ICC

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PicoPort Version Info

▶ 12.12.2016

Firmware

- V2.500 release
- Added support for port diagnostics byte counters.
- Added support for custom control of the status LED.

▶ 10.28.2016

Firmware

- V2.400 release
- Fixed issue in FLN Slave where writes to LDO's would not apply the bitmask properly.
- Optimized startup routines to decrease boot time.
- Fixed issue with DMX-512 Slave where receive errors could not be detected on the first received character.
- Fixed issue with DMX-512 Slave where receive errors in irrelevant characters caused the packet to be ignored.
- Improved Generic Serial driver's detection of variable length database data for ASCII decimal numbers with leading '+' or '-' characters.

▶ 09.15.2016

Firmware

- V2.300 release
- Changed the encoding of the Firmware Version network configuration parameter from 0xMMmm, where M is the major revision and m is the minor revision to FW_VERSION × 1,000, where FW_VERSION is the full version, such as 2.300.
- Added support to Generic Serial driver for handling leading '+' characters for ASCII decimal numbers.

Datasheet version

- September 15, 2016

▶ 08.15.2016

Firmware

- V2.200 release
- Added support to BACnet MS/TP Client and Server so that the APDU Timeout, Number of APDU Retries, and Max Master property values set over the network are persistent across reboots.

- Added support for time and date information in BACnet MS/TP Client and Server by utilizing an externally-provided real-time clock mapped into the device's database.
- Fixed issues with using the USB Virtual COM port with Windows 10.
- Added support for 7 data bits to the USB Pass-Through Mode.
- The device no longer goes into an error/warning state when Host - Network Serial Pass-Through mode is active.
- Corrected issues in device information when no configuration file is loaded on the device.

Datasheet version

- August 1, 2016

▶ **06.15.2016**

Firmware

- V2.101 release
- Fixed issue where the serial driver would not detect errors on the first byte of a packet.
- Fixed issue with Generic Serial drivers where transactions with a large amount of variable sized packet data objects could cause the device to hang.
- Added support for the Database Matched Byte packet data object to Generic Serial drivers.

▶ **05.11.2016**

Firmware

- V2.100 release
- Doubled the maximum supported configuration file size.
- Added support for a configurable Product ID.
- Added detection of non-configured protocol values in the Network Configuration Parameters' Protocol parameter so that the device now goes into the Invalid Configuration error state.
- Fixed issues with FLN and BACnet drivers when no objects are configured.

▶ **03.01.2016**

Firmware

- V2.000 release
- Increased Object Memory by 50%.
- Added Persistent User Parameters
- Added support for PWM Modulation Mode, allowing the PWM output to modulate either Duty Cycle or Frequency.
- Added Generic Serial Master protocol.
- Added Generic Serial Slave protocol.
- Added Host - Network Pass-Through protocol.

- Added support for Internal Float (ADF), Internal Integer (ADI), and Internal Byte (BD) object types to Metasys N2 Slave.
- Modified Siemens FLN Slave driver's interpretation of non-zero intercept values so that the physical value sent on the network matches the database value for LAI and LAO points.
- Fixed USB connection issue where the device is sometimes not detected by the USB host when plugging in the USB cable to an already powered device.
- Fixed issue where writing 0xFFFF to a Network Configuration Parameter would reinitialize them from the configuration file upon resetting.
- BACnet BTL Certification changes
    - Added data type checks to Present Value writes so that only the proper data type is allowed.
    - Added support for configurable APDU Timeout.
    - Added support for configurable Number of APDU Retries.
    - Added support for APDU retries for confirmed requests.
    - Made the following device properties network writable: APDU Timeout, Number of APDU Retries, and Max Master.
    - Fixed issue with APDU Timeout timer where the timer started before the request was transmitted on the network.
    - Added support for the Reliability property in all supported object types.
    - Added support for configurable Number of States for Multi-state objects.
    - Added support for Offset by One option for Multi-state objects for both Client and Server.
    - Changed behavior of Multi-state Objects' Present Value property so that it cannot go outside of the range 1 - Number of States. If the database value is out of that range, the FAULT Status Flag is set and the Reliability will be either Under Range or Over Range.
    - Increased Vendor Name and Model Name OEM Setting string to support up to 32 characters.
    - Added error code when accessing Priority Array and Relinquish Default properties for virtual objects, because these properties are not supported.
    - Added feature to BACnet client to detect if a server device is no longer online and begin transmitting Who-Is requests to it instead of continuing to send read or write requests.
    - Removed support for 4800 baud rate, since the BACnet specification states the minimum is 9600.
    - Updated Revision to 12.
    - Updated Object Types Supported Device object property.
    - Fixed Number of States datatype for Multi-state objects.
    - Improved error handling and error responses for error conditions when handling all packets.
    - Fixed issue with the ReadPropertyMultiple ALL properties for the Device object.
    - Corrected the properties reported for ReadPropertyMultiple ALL, OPTIONAL, and REQUIRED for all objects.
    - Fixed issue when reading a Device object property using the wildcard instance number where the Object ID in the response used the wildcard instance number instead of the device's actual instance number.
    - Increased MS/TP buffer size to 501 resulting in a new Maximum APDU size of 480.

