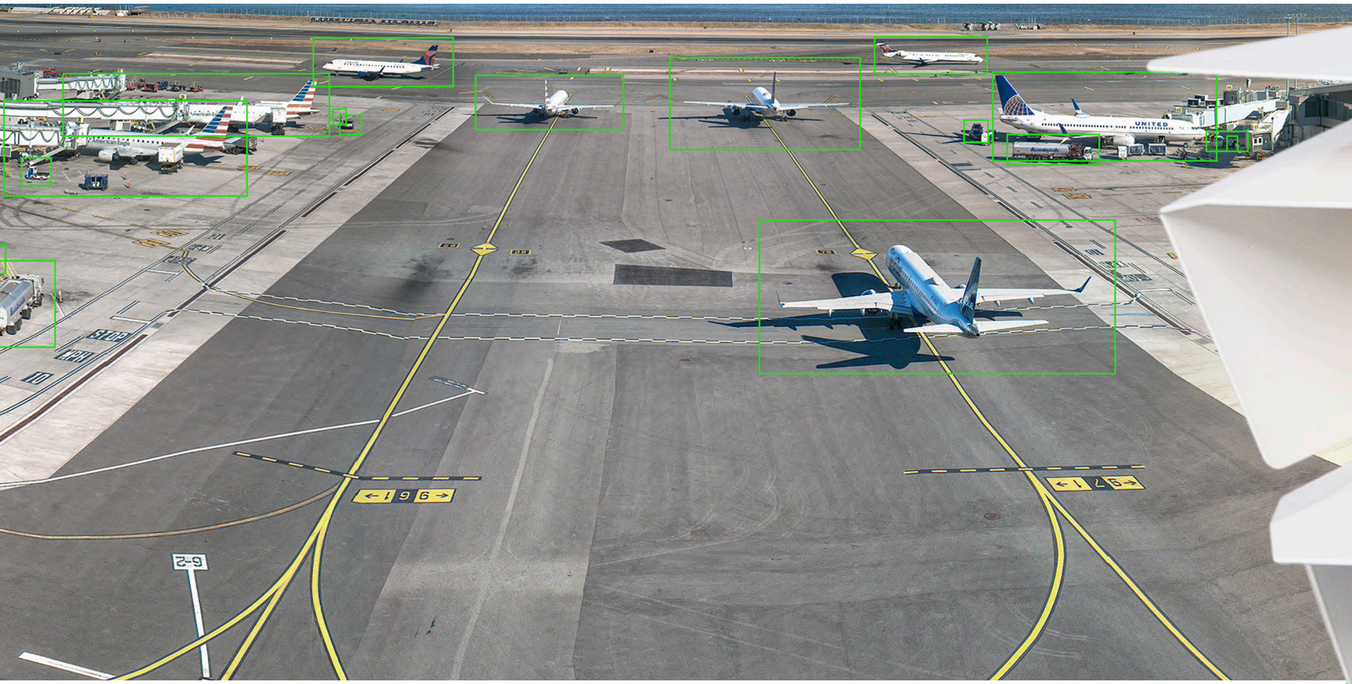
INTRODUCTION

This booklet showcases the full power of our panoramic surveillance solutions, including the premium Logipix Panorama Cameras and the Virtual Panorama. Inside, you will discover the advanced hardware, embedded AI, and innovative display technology that come together to deliver a smarter, more powerful vision of the future of video surveillance.



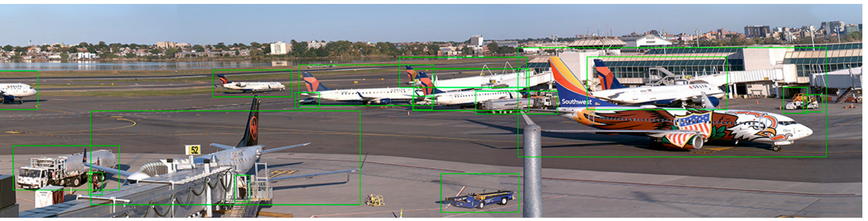
All images in this booklet were taken by Logipix cameras

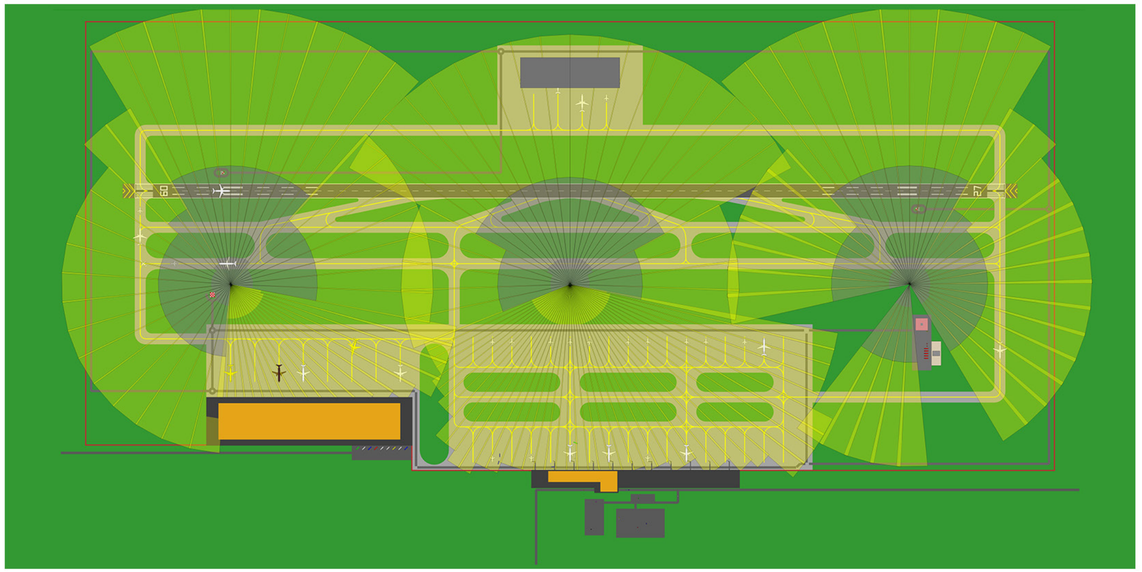
CHALLENGES OF **WIDE AREA SURVEILLANCE**

Wide-area surveillance remains a major challenge. Traditional systems built on hundreds of IP cameras are often inefficient for monitoring large environments. When operators must watch dozens or even hundreds of separate video feeds, critical events can be missed, fatigue increases quickly, and maintaining clear visual orientation becomes extremely difficult.

