

## Features

- ◆ One software program for configuring any Renu HMI, PLC or combination HMI/PLC
- ◆ Common tag database for HMI and PLC programming
- ◆ Extensive set of communication drivers
- ◆ Program the built-in web server with HMI tools
- ◆ Powerful logic debugging tools
- ◆ Logic and HMI simulation
- ◆ Import HMI screens and logic blocks from other applications
- ◆ Import or export the tag database to a .CSV file
- ◆ Download and use the full featured version for **FREE!**
- ◆ FREE technical support
- ◆ No annual subscription charges

## Common Features

- ◆ One tag database for logic and HMI programming
- ◆ Up to 1,000 user tags can be power off retentive EEPROM
- ◆ 1,400 flash retentive tags
- ◆ Designate a power up value for tags
- ◆ Simulate both logic blocks and HMI screens in software
- ◆ Simulation allows you to force real input values
- ◆ Import and export screens, logic blocks and tags across applications
- ◆ Conversion tool to convert 3.5", 4.3", 7", 10.1" and 12.1" applications to another screensize
- ◆ Up to 45 Mb of application space
- ◆ Program download over USB, serial, Ethernet or USB. Programs can also be downloaded with a microSD HC card on models equipped with a microSD port

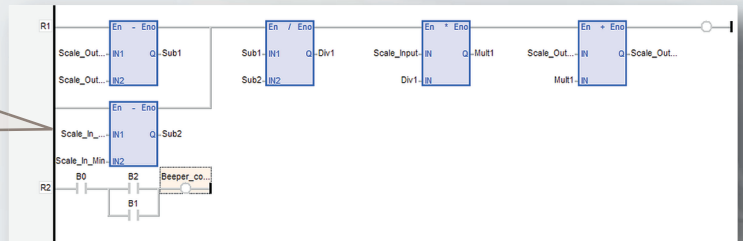
## HMI Software Capabilities

- ◆ Supports up to 9 languages and it includes a export/import tool for easier translations
- ◆ Landscape or Portrait orientation for graphical, touch screen HMIs
- ◆ Number of screens is limited by the available application memory
- ◆ Create screen templates for smaller applications and faster programming
- ◆ Apply multiple templates to a screen
- ◆ Up to 256 historical or real time alarms
- ◆ Upload historical alarm file
- ◆ Log up to 120 tags with the built in data logger
- ◆ Declare up to 20 Mb of memory for data logging
- ◆ Log on a time basis or a tag event
- ◆ Download the data log to a USB memory stick
- ◆ Build your own pop-up screens and import them into other applications
- ◆ Built-in web server for devices with an Ethernet port
- ◆ Program the web server with HMI tools - no HTML coding is required
- ◆ Java based web server updates only changed data - it doesn't "push" the whole screen making it faster and it requires less data usage

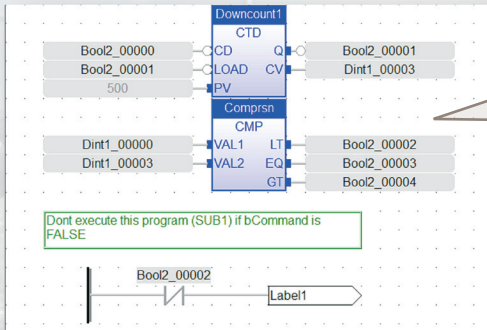
# Logic Programming in IEC 61131

- ◆ Create multiple logic blocks to make program readability and maintenance easier
- ◆ Each logic block can be programmed in a different 61131 language
- ◆ User Defined Function Blocks (UDFBs) allow you to create your own functions that can be used in other programs

Create application using LD language



Create application using FBD language



Create application using IL language

```

BEGIN_IL
Op1: CAL MyCmp (Dint2, Dint3)
    LD MyCmp.LT
    ST bTrig
    LD MyCmp.EQ
    ST bool2
    LD MyCmp.GT
    ST bool3

Op2: CAL MyTimer (bTrig, t#10s)
    LD MyTimer.Q
    ST TimerOutput
    LD MyTimer.ET
    ST ElapsedTimer

Op3: CAL MyTPR (bool2, t#100s, b2)
    LD MyTPR.Q
    ST B10
    LD MyTPR.ET
    ST ElapsedTimer2

Op4: CAL MyTP (bool3, t#10s)
    LD MyTP.Q
    ST B11
    LD MyTP.ET
    ST ElapsedTimer3

END_IL
    
```