- o Fixed NPoll token count from 52 to 50.
- o Added password to ReinitializeDevice.
- o Fixed issue where device would respond to Confirmed Broadcast Request packets.
- o Fixed issue where the device would ignore Data Expecting Reply packets targeted to the broadcast address.
- o Fixed issue where the device would not properly ignore packets not for us by adding the Skip Data state to the receive state machine.
- o Fixed EventCount handling error in MS/TP Master Node State Machine as described in addendum 135-2004d-8.
- o Fixed poll for master to self issue in the DONE_WITH_TOKEN and PASS_TOKEN states.
- o Added support to SubscribeCOV for the situation where the Lifetime argument is omitted from the request and should be assumed to be 0 (indefinite lifetime).
- o Fixed issue where a COV could be issued after the COV has expired.
- o Added support to initiate a COV notification after receiving a subscribe COV request.
- o Fixed issue with reading the ACTIVE_COV_SUBSCRIPTIONS property of the device object.
- o Fixed issue with reading the DEVICE_ADDRESS_BINDINGS property of the device object.
- o Fixed issues with configured Relinquish Default value data type conversion.
- o Fixed issue with Susbscribe COV requests' Lifetime parameter not supporting the full Unsigned range.
- o Fixed error code returned when a Subscribe COV request is received for the Device object.
- o Fixed issue with DeviceCommunicationControl Time Duration timer not supporting the full Unsigned range.
- o Fixed error code returned when a ReinitializeDevice request is received after a DeviceCommunicationControl DISABLE request is received.
- o Fixed issue with COV Increment property's internal "unused" signifier value.
- o Set maximum limit on Multi-state Number Of States property so that the internal reserved NULL value cannot be used.
- o Added error reporting for BACnet Client when a Diagnostics object is used for Multi-state objects that have an invalid value.
- o Fixed implementation of Device Instance wildcard value of 4194303 to be interpreted as if the device instance matches.
- o Optimized performance for scenarios where the device is connected to a live BACnet network while powered on.
- o Relaxed MS/TP timing parameters to ensure the specified times are never violated.

Datasheet version
- March 1, 2016

▶ **04.01.2015**

Firmware
- V1.300 release

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- Add Inverted, Auto Reset, and Bitmask trigger options to database logic enable triggers.
- Added Bit Copy, Indirect Copy, Flag Test & Set, Value Change Detection, Multiplexer, and Byte Reverse database logic operations.
- Fixed issue where received bytes could be dropped during critical sections when the receiver is disabled.
- Added Protocol Format setting for the USB Serial Sniffer Settings protocol.
- Added PWM Frequency setting to GPIO Analog (PWM) Outputs.
- Added error code response to USB communications to prevent pipe stalls.
- Fixed packet corruption issue in USB serial sniffer when sniffer buffer overflows occur.
- Improved compiler optimizations.

Datasheet version

- April 1, 2015

▶ 10.30.2014

Firmware

- V1.202 release
- Changed BACnet MS/TP Client static device destination address limit to 254 to support MS/TP slave-only addresses.
- Fixed issue where USB task may not be running if a fatal error occurs during startup.
- Added support for I/O objects mapped to configuration memory.
- Added support for timeout objects mapped to configuration memory.

Datasheet version

- October 30, 2014

▶ 08.22.2014

Firmware

- V1.201 release
- Optimized startup order of all tasks.
- Fixed issue when saving/restoring reserved configuration parameters.
- Fixed BACnet DeviceCommunicationControl service.
- Corrected BACnet Protocol_Services_Supported Device property flags.
- Added check in Modbus Slave to respond with an exception to requests spanning multiple incompatible register remaps.