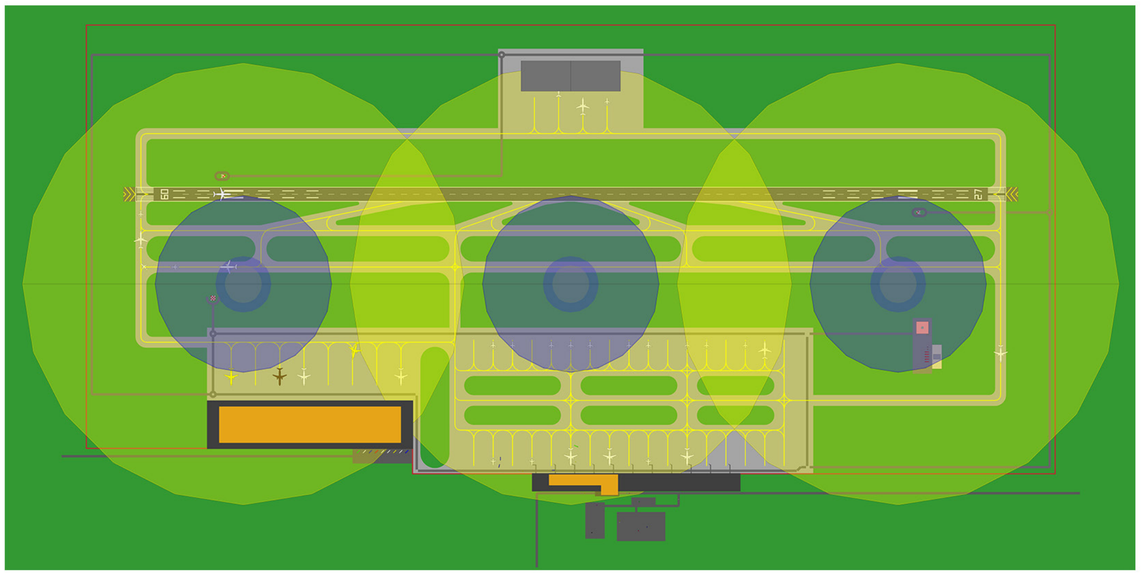
Reviewing recorded footage is equally challenging, especially when multiple camera streams are not fully synchronized. At the same time, conventional cameras provide only narrow, fragmented views of the area being protected. The result is a system that is costly and timeconsuming to install, difficult to maintain, and often limited in its ability to deliver complete operational awareness.

> Logipix offers powerful panoramic solutions designed to solve the most common challenges in wide-area video surveillance.





Full coverage by 261 pieces of traditional 2 MP cameras



Full coverage by 6 pieces of 200 MP Logipix Panorama Cameras

OUR ANSWER FOR
WIDE AREA SURVEILLANCE

Logipix has developed advanced panoramic technology that makes wide-area surveillance more effective. High-resolution panoramic images give operators stronger spatial awareness by providing a continuous view that improves visual orientation across large environments.

At the heart of this technology is the precise 3D geometric stitching of images captured by individual sensors. This capability allows Logipix to deliver panoramic solutions in multiple configurations, including multi-sensor Panorama cameras in a range of formats and freely configurable Virtual Panoramas built from multiple high-resolution cameras.

Distance of the registration number: 80 m

Distance of the fuel tanker: 225 m

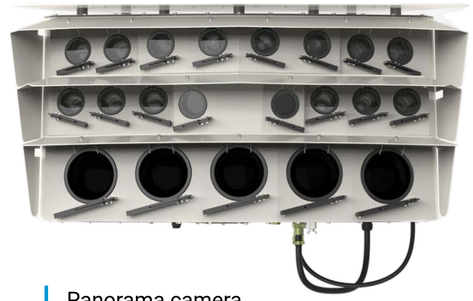
Click to watch the video

Logipix Panorama Camera - Checking tail numbers

Device: Logipix 180° 200 MP Panorama Camera Image info: detail (50% of the full image)

THE LOGIPIX PANORAMA
IN A COMPLETE SYSTEM

	PANORAMA CAMERAS				
CAMERA TYPE	40° 320 MP + 8 MP Dual Vision	180° 200 MP + 6 MP Dual Vision	40° 320 MP	180° 300 MP	180° 200 MP
STITCHING	Triple row arrangement + single raw arrangement	2x Single row arrangement arrangement	Triple row arrangement	Double row arrangement	Single row arrangement
VISION	Visible light & thermal		Visible light		
DESIGN	General | Airport | Military grade | Marine grade				
EMBEDDED INTELLIGENCE	AI-Powered Computer Vision				
RELATED NVR	Network Video Recorder 4th gen				
COMPLEMENTARY COMPONENTS	Long-range PTZ | 6 MP PTZ | IR Flash | Thermal camera | Radar				
VIDEO MANAGEMENT SOFTWARE	Command & Control Center | LAARS | ARCS | DTVA | HIGS				



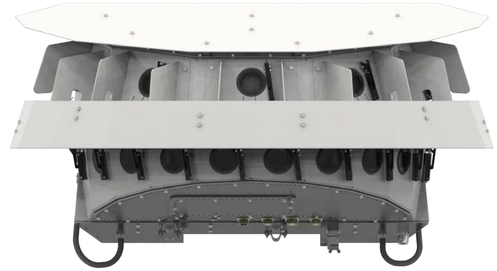
Panorama camera
40° 320 MP & 8 MP Dual Vision

Panorama camera
40° 320 MP (white finish)

Panorama camera
180° 300 MP (white finish)

