CAS-2700-07
Modbus RTU to Modbus TCP Gateway

Description

The Modbus RTU to Modbus TCP Gateway can poll a Modbus RTU Slave device for real time data. If the Modbus RTU network is RS485, then the CAS Gateway can poll multiple devices, however if the Modbus RTU network is RS232, then the CAS Gateway can only poll a single device.

The CAS Gateway serves data from the configured Modbus RTU slaves as Modbus TCP or Web Data. The gateway supports these options simultaneously. Use the data you want and ignore the other.

The Gateway connects to the Modbus RTU network, reads data and stores it internally. When a remote system requests data, this data is served in a form that is appropriate to the protocol The gateway requires minimal configuration and can be considered a plug and play component of a system, in that it is ready to operate out of the box with the default configuration.

The main driver is a serial driver using either a RS485 or RS232 serial port to connect between the Gateway and the Modbus RTU slave.

Specifications (If Hardware)
- **UL and ULc approved**
- 10/100BaseT with RJ-45 connector
- 1x RS232 Port
- 1x RS485 Port (Different Models have additional ports)
- 2MBytes flash memory, 8MBytes of SDRAM
- Power: 5-24VDC
- Operating Temperature: 0 to 70 C
- Dimensions: 4.2" x 3.25" x 1"
- LEDs: Link, Speed/Data, Power

Max Nodes Supported (If Applicable)

Gateway Mode	Nodes	Comments
Client	1 (*)	*If RS232, then the CAS 2700-07 can only poll from one Modbus RTU slave. If RS485, the CAS 2700-07 can poll from multiple Modbus RTU slaves that are on the same network.*
Server	Many	*The CAS 2700-07 can serve Modbus TCP data to multiple Modbus TCP clients.*

Connection Information - Port 0: Modbus RTU Client Port for RS485

Connection type:	**RS485** (Jumper change to RS232)
Baud Rates:	**9600**; 19200 Baud
Data Bits:	**8**
Stop Bits:	**1**
Parity:	**None**
Hardware interface:	N/A
Multidrop Capability	Yes

Connection Information - Port 1: Modbus RTU Client Port for RS232

Connection type:	**RS232**
Baud Rates:	1200, 2400, 4800, **9600**; 19200Baud
Data Bits:	7,**8**
Stop Bits:	0,**1**,2
Parity:	Odd, Even, **None**
Hardware interface:	N/A
Multidrop Capability	No

Devices Tested

Device	Tested (FACTORY, SITE)
Various Modbus master and slave devices in office	Tested

Connection Diagram

Monitor and Control Data Modbus RTU Devices
using Modbus TCP or Web

REST
Requests:
JSON, XML
CSV

Modbus
TCP

Ethernet Network

HTTP
and other
web
protocols

Connection via standard
networking interfaces
such as hubs, switches,
and routers

