



Simplistic control: Vision350™ Limits Access to Various Machines Via RFID System

Though Unitronics Vision350™ is *equipped* for complex automation tasks, not all applications have that type of demand. Unitronics distributor Ramco Innovations of West Des Moines, IA had a customer that needed a way to limit access to certain machinery in their factory. An RFID card system was already in place, and they wanted to have the ability to log in who used the machine and for how long.

The system is set up so that when an employee scans their RFID card, their number is checked against a data table of authorized operators. Regardless of whether or not the employee is or is not an authorized user, their ID number, name, and the time and date are saved to the data table. Once an authorized user is logged in, an output is turned on to a valve that supplies air to the machine- the “Start” and “Stop” push buttons will now allow access to operate the machine. There is also a 2 hour limit that is set to prohibit a user from logging in and leaving the machine enabled all day. If the operator was to scan their RFID card again, or the 2 hour timer has timed out, they would be logged off the machine and it would again be disabled. After being logged off, the operator’s name, ID number and the time and date they logged off are saved to the data table. The air supply output is programmed to stay on for an additional 15 minutes, so that if another user wants to log on right after another user had logged off, the air cycle would not be wasting unnecessary air.



All of the data tables used are accessible to the customer over their internal LAN network via the PLC’s Ethernet capabilities. They can now track who is using the equipment and also who might be trying to access equipment that shouldn’t be. “These were stand-alone machines and the interfacing with them was seamless.” Said Roy Husted of Ramco Innovations. “We were able to limit access to each machine for safety reasons, and not cost them a lot. We have taken this idea and are presenting it as a package solution now.”