The best just got better

Trend has announced the next step on its journey to optimising smart buildings with IQ®VISION 2.2

Packed with features to get the very best from a BEMS, IQ®VISION integrates Trend controllers, third party devices and internet protocols into a centralised software platform that allows modern connected buildings to be managed efficiently.

IQ®VISION is configured using the state-of-the-art Niagara 4 interface. As well as being bold, intuitive and easy to use, it features interactive dashboards, dynamic schematics, real-time reports, alarm handling and occupancy time scheduling.

Trend will shortly launch the latest version – IQ®VISION 2.2 – which boasts a range of cutting edge improvements unique to Trend, including extended controller support, faster device discovery and reliability, as well as simplifying the engineering and operation of a BEMS by widening the technical scope of the tasks that it can perform.

Alan Johnstone, Partner Channel Sales Leader explains, 'With IQ®VISION 2.2 we had two clear goals; make it easier to engineer and simpler to use. In fact, we will deliver three, with the additon of an all-new Trend Driver that provides unrivalled performance and data security.'

Approved Partners also benefit from faster configuration. The Niagara 4 platform means that they are able to re-use existing data and thereby reduce the time spent generating new assets. Furthermore, IQ®VISION 2.2 reduces the number of engineering steps necessary for displaying live data points on a dashboard page. Integration of third party products is now simpler, more cost effective and is certified by an independent body; the identification of faults and ways to make energy savings are easier to identify.

With no limit on the number of concurrent users, every authorised person is allowed access to their area's environmental controls and they can have their own tailored graphics. This is great for installations of IQ®VISION in rapidly changing and extensive public estates - like universities or hospitals - or for customers with an ever growing portfolio of sites.

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Meanwhile, in order to enhance performance, the system is scalable and highly secure, as it comes with inbuilt authentication that requires users to choose strong Lightweight Directory Access Protocol (LDAP) passwords that are encrypted. To further enhance security, a comprehensive audit trail of database changes, database storage and back-up, global time functions, calendars, central scheduling, control and energy management routines can be configured.

IQ®VISION is the successor to Trend's 963 Supervisor, which is now in maintenance mode and will be completely phased out by mid-2019. In order to streamline the transfer process, Trend has developed a System Migration Tool that enables users to import system data from an existing 963 Supervisor, which converts up to 50 pages in less than 5 minutes! In addition, a Schematics Migration Tool automatically converts schematics and library symbols to the new IQ®VISION, which can then be edited.

'IQ®VISION has been incredibly well received by those looking to monitor, manage and control their smart buildings and estates,' concludes Trend's Alan Johnstone. 'This latest version 2.2 takes its capabilities up to a level of control and fine detail that was previously considered out of reach. With the 963 Supervisor reaching end of life next year, I strongly recommend upgrading to IQ®VISION 2.2 as soon as possible in order to get the benefits from its advanced features.'

Five alive

IQ®4 controllers and IQ®4 I/O modules now come with a five year limited hardware warranty.

Renowned for having some of the most reliable devices in the BEMS industry, Trend has proved its confidence by extending the hardware warranty on its IQ®4 controllers and IQ®4 I/O modules to five years – a move that makes the lives of Trend approved Partners easier, while giving end users confidence that their investment will stand the test of time.

Trend was one of the first manufacturers to introduce a two year warranty and this latest development will help improve the long-term supportability of a BEMS and ensure that it is future proofed. The five year warranty is applicable for Trend systems consisting exclusively of IQ®4 controllers and IQ®4 I/O modules.

Darryl Gregory, Southern Partner Channel Sales Leader

'Keep it simple, keep it Trend and benefit from an extra three years of support and protection.'

at Trend, explains, 'Offering a solution with Trend IQ®4 controllers and Trend I/O modules provides the best long-term investment. So, keep it simple, keep it Trend, and benefit from an extra three years of support and protection on these installations.'

The response to the five year limited hardware warranty has been unanimously positive, with one approved Partner

commenting, 'Trend has always used quality components to ensure market leading reliability and this shows a high level of confidence in this regard. The fact that every IQ® device is backwards compatible with all previous products gives customers real certainty that they are investing in a system that will never become obsolete.'

Joined up thinking

Alan Johnstone, UK&I Partner Channel Sales Leader at Trend, explains why there needs to be a more holistic approach to designing intelligent 'connected ready' buildings.

Modern buildings can be configured with a diverse array of technologies that make them more comfortable, secure, productive and energy efficient than ever before. Traditionally, every building application had its own isolated infrastructure that included the use of disparate systems, standards and protocols. This resulted in duplication of effort and materials, the coordination of multiple cabling infrastructure installations within the overall project plan, and a cost overhead to the budget.

