



Third Party Communications Interfaces and Protocols

TAC meets today's need for open systems and total integrated building control with industry-standard interfaces, such as BACnet® and OPC, plus a wide range of third party communications interfaces called drivers. Using either one, you can directly communicate with third party devices in your building, such as fire panels, air handling units, chillers, variable speed drives, video switches, and other similar equipment.

The advantages of using a driver as a software interface are numerous. No duplication of computer hardware or costly third party software is needed to communicate with the device. In addition, an Andover Continuum workstation operator can interact directly with the device without having to exit the software and then log in to a separate software interface for the device. The ability to access the alarm and point information of the third party device in the Andover Continuum system provides a transparent "look and feel" of an entire system all in one package.

This document is designed to give an overview of the XDrivers currently available. The drivers are organized into general categories with descriptions of the equipment they interface to and their corresponding applications.

The driver types listed are defined as:

X XDriver

Driver compatibility to controllers is defined by three columns:

Infinity Compatible (SX 8000)

- CX 9200
- Eclipse
- CMX 240

1st Generation Continuum Compatible

- NetController
- Eclipse
- CX 9924
- CX 9200 (upgraded to be Continuum compatible)

2nd Generation Continuum Compatible

- NetController II
- ACX Series Access Controllers (Models 5720 & 5740)
- BACnet bCX1
- Infinet bCX1

INTERFACES

- Standard Protocol Drivers
- Air Handling Units
- Battery Monitoring Systems
- Building Automation Systems
- Chillers
- Fire Systems
- Fume Hood Controls
- Heat Pump/Unit Ventilators
- Intercom Systems
- Leak Detection Systems
- Lighting Controllers
- Package Environmental Units
- Power Monitoring
- Programmable Logic Controllers (PLCs)
- Pumps
- Security Systems
- Sensors/Meters
- Telephone Switches/Systems
- UPS Systems
- Variable Speed Drives
- Video Switches
- Miscellaneous Drivers

STANDARD PROTOCOLS

Besides the custom point-to-point interfaces listed, Andover Continuum also offers many standard interfaces designed to facilitate interoperability among many different devices. These standard protocols include BACnet, LON, Modbus, and an OPC Server package.

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
TAC	XDriver Filter	X	E01-0210-153	✓	✓		Simple serial port filter to allow non-printable characters to be accessed by Plain English.
BACnet	Ethernet (IP)	X	E01-0120-199	✓	✓	✓	The BACnet/IP XDriver is a general purpose BACnet/IP interface between the CX master controllers and any BACnet-compatible device supporting ANNEX J BACnet/IP of the ANSI/ASHRAE Standard 135-2001. It can be configured as a BACnet Client or a BACnet Server and will comply with the BACnet BIBB B-ASC (BACnet Application Specific Controller). The PICS statement is included in the manual.
BACnet	Ethernet (Non IP)	X	E01-0120-197	✓	✓		General purpose BACnet/Ethernet interface. Conforms with the older BACnet Standard 135-1995. This XDriver does not use IP; it communicates using the physical Ethernet address (MAC address).
BACnet TAC	PTP/RS-232	X	E01-0210-184	✓	✓		Acts as a gateway from an Andover CX TAC controller to other BACnet controllers. This product conforms to Class 1 specification.
Echelon	LONMARK LONMARK	X X	E01-0210-190 E01-0210-247	✓	✓	✓	LonMark-compliant interface, used to interface to various intelligent devices on a common bus. Requires additional Andover interface hardware for Eclipse CX 9400 or via I/O bus on Continuum NetController or NetController II.
Modicon Modbus RTU Protocol (Master)	Various	X	E01-0210-118	✓	✓	✓	Commonly used protocol supported by many PLC and equipment manufacturers. Behaves as a Master and uses Poll on demand extraction of data on an RS-232 or RS-485 network. Most function codes are supported.
Modicon Modbus TCP/IP	Various	X	E01-0210-215		✓	✓	Commonly used protocol supported by many PLC and equipment manufacturers. Uses Poll on demand extraction of data. Most function codes are supported.
OPC Controller Server TAC	Networked Controllers	N/A	E01-3021-432 CTRL-OPC-SRVR CTRL-OPC-SRVR-USB	✓	✓		Software package that allows data from Andover controllers to be shared with any third party OPC-compatible client package. Supports Data Access Specifications 1.0 and 2.0.
Various	M-Bus (Please refer to user guide for tested M- Bus devices)	X	E01-0210-249			✓	The M-Bus XDriver allows the exchange of meter data between third party M-Bus devices and Continuum using the M-Bus protocol over a network. The XDriver functions as the M-Bus Master.
XML	Various	X	E01-0210-236			✓	The XML XDriver allows a Continuum 2nd Generation controller to act as a TCP client sending XML commands over a TCP/IP connection. This XDriver is typically used when interfacing to CCTV equipment for camera switching.