THE LOGIPIX PANORAMA
IN A COMPLETE SYSTEM

	PANORAMA CAMERAS					DRONE PANORAMA
CAMERA TYPE	220° 160 MP Airspace	180° 400 MP Airspace	180° 300 MP Airspace	104° 240 MP BW FOD	80° 240 MP BW FOD	120° 120 MP Drone
STITCHING	Single row arrangement	Triple row arrangement	Triple row arrangement	Single row arrangement	Single row arrangement	Double row arrangement
VISION	Visible light			Black & White sensor Visible light + Infrared light		Visible light
DESIGN	Airport | Military grade | Marine grade					Military grade
EMBEDDED INTELLIGENCE	AI-Powered Computer Vision					
RELATED NVR	Network Video Recorder 4th gen					
COMPLEMENTARY COMPONENTS	Long-range PTZ | 6 MP PTZ | IR Flash | Thermal camera | Radar					Drone
VIDEO MANAGEMENT SOFTWARE	LAARS | ARCS | DTVA					Command & Control Center



Panorama camera
180° 300 MP (Airspace)

Panorama camera
220° 160 MP (Airspace)

Panorama camera
120° 120 MP (Drone)

THE LOGIPIX PANORAMA
IN A COMPLETE SYSTEM

	PANORAMA CAMERAS					VIRTUAL PANORAMA
CAMERA TYPE	20° 200 MP	10° 100 MP	8° 80 MP	100 MP Stadium	80 MP Stadium	Variable structures built of 20 MP single cameras
STITCHING	Triple row arrangement	Triple row arrangement	Triple row arrangement	Single row arrangement	Single row arrangement	Freely customizable arrangement
VISION	Visible light					
DESIGN	General | Military grade | Marine grade					Custom camera housings
EMBEDDED INTELLIGENCE	AI-Powered Computer Vision			Not relevant		
RELATED NVR	Network Video Recorder 4th gen					
COMPLEMENTARY COMPONENTS	Long-range PTZ | 6 MP PTZ | IR Flash | Thermal camera | Radar			6 MP PTZ | 2 MP PTZ		
VIDEO MANAGEMENT SOFTWARE	Command & Control Center | HIGS			Command & Control Center		

Panorama camera
100 MP | 80 MP Stadium

Panorama camera
10° 100 MP (white finish)

Panorama camera
20° 200 MP (white finish)

END-TO-END LOGIPIX SOLUTIONS
BASED ON THE PANORAMA

LAARS

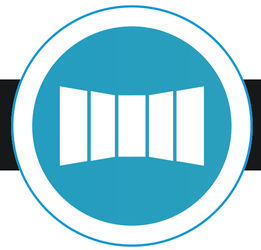
Airports attain complete airside visibility and control with minimal infrastructure, reducing operational complexity while increasing safety and efficiency. A single Panorama camera can cover an entire runway, enabling automatic Landing and Take-Off registration and special Panoramas offer reliable FOD detection across vast areas. The ultra-high-resolution imagery, combined with AI-powered Video Content Analysis, delivers precise object detection and continuous tracking, supporting faster decision-making, and significantly reduced risk of incidents.

Related main panorama cameras:
180° 200 MP | 180° 300 MP | 40° 320 MP
Airpsace Panoramas
FOD Panoramas

ARCS

Airports achieve more predictable and efficient turnaround operations while reducing manual workload and operational bottlenecks. Panorama cameras provide full apron visibility, enabling real-time monitoring and registration of all ground handling services across multiple stands simultaneously. The system delivers continuous feedback on turnaround progress, supports delay management, and enables accurate KPI calculation and post-event analysis. With optional AI-powered Video Content Analysis, service events are automatically detected and tracked, ensuring faster, more reliable operations, improved coordination, and optimized resource utilization.

Related main panorama cameras:
180° 200 MP
180° 300 MP



DTVA

Airports achieve enhanced airside control and operational continuity by extending and augmenting traditional tower capabilities. Panorama cameras provide a seamless 360° view of the airside and airspace, enabling precise monitoring even at long distances and in low-visibility conditions. AI-powered Video Content Analysis highlights critical events and supports real-time decision-making, while remote tower functionality allows centralized control of multiple aerodromes or backup operations in contingency scenarios. The result is improved safety, uninterrupted operations, and more efficient air traffic management.

Related main panorama cameras:
180° 200 MP | 180° 300 MP | 40° 320 MP
Airpsace Panoramas
FOD Panoramas

BORS

Border authorities can maintain continuous, wide-area surveillance with significantly reduced false alarms and optimized resource deployment. Panorama cameras enable large-scale area coverage with minimal devices, while AI-powered detection and classification ensure reliable identification of people, vehicles, and potential threats. Combined with sensor fusion and georeferenced tracking, the system supports real-time situational awareness and faster response. The result is enhanced border security, lower operational costs, and improved mission effectiveness in challenging environments.

Related main panorama cameras:
40° 320 MP | 40° 328 MP Dual Vision
180° 206 MP Dual Vision
Drone Panorama

END-TO-END LOGIPIX SOLUTIONS
BASED ON THE PANORAMA

CIIS

Critical infrastructure facilities gain comprehensive, real-time visibility across large and complex sites with minimal system footprint. Panorama cameras enable full-area monitoring, while AI-driven analytics provide early detection of intrusions, anomalies, and safety risks. Accurate tracking and event classification support rapid response and informed decision-making. The outcome is increased operational resilience, reduced downtime, and stronger protection of high-value assets.

Related main panorama cameras:
180° 300 MP | 180° 200 MP
40° 328 MP Dual Vision
40° 320 MP

HIGS

Highway operators gain full visibility over extended road sections while reducing operational costs and improving response times. A small number of Panorama cameras can cover vast highway areas, enabling real-time detection of incidents such as accidents, stopped vehicles, or dangerous driving behavior. AI-powered Video Content Analysis supports automatic alerts and tracking, while virtual patrol tours allow operators to monitor and navigate the road network remotely. The result is faster decision-making, optimized traffic flow, enhanced safety, and reliable visual evidence for incident investigation.

Related main panorama cameras:
20° 200 MP | 10° 100 MP
8° 80 MP

HARS

Harbors achieve complete situational awareness over extensive maritime areas, improving both safety and traffic efficiency. Panorama cameras cover wide zones such as ports, waterways, and docking areas, enabling precise vessel detection, tracking, and behavior analysis. AI-powered functions support collision detection, geofencing, and traffic monitoring in real time. The result is smoother operations, enhanced safety, and more efficient management of maritime traffic.

