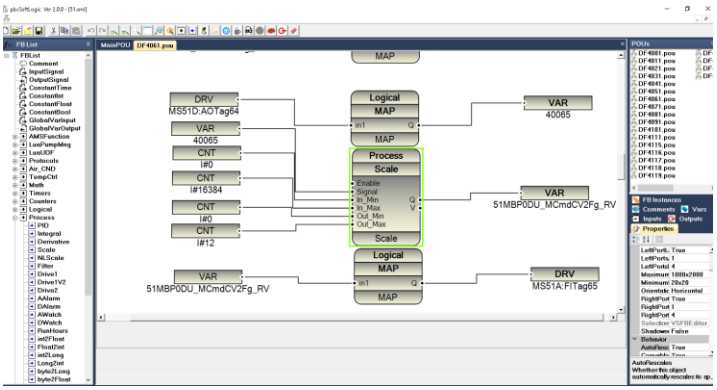
iRTU2020 RTU/PLC
Industrial Intelligent RTU for SCADA

iRTU2020 Family is RTU/PLC/Gateway for SCADA projects and upgrading old SCADA systems to latest technologies.
iRTU2020 with multiple serial ports can be connected to many external devices like power meters , PLCs ,Gas Regulator , Flow Computers , Protection Relays and Remote IO Modules by Modbus/IEC101/DNP3 protocols .
iRTU2020 Supports different SCADA protocols like DNP3 , IEC104 and OPC UA for communication with master SCADA.

- **Specifications** :

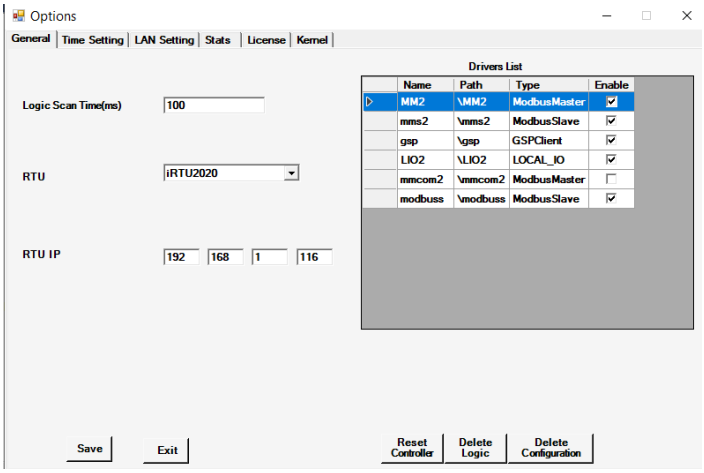
-Arm Cortex , 1.4GHz 64-bit quad-core processor, Raspberry Pi 3 B +
-1GB RAM , 16 GB Flash
- Max 4x Serial ports
-1xCAN Port for connecting CanOpen and iRTU CAN IO Modules with pbsCAN Protocol.
-Integrated 3G Modem with full control in RTU Logic by User
-1x10/100 LAN Ports , WIFI Interface , E model with one more Ethernet port
-LED for Power , Serial Ports , 4 user defined LED , 3G Modem , All DI/O Channels
-4 Channels DI , 2 channels DO
-2 channels Temperature and Humidity with external sensors (DHT22 Sensor -40 to +80 deg) (T model)
-Raspberry OS
-Supported Protocols :
  - -Modbus RTU/TCP Master /Slave
  - -DNP3 Master/Slave(TCP/Serial)
  - -IEC60870-5-101/104 Master/Slave
  - -GSP Client
  - -OPC UA Client/Server
  - -SQLite Client with Automatic Synchronization with SQL Server at Control room
  - -S7 Connect Client
  - - MS SQL Server and Oracle Client
  - - MQTT Publisher /Subscriber
  - - IEC61850 MMS Server, GOOSE , SV
  - - TASE2 Server

-Powered by pbsSoftLogic Runtime Kernel for Standard Function Block programming and Lua Scripting
-Dimension : 186x120x80mm , 186x120x50 mm
-Housing Material : Aluminum , DIN Rail installation
-Input Voltage : 9~36 VDC (35~75 VDC optional)
-Max Power Consumption : 20 ~25 W
-Watch Dog Timer
-Real Time Clock
-Operating Temperature : -10 to +60 Deg
-1 Year Guarantee

