PBDP-1000 Version Info

- **11.26.2018**
  - Firmware
  - V5.700 Metasys release
  - Fixed issue in Metasys N2 slave driver where COS notifications stop being sent to the master.
  - Fixed delays in Metasys N2 COS reporting on high traffic networks.

- **01.05.2018**
  - Firmware
  - V5.600 Metasys, FLN release
  - Added ability to release an object’s value to Metasys N2 Master.
  - Added ability to release a point’s value to Siemens FLN Master.

- **09.05.2017**
  - Firmware
  - V5.500 Modbus, Generic Serial, DMX-512 release
  - Improved timeout detection in Modbus RTU Slave, Generic Serial Slave, and DMX-512 slave drivers to account for receive errors and packets not intended for the device.
  - Fixed issue with timeout detection in Modbus RTU Sniffer and Generic Serial Slave drivers where a timeout could take twice as long under certain circumstances.

- **03.31.2017**
  - Firmware
  - V5.400 Modbus, Generic Serial, DMX-512 release
  - Added timeout detection capability to Modbus Sniffer driver.
  - Fixed issue with Modbus Sniffer detection of packets with strict 3.5 character gap time.
  - Improved Generic Serial ASCII decimal data encoding and detection.
  - Fixed issue with Generic Serial Slave ASCII decimal leading spaces for fixed length elements.
  - Fixed issue in DMX-512 where receive errors on the first byte of the packet were ignored.
  - Fixed issue in DMX-512 where characters with receive errors after the configured length caused the packet to not be processed.
09.15.2016
Firmware
- V5.300 Generic Serial release
- Added support to Generic Serial driver for handling leading ‘+’ characters for ASCII decimal numbers.

08.15.2016
Firmware
- V5.200 release
- Fixed issue where the serial driver would not detect errors on the first byte of a packet.
- Fixed issues with using the USB Virtual COM port with Windows 10.
- Added support for 7 data bits to the USB Pass-Through Mode.

06.15.2016
Firmware
- V5.100 Generic Serial release
- 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.
- Fixed issue where the serial driver would not detect errors on the first byte of a packet.

03.01.2016
Firmware
- V5.000 release
- Added Generic Serial Master protocol.
- Added Generic Serial Slave 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.
- BACnet BTL 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.

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.

Fixed NPoll token count from 52 to 50.

Added password to ReinitializeDevice.

Fixed issue where device would respond to Confirmed Broadcast Request packets.

Fixed issue where the device would ignore Data Expecting Reply packets targeted to the broadcast address.

Fixed issue where the device would not properly ignore packets not for us by adding the Skip Data state to the receive state machine.

Fixed EventCount handling error in MS/TP Master Node State Machine as described in addendum 135-2004d-8.

Fixed poll for master to self issue in the DONE_WITH_TOKEN and PASS_TOKEN states.

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).

Fixed issue where a COV could be issued after the COV has expired.

Added support to initiate a COV notification after receiving a subscribe COV request.

Fixed issue with reading the ACTIVE_COV_SUBSCRIPTIONS property of the device object.
- Fixed issue with reading the DEVICE_ADDRESS_BINDINGS property of the device object.
- Fixed issues with configured Relinquish Default value data type conversion.
- Fixed issue with Subscribe COV requests' Lifetime parameter not supporting the full Unsigned range.
- Fixed error code returned when a Subscribe COV request is received for the Device object.
- Fixed issue with DeviceCommunicationControl Time Duration timer not supporting the full Unsigned range.
- Fixed error code returned when a ReinitializeDevice request is received after a DeviceCommunicationControl DISABLE request is received.
- Fixed issue with COV Increment property's internal "unused" signifier value.
- Set maximum limit on Multi-state Number Of States property so that the internal reserved NULL value cannot be used.
- Added error reporting for BACnet Client when a Diagnostics object is used for Multi-state objects that have an invalid value.
- Fixed implementation of Device Instance wildcard value of 4194303 to be interpreted as if the device instance matches.
- Optimized performance for scenarios where the device is connected to a live BACnet network while powered on.
- Relaxed MS/TP timing parameters to ensure the specified times are never violated.

**User's manual version**
- 10723 January 1, 2016

### 04.01.2015

**Firmware**
- V4.100 release
- 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.
- Changed BACnet MS/TP Client static device destination address limit to 254 to support MS/TP slave-only addresses.
- Added Protocol Format setting for the USB Serial Sniffer Settings protocol.
- Improved receive logic of PROFIBUS driver to better handle receive errors.
- Fixed issue where USB task may not be running if a fatal error occurs during startup.
- 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.

