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ISBN: 9798595390620 (Paperback)

Printed by Initsys Ltd.

First printing edition 2020.

This Edition 2023.

Published by Initsys Ltd
20 - 22 Wenlock Road
London
N1 7GU

www.initsys.net

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A GUIDE TO MERLIN AND IT'S FEATURES.

Merlin protects people and property by managing everyday events and emergencies. Cybersecurity triggers, sensor alerts, location-based events, alarms and emergency calls from people, giving Security Operations Centres (SOC) critical event management in a structured way that is easy for operations personnel to use.

INITSYS

Initsys designs and builds unique software and applications using modern techniques and methods. With experience in nearly all forms of transmission of sensor data, our platform is robust and feature-rich.

All software is the company's original work, and our programmer's pride themselves on the reliability and clarity of the code they produce.

We can support projects worldwide.

Our market is primarily large-scale integration projects with an emphasis on high risk and where absolute security is required. We have completed projects successfully in most sectors, including city, retail, finance, military, and transportation.

An increasing number of industrial control rooms are switching to our platform because of its ability to process vast amounts of events while filtering out much of the day to day noise created by poorly performing detection equipment. It is this artificial intelligence that makes our system genuinely unique in this field, false positives often mask a real event, something it is almost impossible for control room operators to identify without statistical help.

A HISTORY OF MERLIN.

FIVE YEARS OF INNOVATION LIGHTS UP NEON.

Initsys Merlin NEON edition brings robotic control to the Security Operations Centre.

After two years of testing using real data from existing clients, our R&D has developed the most effective event handling system available anywhere. The new Robots found in Merlin give you the capacity to automatically deal with alarm signals, building management alerts and human interaction. With reliability that outperforms humans doing the same task.

2005 - 2014

INITSYS MOVES TO IOT.

Initsys provides CCTV recording software and systems to security Industry. Pivots towards IoT devices.

2015

MERLIN AI.

Merlin Ai is launched offering script based event management. And the MRE is introduced.

2016

PHP, SIP, NVIDIA.

MerlinPHP, full SiP Integration and native NVIDIA GPU support.

2017

CONSOLE MODE.

Console mode is developed for smaller control rooms. Simplifies interface where only a handful of remote sites are supported.

2018

MULTI-LANGUAGE AND TIME ZONES.

Merlin becomes multi-language and with support for multiple control rooms in different time zones allowing "follow the sun" GSOC.

2019

SPECTRUM IS REDESIGNED.

Merlin's Video Package is redesigned giving support for iGoLive and RTSP.

2020

ROBOTS IN MERLIN.

Robot development works complete, giving control room access to a number of new robots and making it possible to fully automate event handling.

2021

DRAG AND DROP MRE.

Graphical drag and drop design of MRE will be available.

2023

Release of NMRE and Applications.

NMRE is released to supplement the MRE. Initsys launch a range of Applications.

LET US INTRODUCE MERLIN NEON TO YOU.

NEON gives operators of SOC (Security Operations Centers) and GSOC (The global version) more facilities in one system without the necessity to glue together disparate and often standalone software systems.

This version is the latest in the development cycle of Merlin and brings several innovative features.

Incidents of all types require some forethought and planning and those plans need to be prepared, tested and be easy to implement.

Initsys Merlin Neon Edition brings together all the technology, data and vision needed to handle anything life can throw at us.

Merlin can deal with a tap that requires a repair giving clear, concise instructions of which engineers to call, or direct a response when a fire in the building gets reported, from a simple evidence trail of theft to a major terrorist incident.

Health and Safety to Pandemic, Personnel Safety to Cost Reporting, Building management to Security, Engineering to Response Merlin truly is the tool that allows every incident to get a clearance without fuss.

"I am not sure what we did before we had Merlin. I know there was a lot of paper and many mistakes. Now we plan, test that response and implement. Almost every day, we add new things that could go wrong that need a process to clear. Merlin keeps us moving that's for sure."