Related main panorama cameras:
180° 300 MP | 180° 200 MP
40° 328 MP Dual Vision | 180° 206 MP Dual Vision
40° 320 MP

STAS

The Logipix Panorama solutions for stadium surveillance are designed to ensure comprehensive coverage across venues of all sizes and architectures. In addition to the flexible Virtual Panorama concept, Logipix now offers dedicated 80 MP and 100 MP stadium cameras, providing optimized configurations for different operational needs.
The system delivers large, high-resolution panoramic images that enable reliable face recognition at every seat, supporting safe and secure event management.

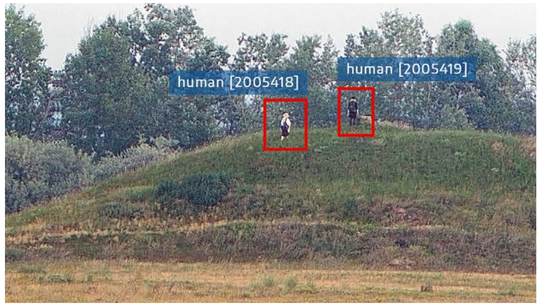
Related main panorama cameras:
80 MP Stadium | 100 MP Stadium
Virtual Panorama

WHAT DIFFERS OUR
PANORAMA TECHNOLOGY

- Logipix geometrically merges images at the image borders resulting in a contiguous panoramic image just as if it were taken by a single sensor camera.
- Synchronized imaging ensures that stitched panoramic images remains glitch free near the stitching borders too without object duplication or hidden object anomalies.
- Logipix uses adaptable white balance and image tone correction algorithms to smooth gradient differences in the panoramic image.
- Thanks to the precise image synchronization and special stitching technology zooming and panning are seamless at the stitching borders as well.
- Logipix delivers 20 fps panoramic video streams with hundreds of megapixel resolution.
- We developed a special technology to handle large visual data and utilize the full resolution during monitoring.
- Intelligent AI-Powered Computer Vision runs on full resolution JPEG2000 image streams.
- Logipix Computer Vision is capable of seamlessly tracking objects, even as they move across stitching borders within the panoramic image.
- Logipix Sensor Fusion Technology combines data from image sensors, thermal imagers, transponders, and external surveillance systems, resulting in more accurate analysis and more reliable computer vision within complete systems.
- Logipix provides automatic PTZ control based on tracking data generated by Computer Vision algorithms running on stitched panoramic images.

Click to watch the video

Border Surveillance - Automatic Target Detection at Dusk



Distance of target: [2005418]: 1305 m [2005419]: 1312 m

Distance of target: [2005412]: 470 m [2005417]: 1860 m

Device: Logipix 40° 320 MP Panorama Camera Image info: detail (65% of the full image)

FINANCIAL **BENEFITS**

- **Reduced infrastructure requirements**

  No need to install numerous poles or masts for individual cameras. The network infrastructure is far less complex and cabling is also fast and easy.

- **Long lifetime**

  Logipix technologies are engineered to keep Panorama Cameras relevant and reliable over the long term, helping protect them from both physical wear and technological obsolescence.

- **Uninterrupted operation**

  The Logipix Panorama Cameras are developed to operate with high MTBF.

- **Designed to last**

  Logipix Panorama Cameras are built to perform in harsh weather conditions. Their full-metal construction includes integrated heating and cooling systems, and marine-grade materials are available for demanding environments.

- **No need for frequent maintenance using human resources**

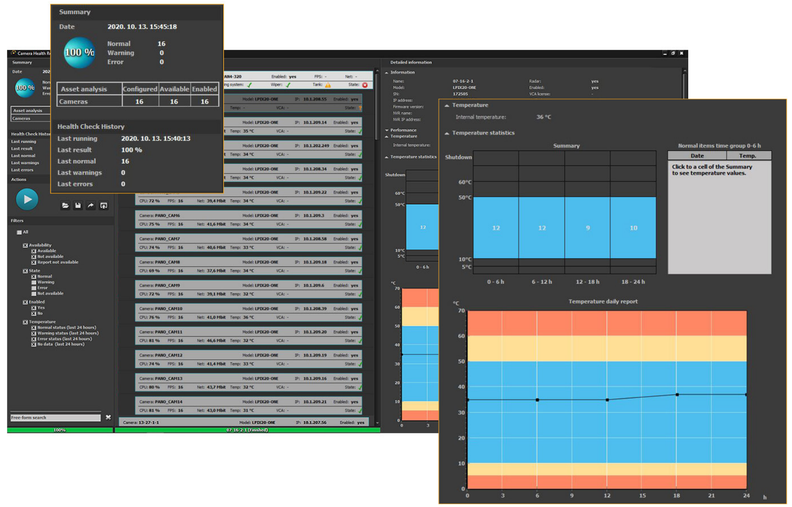
  The Panorama Cameras are capable of self-maintenance, thanks to their built-in self-cleaning and deicing systems.

- **Low running cost, remote maintenance**

  Logipix provides remote maintenance support to help keep systems operating at peak performance. The Logipix Health Report continuously monitors the condition of cameras and other system components, delivering early warnings that help prevent failures before they disrupt operations.

- **Less manpower**

  As vast areas can be monitored with much fewer cameras that provides far better spatial orientation for viewers and also VCA based Real-time Decision Making Support, far less operators are needed for efficient surveillance.

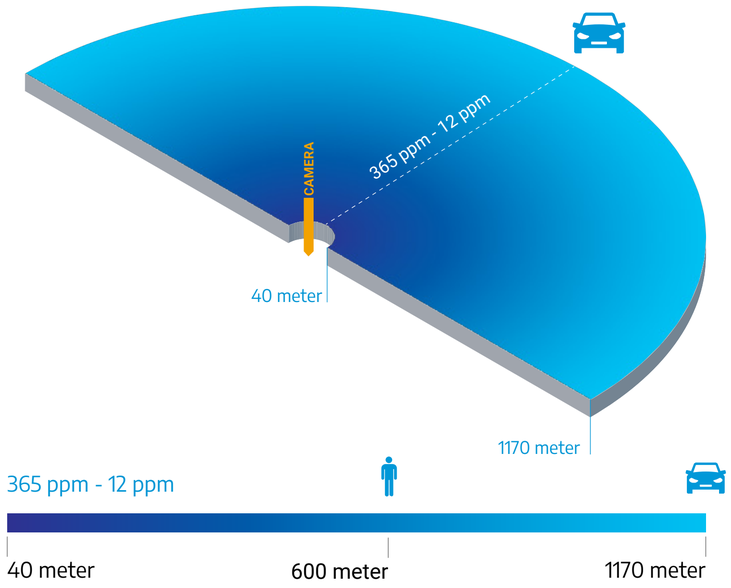


THE CONCEPT OF THE
LOGIPIX PANORAMA CAMERAS

Logipix offers multi-sensor Panorama Cameras in fifteen core designs, each delivering ultra-high resolution and 20 fps at full resolution for effective surveillance across vast areas from a single viewpoint. Engineered for maximum area coverage and outstanding image detail, Logipix Panorama Cameras provide some of the highest-resolution panoramic surveillance available.