Internet protocol (IP) changed that and now exerts significant influence in technologies such as video surveillance; access control; fire alarm systems; heating, ventilation and air conditioning (HVAC), and BEMS. By eliminating duplicate technology and aggregating data from a wide variety of sources, an intelligent building design can lead to a smaller environmental footprint, reduced maintenance costs and better performance.

However, what appears to be missing from a large proportion of design and builds, or even retrofits, is an appreciation of how creating a connected infrastructure from the outset can leverage the benefits of the cloud and the Internet of Things (IoT).

The main barrier to configuring connected buildings is perhaps obvious – those constructing them are not the ones occupying them. The former is focused on delivering buildings to a cost plan, the latter have to experience and maintain them. This has created a fundamental disconnect between the various interested parties which needs to change.

By using a single network infrastructure and the principles embedded in open source initiatives such as Project

Haystack, which streamlines working with data from the IoT, value from the vast quantity of information being generated by smart devices can be unlocked. The infrastructure needs to be considered as a fully integrated whole, not as a set of disparate functions with different purposes.

'The construction sector needs to take a long-term view of the operational expenditure and performance advantages that could ultimately be gained by taking a more integrated approach.'

Furthermore, by analysing the data generated by integrated elements, companies can pinpoint wastage, minimise downtime and maximise building services utilisation.

This data is a crucial tool for facilities and building managers that are being pushed harder than ever to reduce costs and maximise the productivity of both people and assets. For example, data collected on building occupancy and space utilisation can help strategic decisions regarding future space reconfiguration and requirements.

The construction sector needs to take a long-term view of the operational expenditure and performance advantages that could ultimately be gained by taking a more integrated approach. Understanding the benefits of a 'connected ready' infrastructure should be an integral part of any forward thinking project that aims to provide occupants with a more effective, comfortable and productive working environment - and leveraging the expertise of an experienced system integrator is the best way to achieve it.

IQ®VISION in action

Trend's IQ®VISION graphical, real time user interface is being used by organisations across the world.

Since it was launched as the successor to the pioneering 963 Supervisor, IQ®VISION has been incredibly well received across the world by Trend Partners and end users alike. Many customers are already taking the opportunity to upgrade from 963 to IQ®VISION; using this cutting edge centralised software platform to make buildings smarter and occupants more comfortable and productive.

USA

A leading US outdoor clothing and equipment retailer is using Trend equipment in 23 of its stores, plus its offices, data centre, manufacturing plant and distribution sites. Having been a Trend customer for many years, the system consists of IQ®2s, IQ®3s and IQ®4s which work alongside some legacy Novar controllers, all of which are supported by the IQ®VISION Supervisor. The company has recently upgraded to IQ®VISION v2,

which is installed on a virtual server, so alarms can be sent via email to the maintenance crew, on a regional basis, so they can perform reactive or proactive maintenance across the entire estate. This is a perfect example of Trend's backwards compatibility throughout its product range, as well as integration with third party products.

UK

A nationwide restaurant chain in the UK uses IQ®VISION to collect and analyse data so that it can better understand the operation of its restaurants and how to maximise efficiencies across their estate.

If there is a need to change the operating hours or adjust a temperature, this can be done with one command and it is then consistently deployed across the entire estate using IQ®VISION.

If required, an engineer can also be dispatched to resolve an identified issue before it affects the operation or indeed customer satisfaction.

Also in the UK, a leading University enjoys a dashboard

solution that uses IQ®VISION to provide students and laboratory personnel with live monitoring of their environmental conditions via tablets, PCs and smartphones, negating the use of older traditional style interfaces in multiple locations.

Malaysia

IQ®VISION is also in-situ at Damansara UPtown, a 24 storey structure located in the Golden Square of Petaling Jaya in Malaysia. This mixed-use building is sub-divided into four towers, comprising residential units, restaurants, cafés, cinemas, hotel, shops and offices. With its Leadership in Energy and Environmental Design (LEED) building certification, creating an environment that is both

comfortable and energy efficient is of paramount importance and IQ®VISION was installed two years ago to ensure that Damansara UPtown operates at optimum efficiency. As the first significant project within the Association of Southeast Asian Nations (ASEAN), IQ®VISION integrates with and collects data from 20,000 SCADA points, 10,000 Trend IQ®4 I/O points and 5,000 open third party points across the estate.

All bases covered

Trend's IQ®4 range has been complemented by the introduction of IO modules with override functionality.