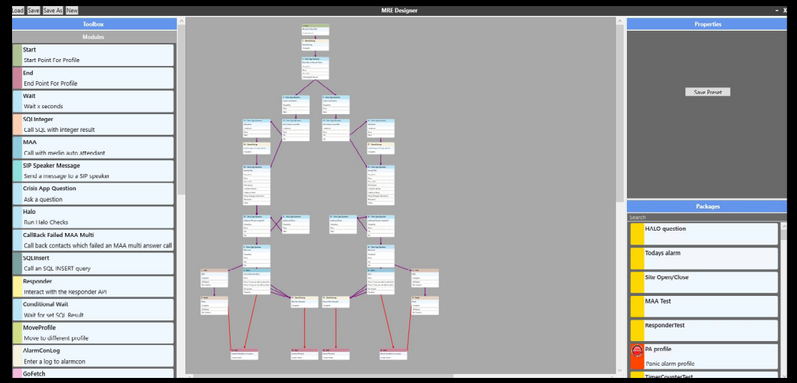
NMRE

New Merlin Rules Engine

The heart of Initsys Merlin is the NMRE - The New Merlin Rules Engine.

This technology creates alerts and processes them based on several criteria. Many alerts, or events, can be dealt with fully automatically. Those that once required a human to process - for example, a warning from an intruder alarm, can be fully automated. Including apps for keyholders to self-report and be protected while they attend.

Any sensor alert, data input or robot generated warning can enter the NMRE.



SPECTRUM

CCTV Montoring Application

Spectrum handles your CCTV requirements, from live streams from cameras in your system, to recorded footage associated to an event. Spectrum is so indepth it stands alone from Merlin, but works alongside it to make event management as thorough a process as possible.

With integration to literally thousands of devices, including many of the industries leading manufacturers, we're confident that we can bring all of your CCTV monitoring requirements into one package.

Spectrum works with deep learning algorithms such as HaLO to ensure that the events your operators see on their terminal are legitimate, and worth their attention.

"It's incredible; Spectrum outperforms competing technology that relies on SMTP of the transmission of small clips of video by not just a few seconds, but in some cases minutes. We hadn't tested before the trial with Merlin NEON and its Spectrum module, but they suggested we did, and it is a good job, there was no argument when we evaluated the presentation speed of both systems".

HALO

Deep Learning Algorithm.

HaLO, or Halt and Look Once, is a deep learning algorithm designed for object detection in CCTV imagery that can contribute to a significant reduction in false activations reaching your operators.

HaLO is not just Deep learning. When used with cameras set correctly, it can detect objects that outperform humans doing the same recognition task. It does not get tired of the job, require a break or get distracted.

Enhancing technology unique to Spectrum uses deconvolution and image stacking to perform pre-evaluation improvements.

False activations kill your efficiency.

Activations caused by things like wildlife, trees, or loose packaging can contribute to as much as 90% of the events your operators handle on a day to day basis.

It's impossible to expect operators to provide the right levels of care and attention to thousands of events they know likely don't involve a human. Just get HaLO to pick out the ones they DO want to see.

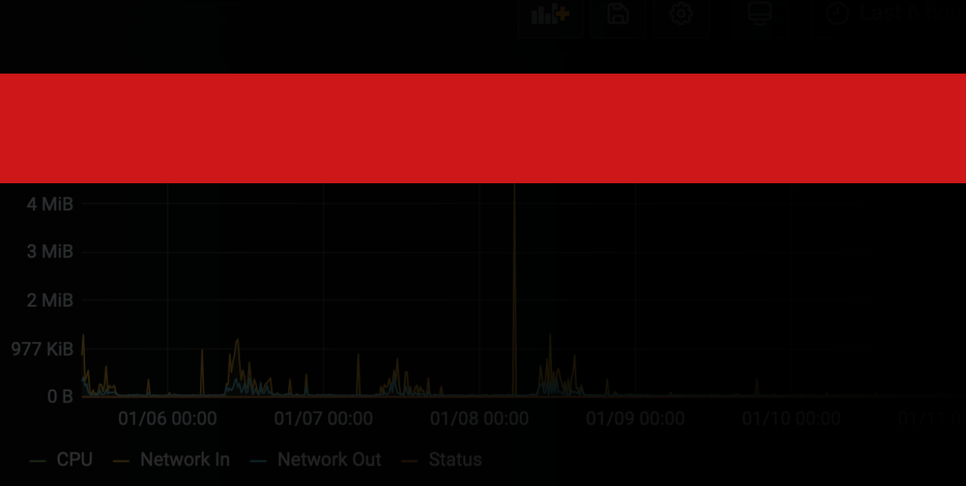
HaLO works on home CCTV and forms part of the VSaaS. Cloud system as well as CCTV used to protect businesses.