AIR HANDLING UNITS

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Denco Ltd	CIU Monitrol Protocol	X	E01-0210-142	✓	✓		The CIU can connect up to 62 AHU controllers such as the Beta 2 Controller or Serial Data Card (SDC). Continuous polling of all data.
McQuay (Snyder General)	Applied Rooftop Units	X	E01-0210-182	✓	✓		Supports Open Protocol Data Communications (Snyder General) V1.3 or Microtech Rooftop Open Protocol V1.4. Read/Write.
Mammoth	AHU With Automated Logic Controllers	X	E01-0210-118	✓	✓	✓	Use Modbus RTU XDriver for interface.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

BATTERY MONITORING SYSTEMS

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Newport Data Systems	Cell Watch Battery Monitoring	X	E01-0210-175	✓	✓		Full voltage, current and internal resistance Systems Battery Monitoring monitoring of battery cells, through a network of Control Units and Data Collection Modules.

BUILDING AUTOMATION SYSTEMS

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
American Automatrix	PHP Sage & Star	X	E01-0210-121	✓	✓		Allows monitoring and change of data. Connects Automatrix Controllers via RS-232 or up to 73 devices on RS-485.
American Automatrix	PUP Solo Controllers	X	E01-0210-128	✓	✓		Allows monitoring and change of all Solo points. Automatrix Controllers Connects via RS-485 to many devices (up to 65535).
TAC	AC256M+, AC8	X	E01-0210-167	✓	✓		Connection to C Port allowing monitoring and setting of all points.
TAC	CX Controllers	X	E01-0210-211	✓	✓		Simple serial driver to link two separate Continuum Systems.
TAC	CX Controllers	X	E01-0210-212		✓		Simple TCP/IP driver to link two separate Continuum Systems.
Dutec Data Acquisition & Control Systems	I/O Plexor Remote	X	E01-0210-198	✓	✓		Allows remote I/O configuration, control, and acquisition & monitoring of the Dutec I/O Plexor and any Control Systems attached I/O modules.
Honeywell	C-Bus- utilizing SoftYon I/F	X	E01-0210-228	✓	✓	✓	Integrates Honeywell C-Bus Excel controllers into a Continuum System.
Honeywell	Excel 5000	X	E01-0210-157	✓	✓		Allows Honeywell system to monitor Andover objects using their PR – Bus protocol.
JEL	JEL Speak Control	X	E01-0210-132	✓	✓		Allows monitoring and change of points in various JEL outstations, connects to Site Commander.
Transmitton	Micropower MP100	X	E01-0210-155	✓	✓		Allows monitoring of all points and override of MP100 output points.
Transmitton	Microtel MT700/ DiDos	X	E01-0210-156	✓	✓		Allows monitoring of all points and override of MT700/ DiDos output points.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

