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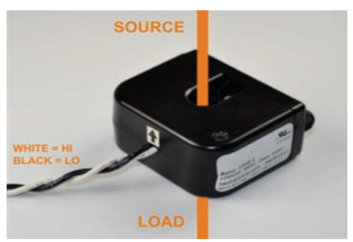
Bitronics 50 Series Update

M653 Three-Display-At-Once Meter

The M653 is a three-display-at-once meter mounted in a 19", 3U high panel. This gives users who want to display three values at once (such as 3-phase volts, 3-phase amps and total Watt/VAR) a simple way to hook up one meter and have the three-screen display they want without having to install and wire up three separate meters.

The M653 is a great value compared with the cost of separate SCADA meters. Setup of the left and right screens is very simple from either the webpage or directly from the front display. The left and right arrow keys are used to "capture" the screen from the center screen and move it to either of the outer screens. The M653 joins the previously announced M650 SCADA Meter and M651 SCADA Transducer along with the M350 Family of 3-phase Ammeters and Voltmeters.

External Split-Core CT Option



An external, split core CT option is available for all three M65x families. Three split core CTs are provided calibrated and wired to the specific meter or transducer replacing the standard internal CTs. This provides the same level of high accuracy without having to interrupt service to the current transformer, making for a simple installation in retrofit and upgrade applications. The split core CT is very accurate and has a screw down top that stays in place much better than clothes-pin type CTs. This option is designated by a "C" in the position for the signal input section in the order guide.

New Firmware Version 3.02

New features in 50 Series firmware version 3.02 include:

Addition of a primary unit option in both Modbus and DNP3. The traditional secondary units in all of Bitronics instruments remains (called Optimal Resolution), but some customers prefer to have their RTUs pull back the data from the meter directly in primary units and now they have that option in the 50 Series.

Password protection The user will now have the option of adding strong passwords that control the ability to make configuration changes, reset demands, upgrade firmware, etc. The user can also choose to disable the front display setup option which then requires the user to enter a password from the web interface to do the settings or to re-enable the front display. Password protection is becoming more important as customers are dealing with NERC security issues even down at the SCADA meter level.

DNP3 Events/Class 1,2,3 Reads The ability to set up DNP events and be able to do Class 1, 2, and 3 reads provides customers the ability to bring back event data only rather than constantly polling for data that may not be changing. This improves data throughput and reduces the amount of bandwidth needed.

DNP3 Health Bit A logical OR of the individual health check bits is available as a binary input which allows the user to map only one point for a general indication of health of the meter.

Phase Angle Measurements The fundamental phase angles for currents, L-L and L-N voltages have been added, referenced to the VA-N. Values are from -180 to 180 degrees. One application cited by a utility for the phase angles is determining if there are problems with CCVTs if the phase angles are off by more than 5 degrees.

Invert CT Polarity This is the equivalent of swapping out the HI and LO connections on the CT inputs. This creates a 180 degree phase shift and it saves the customer from having to change drawings when the polarity on their CT is reversed from normal.

New Literature

An update of the Bitronics Measurement Products Overview Brochure is available as well as new order guides and datasheet for the M650, M651, and M653. All literature can be found at www.novatechweb.com in the Documentation Library.

IEC 61131-3 Programming Tools For OrionLX

What is IEC 61131-3?

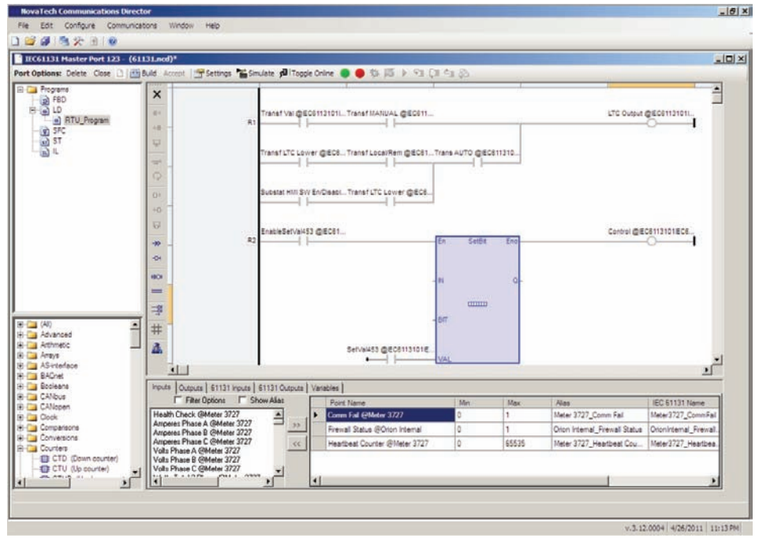
IEC 61131-3 is the international standard for programmable logic controller (PLC) programming languages and specifies the syntax, semantics and display for five languages. Multiple language support in IEC 61131-3 enables the control program developer to select the language that is best suited to a particular task. Tasks and languages include:

Graphic Programming Interfaces

- Ladder Diagrams (LD): traditional PLC "Ladder Logic"
- Function Block Diagrams (FBD): uses "functions" between input variables and output variables