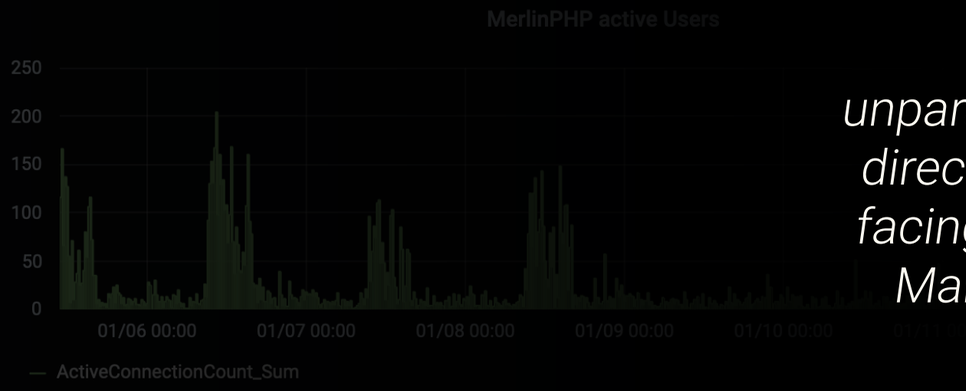
“HaLO consistently outperforms a human doing the same job. It works, what more can we say?”

19,998 images.

664 images.*

*Data representitive of images received by HALO and images passed on by HALO as genuine activations. Real data from client system.





DATA

It's *your* data, use it.

"Merlin NEON dashboards bring unparalleled clarity to our data. It is easy for our directors to visualise the level of threat we are facing and promptly make strategic decisions. Making Excel and other reporting methods completely redundant."

Applications

The Risk Manager Application caters for all of your Risk Assessment, Compliance and incident management needs. Utilising the advanced workflows, or "Profiles" within the NMRE to provide clear and concise guidance to its users at all times, Risk Manager has been designed to make carrying out compliance checks, risk assessments and audits as easy and as quick as possible.

The Responder Application provides users with alerts of incidents or jobs that require their response, and allows them to update the system on that incident via the Application. They can upload files, video, audio, and images, which will be uploaded to Merlin and saved to the database against that case.

The Protector Application is for lone workers or those who may be put in vulnerable positions. They can activate a "Watch Me" feature to allow temporary monitoring of their position, and can raise panic alerts that will be received in the control room.

The Crisis Input Application is designed for desktop terminals or touch-screens, and functions in the same way as the Risk Manager application, allowing users to run custom profiles for all sorts of incidents.

It’s not just sensors that generate alerts. Humans can do it as well, using our Applications.

Input screens for touch-based terminals and apps for mobile and pad technology allow the input of signals to the system. Using our applications gives unparalleled capability for the introduction of warnings, alerts, compliance and audits for facility management as well as those of a more severe nature.

“We use the crisis input module to extend Merlin to site management, employee protection and facility management. Indeed, we didn’t understand the concept that a user’s call for repair to a broken door could be cleared by the maintenance team from works order to repair by the Merlin system. We do now, and we have expanded the SOC use far beyond our original brief. With no additional capital cost.”

“Initsys demonstrated to us how we build touch screen applications for events to merge into Merlin that do not have a signalling device. Now branch managers, area managers and reception have unique methods of placing an event in the incident queue.”

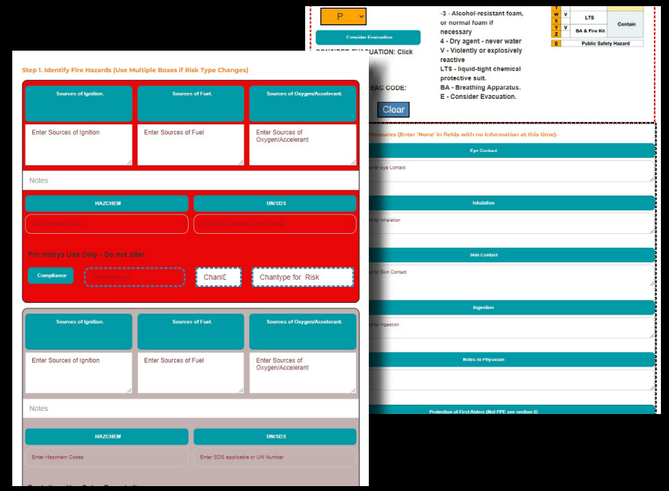
“Using the incident manager and investigations modules, we can understand the risks and follow the evidence trail. The queues are visible only in the departments that need to see that type of incident. Many, are dealt with outside of the SOC, but the whole business understands these costs. The benefit of Merlin is being felt all over the business.”