**User's manual version**
- 10723 April 1, 2015
10.02.2014

Firmware
- V4.000 release
- 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.
- Fixed issue where writing to FLN LDO points fails.
- Added ability to relinquish written values in BACnet Client.
- Removed 0xFF byte pad in BACnet MS/TP packets.
- Improved packet handling for DMX-512 Slave driver.
- Fixed issues in M-Bus Master driver when decoding and encoding string values.
- Fixed issue with device info string displaying extra characters.
- Fixed issue with Debounce Filter and Hysteresis Filter when using an enable trigger.
- 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.
- Fixed issue in Modbus when converting negative 32-bit integer values to floating point.
- Optimized startup order of all tasks.
- 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.
- Various code optimizations

User’s manual version
- 10723 October 2, 2014

09.27.2013

Firmware
- V3.300 release
- Added database logic.
- Internal bug fixes.

User’s manual version
- 10723 July 31, 2013
05.15.2013

Firmware
- Modbus V3.100 release
- Added check to Modbus Master to compare received data bytes against the expected number of bytes.
- Metasys V3.100 release
- Fixed issue with Metasys Master writes with VMA devices.
- V3.000 release
- Optimized Metasys Slave COS checks to fix response delays when a large number of objects are mapped.
- Fixed issue in Metasys Slave driver which caused gateway to become non-responsive on some noisy networks.
- Added VMA device support for Metasys Master.
- Added Multi-state object support for BACnet Client and Server.
- Added range checking for writes for BACnet Server.
- Added ability to enable and disable the default mapping for Modbus Slave and BACnet Server.
- Added support for the ICC Configuration Studio.

User’s manual version
- 10723 May 15, 2013

04.23.2012

Firmware
- Modbus V2.400 release
- Changed Modbus Sniffer Reflect Status to not update Current Status on TX Counter increments
- Fixed Modbus Slave remap scaling issues

User’s manual version
- 10723 January 15, 2012

01.18.2012

Firmware
- Chillgard V2.400 release
- A.O. Smith V2.300 release
- Added A.O. Smith AIN and PDNP drivers
- Added support for different types of scaling for the concentration values including new % units in Chillgard
- Added support for more gas types in Chillgard
User’s manual version
• 10723 January 15, 2012

08.15.2011
Firmware
• V2.300 release
• Added DMX-512 Master and Slave drivers
• Added M-Bus Master driver
• Added function code 05 (Force Single Coil) support to Modbus Master driver
• Increased Service Object memory usage

User’s manual version
• 10723 August 15, 2011

02.01.2011
Firmware
• V2.200 release
• Added MSA Chillgard driver
• Added Metasys N2 Master driver
• Added Siemens FLN driver
• Added TCS Basys driver
• Fixed Modbus Master bug when Floating Point is checked and multiplier is 1, the value is now correctly converted as a floating point number
• Improved accuracy of Modbus multiplier scaling
• Updated Metasys Slave driver so that it won’t reset the object configuration upon receiving the “F” command
• Fixed Modbus Slave remap object issues
• Added network timeout feature to PROFIBUS driver

User’s manual version
• 10723 February 1, 2011

03.01.2010
Firmware
• V2.100 release
• Added Sullair master driver
• Added Modbus sniffer driver
• Added Enron/Daniel 32-bit Modbus extension to Modbus master and slave drivers
• In Modbus RTU slave driver, holding registers and input registers can now be remapped independently, and can have multipliers applied
• Decreased object memory usage for BACnet objects in BACnet MS/TP server driver
• BACnet MS/TP client driver now sends “Who-Is” for all configured destination devices on startup, not just statically-bound ones
• Improved efficiency of service object handling in BACnet MS/TP client driver
• Fixed “Poll-For-Master to self” bug in BACnet MS/TP drivers
• Fixed “multiply by 1 rounding” issues

User’s manual version
• 10723 March 1, 2010

11.10.2009
Firmware
• V2.000 release
• Added Metasys N2 slave driver
• Added Toshiba ASD master driver
• Improved process data mapping times on startup
• Fixed bug in mapping large amounts of process data
• Added names to acyclic objects
• Attempts to write to BACnet binary inputs will now return an error
• Improved efficiency of scanning function for master protocols

User’s manual version
• 10723 October 30, 2009

07.06.2009
Firmware
• V1.000 initial release

User’s manual version
• 10723 July 1, 2009