Text-based Programming Interfaces

- Structured Text (ST): a text-based high level language that syntactically resembles Pascal. Complex statements and nested instructions are supported:
  - Iteration loops (REPEAT-UNTIL; WHILE-DO)
  - Conditional execution (IF-THEN-ELSE; CASE)
  - Functions (SQRT(), SIN())
- Instruction List (IL): an efficient, text-based, low level language that resembles assembly



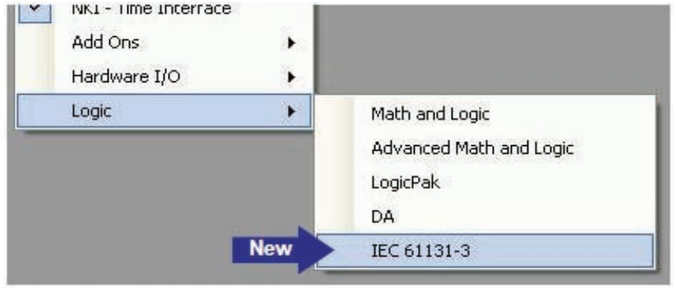
IEC 61131-3 Ladder Diagram example in OrionLX

Flow-Chart based Programming Interface

Sequential Flow Charts (SFC): a language to model complex programs such as DA scenarios with second contingencies, load-checking and multiple alternate sources

Full Integration with NCD

Orion IEC 61131-3 is fully integrated in the Orion NCD (NovaTech Communications Director) configuration software. All points and records accessed from IEDs by Orion (SCADA data, fault data from SEL® Short Event Summaries, etc.) or points generated internally (diagnostic data, comms data, etc.) are available for use in OrionLX IEC 61131-3 math and logic schemes.



IEC 61131-3 is now available in the OrionLX along with the other four Math & Logic tools.

Offline Simulation and Secure Online Viewing of Logic Execution

OrionLX IEC 61131-3 includes an offline simulator to view logic execution exactly as it will appear when running online in the OrionLX.

For more details, download the IEC 61131-3 datasheet from our Document Library: http://www.novatechweb.com/ftp/

Ordering Information

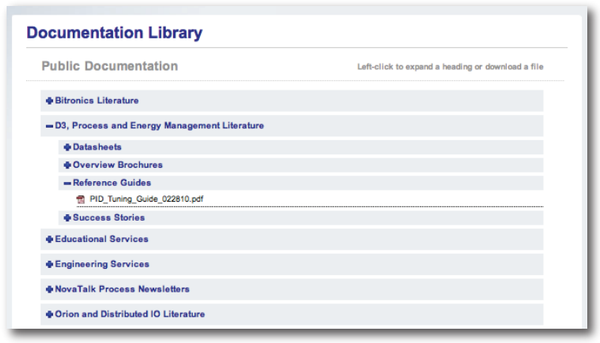
OrionLX IEC 61131-3 (order code #101) can be ordered on any OrionLX of Firmware Release 7.0 or later, using NCD3 version 3.21 or later.

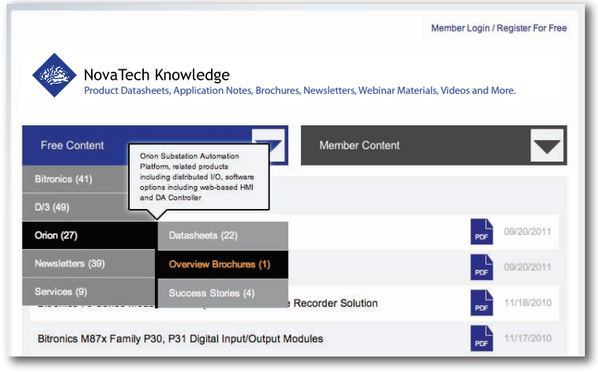
Welcome Jeremy Anderson

NovaTech welcomes Jeremy Anderson as a utility Systems Engineer, working out of the Owings Mills office in Maryland. Along with several years experience in designing and programming HMI and PLC systems, Jeremy has three years of experience with a southwest utility in the areas of SCADA, RTU, I/O, communications and Cyber Security.

In the very short time he has been with NovaTech, he has already taken the lead on the commissioning portion of the current Pepco project, a collaborative series of installations in the Washington, DC area which utilizes both Lenexa, KS and Owings Mills, MD personnel.

Updated Website and Documentation Library





Visitors to the NovaTech website (novatechweb.com) will notice a few refinements to our navigation and page layout when our new site launches in late October.

Among the changes you'll see is a new navigation to the Documentation Library (aka NovaTech Knowledge), which has changed from an expanded tree view (the top screen capture at left) to a dropdown navigation with tooltips that explain the various categories of content, and a document list that includes most recent publication date (bottom screen capture). Some documents may be in different locations.

Site registration is still required to access Members-Only content including customer presentations, user manuals, webinar materials, and other resources. Feedback on the site welcomed at web@novatechweb.com

LATEST SOFTWARE

Orion5/5r Firmware Version: 1.41.0
OrionLX Firmware Version: 1.42.9
Orion NCD3 Version: 3.21
Bitronics 70 Series Firmware and Configurator: 3.06
Bitronics 50 Series Firmware: 3.02
BiView: 3.01