LINKBUILDER

Customisable forms.

Linkbuilder has become a key part of Merlin, as it allows businesses to utilise the extensive features already within the software to push compliance and audit checks through the system and allows users to complete what were formally completely paper based checks in a digital format.

Forms are completely customisable, and can mimick your old paper based checks precisely. They cut out the need for folders full of paperwork sat gathering dust on shelves but, most importantly, convert every entry field into data, allowing you to run reports on anything you like.



RUNNING RISK

We deal with risk every day, and as the world changes our committment to understanding and dealing with risk changes with it.

Merlin has traditionally been a solution for handling events when things go wrong, and over recent years we have adapted areas of Merlin to help make users more aware of when an event taking place is more likely, based on data we have in the system.

Now, however, Merlin can actively re-evaluate risk based on more than when an event last took place. If, for example, daily, weekly, and yearly Fire Audits are missed, it will raise the “Running Risk Value” for a Fire channel, as in the real world these missed checks increase the likelihood not only of a fire happening but also on its severity. We can display this data and all running risks on your dashboards so that you know where the dangers are.

SAAS

SOFTWARE AS A SERVICE.

SaaS is provided natively in Merlin, in the most secure way, using technology that denies remote users direct access to the database. All the features are available in the most straightforward way, with almost no chance of HTML breach or host computer hijack.

Our interface also allows the remote view of any CCTV camera connected to the Merlin Neon platform without a direct connection to the camera or transmission device. From the app or SaaS, it doesn't matter.

"Merlin Neon as SaaS has enabled us to create a virtual control room throughout the Covid emergency. Keeping our employees safe while maintaining a very high level of protection. And with the full support of our IT team - excellent!"

Did you know.....

During the Covid-19 pandemic, the number of people working from home increased by over 37%.

Lockdown restrictions and safe working policies forced a number of our clients to find ways of allowing their staff to work from home. In a number of cases we achieved this for them in less than 24 hours, helping them to keep Covid-19 cases down to a minimum and protect their workforce.

PHP

MerlinPHP.

MerlinPHP is our fully integrated web portal for end users who are predominately located outside of the control room. It has been designed to allow users of all levels, permissions dependant, to access information held within the Merlin software for an individual site, group of sites or all sites within the database.

Basic features include:

- Signal and Event History.
- Keyholder Management.
- Location detail management.
- Placing locations test.
- Open and Closing time management.
- Codes for 3rd Parties.

Advanced Features.

- SQL Reports.
- ARC management Data.
- Activities allocation.
- Incident injection.
- Alarm Panel Control.
- Mass Notifications.

