

Application story

Article Highlights:

- *ABEtronics was hired to find an automated solution for sailboat racing events.*
- *They needed to find a controller to replace a physical person at the start of each race- to perform the "ready, set, go" as well as sound the horn to commence the race, and be able to withstand high winds and fluctuating temperatures (being by a lake).*
- *The JZ10-11-R16 was chosen for its ability to meet these needs and more*

Unitronics Jazz® Gives Sailboat Racers an Accurate, Reliable Start

ABEtronics is a leading engineering services company that was recently put to the task of finding a way to create a consistent and accurate starting process of multiple sailboat races. On average, there are about 2 races conducted per week for 18 weeks (36 races per year). Previously, these races were started manually, using a wrist watch to count down the time to start the race. Someone also always needed to be physically present at the time of the race to manually turn on lights (Get Ready, Set, Go) and sound the horn to begin. This is

when ABEtronics decided that Unitronics' JZ10-11-R16 would be a perfect fit to both provide accurate start times, as well as automated control- eliminating the need for an on-site person. The Jazz® unit was also chosen because of its rugged ability to withstand high winds as well as hot and cold temperatures by the lake.

The controller was placed in a deck box at the end of the racing pier. The race captain would then set the time, and number of

races. From here, the unit would control the starting lights and horn via relay, which conveniently eliminated the need for a race committee.

"The PLC software was easy to program and test during the debug phase." Said Jim Abraham of ABEtronics. They were able to set up racing events using the HMI by collecting user input to enable the racing starter functions. Then, the PLC energized the ready-set-go lights using relays to inform the racers

that the race is about to begin. A relay was also energized to sound a horn to start the race(s). "I wanted an easy user interface and PLC I/O combined into one rugged unit." Said Abraham. "I also needed a real-time clock to time events. The unit made it easy to program the HMI and PLC ladder logic. Unitronics tech support was always helpful with answering questions I had during the programming of the PLC- being the first time I used the product. It was enjoyable programming the PLC and HMI and getting it to work properly for this application. I would highly recommend this and other products from Unitronics."

With the help of the Jazz® unit, they can now set up the race times in advance, with up to 2 races being started remotely without human intervention. Everyone can just get in their sailing boats and get ready to race. Since installation, the Jazz® has facilitated about 126 races with no trouble. It is on its 4th season, and going strong!

