

Overview

The PIS-2x IEC 60870-5 software comprises the IEC 60870-5-101/103/104 software stacks. The application programming interface allows easy integration of client or server functionality on your product.

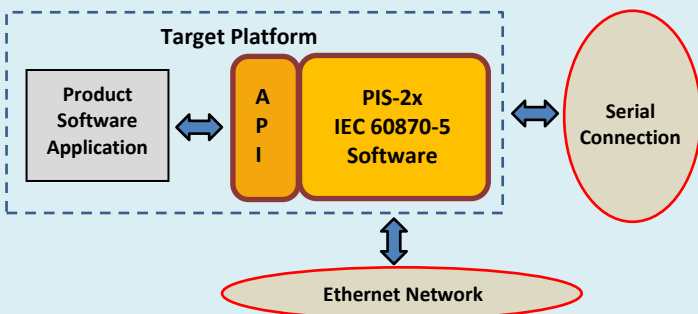
Our PIS-2x software stacks cover all the main features of the IEC 60870-5-101/103/104 standards. All functions are self-contained in the stacks.

Our software has been packaged for rapid deployment as ANSI C **source code** allowing the porting to any commonly used operating system.

Alternatively the IEC 60870-5 software is delivered as easy to use linkable or dynamic libraries tailored to various target platforms.

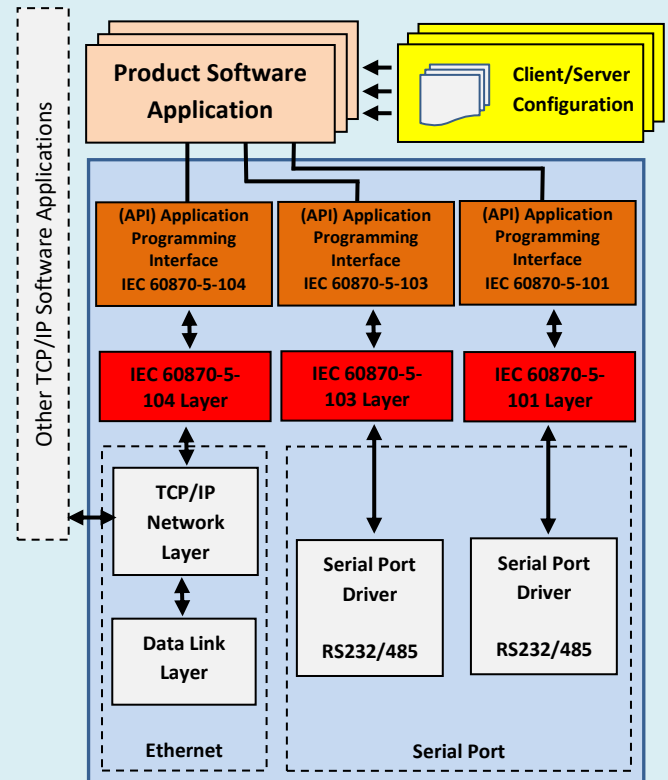
Our flexible licensing system caters for your product specific implementations and also for unlimited company usage of the source code or target specific libraries.

An easy to use application programming interface (API), common to both the source code and library products, simplifies the development process allowing significant reduction in the "time-to-market" of your product.



IEC 60870-5-101/103/104 Features

- ✓ Controlled/Controlling Station Initialization
- ✓ Data Acquisition by Polling
- ✓ Cyclic Data Transmission
- ✓ Acquisition of Events
- ✓ Acquisition of Events – Quick Check Procedure
- ✓ General Interrogation
- ✓ Time Synchronization
- ✓ Command Transmission/Execution
- ✓ Redundant Operation
- ✓ User Defined Configuration for Server
- ✓ User Defined and/or Dynamic Configuration for Client



Application Programming Interface Features

All API functions provided are identical across all target platforms and operating systems. This feature allows easy porting to any target platform.

