

pbsSoftLogic V4.3

pbsSoftLogic is an integrated development environment for RTU programming from pbscontrol. pbsSoftLogic has been on the market since 2007 and runs on many different hardware platforms.

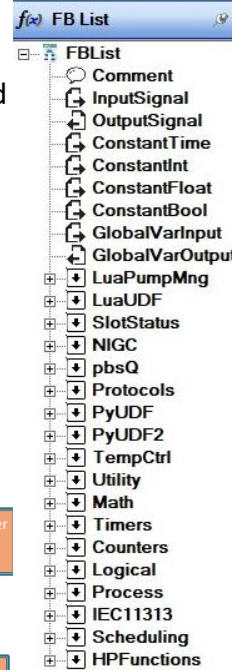
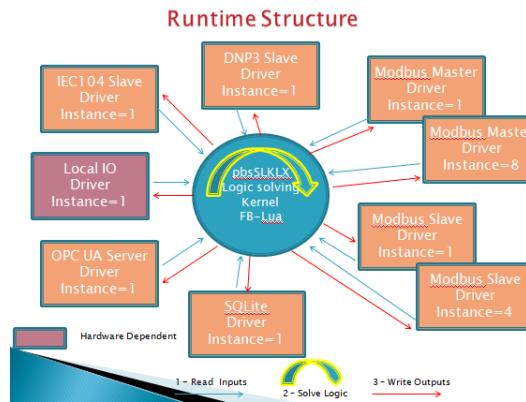
pbsSoftLogic Supports following protocols : ModbusTCP/RTU(M/S),DNP3(M/S),IEC101/104 (M/S),IEC62351 for IEC104 and DNP3 , Beckhoff ADS , Siemens S7 ,MQTT , Redis , OPC Classic , OPC UA (C/S), Vestas Wind Turbine , IEC62056-21 , SQLite with TDS protocol ,EmailPub , Fatek PLC and GSP.

pbsSoftLogic supports Function Block programming based on the IEC1131-3 standard. pbsSoftLogic has more than 400 ready function blocks and user can create new FB by C and Lua Scripting.

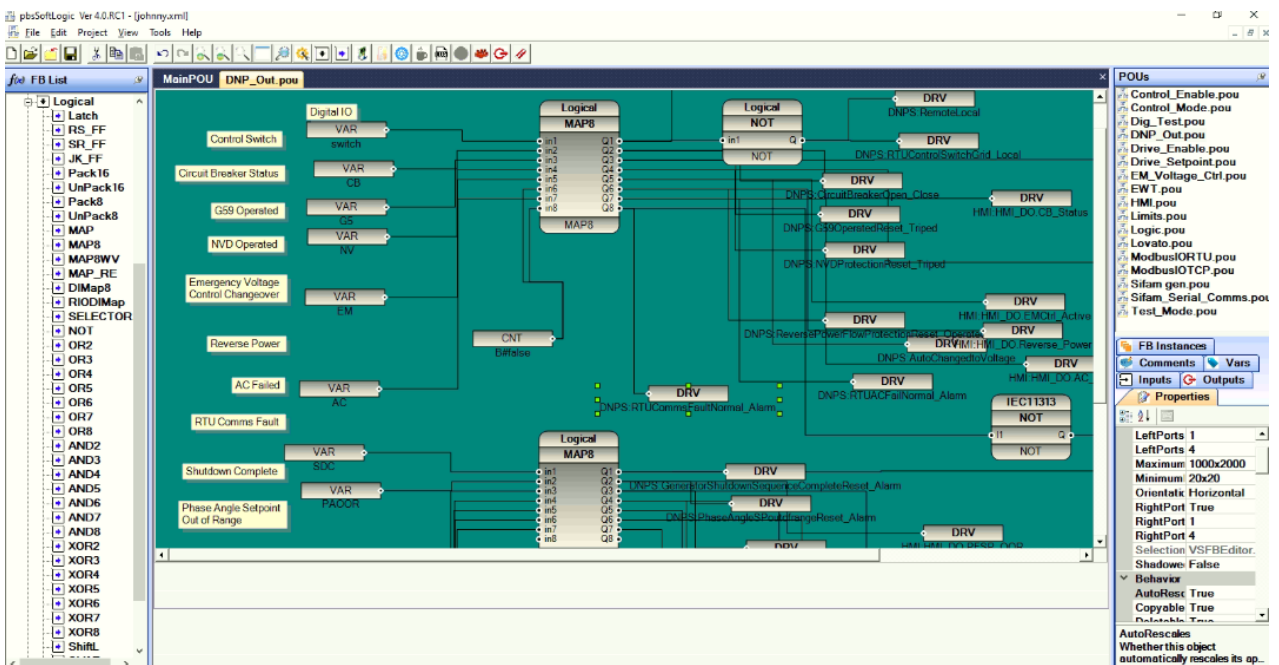
pbsSoftLogic IDE runs on Windows and the runtime kernel is ported to Linux, WinCE and Win32 operating systems. pbsSoftLogic has offline logic emulation on Windows.

Logic Monitoring Facility helps the user to monitor logic at runtime and perform hot and cold updating of logic and change tag value.

pbsSoftLogic IDE is free and only the license applies to the runtime kernel.