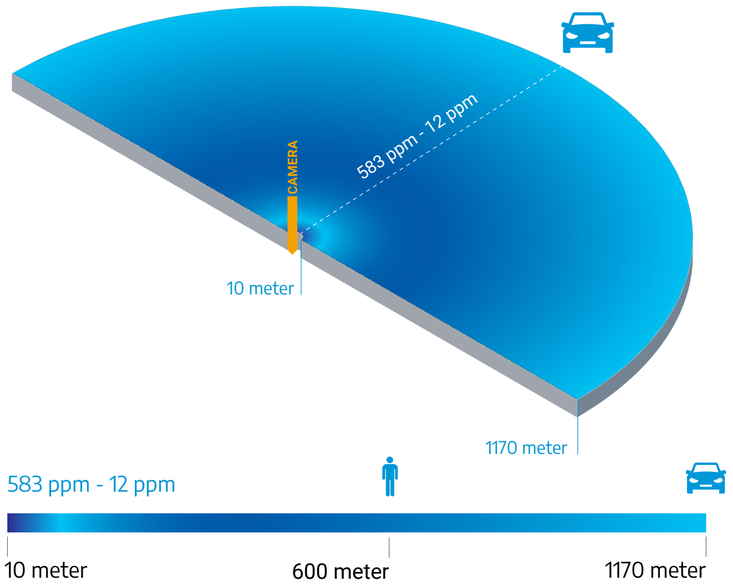
Logipix 180° 200 MP Panorama Camera

- automatic light vehicle detection (max distance): 1170 meter
- blind area (installation height: 10 meter): 0 - 40 meter



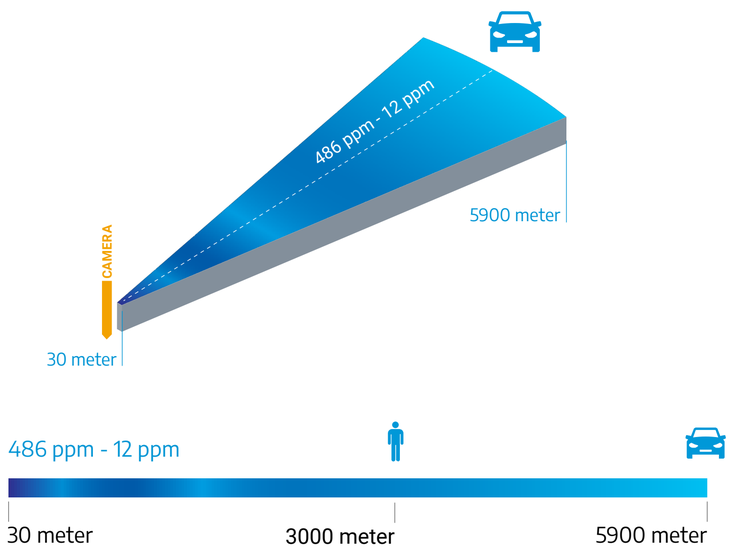
Logipix 180° 300 MP Panorama Camera

- automatic light vehicle detection (max distance): 1170 meter
- blind area (installation height: 10 meter): 0 - 10 meter



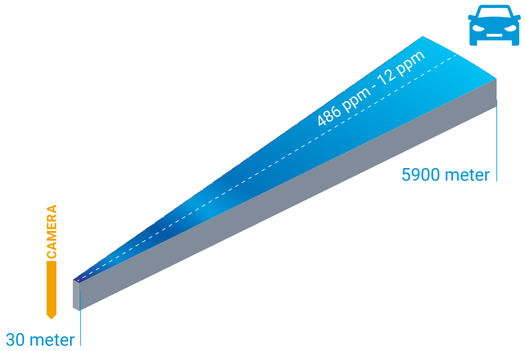
Logipix 20° 200 MP Panorama Camera

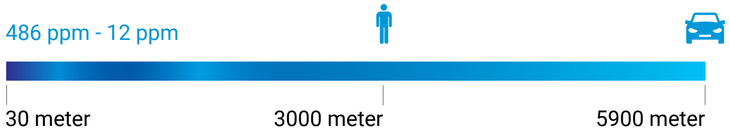
- automatic light vehicle detection (max distance): 5900 meter
- blind area (installation height: 10 meter): 0 - 30 meter



Logipix 10° 100 MP Panorama Camera

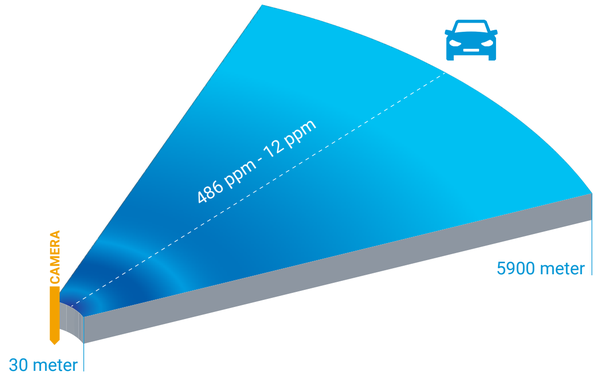
- automatic light vehicle detection (max distance): 5900 meter
- blind area (installation height: 10 meter): 0 - 30 meter

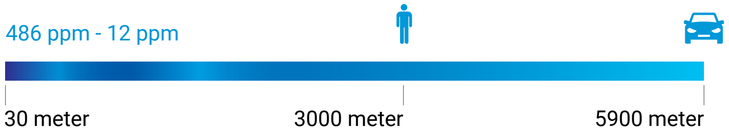




Logipix 40° 320 MP Panorama Camera

- automatic light vehicle detection (max distance): 5900 meter
- blind area (installation height: 10 meter): 0 - 30 meter

