

# trend**compatible** interfaces

All building owners and operators are demanding better control and more information about their buildings. Delivering this in a simple, reliable and cost effective way is what we do at Synapsys Solutions.

Trend are the leading BMS manufacturer in the UK, and with the majority of product being exported, they are a significant global BMS company.

Synapsys Solutions has developed and introduced a range of innovative Trend Compatible interfaces that will:

- Reduce engineering time & cost
- Remove the need for specialist software & tools
- Provide direct connection to Trend IQ3 LAN
- Allow simple web based configuration of interfaces that customers can easily configure themselves

Synapsys Solutions has been developing and providing innovative interfacing, integration and communication solutions for the intelligent building controls industry since 2001.

Working with manufacturers, OEM's, System Integrators and end users, we select or develop the appropriate technology, engineer it and deliver the working solution that has been asked for.

Synapsys Solutions continue to develop and deliver differentiated and innovative technical solutions for the intelligent buildings environment.



The directors of Synapsys Solutions worked for many years for Trend and continue to have an excellent working relationship, which in turn, has led to many of our solutions being based on Trend Technology.

The foundation of our continued growth is an investment in ongoing innovative technology development and a commitment to excellent customer service.

Our vision is to continue to develop practical, flexible interface and integration solutions that offer simplicity of use, ease of engineering and make an effective contribution to energy usage reduction in all buildings.

**open**  
technology

Our sister company Open Technology designs, manufactures, installs and maintains intelligent lighting control systems, tailored to a buildings exact needs that deliver excellent energy savings, energy efficiency and functionality. For information about our LiGO control system please visit [www.opentechnologyuk.com](http://www.opentechnologyuk.com).

# interfaceprotocols

## ModBus

Provides direct connection to Trend for:

**Electricity Meters, AHU's, CRAC Units, Chiller Units (often with Carel Controls), VSD's, UPS & Industrial PLC's.**

## M-Bus

Provides direct connection to Trend for:

**Metering: Heat/Cool, Gas, Water & Electricity.**

## SNMP

Provides direct connection to Trend in Data Centres for:

**DC Supply, UPS, CRAC Units & Alarm Monitoring.**

## Sanyo VRV

Provides direct connection to Trend for:

**Sanyo VRV & Energy Systems.**

## **IQ3/XNC** Mitsubishi VRV

Provides direct connection to Trend for:

**Mitsubishi G50 & AG150 for control of multiple indoor units.**  
Without the need for a Procon IP-M Gateway.

## **IQ3/XNC** Daikin VRV iTouch+ BACNet

Provides direct connection to Trend for:

**Daikin iTouch for control of multiple indoor units.**

## Fidelio/ONQ

Provides direct connection to Trend for:

**Fidelio & ONQ Hotel Booking Systems.**

## **SXNC - IQ3/XNC** Crestron/AMX

Provides direct connection to Trend for:

**High End Audio Visual & Multimedia Systems.**  
Residential, Conference Centres, Lecture Theatres.

*The above interfaces are just a sample of the available interfaces and is not an exhaustive list. Please telephone our Sales Team with details of your exact requirements and we will be able to advise you and provide a quote.*



## **SXNC** (2001 - date)

Using the existing Trend XNC220 platform, Synapsys Solutions has greatly enhanced the firmware of the unit by creating our own variant, the SXNC. Having a much bigger module count (eg: 200 sensors, 1000 digital inputs etc.) and allowing routines to be programmed in C, interfacing options to LON and other sophisticated protocols were possible. The SXNC was the mainstay Trend interfacing product until the release of the IQ3/XNC.



## **IQ3/XNC** (2006 - date)

The Trend IQ3/XNC enabled 3<sup>rd</sup> party devices to be connected directly to the IQ3 system and the flexible memory allocation meant that there could be many more modules made available for the interface.

*The SXNC & IQ3/XNC products form a foundation of interfacing options provided by Synapsys Solutions and are actively sold and supported. Both are particularly useful for air conditioning interfaces where the ability to provide additional control of units is required.*



