VTScada® by Trihedral

COMMUNICATION DRIVER LIBRARY VERSION 12.2

VTScada supports most standard and many proprietary I/O protocols included in the base price of VTScada. If you don't see a driver you need, we can create it for you.

New – The FBx Series DNP3 Driver for Emerson's FB1000, FB2000, and FB3000 flow computers.

NATIVE DRIVER PROTOCOLS

TAG TYPE	PROTOCOL	EXAMPLE DEVICE	NATIVE SERIAL	DIAL UP MODEM	NATIVE TCP/IP	TCP/IP TUNNEL	NATIVE UDP/IP	UDP/IP TUNNELED	VIRTUAL PLC	CONNECTION	MORE INFO
Allen Bradley DF1 Compatible PLC/RTU	Allen Bradley DF1	PLC2, PLC3, PLC5, SLC500	X	X		X		X	X	DH/DH+	DH/DH+ requires interface hardware. Supports Virtual PLC in PLC-2 mode only.
	Allen Bradley PCCC	PLC5, SLC500			X						
BACnet Driver	BACnet	BACnet Compliant Devices					X				
Bristol BSAP/IBP Driver & Network	Bristol BSAP	33xx Series RTUs, ControWave RTUs	X	X		X		X			Separately available from Trihedral.
	Bristol IBP	Bristol ControWave RTUs					X				
CIP/ENIP Device											Enhanced and renamed as the Rockwell Driver (see below)
Calamp Diagnostic	Calamp Diagnostic Driver Protocol	Integra, Integra TR, Viper and Phantom radios	X		X	X					
Campbell Scientific Array	Campbell Scientific Array Protocol	CR10X and CR510 Data Loggers using array OS	X	X		X		X			
Campbell Scientific Pakbus	Campbell Scientific Pakbus	CR200, CR800, CR850, CR1000, CR3000, CR5000 Data Loggers	X	X	X	X		X			Security features for native TCP/IP not implemented.
Cat 5MX	MX5	CAT Electronic Engine Controllers and CAT Generator Set Controllers	X								Requires a Customer Communication Module
DDE Client	DDE (Dynamic Data Exchange)	MS Excel								**DDE**	Can act as DDE Client or Server.
Data Flow Systems RTU	DFS Protocol	Data Flow Systems® RTUs	X			X		X			Also works with DFS NIM.
Delta Driver	Modbus	Delta's Modbus PLCs & VFDs.	X	X	X	X					Supports multiple PLC port connections.
Koyo DirectNET	Direct Net	PLC Direct® DL Family of PLCs	X	X		X		X			
DNP3 Compatible RTU	DNP 3.0	DNP 3.0 Compliant Devices	X	X	X	X	X	X			
Enron Modbus RTU	Enron Modbus®	Enron Modbus Compliant Devices	X	X	X	X		X			Now supports multiple TCP/IP connections for supported devices.
Fisher ROC	Fisher® ROC	ROC800, 800L, FloBoss™ 103, 107	X	X	X	X		X			
New - FBx Series DNP3	DNP 3.0	Emerson FB1000, FB2000, FB3000 Flow Computers	X	X	X		X			**DNP 3.0**	**Released in 12.2.** Reads from FB1000, FB2000. Reads and writes with FB3000.
GE Series 90	General Electric® SNP, SNPX	GE Series 1 PLC, Series 5 PLC, Series 6 PLC, Series 90 PLC	X								No direct support for use on Ethernet to Serial converters.
	General Electric® SRTP	Series 90 PLC, RX3i PLC			X						
Honeywell Mercury	Mercury Serial Data	Mini-AT	X	X	X						Requires special licensing and configuration. Contact Trihedral for help. Currently not available with free versions
IEC 60870-5	IEC-60870-104	RTUs & PLCs from Various Manufacturers			X				X		
JSON/XML	JSON	JSON Compliant Websites and Devices			X						Supports JSON retrieved over HTTP and HTTPS. Also supports XML (Read only).
MDS Diagnostic	MDS Diagnostic Driver Protocol	MDS Radios	X								