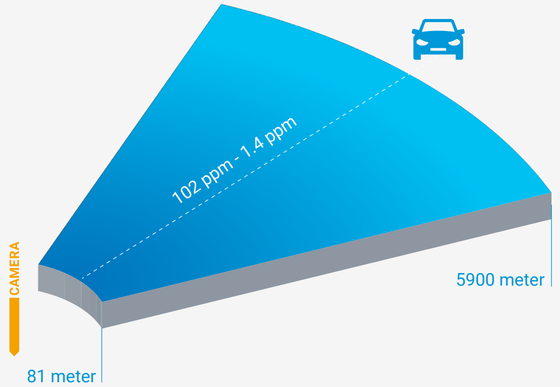


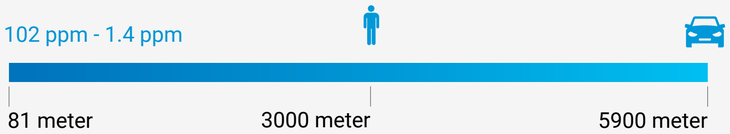


Logipix 40° Thermal Panorama extension

- automatic light vehicle detection (max distance): 5900 meter
- blind area (installation height: 10 meter): 0 - 81 meter

The thermal panorama module, built inside the 320 MP Dual Vision Panorama Camera has an effective coverage area that is equal to the 320 MP resolution visible-light module. A much lower resolution is sufficient for accurate automatic detection and classification during thermal surveillance.





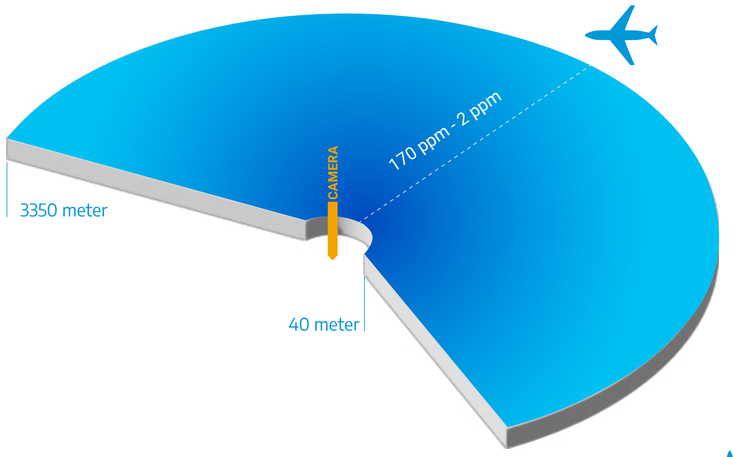
SURVEILLANCE
IN THE LONG WAVELENGTH
IR ELECTROMAGNETIC RADIATION

SPECIAL **AIRSIDE PANORAMAS**

Logipix airspace panorama cameras feature an extended vertical field of view for comprehensive monitoring of the aerodrome traffic circuit and surrounding airspace, while FOD panorama cameras ensure constant pixel density (PPM) along runway sections for reliable object detection over the longest possible distances with a single device.

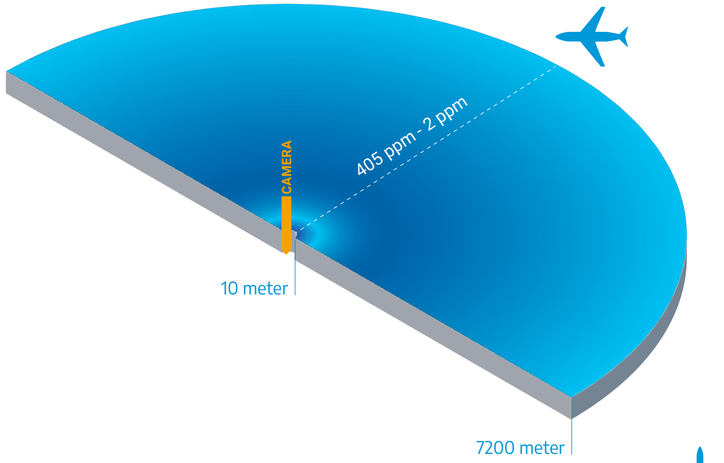
Logipix 220° 160 MP Airspace Panorama Camera

- automatic airplane detection (max distance): 3350 meter
- blind area (installation height: 10 meter): 0 - 40 meter
- vertical FOV: 45°
- view portions: Sky: 30° | Ground: 15°



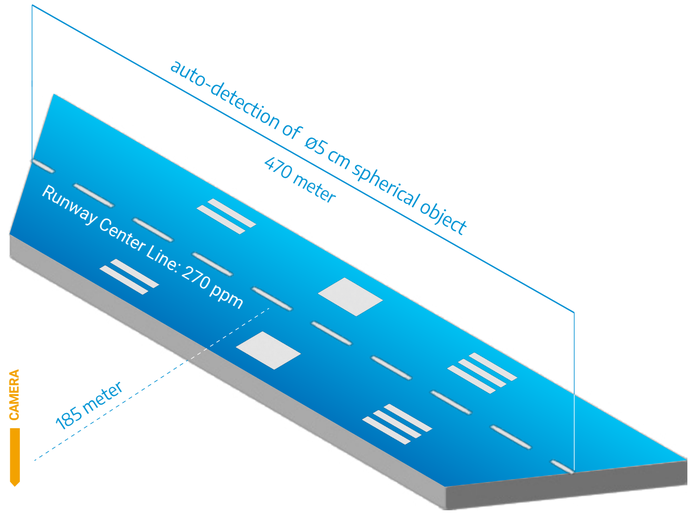
Logipix 180° 400 MP Airspace Panorama Camera

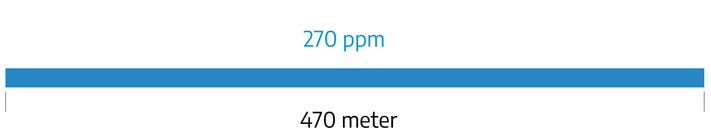
- automatic airplane detection (max distance): 7200 meter
- blind area (installation height: 10 meter): 0 - 10 meter
- vertical FOV: 70°
- view portions: Sky: 35° | Ground: 35°