Available in both analogue and digital variants, Trend's new IQ®4 Hand/Off/Auto (HOA) modules make it possible to override plant when a controller/strategy is not achieving the results required. These devices also enable plant to be overridden for testing and can be used for commissioning, as they work straight out of the box with no need to address the module or connect it to an IQ®4 controller.

Ease of use has been factored in to every aspect of the HOA modules. Labels clip over the modules to individually identify each switch, so even a non-specialist can see what needs to be overridden. Both module options utilise a two-state operation and require no tools to operate – pressing the knob takes the channel in or out of override and twisting the knob sets the status/value of that channel. This means that an engineer can pre-set the value to be overridden, so that when the overridden state is entered the module immediately goes to the value required with no additional adjustments.

> **'IQ®4 HOA modules are the missing piece of the jigsaw for countries where the ability to override plant is a common requirement.'**

The HOA modules offer various methods of indicating status. When a channel is overridden the button flashes, providing a clear indication that there is something that needs investigating. Additionally, an alarm can be configured on each channel so, when the override button is pressed, notification arrives on an IQ®VISION user interface. Finally, it is possible to provide indication of the status and value of the override on an IQ®VISION schematic, so that it is clear on the page if any plant is being overridden.

David Field, product manager at Trend, states, 'IQ®4 HOA modules are the missing piece of the jigsaw for countries where the ability to override plant is a common requirement in specification documents. Not only have we addressed this issue, we have done so in a highly innovative way that offers a whole host of features and benefits.'

Health and safety

On 5th July 2018 the National Health Service (NHS) turned 70 years old and Trend is proud that its BEMS technology is used extensively within the healthcare sector.

As one of the UK's most loved and respected institutions, the NHS plays an important role in all our lives. However, a combination of tighter budgets, environmental legislation and greater financial accountability means that healthcare estate managers are under growing pressure to save energy, while ensuring that patients, staff and visitors enjoy optimum comfort conditions.

BEMS have been recognised by The NHS Sustainable Development Unit (SDU) as a

> **'IQ®VISION can monitor and inform about a range of conditions relating to the status of a water system.'**

way to achieve an energy efficient healthcare service.

'Within hospitals and healthcare estates BEMS are now being used in new and innovative ways, such as controlling water supply, storage, and distribution systems,' comments Bob Blincowe, Healthcare Strategic Account Manager at Trend. 'Large and often complex water supply systems are potential breeding grounds for waterborne pathogens such as Legionnaires' disease. Preventative action is therefore vital and cutting edge monitoring and management software like IQ®VISION is key in order for the BEMS to provide essential data about the water quality.'
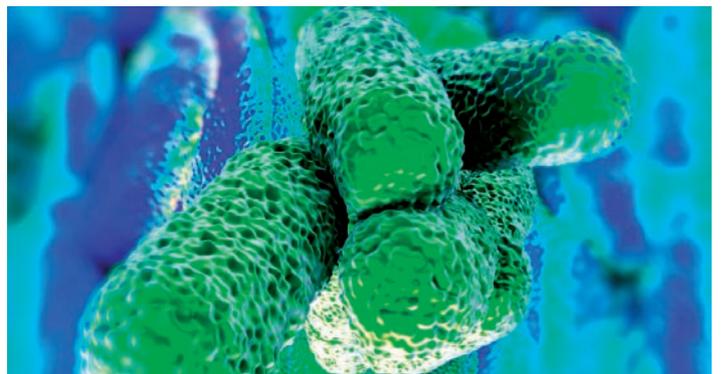
IQ®VISION can monitor and inform about a range of conditions relating to the status of a water system, and alert designated personnel if quality conditions fall outside pre-defined levels. By monitoring systems such as metering, tank level and temperature, backflow prevention valves, filters and pumps, a BEMS provides a clearer picture of what's going on.

A BEMS can also ensure a high standard of water management and help avoid unnecessary costs associated with undiscovered leaks or dumping of water that is unfit for human consumption. Poor quality water can be transferred by a BEMS into a 'recovered' tank and used for toilet flushing and laundry, for example, rather than simply being dumped into a drain. This also prevents having to pay twice for water that is thrown away, as users could be charged for both fresh water supply and then again for it to be removed as 'sewage'.

Drilling down

Trend's new suite of reporting services help building owners and managers get the best return on investment from their BEMS, while protecting against unforeseen downtime and cyber security risks.

In order to provide end users with a greater insight into the status of assets within a building, these reports are designed to help analyse and understand the data gathered by a BEMS, by presenting information in a simple format that clearly identifies areas that require investigation or improvement.