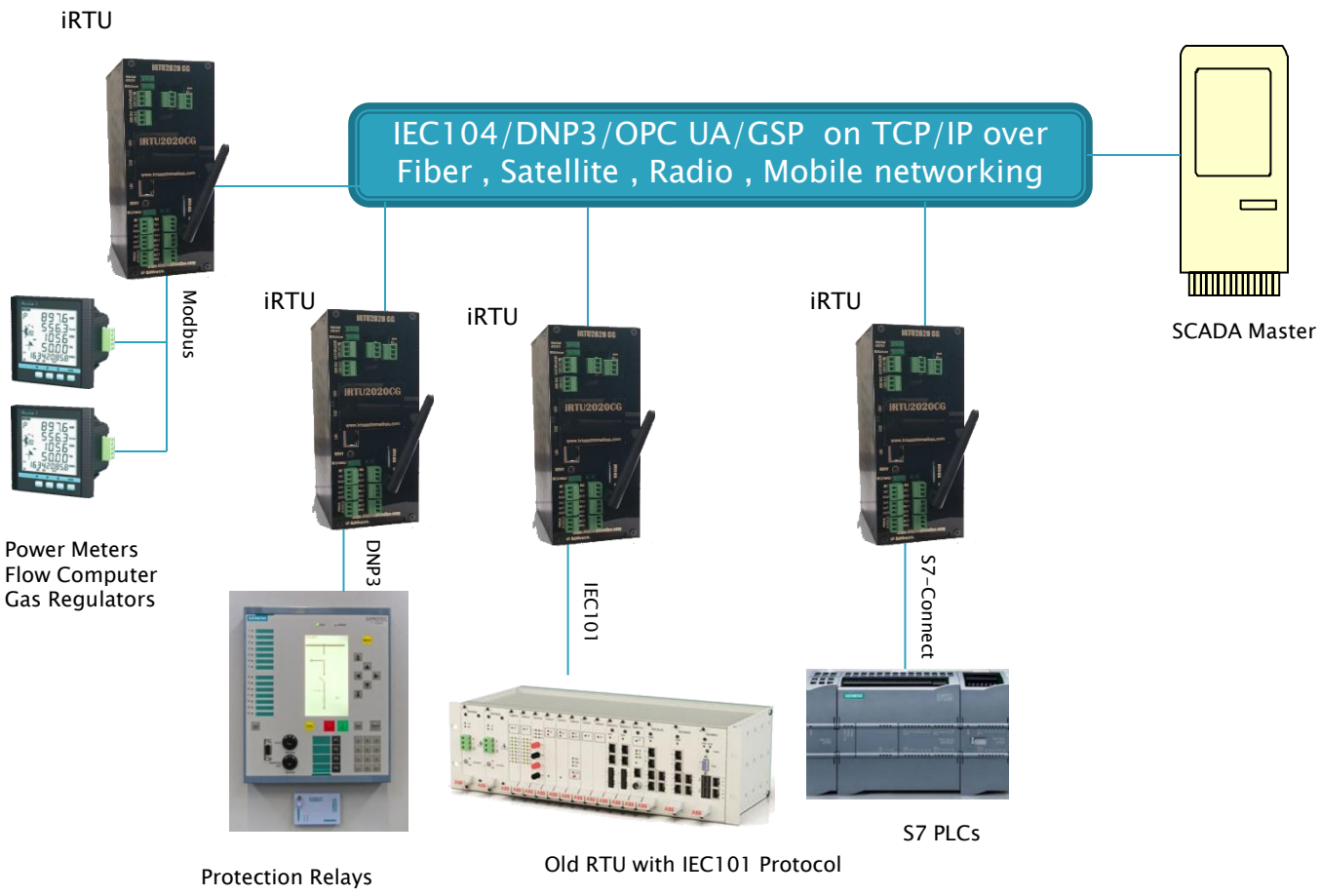


Solutions
SCADA Solution

-iRTU Designed for Modern SCADA Systems . It is supporting Many SCADA Protocols in easy way for configuration . pbsSoftLogic runtime kernel for linux is running on the iRTU2020 and it is managing all local resources , communication protocols and Logic.
iRTU is optimized for SCADA systems with Mobile networking by using MQTT and GSP Protocol .
iRTU Supports VPN Client protocols like OpenVPN for secure communication with Master SCADA .