Create application using ST language

```

//Create some constants
C2F := DINT#1;
F2C := DINT#2;
C2K := DINT#3;
K2C := DINT#4;
F2K := DINT#5;
K2F := DINT#6;

Case Temp_Conv_Type of
  1:
    (" Centigrade to Fahrenheit ")
    Temp_Conv_Out := (Temp_Conv_In * 9/5)+32.00;

  2:
    (" Fahrenheit to Centigrade ")
    Temp_Conv_Out := (Temp_Conv_In - 32.00)*5/9;

  3:
    (" Centigrade to Kelvin ")
    Temp_Conv_Out := Temp_Conv_In - 459.69;

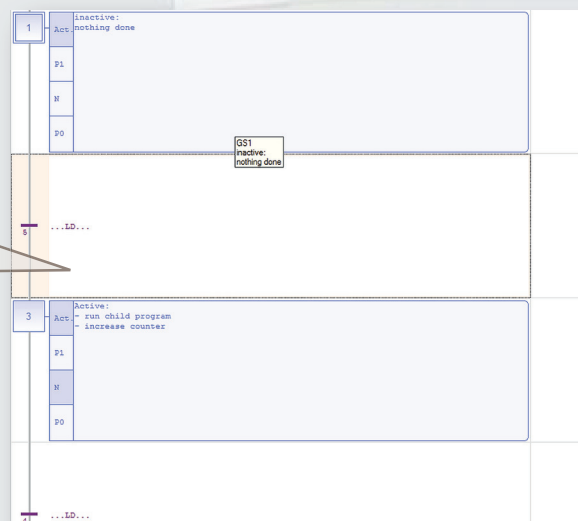
  4:
    (" Kelvin to Centigrade ")
    Temp_Conv_Out := Temp_Conv_In + 459.69;

  5:
    (" Fahrenheit to Kelvin ")
    Temp_Conv_Out := ((Temp_Conv_In - 32.00) * 5/9) - 459.69;

  6:
    (" Kelvin to Fahrenheit ")
    Temp_Conv_Out := ((Temp_Conv_In + 459.69) * 9/5) + 32.00;

End_Case;
    
```

Create application using SFC language



# Communications

- ◆ Large selection of communications protocols. Many more than those listed.
- ◆ Each communications port can have a different protocol.
- ◆ Communications are interrupt driven to minimize PLC scan time and screen update problems.
- ◆ PLCs and HMIs have the same set of drivers available
- ◆ Create your own ASCII driver. Use the wizard to define Start of Frame, End of Frame, checksums, and byte order formats.
- ◆ PLC communications are checked for each node on each port
- ◆ PLC values on the screens are updated only when they change
- ◆ Internal bits can be used to control when communications tasks are to be performed and report the success or failure of the communications transaction
- ◆ You can have two protocols running at the same time on your Ethernet port – TCP/Modbus Server for your SCADA network and another Ethernet protocol for your LAN.

## Protocols Supported

- ◆ ABB PLCs - Serial
- ◆ Allen Bradley DF1
- ◆ Allen Bradley Compact Logix - EIP scanner
- ◆ Allen Bradley EIP PCCC
- ◆ Panasonic (Aromat) - FP PLCs
- ◆ Baldor
- ◆ Danfoss Drive
- ◆ Delta PLCs
- ◆ Fatek PLCs
- ◆ GE SNP
- ◆ GE SNP-X
- ◆ Idec
- ◆ LG Master K Series PLC
- ◆ LG Master K 300S
- ◆ Mitsubishi FX
- ◆ Mitsubishi Q (Serial & Ethernet)
- ◆ Modbus ASCII
- ◆ Modbus Enron Master
- ◆ Modbus RTU Master
- ◆ Modbus RTU Slave
- ◆ Modbus/TCP Client
- ◆ Modbus/TCP Server
- ◆ Omron Host Link
- ◆ Omron G9SP Safety
- ◆ Omron Inverter Memobus
- ◆ Serial Printers
- ◆ Siemens S7-300 & Step 7 Micro PLCs
- ◆ Siemens MicroMaster Drive (USS)
- ◆ Toshiba (Link Port)
- ◆ Toshiba Inverters
- ◆ Toshiba T Series
- ◆ Triangle Research
- ◆ Twido PLCs PLCs
- ◆ Unitelway PLCs
- ◆ Universal ASCII Driver (serial & Ethernet)

*Please contact us if the protocol you need is not listed*



**PHOENIX**  
AUTOMATION SOLUTIONS

*Sales, Marketing and Technical Support  
for Renu products in North America*

**Phoenix Sales, Inc.**

336 McKee St., Batavia, IL 60510

Phone 630 879 8412 Fax 516 706 2513

PhoenixSalesInc.com