

Connections

Safety Controller News



Technology changes and updates itself constantly. Back when I began my career in electronics, I remember

**“Safety is
no
Accident.”**

- Author unknown

As New England Drives & Controls constantly strives to become a better asset to our customers, our whitepaper series will feature new technologies or helpful insights that may be pertinent to the reader. It is our sincere hope that this information will be beneficial in both relating, and applying content to your industrial needs.

We hope you find this whitepaper series an enjoyable and informative read.

We always welcome your questions and comments.

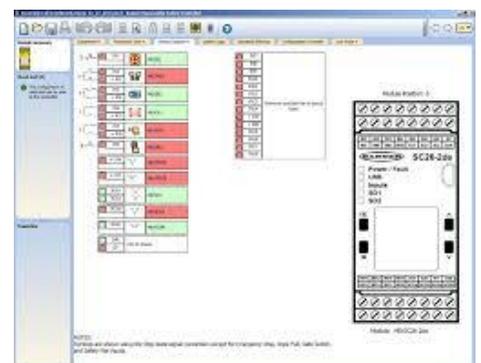
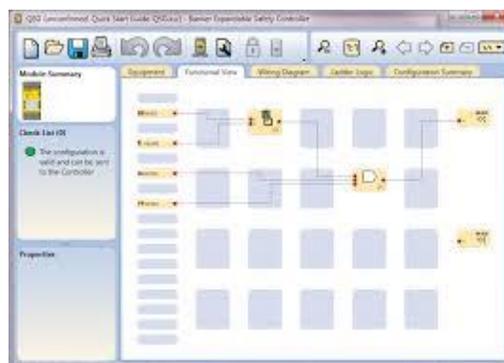
utilizing, quite often the 555 integrated circuit. It came in an eight leg DIP package, and was the versatile component to help with ancillary circuits such as clocks, timers, frequency generation, etc. A handful of passive components and you were on your way.

Eventually the 555 stepped aside for programmable logic chips and small controllers. They were less expensive, required even fewer passive components and were “programmable” to do what ever was needed. The piece cost for a simple controller was around a nickel. The 555 was close to 60 cents. It made sense to go down that path.

We are at a similar crossroads today with safety components. Safety relays were and are still used, but the advent of extremely cost-effective controllers will soon supplant the use of relays, much like with what happened with the venerable 555.

For the cost of two safety relays, you can have a complete safety controller that can do the job, and then some. Software now allows one unit to replace passive components, switches, and potentiometers.

The software allows you to implement logic between multiple safety inputs such as light curtains, E-Stops, pressure mats, two-hand controls, and also allows the adding of functionality such as muting. After you input your selections, the



software allows you to emulate the circuit, and virtually test its functionality before it is put into use. The software will also create a wiring diagram of where all of the inputs and outputs of the connected components need to be wired into the controller. It is so easy!

Banner also provides safety interlocks such as safety hinges, RFID, and mechanical safety switches, light curtains, illuminated E-Stop buttons, two hand controls, as well as just about anything else you would need in a safety application. The controller can even network through its ethernet port.



If you are currently using multiple safety relays in your project, you owe it to yourself and to your project to investigate this technology. It will simplify your life and lower your costs. It can even replicate the functionality of some competitive specialty safety relays that were once unique with their functionality. Having the power of a controller behind your safety circuit really opens up opportunities.

Much like the original microcontrollers that replaced the 555 on a circuit board, the Banner SC10 is quite frankly, "the future!" Contact your New England Drives & Controls representative for more information on this powerful yet affordable device. We would love to discuss the possibilities and demonstrate this controller and safety devices with you.

Enjoy what will hopefully be a beautiful July summer month, and we'll see you again in August!

-Peter Lavoie (V.P. of Engineering)



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