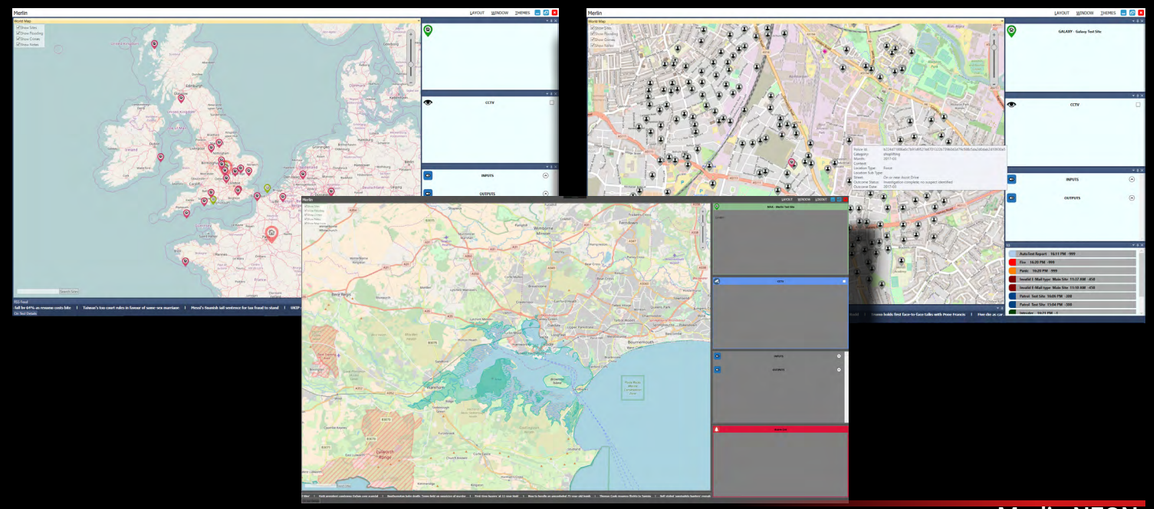
MAPPING

Maps form the heart of an SOC solution that requires an easy way to see locations and select CCTV cameras. The multi-layer approach, as well as the 3d innovation in Merlin, gives not just the capacity to plot events in real-time but also use beacon technology to control centralised lighting and personnel tracking.

Display events and incidents in real time and use that information to automatically select the CCTV camera or system nearest the point of activity, whilst counting on real time data on crime and environmental factors to help your operators make informed decisions.

Beacons collect positional information about staff and assets.

Select CCTV cameras and use trigger applications to fetch recordings from field devices.



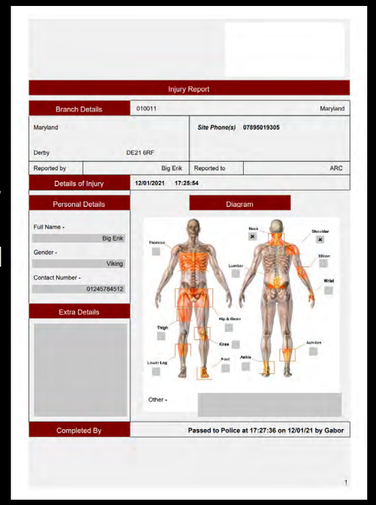
Merlin NEON

REPORTING

The indepth reporting in Merlin.

Reporting is a critical part of any business. How was that event handled? How can we do it better? Did that compliance check get completed correctly, and what were the results?

Any of the data within Merlin can be turned into reports that look and feel how you want them to. Most are automated, whereas some might require an element of user input. You define who gets the reports, and when.


Injury Report

Branch Details 010011 Maryland

Maryland

Site Phone(s) 07895019305

Derby DE21 6RF

Reported by Big Erik Reported to ARC

Details of Injury 12/01/2021 17:25:54

Personal Details

Full Name - Big Erik

Gender - Viking

Contact Number - 01245784512

Extra Details

Diagram

Other -

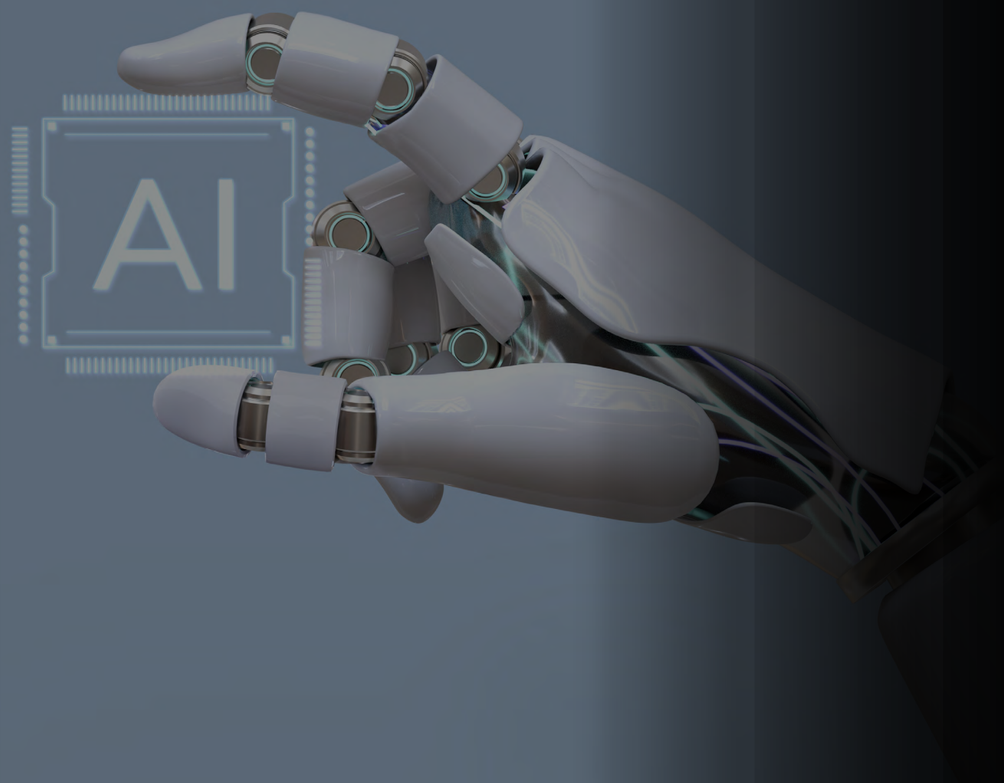
Completed By Passed to Police at 17:27:36 on 12/01/21 by Gabor