Datasheet version

- September 2, 2014

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▸ **08.05.2014**

Firmware

- V1.200 release
- Changed Run Mode configuration parameter Reset value to 65535 (0xFFFF) and redefined the value of 0 to be Startup mode.
- Added floating point as a native database data type.
- Added USB Virtual COM Port support.
- Added FLN Master protocol.
- Added Toshiba Computer Link Master protocol.
- Added USB Serial Sniffer Settings protocol to use for packet capturing.
- Added Trigonometric Operations to Database Logic.
- Added Random operation to Database Logic.
- Changed I/O and Database Logic to run on startup instead of after the Run Mode parameter is set to Running.
- Fixed issue where writing to FLN LDO points fails.
- Improved SPI error handling when an invalid number of bits are clocked.
- Added ability for unused host port pins to be used as GPIO pins 6 - 9.
- Added configurable fields for Vendor ID, Vendor Name, and Model Name to BACnet MS/TP drivers.
- Added ability to relinquish written values in BACnet Client.
- Added write support for COV Increment property for BACnet Analog objects and added a configuration setting.
- Fixed COV checking for BACnet Multi-state objects.
- Fixed protocol configuration parameters for BACnet Client.
- Removed 0xFF byte pad in BACnet MS/TP packets.
- Fixed issue where internal pull up resistor was not enabled if GPIO pin is configured for pulse counter only.
- Changed GPIO Analog Offset field to a floating point number from an unsigned integer.
- Fixed issue where GPIO Pulse Counter would not operate in conjunction with Analog Input functionality on the same pin.
- Improved packet handling for DMX-512 Slave driver.
- Fixed issues in M-Bus Master driver when decoding and encoding string values.
- Fixed issues when Database Logic is used to update configuration parameters.
- Fixed issue with BACnet which could cause a duplicate packet to be sent 40 bit times after the first.
- Fixed issue in BACnet where the first reply to a poll for master was ignored if the last packet received was a partial packet.
- Changed I/O Analog Offset field to a floating point number from an integer.
- Fixed issue in Modbus when converting negative 32-bit integer values to floating point.
- Changed firmware revision string format.
- Various code optimizations

Datasheet version
- September 2, 2014

▸ 11.18.2013

Firmware
- V1.104.00 release
- Added 6 parameters to EnGenius driver
- Added support for older EnGenius firmware
- Fixed issue with Debounce Filter and Hysteresis Filter when using an enable trigger.

Datasheet version
- October 1, 2013

▸ 09.27.2013

Firmware
- V1.103.00 release
- Disabled internal pull-down resistors when GPIO is configured for Digital Output, Analog Input, or PWM Output.
- Added operation type to Not, And, Or, and Exclusive Or operations to select bitwise or logical operations.
- Added a floating point multiplier field to database logic inputs and output.
- Changed internal database logic data type to double when performing operations.
- Changed the data type of database logic constant values to double.
- Database logic bug fixes.

Datasheet version
- September 3, 2013

▸ 08.29.2013

Firmware
- V1.102.00 release
- Added Exponential, Root, and Logarithm database logic operations.
- Added rounding to database logic operations which require it.
- Added support for base e (natural log, exponential) operations.
- Added SPI Slave support.
- Updated debounce algorithm for pulse counter inputs.

Datasheet version
- September 3, 2013

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▶ **08.05.2013**

Firmware

- V1.101.00 release
- Added debounce time to pulse counter.
- Added Modulo database logic operation.

Specifications version

- May 31, 2013

▶ **07.31.2013**

Firmware

- V1.100.00 release
- Fixed issue where BACnet driver would communicate even if there is traffic at a different baud rate.
- Added database logic.
- Added pulse counter to the I/O objects.
- Fixed Metasys Master issue where binary values were not updating correctly.

Specifications version

- May 31, 2013

▶ **05.21.2013**

Firmware

- V1.008.00 release
- Added additional protocol-specific configuration parameter checks.
- Improved Modbus RTU Master response checking.
- Added USB function to read the device's serial number.
- Added licensing support.
- Removed limitations on configuration memory writes.
- Minor bug fixes.

Specifications version

- January 2, 2013

▸ **04.03.2013**

Firmware

- V1.004.00 release
- Added VMA device support for Metasys Master driver.
- Minor bug fixes.

Specifications version

- January 2, 2013

▸ **03.26.2013**

Firmware

- V1.002.00 release
- Added protocol configuration parameters.
- Switched to new version format and added new USB function to read the new format.

Specifications version

- January 2, 2013

▸ **02.26.2013**

Firmware

- V1.000 initial release

Specifications version

- January 2, 2013