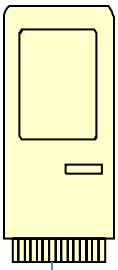
Solutions
Communication Gateway



-iRTU Supports ModbusRTU/TCP Master , IEC101 master and S7-Connect Client to communicate with external systems
-iRTU can Communicate with Modbus, IEC101 and S7 Devices and transfer Data to Master SCADA by IEC104 / DNP3 /OPC UA/GSP Protocols .
-iRTU Supports direct SQL Server client driver to synchronize stored data In SQLite database in RTU with SQL Server at Control Room Automatically .
-iRTU has built in MS SQL and Oracle Client Driver for Direct Read/Write to SQL Server and Oracle databases .
iRTU is optimized for SCADA systems with Mobile networking by using GSP Protocol .
You can Control 3G Modem inside logic and optimized Power consumption of RTU .

Programming & Configuration

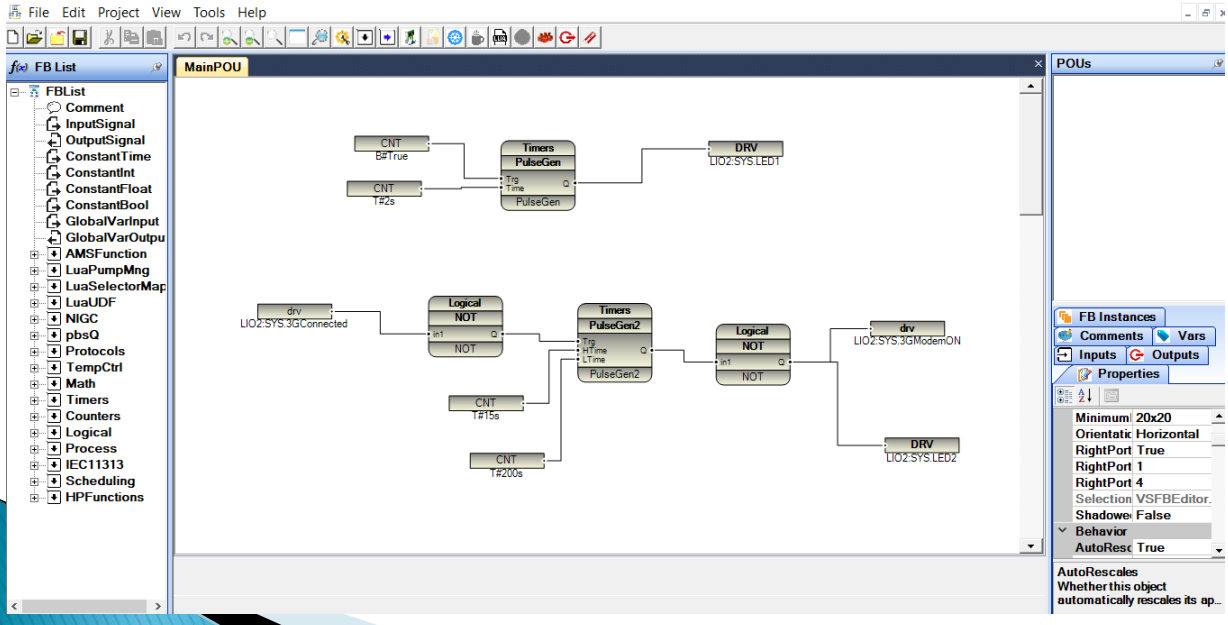
PBS Control
Industrial Software Solutions
Process Control • Building Automation • SCADA Platform



pbsSoftLogic Eng
Define Protocols
Develop Logic By FB
Develop User FB by Lua Script
Simulate Logic on Windows
Transfer Logic and configuration to RTU by TCP/IP

TCP/IP

-iRTU is Programming by pbsSoftLogic IEC1131-3 Based Programming Environment .
-All Communication Protocols will configured by pbsSoftLogic and no need to other Tools for Protocol configuration .
-In pbsSoftLogioc kernel , protocol Definition is 100% isolated from Logic . It means no need to do any type of Protocol configuration in RTU Logic .
-RTU logic is communicate with Protocol Drivers only through Driver Tags and parameters .