Logipix 104° 240 MP FOD Panorama Camera

- effective runway coverege section: 470 meter
- horizontal FOV: 104°
- camera distance from the runway center line: 185 meter



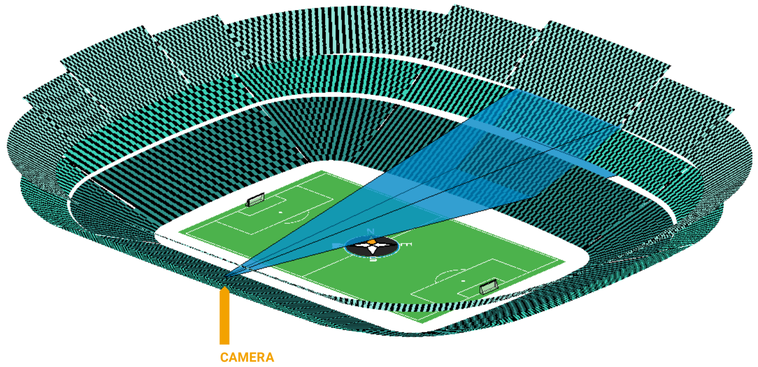


SPECIAL **STADIUM PANORAMAS**

Logipix stadium panorama cameras are specifically designed for the unique requirements of stadium environments, featuring tailored configurations with varifocal lenses to adapt optimally to different venue sizes and geometries. They provide high-resolution panoramic coverage, ensuring full visibility across stands and field areas while supporting effective crowd monitoring and enhanced situational awareness.

Logipix 80 MP Stadium Panorama Camera L49

- covered seating bowl section: ~ 2500 seats
- resolution (farthest seats): 290 ppm @ 170 m
- lens: 120 mm (varifocal 30 - 120 mm)

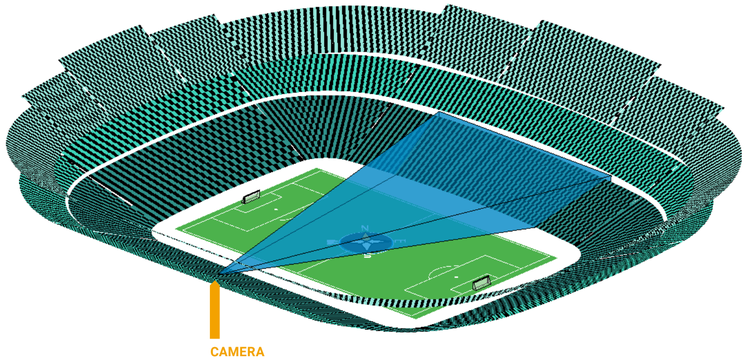


Identification-Grade Resolution

- Irrefutable court evidence (>250 ppm)
- Face recognition
- Recognition of small-sized objects in their hands

Logipix 80 MP Stadium Panorama Camera L47

- covered seating bowl section: ~ 4000 seats
- resolution (farthest seats): 250 ppm @ 153 m
- lens: 92 mm (varifocal 70 - 170 mm)

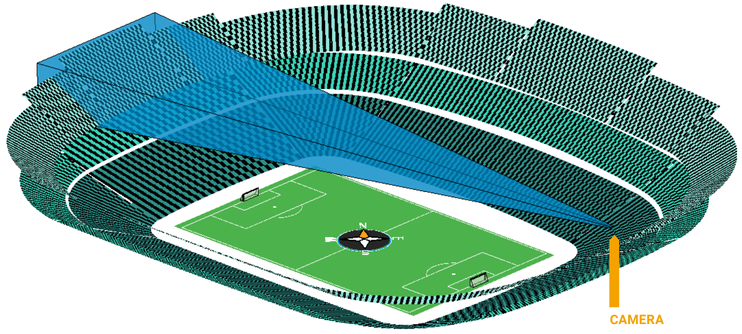


Identification-Grade Resolution

- Irrefutable court evidence (=250 ppm)
- Face recognition
- Recognition of small-sized objects in their hands

Logipix 100 MP Stadium Panorama Camera L47

- covered seating bowl section: ~ 3300 seats
- resolution (farthest seats): 290 ppm @ 245 m
- lens: 170 mm (varifocal 70 - 170 mm)



Identification-Grade Resolution

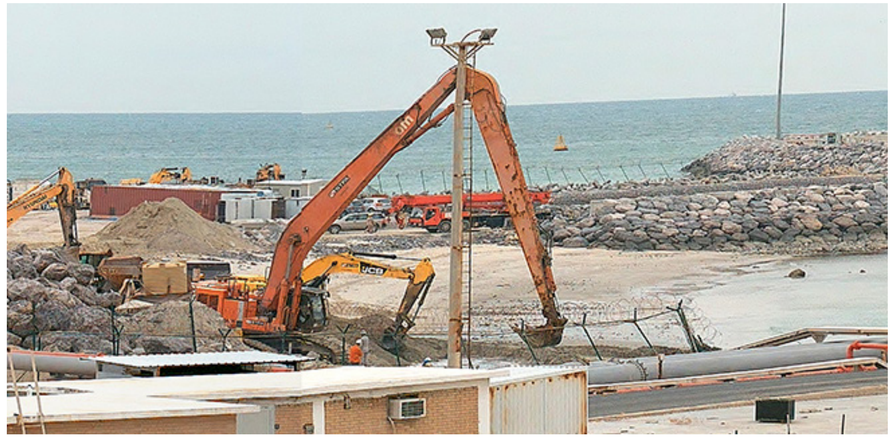
- Irrefutable court evidence (>250 ppm)
- Face recognition
- Recognition of small-sized objects in their hands

UNBEATABLE **RESOLUTION**

Logipix applies several specifically developed, high-quality sensor-lens combinations within massive, purpose-designed camera units. Their enormous resolution ensure the cameras deliver useful visual information from even kilometers away.