TAG TYPE	PROTOCOL	EXAMPLE DEVICE	NATIVE SERIAL	DIAL UP MODEM	NATIVE TCP/IP	TCP/IP TUNNEL	NATIVE UDP/IP	UDP/IP TUNNELED	VIRTUAL PLC	CONNECTION	MORE INFO
Mitsubishi	3E and 4E	Mitsubishi iQR PLC			X		X				Supports multiple PLC port connections.
Modbus Compatible Device	Modbus ASCII	Modbus ASCII Compliant Devices	X	X		X		X	X		Modbus PLUS requires additional interface hardware. I/O reads can run on a separate core. Supports 16-bit addresses and multiple TCP/IP port connections between a driver instance and the RTU.
	Modbus PLUS	Modbus Plus Compliant Devices								Modbus Plus	
	Modbus RTU	Modbus RTU Compliant Devices	X	X		X		X	X		
	Open Modbus/TCP	Open Modbus/TCP Compliant Devices	X	X	X	X	X	X	X		
Motorola ACE RTU	Modbus, M-OPC, DNP3, IEC	Moscad RTU Family, ACE Family			X						Requires MDLC IP Gateway device.
Motorola IP Gateway	Motorola® Ace Gateway API	Motorola ACE RTUs			X						Supports RTU redundancy within the IP Gateway device.
MQTT Client Driver	MQTT 3.1.1				X						MQTT 3.1.1. Subscriber/ Publisher. Requires 3rd-party MQTT server (a.k.a. Broker).
	SparkPlug B				X						
NMEA 0183	NMEA 0183	Serial GPS	X	X		X		X			Functions as talker and listener.
OCPP Driver	OCPP 1.6J	For chargers such as Delta AC MAX Smart EV and others			X					Websockets	Acts as Charge Station Management System. Chargers initiate connections to VTScada.
Omron FINS Driver	Omron® FINS	CS Series PLC, CJ Series PLC			X						
Omron Host Link PLC	Omron® Hostlink	C Series PLC, CS Series PLC, CJ Series PLC	X	X		X		X			
OPC DA Client	OPC® DA Client	OPC Servers for Various Products								OPC	Supports hundreds of 3rd party OPC servers.
OPC UA Client	OPC® UA - TCP - Binary 1.04	OPC Servers for Various Products			X	X					Doesn't use a Port tag. Port handling is built in.
Opto22 Mux Driver	Optomux	Opto 22 Analog & Digital I/O Boards	X	X		X		X			Separately available from Trihedral.
Rockwell (Formerly CIP/ENIP)	Rockwell/Allen Bradley CIP/ENIP	PLC-5 and SLC-500 (routed only) and Micrologix 1100-1500 (routed and direct)			X						Replaces Allen Bradley DF1 for the listed PLCs.
	Rockwell/Allen Bradley CIP/ENIP	ControlLogix, CompactLogix and MicroLogix 820/850			X						Enhanced version of the CIP/ENIP Driver.
	Rockwell/Allen Bradley CIP/ENIP	PLC-5, SLC-500, and Micrologix 1100-1500 through Serial or CSP links	X	X		X		X		DH/DH+	Enhanced version of the CIP/ENIP Driver.
ScanCom	ScanCom (ADEPT)	Barton Scanner 1100	X	X							Serial over TCP/IP tested with DigiPort hardware.
Siemens S7 PLC	Siemens® ISO over TCP	S7 Series PLCs			X						
SNMP Managed Device	Simple Network Management Protocol (SNMP)®	Standardized Protocol for Thousands of Devices						X			
SNMP Agent	SNMP V1 or V2	Allows VTScada to Supply Data to a Networked Device				X					Expanded SNMP V3 support improves security.
SQL Data Query Driver	SQL Data Query (ODBC)	SQL Databases									
TeleBUS	TeleBUS	Control Microsystems SCADAPack RTU Family	X	X	X						Separately available from Trihedral.
Toyopuc	Toyopuc	PC3, PC10			X						
TI505	CAMP	TI505 Controller				X					TI505 controller requires CTI 2572 Ethernet TCP/IP Adapter.
Veeder-Root	Veeder-Root Serial Interface	TLS-300, TLS-350, and TLS-350R	X	X	X	X					

