the content presented.

For remote management of the Center’s systems, Code Red relies on RTI’s RTiQ intelligent remote monitoring solution. With RTiQ, the company can monitor the status of all components connected to the XP-6s processor via a dashboard from anywhere in the world, and receive email and text notifications that alert them if a failure occurs. Once alerted, custom actions can be triggered to restore the failed system or component.



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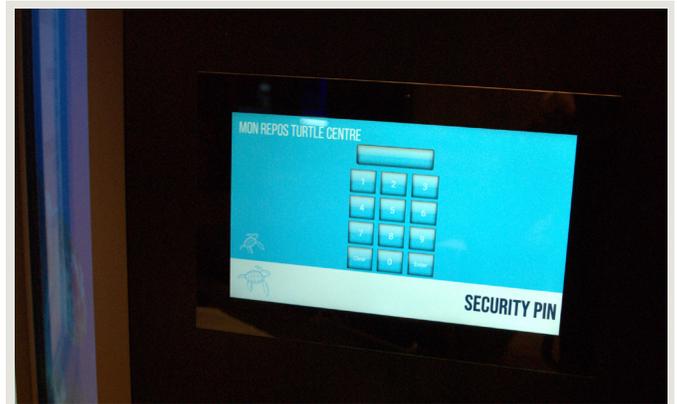


“The upgraded Turtle Center has been a big hit with guests and staff alike,” added St. John. “Visitors are blown away by the immersive theater and massive amount of screens located throughout the space, which really enhance the learning experience. And park rangers love the ease of use and level of customization we were able to provide — from color schemes to the group call functionality. We wouldn’t have been able to achieve that as easily with other control solutions, and many aren’t capable of doing it at all. Of course, the real winners are the turtles. In the end, all of this high-end technology is working to protect these amazing creatures.”



List of RTI products used:

- 1 x XP-6s Control Processor
- 1 x RCM-4 Relay Control Module
- 1 x KA11 11-Inch Touchpanel Control
- 1 x KA8 8-Inch Touchpanel Controller
- RTiQ Intelligent Remote Monitoring Solution



Integrator Contact



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