

# Panasonic

BUSINESS

**i-PRO**  
**EXTREME**

Vertical market catalog series No.1

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i-PRO EXTREME Solutions for  
**City Surveillance**



## ***IPRO EXTREME***

Security cameras are being extensively installed in public spaces in an effort to ensure safety and peace of mind.

There are already many Panasonic cameras and systems in use at strategic points on streets and in transportation facilities.

What is necessary for street surveillance is to be able to record high-visibility video over a long period and also analyze the resulting data.

Here we show how Panasonic's superior security cameras and solutions can be applied in different usage situations.



## Monitor intersections and streets 24/7

## Search out suspicious vehicles in a short time

In a variety of intersections and city monitoring areas, our systems can capture high-quality video of incidents even in extreme environments and conditions. Secure your city, protect your citizens and create a safe environment.

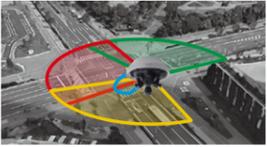
Even in cases of incomplete information from eyewitnesses who did not see the license plate, our systems are useful for shortening investigation time by efficiently searching out candidate vehicles using limited information such as vehicle color, model, and direction of travel.

**Problem**

**Solution**

- With few cameras installed, there are many blind spots in the intersection

With one multi-sensor camera, the entire intersection can be covered





With 4K high resolution, for a three-lane road it is possible to identify vehicles at a diagonal 100 feet from the corner.



- Video is not clear because of rain drops and dirt adhering to the lens cover

Non-coated



coated



Clearer video achieved using a hydrophilic coating

**Problem**

**Solution**

- Vehicle searches take a long time because of incomplete and vague eyewitness information

**Time, date, and place**

Time & Date	
From	4/1/2019 8:30 AM
To	4/1/2019 9:00 AM
Location	
Bay Street & South Street	

**Vehicle color and model**

Vehicle Appearance

Type

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Color

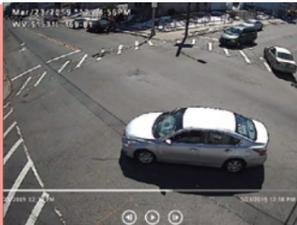
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Direction**



© OpenStreetMap contributors

Video can be played instantly using search-result thumbnails

- It is difficult to share information between the control center and people on the scene

Reports can be generated showing the vehicle's route on a map









# Achieve highly reliable license plate number recognition

Highly accurate license plate number recognition is achieved by combining a superior plate number recognition engine with a camera which can clearly photograph license plates. In addition, by linking to Video Insight VMS software, it is possible to strengthen security and save labor in security operations.

Problem	Solution
<ul style="list-style-type: none"> <li>Cameras perform poorly and the license plate number recognition engine cannot identify the numbers</li> </ul>	<p>"Velocity Detection" and "Day &amp; Night Detection" help capture the numbers of vehicles even if they are traveling at high speeds or at night</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Conventional</p> </div> <div style="text-align: center;"> <p>iA Mode</p> <p>iA provides sharp images of moving vehicles with blur control</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Day &amp; Night Detection</p> </div> <div style="text-align: center;"> <p>Automatic reflection control provides more detail during difficult nighttime scenarios</p> </div> </div>

<ul style="list-style-type: none"> <li>It is not possible to quickly find scanned license plates</li> </ul>	<p>The license plate number recognition add-on for Video Insight makes it possible to easily track plate numbers with searches by date and time or from the start of the plate number.</p> <div style="display: flex; align-items: center;">   </div>
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# Ensure the safety of public spaces using facial recognition

Recognized by an authoritative institution, Deep Learning Facial Recognition is highly accurate and quickly identifies subject persons, thereby making it possible to avert danger.

Problem	Solution
<ul style="list-style-type: none"> <li>Due to the lack of facial recognition accuracy, there are false alerts and missed alerts</li> <li>It is not possible to take immediate action when suspicious persons enter the facility</li> </ul>	<ul style="list-style-type: none"> <li><b>Deep Learning Facial Recognition <i>FacePRO</i></b> World's most accurate facial recognition engine in IJB-A competition (as of April 2017)</li> </ul>  <ul style="list-style-type: none"> <li><b>High Speed Facial Recognition</b></li> </ul> <div style="display: flex; justify-content: space-around; text-align: center;">      </div> <p>1-sec Match with registered watchlist</p> <ul style="list-style-type: none"> <li><b>High Speed Face Search</b></li> </ul> <div style="display: flex; justify-content: center;">  </div> <p>3-sec Search from 5,000,000 Faces</p>

- It is difficult to track suspicious persons and monitor their actions
- Cases where unauthorized persons (accompanying persons, etc.) enter the facility are missed



# Monitor wide spaces and dark spaces

# Monitor severe environments with high winds, salt-laden sea breezes, etc.

Even in dark places where it is difficult to distinguish colors, important color information can be identified, and even in nighttime 0 lux environments, the movements of persons 350 meters away can be captured.

High system durability makes it possible to capture clear video even in severe environments (tropical rain storms, extreme low/high temperatures, high winds, salt-laden sea breezes, etc.)