OTHER DEVICES THAT HAVE BEEN USED WITH VTSCADA*

MANUFACTURER	MODEL(S)	PROTOCOL	NOTES
ABB	Variable Speed Drives, AC500 Series PLCs	Modbus	
	Totalflow Family	Enron Modbus	
	Totalflow computers & analyzers using DB2 Serial protocol	ABB Totalflow DB2	Via a third-party driver at an additional cost.
	AC500 Series PLCs	IEC-60870-104	
Allen-Bradley®	SLC 500, PLC-2, PLC-3, PLC-5, PLC-5-250 (Pyramid Integrator), Micrologix, CompactLogix®, ControlLogix®	DF1	MicroLogix 1400 can also be configured to DNP3.
		Ethernet/IP	
	Micro800 Programmable Controllers	Symbolic CIP	Symbolic CIP driver separately available from Trihedral.
Automation Direct	DL Family of PLCs, Click Family of PLCs, Productivity Family of PLCs	Modbus	VTScada driver allows native DL PLC addressing in our Modbus driver (e.g., V2105, C33, etc).
Cisco	Catalyst 2950 Series Switches	SNMP	
Control Microsystems / Schneider	Telesafe RTU Family, SCADAPack® RTU Family	Modbus	Supports access to time stamped data recorded by RTUs using the Data Logger (DL) functions.
	SCADAPack® RTU Family Using RealFLO®	Enron Modbus	
	SCADAPack® RTU Family	DNP3	
	Telesafe RTUs	DF1	
Davicom	DV-Mini, DV-208, DV-216	SNMP	
Digital Control Company (DCC)®	DCC Pump Controllers	Modbus	
Eaton	PW9155 UPS	SNMP	
	Power Xpert Power Meter 2000 Series	Modbus TCP	Contact Trihedral for configuration details.
Flygt® (Xylem)	MultiSmart Pump Controller®	Modbus	Previously branded as MultiTrode® MultiSmart.
		DNP3	
	Flygt XPC2+ Pump Controller	Modbus	Modbus TCP
Foxboro®	C50 RTU	DNP3	
GE	D20/D200 RTUs	DNP3	
Gridsmart Technologies Inc.	Gridsmart V4	JSON	
Grundfos	CU 362 Devices	Modbus	
	CU 352 Devices	Modbus/BACnet	BACnet requires additional converter hardware.
Modicon / Schneider	Modicon 984 Family of PLCs, Modicon Compact Family of PLCs, Modicon Quantum Family of PLCs, Modicon TSX Family of PLCs	Modbus	
Motorola IP Gateway	Motorola ACE RTUs	Motorola® Ace Gateway API	VTScada supports RTU redundancy within the IP Gateway device.
MPE®	MPE Duplex Controller	Modbus	
NetControl	FastNest100	Serial	
		IEC-60870-104	
Phoenix Contact	AXC1050	IEC-60870-104	
Ovarro (Formerly CSE Semaphore)	TBox® RTU	Modbus	Supports to access time stamped data recorded by RTUs using Sample Tables and Chronologies.
	TBox® RTU Family Using TFlo®	Enron Modbus	
Power Measurement Ltd.®	ION Series Meters	Modbus	
	ION Series Meters	DNP3	
RuggedCom / Siemens	RX1000 Router	SNMP	
Schlumberger®	Q1000 Meters	DNP3	
NEW - Schneider	Watlow/Eurotherm PLC	OPC DA	Requires a LINOPC DA server. Use OPC tunneller software for OPC DA/Classic implementations where the OPC DA/Classic server runs on a different PCV than VTScada.
Schweitzer Engineering Laboratories, Inc (SEL Inc)	SEL-2030 Communications Processor	DNP3	
SIMATIC	TI-505 Controller with 2572 Ethernet TCP/IP Adapter	TI505	
Sixnet®	Micro-Versa TRAC, Sixnet SixTRAC	Modbus	
Surfline 9015	9015	Modbus	With firmware feature enabled.
Thermo Fisher Scientific	AutoPILOT	Enron Modbus	
Woodward®	easYgen Series, EGCP-3, DTSC, DLSC-2, 723 PLUS, 733, 828	Modbus	