User can define many Program Organization Units for a project . There is no limitation for logic size . Multiple instance for each driver is supported .



File

Broker URL(IP)
 TCP Port
 RTU Topic
 QOS
 User Name
 Password
 Publish Change Only
 DataModel
 Publish Period



There is a GUI for each communication driver for easy configuration. DNP3 , IEC101/104 , Modbus ,Fatek PLC , Vestas Wind Turbine , IEC62056-21 and IEC62351 and GSP are developed at pbsControl . Other protocols like MQTT , OPC UA , TDS are used from open sources For OPC UA we used Open62541 and for MQTT , Mosquitto stack is used .

Internal Events passing between DNP3 , IEC101/104 and MQTT is handling automatically by runtime kernel .

CPU Redundancy is supported for IO Modules with pbsCAN protocols .

Options

Logic Scan Time(ms)

RTU

RTU IP

Drivers List				
Name	Path	Type	Enable	
> IEC 104S	\IEC 104S	IEC8705Slave	<input checked="" type="checkbox"/>	
uasrv	\uasrv	OPCUaServer	<input checked="" type="checkbox"/>	
dnp3	\dnp3	DNP3Slave	<input checked="" type="checkbox"/>	
MS	\MS	ModbusSlave	<input checked="" type="checkbox"/>	
mqtt	\mqtt	MQTT	<input checked="" type="checkbox"/>	
LIO	\LIO	LOCAL_IO	<input checked="" type="checkbox"/>	

Logic Development



pbsSoftLogic Engineering

- Develop control logic by Function Block language ,
- Develop User defined FB by Lua , C, Python
- Simulate on Windows
- Transfer Configuration and logic to controllers
- Monitor Logic at runtime and update logic



Linux Based RTU

TCP/IP

Redundant RTU

WinCE/ 32 Based RTU



Modbus

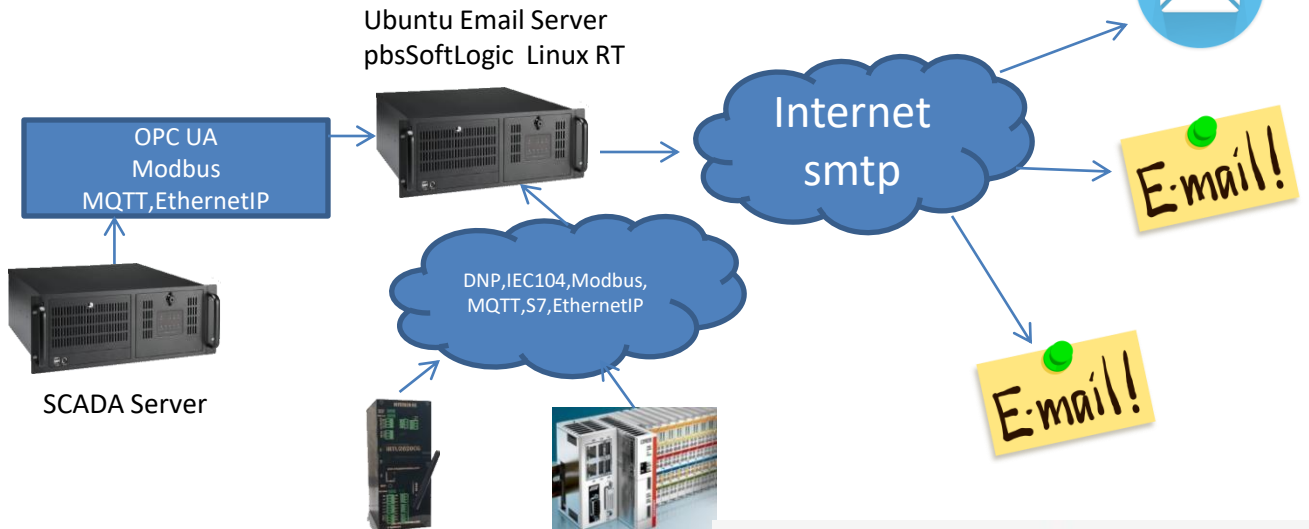
Modbus Remote I/O



Power meter , Flow Computer

pbsSoftLogic supports email publishing driver to automatically send emails to defined accounts.

pbsSoftLogic can read data by ModbusTCP, OPC UA, MQTT or any other supported driver and automatically send emails to defined accounts based on user developed logic.



The mail server can be a standard Ubuntu server with the pbsSoftLogic runtime kernel installed. Email server can read data from SCADA server or directly from RTU with various supported protocols such as DNP3, IEC104, OPC UA, Modbus, MQTT, Redis, S7, AB,

Drivers List

Name	Path	Type	Enable
EmailDrv	\EmailDrv	EmailPub	<input checked="" type="checkbox"/>
mqtt	\mqtt	MQTT	<input checked="" type="checkbox"/>



You can define many EmailPub Driver for Email Server. At each driver instance you can define 100 email accounts for publishing emails .

Each driver instance has 8 inputs for accepting emails from logic to publish . Email content can be dynamically changed at runtime by user-defined FBs created by Lua Scripting.

Diagnostic data like Number of sent emails , Number of Failed Emails , Email Server online status , .. are defined in EmailPub Driver .