We are always adding to
the library of protocols
and can add yours

CAS 2700-07
Modbus RTU to Modbus TCP Gateway

RS485   or   RS232

Modbus
RTU
Slave

Modbus
RTU
Device(s)
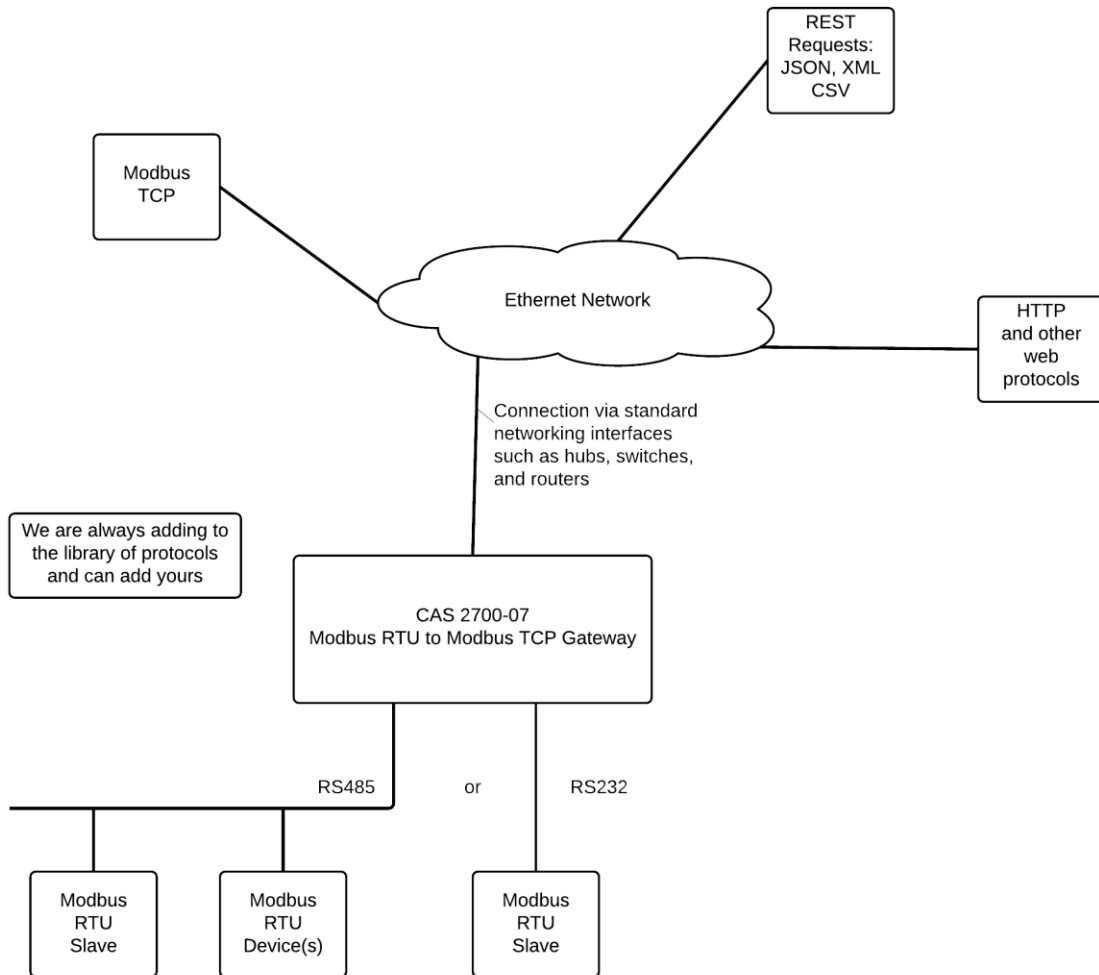
Modbus
RTU
Slave

Driver Operation

The driver can be configured to execute any of the commands in the 'supported function' list. The data sent is stored internally in the Gateway and is made available to other protocols (Modbus TCP and HTML).

The frequency with each data point is read is configurable.

The driver reports operating stats and issues on a web page, maintains a log that can be uploaded by HTTP or ftp.

Configuration

Via Web Page: Configure settings, Node ID's, Baud Rate and other parameters. Names are used to form the names of the Modbus Tasks and to populate the web page showing current values.

Use can specify
    ModbusTCP: Device ID, Port
    ModbusRTU: Device ID, Baud Rate, Parity, Data Bits, Stop Bits

Communications functions

Supported Modbus Functions
- 01 Read Coil Status
- 02 Read Input Status
- 03 Read Holding Registers
- 04 Read Input Registers
- 05 Write Single Coil
- 06 Write Single Register
- 15 Write Multiple Coils
- 16 Write Multiple Registers

Support

This driver was developed by Chipkin Automation Systems (CAS). CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

Revision History

Date	Resp	Format	Driver Ver.	Doc. Rev.	Comment
2015 Jun 10	ACF		0.15	0	Created