ENTERPRISE DATA SHARING TOOLS

These integrated components for sharing application history and services with third-party platforms are standard in Development Runtime Licenses.

Name	Protocol	Data	Configuration
IIoT	MQTT		JSON, XML, Sparkplug B, Custom Interpreter (processor)
ODBC	ODBC	History, Tag Parameters, Alarm History, Current Alarms	Internet Client Setup. Defined by SQL Queries.
OPC Server	OPC DA/Classic	Legacy tag values and I/O tags with Publish checked, Report by Exception. Output tags pass through changes and call Set()	OPC Server Setup tag.
OPC Client	OPC UA/DA	Allows VTScada apps to query live data from an OPC-compliant server (including VTScada apps with OPC servers).	OPC Client Setup tag.
Web Services	HTTP(S)/SOAP	History, Tag Parameters, Alarm History, Current Alarms. Custom interfaces can be added.	Internet Client Setup. Defined by SQL Queries.
REST	HTTP(S)	History, Tag Parameters, Alarm History, Current Alarms. Custom interfaces can be added.	Internet Client Setup. Defined by SQL Queries.
Multispeak	HTTP(S)/SOAP	Legacy tag values and I/O tags with Publish checked. Poll for and Report by Exception	Internet Client Setup. Application Properties.

DRIVER CONNECTION DEFINITIONS

Term	Definition
Native Serial	Driver supports native serial communication as defined in protocol standard document(s) on PC serial ports using VTScada "Serial Port" tags.
Modem	Driver supports native serial communication as defined in protocol standard document(s) over modems defined in the operating system.
Native TCP/IP	Driver supports native TCP/IP communication to devices as defined in the protocol standard document(s).
TCP/IP Tunnel	Driver supports tunneling of serial protocol via Ethernet connected TCP/IP to serial converters using VTScada "TCP/IP Port" tags.
Native UDP/IP	Driver supports native UDP/IP communication to devices as defined in the protocol standard.
UDP/IP Tunneled	Driver supports tunneling of serial protocol via Ethernet connected UCP/IP to serial converters using VTScada "UDP/IP Port" tags.
Other Connection	Driver supports device or protocol specific interface, or methodology not covered by above definitions (e.g. ODBC).
Virtual PLC	Driver supports VTScada acting as a memory-mapped PLC or RTU that other devices can read from or write to.

NATIVE POLLING DRIVER

Integrated polling eliminates the need for a master PLC device reducing hardware costs, integration time, and points of failure. VTScada simplifies device communications by automatically organizing scheduled polling cycles and communications channels. Reduce the number of required radios by transmitting multiple protocols on a single communications link. The Polling Driver is a standard component of VTScada Runtime and Development Runtime Licenses.

- Configure any number of polling groups.
- Select 'Fast Polling' rate for specific RTUs.
- Poll by external triggers, on schedule, or on Command.
- Enable or disable polling in any polling driver.
- Display min, max, and average values.

EASY TO TRY

Our free license, for industrial and personal applications up to 50 I/O, includes all communication drivers that are part of VTScada Runtime and Development Runtime licenses.

VTScada.com/LIGHT

NEW DRIVER DEVELOPMENT

If you don't see the device or protocol that you are looking for, we can create custom drivers to meet your needs.
New driver development prices are determined on a case-by-case basis.

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** Includes devices we have internally tested and that have been used by one or more customers. Trihedral does not guarantee any of the listed devices.*