1

Our reports always come from MerlinNEON, but the data could come from any of our Applications or from existing scripts built into Merlin that provide you with critical data such as how many times an event was resolved as false, or how often an engineer was called to site. If the report doesn't exist, we'll build it for you.

"Reporting in Merlin is a breeze, once set up the templates auto populate and automatically send to the receiver. MerlinPHP allows the users access to their data in real time and many of these reports are available there. The security industry has a lot to learn from this company."

ROBOTS



Robotics form a significant part of the Merlin NEON model.
The bots -

- **LTCO** — Timers that recognise system failures.
- **Scraper** — Data collected from external sources like Twitter and live news cause creation of a new event or a trigger to be added in the MRE.
- **Trigger** — Live events are escalated by the bot searching for predefined and automatically discovered activity that has a bearing on the event in progress.
- **LiveQuery** — A structured query used to define the pathway that the MRE shall use.
- **LiveReport** — A push notification to the user, depending on the MRE, choosing to make an alert at this point giving the user prewarning or notice of an event escalating.
- **LiveCall** — A telephone call made automatically by the system to alert a user of an event. With the capability to link to an app module that will protect the user when responding to an alert.

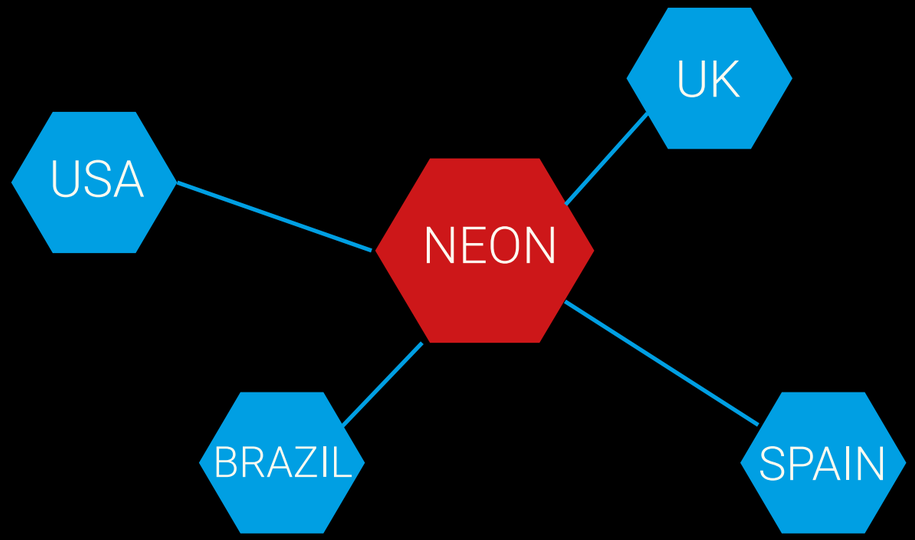
WORLDWIDE

Worldwide Control Rooms

Initsys Merlin can be used Worldwide by “daylight” control rooms spread geographically as the working day transfers from East to West, so Merlin automatically calculates the risk for an intruder and other events.

Events can be handled by worldwide control rooms using the language translation embedded in Merlin and the auto-call facility which will ensure contact is made in the correct language.

