

Automation combined with Windows® standards

SBC.Net Suite – link between automation technology with Saia PCD® system and Windows applications

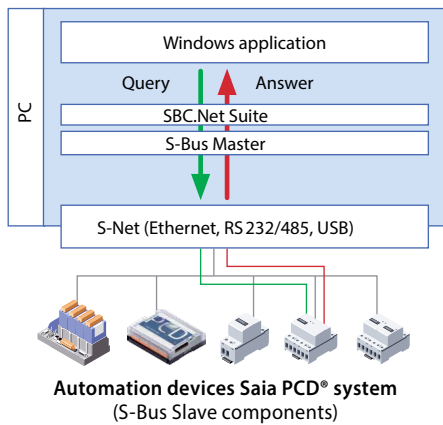


The SBC.Net Suite contains communications components for S-Bus and CGI calls that allow the effective, reliable and resource saving integration of Saia PCD® controllers and Web-Panels into Windows® applications. Multiple connections and synchronous or asynchronous communications are oriented towards the needs of modern systems. Built on the basis of Microsoft® technology and .Net class libraries, communication with the Windows® application is quickly implemented.

Advantages from the Windows® world are combined with those of the automation world, and not just on a technical level, but also in the development of Windows® software. Technically, system developers can benefit from innovative advances in the Windows® world and combine them with economical, quickly obtained PC components. For critical control circuits and logic functions, SBC automation components with a dedicated operating system probably offer the best platform. Resistance to EMC interference is high and availability extends over many years, without compromising innovation. For development, powerful tools like Visual Studio® can be used.

Software developers can use the standard technology .Net from Microsoft® in combination with SBC.Net Suite communications components as easy ways of integrating SBC automation components into their Windows application, without having to worry about communications drivers.

Windows® applications that receive, process and forward data at the automation level, or that control and monitor automation level components. Commercially distributed applications (such as large or small visualization systems, management systems or computer supported production) depend on efficient, reliable communications.

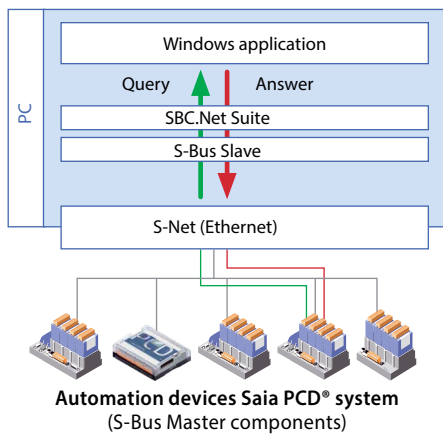


► S-Bus Master: efficient communication

Native communications drivers and .Net class libraries for efficient integration of S-Bus components into Windows® applications. The S-Bus master component of SBC.Net Suite allows applications to access, read and write to PCD media. The application requires no knowledge of the protocol used. Simple programming interfaces with class libraries guarantee simple integration into Windows® applications. The communications driver supports simultaneous communication with numerous controllers.

Applications:

Windows® visualization systems, reading the Saia PCD® energy meter

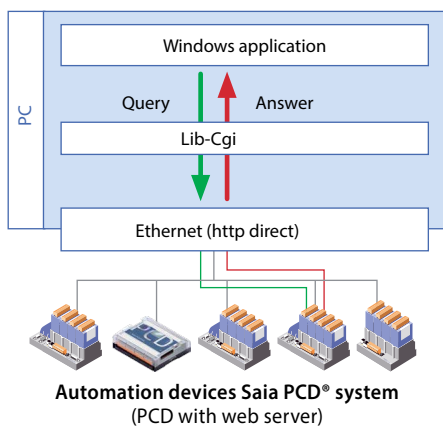


► S-Bus Slave: network load reduction

Native communications driver and .Net class libraries for efficient integration of S-Bus components into Windows® applications. By integrating the S-Bus slave component, the application can react to events and trigger the corresponding functions or answers. Since the Windows® application no longer has to poll individual stations, network load can be greatly reduced with S-Bus Slave.

Applications:

Event logger without polling or GPRS applications.

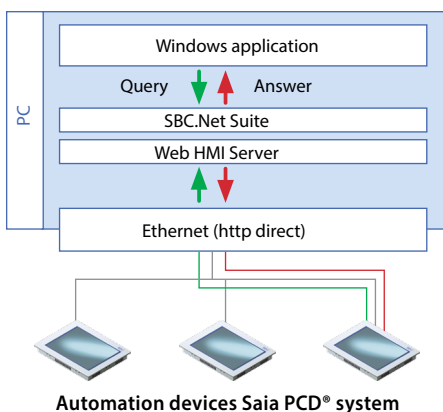


► LibCgi: open communication

The Microsoft® .Net class library allows the uncomplicated exchange of data across the PCD web server. With CGI calls via port 80, Windows applications can efficiently access PCD media. CGI calls also allow Windows® applications to access the PCD controller's file system directly (read and write).