## Problem Solution

• In low-light environments, it is difficult to identify the colors of clothing, vehicles, etc.

Colors can be identified even in low-light environments

Ordinary Camera 0.6 lux      Color Night Vision 0.6 lux

• It is not possible to monitor a wide area in dark environments (nighttime, etc.)

People's movements can be captured at 350 meters

350m      0 lux 40x Zoom

## Problem Solution

• The video blurs when the camera shakes in high winds

Image blurring is eliminated with vibration compensation done using a gyroscope and pan-tilt controls

• Salt-laden sea breezes cause extensive corrosion

Salt-damage-resistant coatings prevent salt damage

• High levels of water and dust resistance are necessary

High resistance to water and dust

## Example Usage

**Coast**  
Recommended models :  
WV-X6531NS, WV-S1531LNS,  
WV-SUD638

**Airport / Transit**  
Recommended models :  
WV-S1132, WV-S1131, WV-S1112,  
WV-S1111, WV-S2531LTN, WV-S6130  
Software : WV-ASF950  
VMS : Video Insight

**City streets**  
Recommended models :  
WV-X8570N, WV-S8530N  
Software : WV-ASV100W

**Park**  
Recommended models :  
WV-X6533LN, WV-S6532LN,  
WV-S1570L

**Road**  
Recommended models :  
WV-X6531NS, WV-X6531N,  
WV-X6511N  
VMS : Video Insight

## Case Study

### ClearSight Coating City Surveillance / Scotland (UK)

#### Background

The Scottish winter can be a challenge for any technology. But, for CCTV surveillance systems, which are expected to provide the images that keep streets safe, it can be especially difficult. Water marks, dust build up and condensation would mean we couldn't provide the level of request. How to maintain fully city surveillance visibility even in challenging winter conditions, notorious for causing condensation and water spots.

#### Customer comment

"On many models, when the rain stops, you tend to get a coating of dust on the dome, We just haven't seen that with the Panasonic cameras. In fact, we have actually halved the number of maintenance visits, which we think probably equates to a £50,000 annual saving."

"A camera in the Motherwell area has on several occasions been used to catch vehicles that were used in some pretty serious crime. The quality of the footage and the evidence packs that we are giving the police is exactly what they are looking for."

"The result has been impressive. The council has seen a reduction in the number of criminal and anti-social incidents within the residential blocks, the cameras have contributed greatly to this. The people living in the blocks feel safer as a result."



### Pendle Borough Council / England (UK)

#### Background

Situated amongst the rolling hills of East Lancashire and comprising busy towns such as Colne and Nelson, who sit alongside more rural communities such as Earby and Barnoldswick, Pendle Borough Council felt it a top priority to keep up the appeal of the area by upgrading its CCTV system to support its buoyant tourist industry and for the reassurance of its residents.

#### System adoption method

After the first system was installed in the Marsden Park area, Pendle Borough Council immediately recognised the benefits, and understood the advantages and cost benefits a series of networked surveillance systems would bring to them.

To monitor crystal clear images from each estate from a purpose built control facility within the Town Hall at Colne, where Housing Pendle are based, and also from each of the estates' individual community centers.

Addressing these criteria, we installed Panasonic control equipment and a hard disk recorder within each community center, recording visual information from a network of cameras throughout each estate.

Both live and recorded footage can be accessed from any part of the network, at any control facility, including the one at the town hall, which features a 50" Panasonic plasma display to pick out even the smallest detail from the high resolution camera images.

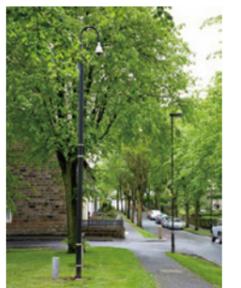
#### Effects

Each of the system's stakeholders can view over 100 cameras in total, allowing a true borough wide overview of the area, whether it's the urban residential areas of Housing Pendle or the rural village center of Barnoldswick; each community has directly benefited from the introduction of the advanced surveillance solution.

#### Customer comment

"The Panasonic solutions have proved fruitful in detecting a number of serious offences within Pendle, including burglaries, theft from and of motor vehicles, and assaults.

The ability for any officer to have 24 hour access to quality images from our digital video recorders has made an impressive impact on detecting crime and disorder in the area."



For detailed information concerning the products shown, please refer to the Security Systems Intelligent Network Surveillance Solutions catalog.



**Important**

- Safety Precaution: Carefully read the Important Information, Installation Guide and operating instructions before using this product.
- Panasonic cannot be responsible for the performance of the network and/or other manufacturers' products used on the network.
- The same catalog is provided for all countries.
- Supported functions and specifications differ according to the models.
- See the specifications for each model. Photos are images used to describe the functions.

**Security Cautions**

- When using the products in this catalog, take appropriate measures to avoid the following security breaches:
  - Disclosure of private information via the products.
  - Unauthorized use of products by a third party.
  - Interference or suspension of use of products by third party.

- All pictures are simulated.
- Design is subject to change without notice.

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