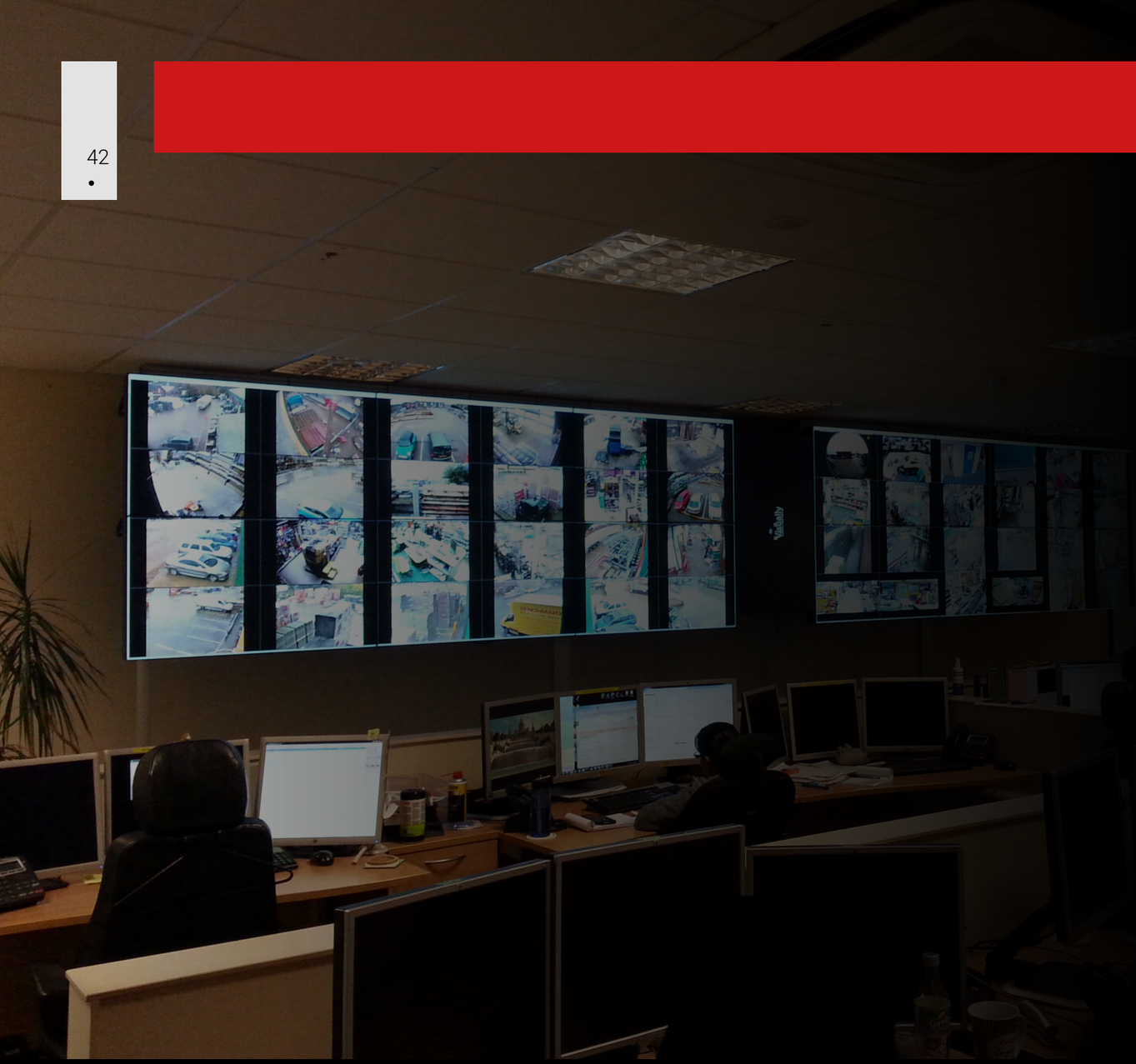
With Merlin you can control who see’s what events, and at which time of the day, allowing users to maximise their worldwide workforce to handle their security, and facilities management requirements.



Merlin NEON

VIDEOWALL

Control Room Implementation



“The Initsys Video Wall module lets us display real time CCTV from incidents and select cameras based on time and date. It also displays dashboards, maps with real time updates (we use it to alert of flooding) and incidents/location status. There was no other technology required, just the wall and the hardware - impressive!”

GET IN TOUCH

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