The API is based on CALL and CALLBACK functions, which are grouped into:

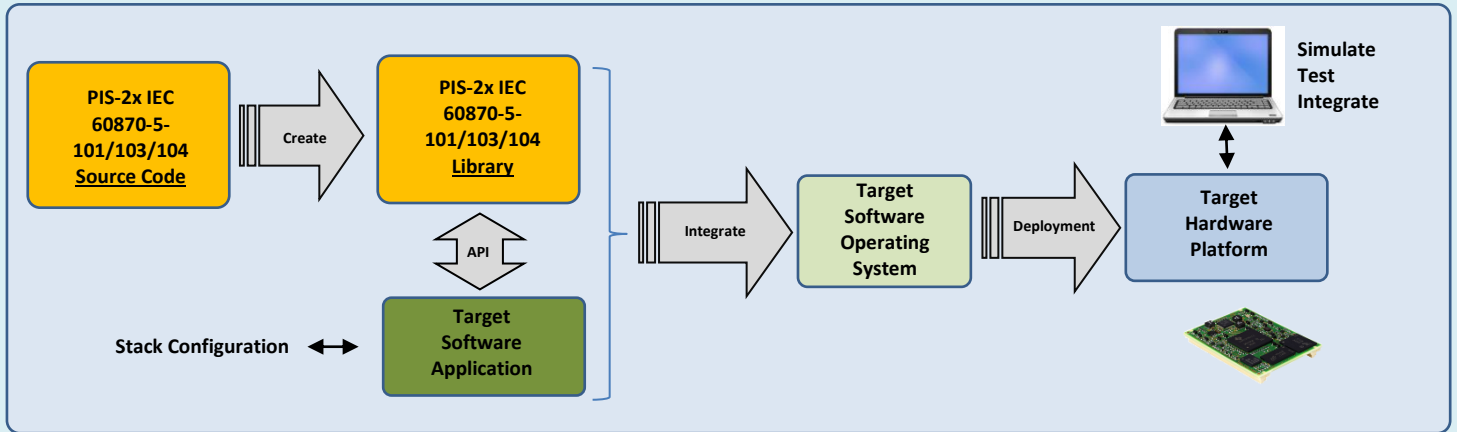
- PIS-2x Stack Management
- PIS-2x Stack Support Functions
- IEC 60870-5-101/103/104 Information Object Access Functions
- IEC 60870-5-101/103/104 Control Functions

Only three stack management function calls are required to create an IEC 60870-5 server or client, load a configuration and start one of the IEC 60870-5 applications.

Managing client and server communication requires only simple update and command call functions.

Developing IEC 60870-5-101/103/104 Products with PIS-2x Source Code Libraries

The PIS-2x IEC 60870-5 software stacks allow streamlined and simplified integration in easy to follow steps.



PIS-2x IEC 6087-5-101/103/104 libraries are ready to use software libraries, tailored to a number of software operating systems. The source code is portable ANSI C code suitable for almost any operating system.

PIS-2x IEC 60870-5 Software integration training and project specific workshops are offered by SystemCORP Energy.

Supported Operating Systems

The PIS-2x IEC 60870-5 software allows the deployment to almost any operating systems. The most popular operating systems are:

- Standard and Real-Time **Linux** for embedded systems
- Linux **Ubuntu** and **Debian** for X86 architecture
- **Windows™** operating system for X86 architecture
- **QNX** on embedded systems
- **VxWorks** on embedded systems

Propriety and other open real-time operating systems such as the **Beck-IPC RTOS** are also used frequently with our IEC 60870-5 software.

To assist during the implementation the relevant API User Manuals are available online.

More Product Information

<https://www.systemcorp.com.au/products/smart-grid-software/iec-60870-5-103/>

Hardware Target Platforms

A variety of different processor types and computer platforms are being used with PIS-2x IEC 60870-5 software. This also includes SoC (System on Chip) assemblies:

- **X86** Architecture based computers
- **ARM 9, 11** based SoC
- **Intel 80186** and **Intel Atom** 64 bit processor families
- Freescale **Power PC**
- ARM **CORTEX M4**
- **Raspberry PI** and **BeagleBone**

As part of our service we consult on the suitability of operating systems and verify hardware platforms specifications.

Contact

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