CAN *Newsletter Online*

PLC, HMI, AND I/O

Palm-sized PLC and 15-inch touchscreen

Unitronics has recently launched three products: an additional member of their PLC Samba series, the third model of the HMI Unistream product line, and two dense I/O modules. All devices come with free software and two with CANopen.

The Samba is a PLC, HMI, and I/O all in one (Photo: Unitronics)

THE SAMBA IS A PALM-SIZED PLC WITH HMI and onboard I/Os. The first model of Samba was released this spring; now, the Israeli company is expanding the series with a 4,3-inch HMI panel model. The HMI with 3,5-inch or 4,3-inch QVGA 16-bit touchscreen enables data entry and display of variable data, including color trend graphs and alarm screens. It supports 24 user-designed screens, and up to 40 images per application. The integrated PLC offers a range of features including two auto-tuned PID loops, time-based RTC control, data logging, and recipes.

The internal memory holds 0,5 MiB of application logic, plus 512 KiB for fonts and 0,5 MiB for images. Onboard I/Os offer digital, analog, and high-speed functionality. The flat fascia and IP66/IP65/NEMA4X rating makes the PLC fit for the food and pharmaceutical industries—suitable wherever spray or wipe down requirements apply. Both units come supplied with a programming port (USB for 4,3-inch, EIA-232 for 3,5-inch). Additional ports can be added: EIA-485 or Ethernet, and CAN. Samba supports GPRS/GSM, email and SMS, as well as industrial TCP/IP protocols, Modbus, DF1 slave, CANopen, and J1939; it can also be adapted to any 3rd-party protocol.

The PLC uses Unitronics' free Visilogic software. The software provides a single environment for hardware and communications configuration, ladder application development, and HMI design, including a library of industrial images. Utilities include remote PC access and data export. The company offers free software and technical support for all of their products.

15,6-inch color touchscreen

The company also launched the third model of the Unistream product line. The Unistream15 is a color touchscreen with 15,6-inch, 1366 pixel x 768 pixel resolution, and 16 M colors. This model rounds out the line in addition to the 7-inch and 10-inch HMI panels. The user can create a customized, all-in-one controller by adding the CPU and I/O modules to the HMI of their choice.

The Samba is a PLC, HMI, and I/O all in one (Photo: Unitronics)

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According to the company, the included Unilogic studio software cuts programming time by 50 %, by predicting the programmer's intentions and reusing written code. Programmers build a library of user-defined function blocks and HMI screens which can be imported to new projects or shared with other programmers. The software's predictive capabilities save a significant amount of time defining I/O points, PIDs and other functions. Features like drag and drop, automatic line creation and re-use options for existing code make programming quick and easy. Recently, the company released additional features for the panels like a video player and new HMI widgets. Additionally, a .pdf viewer was added, enabling the users to page through .pdf files on the HMI panel. Other features include gauges and find-and-replace tags support.

Unistream supports EIA-485, CANopen, UniCAN, and Modbus (serial and Ethernet). It can adapt to third-party protocols; the USB and serial ports support external devices such as modems, printers, barcode readers and more.

Dense I/O models safe space

The company also recently launched two dense I/O models for the Unistream line. By enabling users to implement more I/O points in less space, these two dense I/O models improve the flexibility of the platform and help users to reduce the overall system costs. The models offered are UID-W1616T and UID-W1616R. The former includes 16 transistor, pnp or npn inputs and 16 pnp outputs, the latter includes 16 relay, pnp or npn inputs and 16 outputs.