CHILLERS

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Carrier	Dataport II	X	E01-0210-201	✓	✓		Interfaces to the Carrier System by means of a Carrier Dataport II CCN CIO (Communications Input/Output) Module. Allows monitoring of all Carrier chiller points.
Elm Refrigeration	Chilled/Frozen Food cabinets	X	E01-0210-144	✓	✓		CX sits directly on Elm network, monitoring and changing points as required.
McQuay (Snyder General)	Centrifugal/ Reciprocating/ Screw	X	E01-0210-182	✓	✓		Supports Open Protocol Data Communications V1.3 or Microtech Rooftop Open Protocol V1.4. Read/Write.
Trane	UCM/ RCM	X	E01-0210-118	✓	✓	✓	Uses Modbus RTU protocol, allows modify and poll of all chiller data.
Trane	Tracer Summit BCU	X	E01-0210-0184	✓	✓		Uses BACnet PTP (RS232) protocol.

FIRE SYSTEMS

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
ActionAir	LNS System	X	E01-210-238			✓	The ActionAir LNS System consists of a Panel PC, UPS and pre-loaded software. The system communicates with the smoke fire damper interfaces (SFDI) to provide intelligent control and monitoring of ActionAir motorized dampers (Control modes).
Clymac	Ziton Fire Panel	X	E01-0210-223	✓	✓	✓	Allows the monitoring of Fire Panel-data on a Ziton ZP3 fire System using XDriver points in Continuum. The XDriver may monitor Alarm, Fault, Enabled/Disabled conditions on individual Devices Zones or Loops in the Ziton Fire System.
Cerberus		X	E01-0210-231			✓	Provides a link between Continuum and a network of Cerberus fire panels monitoring of a Cerberus fire alarm system from the Continuum front-end.
Edwards	Fast Panel IRC-3	X	E01-0210-189	✓	✓		Requires CM1N control module with printer port.
Edwards	EST-3 Printer Protocol	X	E01-0210-221	✓	✓		Operates through the EST-3 printer interface to allow monitoring of Fire Panel. It allows the monitoring of detectors such as Alarms, Faults, Disablements and Enablements.
Gamewell	Series 600 Analog/ Addressable Fire Alarm Control Panel	X	E01-0120-193	✓	✓	✓	Allows remote acknowledgment, silence, and reset actions, as well as remote monitoring of alarm and fault conditions from the panel, its circuits, and devices. Supports both a single panel and networked panel.
Gent	3400 Panel	X	E01-0210-152	✓	✓		Uses both Plain English and XDriver filter to map all points from Fire Panel.
Gent	Vigilon	X	E01-0210-248			✓	The Gent XDriver Provides an interface between Continuum and Gent Vigilon fire alarm panels. This allows Continuum users to monitor the alarm and fault status and perform some basic control functions, such as resetting and silencing alarms.
How/Face Macanda	Proton Panel	X	E01-0210-143	✓			Monitor only, will need modifications for Continuum as it contains data files.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

FIRE SYSTEMS (Cont.)

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Honeywell Notifier	Notifier ID3000 panels in standalone or ID ² peer-to- peer networks	X	E01-0210-243			✓	The XDriver allows the monitoring of alarms, faults, disablements and system information from the Notifier panel and is able to send control commands (Reset, Accept, Silence, Evacuate, etc.).
Kentech	Kentech Synchro Panel	X	E01-0210-216	✓	✓	✓	This enables a stand alone Kentech panel, or network of panels to be integrated into Continuum, allowing fire and fault monitoring.
Protec	Algo-Tec, 6400MXL Series	X	E01-0210-222	✓	✓	✓	This XDriver may monitor alarm, fault, enable/disable conditions on individual zones or loops in the Protec Fire System. The latest version can link directly to the Pelco Endura XDriver for fast cause & effect actions.
Simplex	4020, 4100, 4120	X	E01-0210-186	✓	✓		Uses Simplex 4100 Computer Port Protocol – Format 1.
Simplex	4020, 4100, 4120 Series	X	E01-0210-184	✓	✓		Uses BACnet PTP/RS-232 to communicate through a Simplex BACpac Portal to communicate to the Simplex fire control panel. Read only.
Tyco	TycoMX	X	E01-0201-226	✓	✓	✓	Integrates Continuum with Tyco MX Fire Panels in a network environment and simulates a Fire Panel Node on the Tyco network. Changes in device or panel status are mapped across to the NetController.
Vesda	Mini, ED-70, Scanner	X	E01-0210-118	✓	✓	✓	Uses Modbus interface to map all smoke Scanner detection system points.