Applications:

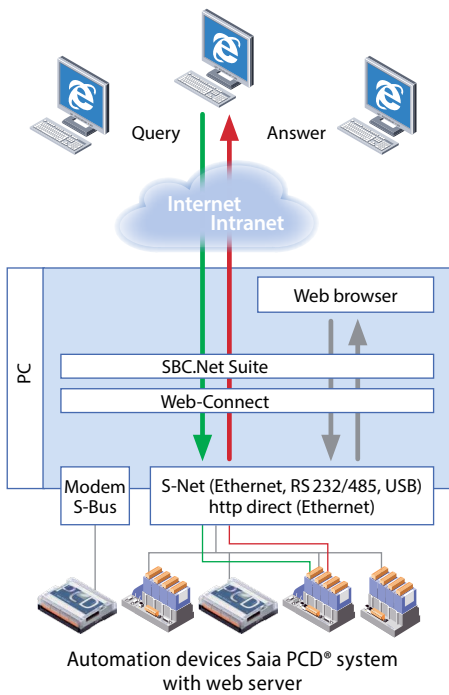
Windows® visualization systems that exchange data via internet or intranet networks



► Web-HMI-Server: simple HMI solutions for the management level

Saia PCD® Web-Panels can control any choice of Windows® application as an economical alternative. The interface to the user is reduced to the bare essentials. The user has no points of contact with the Windows® interface.

The Web-HMI server receives CGI calls from the Web-Panels and reproduces them in its own PCD media image. In turn, the Windows® application can access this database of PCD media via CGI calls.



► Web-Connect: on-the-spot pathfinder

Web-Connect offers gateway and proxy server functions for PCs with Windows® operating system.

Via the HTTP gateway function, the web servers of low cost controllers, which do not have an Ethernet connection, can be driven through the RS 485 port. This method of access is transparent for HTTP clients, such as web browsers.

Its use as a proxy server with caching function is particularly helpful for larger web projects. Indeed, access to these projects by the slower RS 485 or modem connections can be speeded up considerably. In addition, the caching function can also be used to accelerate HTTP direct connections.

The individual controllers are summarized in station tables. Individual connections can be operated and configured via the usual Internet browser.

Examples

To help with getting started with the SBC.Net Suite communication framework a start guide including many samples has been created. In this start guide each component is described. A Visual Studio 2010 solution containing samples for each component is also included. All examples are described in the start guide.

► SBMaster

- How to read and write registers
- How to read and write flags
- How to use asynchronous communication
- How to use the ChannelManager in SBMasterDlg

► SBSlave

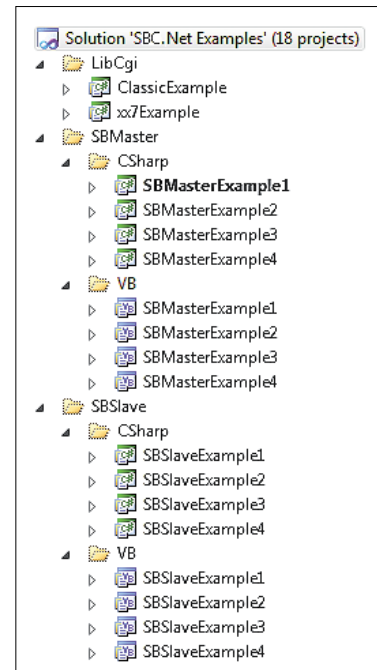
- How to implement a slave listening on one S-Bus address.
- How to implement a slave listening on several S-Bus addresses.
- How to implement a slave listening on several S-Bus addresses but separately handled.
 - Concurrent requests are serialized by the SBSlaveClient
 - Concurrent requests are handled in parallel by each slave

► Web HMI Server

- Read/write values on a simulated PCD with an Excel sheet and a web project

► LibCgi

- Read/write media values (flags, registers, ...)



General

Framework	Microsoft® .Net 4.0 Framework
Memory capacity	6 MB for driver 200 MB for installation with HTML help and examples
Platforms	Windows® XP / Vista / 7 / 8
Web server	Integral web server: http 1.1 web server
Examples	C#, VB, C++, JScript

Connectivity

	Ether S-Bus	Serial S-Bus	Prof S-Bus	Http Direct	USB S-Bus	Modem S-Bus
Web-Connect	Classic					
Windows® XP / Vista / 7 / 8	■	■	■	■	■	■
S-Bus Master						
Windows® XP / Vista / 7 / 8	■	■	■	—	—	—
S-Bus Slave						
Windows® XP / Vista / 7 / 8	■	—	—	—	—	—

■ USB and modem S-Bus only operate with SCOMM

Ordering information

SBC.Net Suite	Communications class libraries for programming Windows applications with components based on Microsoft.NET technology, including documentation and examples as well as access to updates for 1 year
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