Order Codes :

iRTU2020 Base CPU with 1xRS232 , 1xLAN , 2xDI,2xDO ,1xCAN
4xUser LED , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC(35~75 VDC optional) Input Power 186x120x50 mm ,Aluminum housing

iRTU2020GW Base CPU with 1xRS232 , 1xRS485 , 1xLAN ,2xDI,2xDO
4xUser LED , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC Input Power , 186x120x50 mm, Aluminum housing

iRTU2020E Base CPU with 1xRS232 ,1xRS485 , 2xLAN , 2xDI,2xDO ,1xCAN
4xUser LED , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC(35~75 VDC optional) Input Power , 186x120x50 mm, Aluminum housing

iRTU2020T Base CPU with 2xRS232 ,1xRS485 , 1xLAN , 4xDI,2xDO , 1xCAN
4xUser LED ,2xTemprature-Humidity(DHT11) Inputs , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC(35~75 VDC optional) Input Power , 186x120x50 mm, Aluminum housing

iRTU2020G Base CPU with 2xRS232, 1xLAN , 2xDI,2xDO , 1xCAN,3G Modem
4xUser LED , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC Input Power , 186x120x50 mm, Aluminum housing

iRTU2020TE Base CPU with 2xRS232 ,2xRS485, 2xLAN , 4xDI,2xDO ,1xCAN
2xTemprature-Humidity(DHT11) Inputs ,4xUser LED , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC(35~75 VDC optional) Input Power , 186x120x80 mm, Aluminum housing

iRTU2020TG Base CPU with 3xRS232 ,1xRS485 , 1xLAN , 4xDI,2xDO ,1xCAN , 3G modem
4xUser LED , 2xTemprature-Humidity (DHT11) Inputs , 1.4GHz 64-bit quad-core processor, 16 GB Flash , 9~36 VDC Input Power , 186x120x80 mm, Aluminum housing

iRTU16DI Isolated Remote IO with 16 DI with optocoupler max. 3000V isolation with LED , 1xCAN Port (pbsCAN Slave), 1xRS485 Port (Modbus RTU Slave) , 9~36 VDC Input Power , 186x120x50 mm, Aluminum housing

iRTU16DO Remote IO with 16 Relay (7A 220AC) with LED , 1xCAN Port (pbsCAN Slave), 1xRS485 Port (Modbus RTU Slave) , 9~36 VDC Input Power , 186x120x50 mm, Aluminum housing

iRTU8AII Remote IO with 8AI(4~20mA), 1xCAN Port (pbsCAN Slave), 1xRS485 Port (Modbus RTU Slave) , 9~36 VDC Input Power , 12 Bit Resolution , Differential Input , 186x120x50 mm, Aluminum housing

iRTU8DI Remote IO with 8 DI with LED , 1xRS485 Port (Modbus RTU Slave) , 9~36 VDC Input Power ,72x87x60 mm ,plastic housing ,Low cost , LED for power and Communication , DIN Rail Installation

iRTU4DO Remote IO with 4 RO with LED , 1xRS485 Port (Modbus RTU Slave) , 9~36 VDC Input Power ,72x87x60 mm ,plastic housing ,Low cost , LED for power and Communication , DIN Rail Installation

iRTU4AII Remote IO with 4AI(4~20mA) , 1xRS485 Port (Modbus RTU Slave) , 9~36 VDC Input Power ,72x87x60 mm ,plastic housing ,Low cost , LED for power and Communication , DIN Rail Installation

CSC2020 Two way Industrial RS232 to RS485 convertor, Automatic Baud rate , 9~36 VDC Input Power ,53x87x60 mm ,plastic housing ,Low cost , LED for power and Communication , DIN Rail Installation ,

USC485 Industrial USB to RS485 convertor, Input Power from USB ,53x87x60 mm ,plastic housing ,Low cost , LED for power and Communication , DIN Rail Installation ,

USC232 Industrial USB to RS232 convertor, Input Power from USB ,53x87x60 mm ,plastic housing ,Low cost , LED for power and Communication , DIN Rail Installation ,

iRTU2020TG Face Plate and IO connections