FUME HOOD CONTROLS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Phoenix Controls	Celeris system	X	E01-0210-197	✓	✓		Uses BACnet-over-Ethernet to communicate to a Celeris system through a Phoenix Accel-Way. Read/Write.
Tek Air	FVC-2000	X	E01-0210-140	✓	✓		Allows monitoring & control of the Laboratory Fume hoods.

HEAT PUMPS/UNIT VENTILATORS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
McQuay (Snyder General)	Water Source Heat Pump	X	E01-0210-182	✓	✓		Supports Open Protocol Data Communications V1.3 or Microtech Rooftop Open Protocol V1.4. Read/Write.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

INTERCOM SYSTEMS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Alphacom	Alphacom 80 Exchange	X	E01-0210-122		✓	✓	Allows the monitoring of call log data on a Alphacom 80 Exchange System using XDriver points in Continuum, its display in a Continuum Event Viewer and the Continuum database.

LEAK DETECTION SYSTEMS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Veeder-Root	TSL300/ 350/350R	X	E01-0210-178	✓	✓	✓	Monitors system status, alarms tank levels, in-tank inventory, and system resets.

LIGHTING CONTROLLERS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Clipsal	5100PC 5500PC	X	E01-0210-230			✓	Allows connection to a Clipsal C-Bus lighting system via a serial RS-232 interface, enabling reading from and writing to points on the system and continuous notification of point status or value change.
Delmatic	ZMC Series	X	E01-0210-145	✓	✓		Programs to control: Load Shedding, Emergency Test, Automatic Timing, Automatic Timing for staircases, Central Switching Control.
Dynalite	Fluorescent Bal- last Controller DTK925	X	E01-0210-176	✓	✓		Monitor and control lighting levels.

PACKAGE ENVIRONMENTAL UNITS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Liebert	SiteLink	X	E01-0210-118	✓	✓	✓	Uses Modbus RTU XDriver.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

POWER MONITORING

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Cummins Diesel Generators	Power Command	X	E01-0210-195	✓	✓		Enables full control and monitoring of a Cummins Diesel Generator Set, including alarms.
Northern Design	Abacus II	X	E01-0210-146	✓			XDriver & Plain English code to monitor power readings. Plain English contains data files and is not Continuum-compatible.
Russ Electric	90-30	X	E01-0210-118	✓	✓	✓	Uses Modbus RTU Protocol to map data. Uses Standard SY/ MAX XDriver. Monitors power, voltages, currents, phase etc., on all circuits.
Square D	Power Logic Circuit Monitor	X	E01-0210-187	✓	✓		Uses Standard SY/ MAX XDriver. Monitors Circuit Monitor power, voltages, currents, phase etc., on all circuits.
Veris	Power Meters H8035, H8036	X	E01-0210-118	✓	✓	✓	Uses Modbus RTU XDriver.
Westinghouse/ Cutler Hammer	IMPACC IQ Meters	X	E01-0210-158	✓	✓		Allows monitoring and adjustment of all points.

PROGRAMMABLE LOGIC CONTROLLERS (PLCs)

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
J Bus Protocol	Various	X	E01-0210-118	✓	✓	✓	The J Bus protocol is a subset of the Modbus protocol and so the Modbus XDriver is used for J Bus Systems.
Modicon Modbus RTU Protocol	Various	X	E01-0210-118	✓	✓	✓	Uses Poll on demand extraction of data. Most function codes are supported.
Modicon Modbus Protocol Asynchronous Version	Various	X	E01-0210-162	✓	✓		Polls & changes data asynchronously to the scan. Supports all functions as standard version above.
Square D	SY/MAX PLC's	X	E01-0210-187	✓	✓		Uses Standard SY/ MAX XDriver.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

PUMPS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC Part Num./ Supplier	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Grundfoss	Genibus Pumps & Motors	X	E01-0210-172	✓	✓		Full control and monitoring of pumps and motors on RS-485 Genibus network.