These reports ensure your building or estates BEMS are secure, working to optimal effectiveness and they also help ensure business continuity.

Four reports are available:

• Risk Assessment

Helps building owners and managers identify and classify the potential risk across their BEMS due to the age of the assets. This report enables the development of a clear and concise risk management plan for budgeting purposes.

• Controls Security Review

This report helps building owners and managers identify security risks across their BEMS assets and provides recommended actions. This will ensure that a secure system can be sustained in environments where multiple contractors or projects are involved on the site.

• Valve Check Report

Fan coil units that are operating inefficiently can seriously affect energy usage and plant operation. The Valve Check Report enables the quick analysis of large numbers of fan coil units, helping to reduce maintenance time required on site.

• Control Performance Report

Comprehensive review of the entire BEMS, highlighting any issues with performance that are not in-line with the building's operational targets. The report can be used to provide supporting evidence to assist in the budgeting process and help to ensure maximum benefit from any upgrade programme.

Knowledge is power

Trend's e-learning courses offer a flexible way to improve skills.

For many individuals, taking time out of a busy working day to attend a classroom based training course simply isn't possible. However, the importance of training and skills development to both individuals and their businesses should not be ignored. This is one of the reasons why Trend has addressed the need for flexible knowledge provision by developing a suite of e-learning courses that complements its existing range of traditional education programmes.

The e-learning courses are designed for both end users and Trend approved Partners. Explaining the thinking behind this recent initiative, Harry Barnes, Trend's Partner Channel Training Leader, says, 'In a perfect world everyone would be able to have time set aside for training, however, the reality is very different. e-learning offers a logical and convenient solution to meeting a company's education and training objectives, plugging any knowledge gaps and creating a more informed workforce.'

The e-learning courses are accessible via the Trend Training Academy, which recently launched a Training Portal – an online tool that gathers a plethora of training related information in one place.

A diverse range of learning modules is available for end users, who can develop a robust working knowledge of the extensive capabilities offered by a fully optimised BEMS in order to achieve enhanced comfort conditions and energy savings.

Similarly, Trend approved Partners can undertake more engineering based modules

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and, via the Training Portal, create a unique 'learning path' comprising a number of subject matter levels. These can be completed at an individual's own pace and, at strategic points in the programme, they will attend a classroom based course to go through what they have learned and get direct feedback from a Trend Expert.

One of the most exciting developments in terms of e-learning is Trend's recent certification as a Tridium Niagara 4 training provider. Trend's pioneering IQ®VISION monitoring and management solution is based on the Niagara 4 platform and the company will shortly be offering one all encompassing e-learning course that gives users the skills to harness the power of IQ®VISION more effectively.

Spot check

Our campaign to #SpotTheTrend has resulted in some great social media posts!

From Wimbledon to BBC1's Dr Foster, Trend products have been spotted in some highly unusual places by some of our eagle-eyed approved Partners and end users!

To join in the fun, simply take a photo when you see a Trend product, and post the photo and its location on Twitter or LinkedIn using the #SpotTheTrend hashtag.

Out and about

Here are just a few of the conferences and exhibitions that Trend will be attending throughout Europe in the forthcoming months.

2018

9th-10th October	Healthcare Estates, Manchester, UK
6th-7th November	Intelligent Building Systems (IBS), Paris, France
16th November	BSRIA Briefing, London, UK

2019

23rd-25th January	Vakbeurs Facilitair, Utrecht, Netherlands
26th February - 1st March	Climatizacion, Madrid, Spain

Social life

Be the first to know about the latest Trend news, views, events, training opportunities and product news through its social media channels.

Now a vital communications tool, Trend's use of social media allows it to provide a broad range of information and interact directly with its approved Partners and end users.

Guest content is also welcome. To join the Trend conversation please email marketing@trendcontrols.com to find out more about blog or interview opportunities which will appear on the Trend website, with promotion on social media too!

Join Trend on the top professional networking platform. You'll have access to 'hot off the press' news and updates and you can share your views with the wider BEMS community.

www.linkedin.com/company/trend-control-systems.

Follow Trend on Twitter to keep your finger on the pulse of all things BEMS – and get involved with our #SpotTheTrend conversation.

Follow Trend www.twitter.com/trendcontrols

Hear from Trend experts and access our practical 'How To' demonstrations on a dedicated YouTube channel.

www.youtube.com/user/TrendControlSystems

For more information on any of these articles please visit www.trendcontrols.com or email: marketing@trendcontrols.com

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