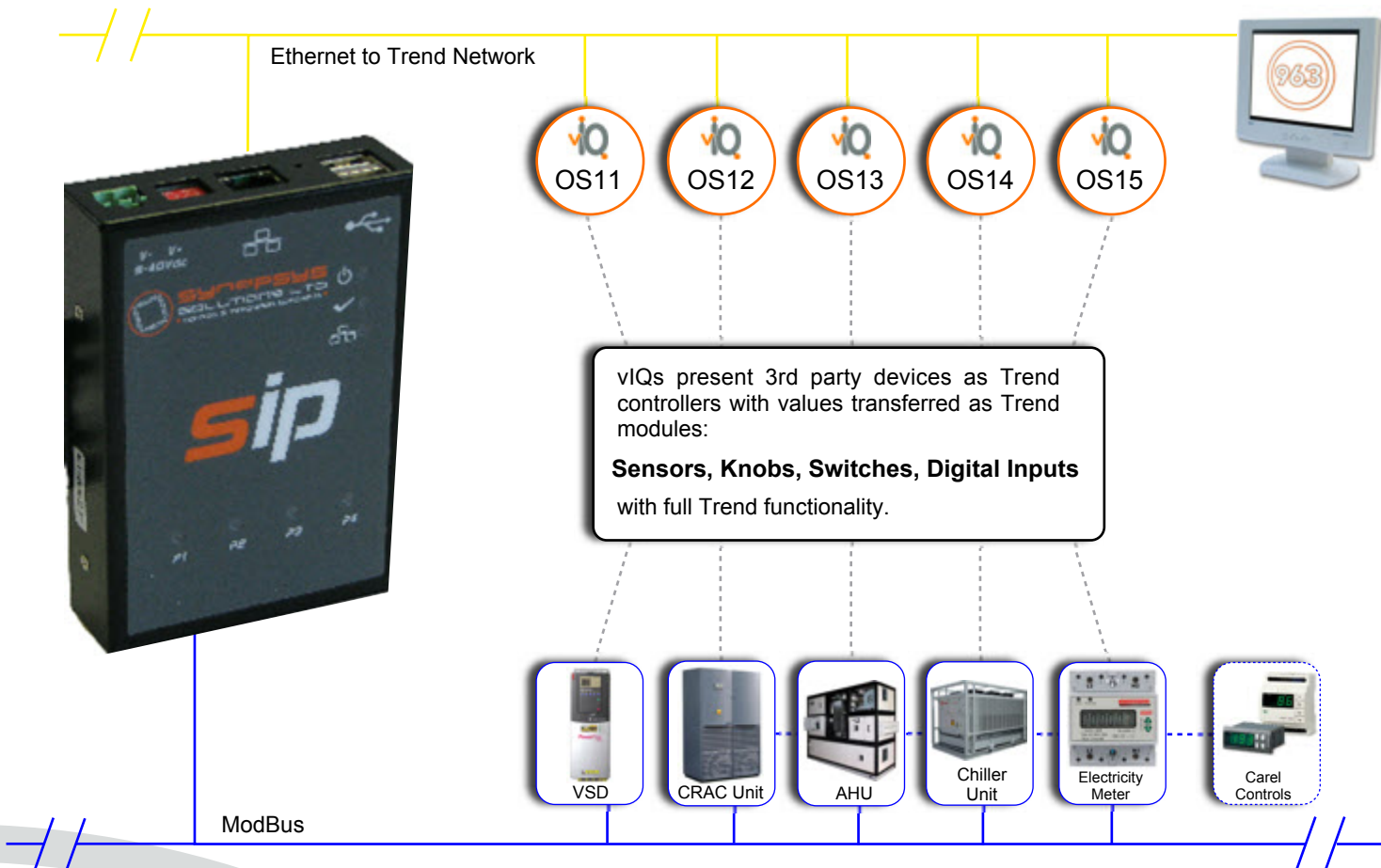
The SIP hardware platform is a fully functional embedded PC with Ethernet and serial ports, which, coupled with large memory and low price makes it the ideal interface platform.

For Trend Compatible interfaces, Virtual IQ (vIQ) software is incorporated that enables the SIP to sit straight onto the Trend IQ3 Ethernet network. Each 3<sup>rd</sup> party device can be presented as if it were a Trend controller. Additionally, each value transferred is provided as a standard Trend module - sensor, knob, switch and digital input and have the full complement of functionality such as labels, alarms and plots.



- Reduces hardware cost.
- Easy to configure.
- Reduces engineering time/cost both at the interface and at the front end.
- Simplifies interfacing.
- Increased memory means more points per device than ever before, which in turn means you do not have to get the definitive point list from the customer.

## Example ModBus Architecture

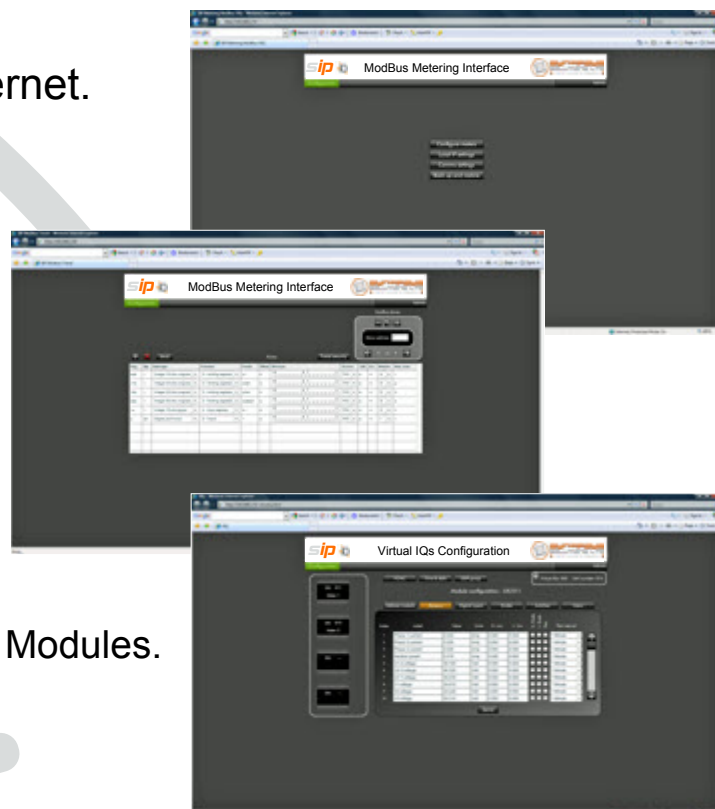


## Easy to commission in 3 Simple Stages

**1** Connect to **sip** via Internet.

**2** Configure 3rd party devices & map points.

**3** Configure vIQs as Trend Modules.



*“The problem with communication ... is the illusion that it has been accomplished”*  
**George Bernard Shaw**

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