SECURITY SYSTEMS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Comerson	Comerson Digital System	X	E01-0210-240			✓	The Comerson XDriver allows a Continuum 2nd Generation controller to send <i>Net Alarms</i> to a Comerson Digital CCTV System (CDS).
Guardall	PX, Windsor Panels	X	E01-0210-177	✓	✓		Set/unset areas, isolate/de-isolate and monitor alarm and tamper conditions for all detectors.
Honeywell/ Microtec	Galaxy Security System	X	E01-0210-183	✓	✓	✓	Allows the User to set, unset, partset and reset groups, reset the panel, monitor conditions of circuits; and monitor, set, and alarm conditions of groups. The latest version can link directly to the Pelco Endura XDriver for fast cause & effect actions.
Pelco	Endura	X	E01-0210-235			✓	This Pelco Endura Matrix Switch XDriver allows building alarms and events in the field to switch cameras to presets and monitors. Cause & effect scenarios can be configured in Continuum between Continuum, third party devices and Pelco Endura. Continuum Graphics can also be used to switch cameras to different presets and display on external monitors.
Scope Communica- tions	Scope RX 10 Intruder system	X	E01-0210-220	✓	✓		Provides a link between Continuum and the Scope RX10 programmable POCSAG receiver. This allows alarm data sent from an IRIS (Intelligent Radio Information System) to a Scope RX10 to be captured as alarms and events in Continuum.
Southwest Microwave	Microtrack "Intrepid" MTP Perimeter Intrusion Detection System	X	E01-210-246			✓	The Microtrack XDriver allows the integration of the Microtrack "Intrepid" MTP (Buried cables perimeter intrusion system) within the TAC Continuum System.

SENSORS/METERS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Siko	AEA Linear Position Sensor	X	E01-0210-192	✓	✓		Part of a MAGLINE micro Linear Positioning System. Has an MSA Sensor to sense the position along a magnetically-encoded measuring strip.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

TELEPHONE SWITCHES/SYSTEMS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
AT&T	TBOS	X	E01-0210-188	✓	✓		Supports TBOS Protocol.

UPS SYSTEMS

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
MGE UPS	Comet UPS	X	E01-0210-118	✓	✓	✓	Modbus RTU is used to extract data from the MGE units. Note: The Comet UPS actually uses JBUS which is a smaller set of Modbus RTU commands.

VARIABLE SPEED DRIVES

Manufacturer	Equipment* Descrip./Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
ABB	ACH500	X	E01-0210-118	✓	✓	✓	Uses Modbus RTU protocol to extract data from individual drives.
Danfoss	VLT3000 Series	X	E01-0210-131	✓	✓		Gives full control & monitoring of all drive parameters.

MISCELLANEOUS DRIVERS

Manufacturer	Equipment* Descrip./ Model	Driver Type	TAC File Reference Number	Infinity Compatible	1 st Generation Continuum Compatible	2 nd Generation Continuum Compatible	Driver Description
Oregon Scientific Weather Station	Weather Station	X	E01-0210-237			✓	The Oregon Weather station XDriver allows complete weather monitoring. The system comprises many indoor and outdoor wireless sensors.
Traffic Management Systems	TMS Scada	X	E01-0120-168	✓	✓		Monitors traffic sign data and alarms.

* These options are available to download from TAC ExchangeOnline. The appropriate XDriver comm port must be enabled on the controller.

Copyright © 2007-2009, TAC
All brand names, trademarks and registered trademarks
are the property of their respective owners. Information
contained within this document is subject to change without
notice. All rights reserved.

SDS-C-DRIVERLIST-A4
April 2009

www.tac.com

t.a.c. 
by **Schneider Electric**