	AUTOMATIC DETECTION AND TRACKING BY COMPUTER VISION			
PANORAMA CAMERA	Human (23 ppm)	Light vehicle (12 ppm)	Heavy vehicle (8 ppm)	Airplane (2 ppm)
40° 320 MP *	3 000 m	5 900 m	8 860 m	35 400 m
180° 300 MP	600 m	1 170 m	1 760 m	7 048 m
180° 200 MP	600 m	1 170 m	1 760 m	7 048 m
20° 200 MP	3 000 m	5 900 m	8 860 m	35 400 m
10° 100 MP	3 000 m	5 900 m	8 860 m	35 400 m

* Also with Thermal Panorama extension



Distance of the excavator: 180 m

Click to watch the video

Industrial port surveillance

Device: Logipix 180° 200 MP Panorama Camera Image info: detail (59% of the full image)

UNBEATABLE **RESOLUTION**

	AUTOMATIC DETECTION AND TRACKING BY COMPUTER VISION			
PANORAMA CAMERA	Human (23 ppm)	Light vehicle (12 ppm)	Heavy vehicle (8 ppm)	Airplane (2 ppm)
8° 80 MP	3 000 m	5 900 m	8 860 m	35 400 m
220° 160 MP (AIR)	290 m	556 m	833 m	3 333 m
180° 300 MP (AIR)	630 m	1 200 m	1 800 m	7 200 m
180° 400 MP (AIR)	630 m	1 200 m	1 800 m	7 200 m

	AUTOMATIC FOD DETECTION BY COMPUTER VISION
PANORAMA CAMERA	∅ 5 cm spherical object (270 ppm)
104° 240 MP (FOD)	185 m
80° 240 MP (FOD)	235 m
	STADIUM SPECIFIC REQUIREMENTS
PANORAMA CAMERA	face recognition (250 ppm)
80 MP (L47)	283 m

Device: Logipix 180° 300 MP Panorama Camera Image info: detail (85% of the full image)

PIONEERING TECHNOLOGIES
TO PRODUCE HIGH-END QUALITY

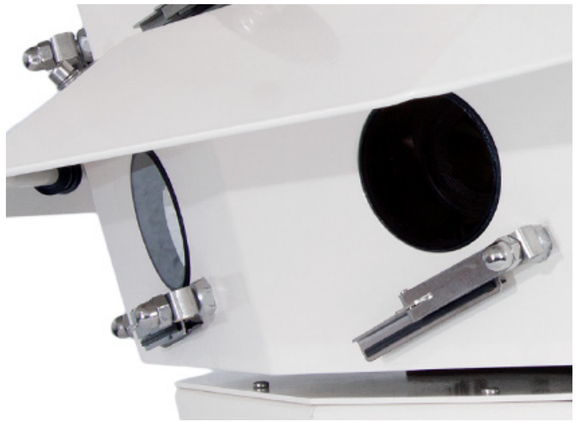
High-quality lens
Sharp details in the image corners too, which further improve the quality of the stitched panoramic image

Multiple 1” size CMOS sensors
Exceptional dynamic range, details in both shady and bright areas

Custom-designed chip
Full control over image processing, effective computing performance utilization

Embedded AI
High-performance environment for calculations and data processing on the full resolution raw video

JPEG2000 image compression
Dynamic resolution scalability for smart display of large panoramic videos



High-grade materials
The Panorama cameras are built to last. The all-metal construction of the camera housing with quality glass windows and sunshields result in a massive, robust, reliable construction that can withstand extreme environments. The Logipix Panoramas are also available made of marine grade materials.

Advanced thermal control
The cameras are equipped with a complex thermal control system in order to operate properly in intense temperatures and both humid and dry conditions. The fans, heat pipes and glass heating make ensure that the inside temperature of the camera always remains within the operational value.

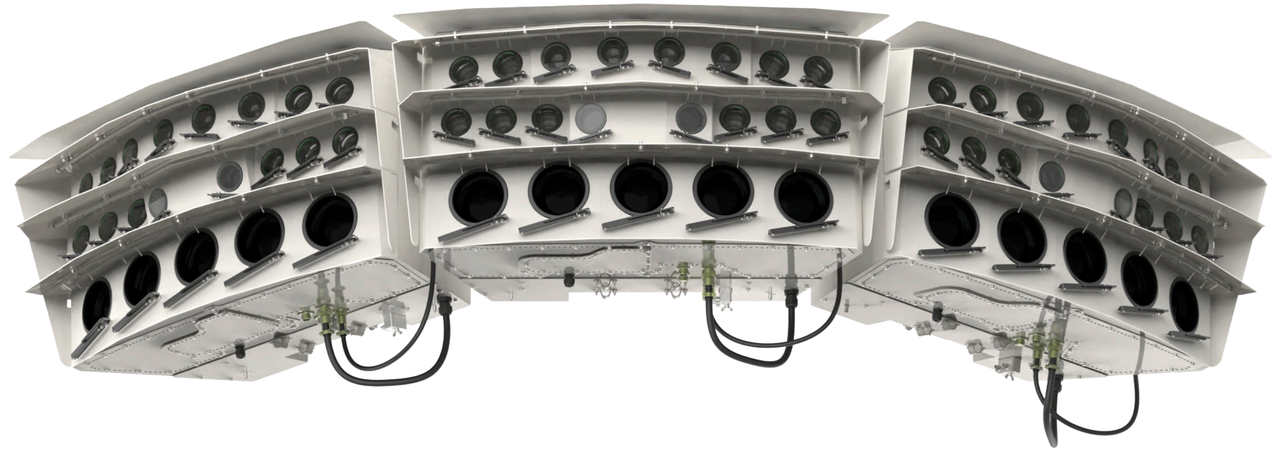
Self-cleaning system
All Panorama cameras can clean their own front glasses, thanks to their built-in water tank and wiper system. The high-quality rubber blades and the cleaning liquid ensure the wear-free cleaning of the windows. Even heavy dirt can be washed with this technique. The procedure can be scheduled and automatically started, so maintenance of the camera is easy, fast and effortless. The devices are able to send warnings if their water tank needs to be refilled, which is a one-man action, thanks to the smartly designed water pump system.

De-icing
In some environments the extreme cold may cause operational difficulties for video surveillance systems, but not for the Logipix Panoramas. Remotely controlled concentrated glass heating and zone-divided, contact-based house heating ensure to melt down ice, frost or accumulated snow from the surface of the device.

CROSS-MAPPED
VISIBLE-LIGHT AND THERMAL IMAGING

Logipix Dual Vision Panoramas capture images using both visible-light and long-wave infrared (LWIR) radiation. The 320 MP and 200 MP visible-light modules are complemented by 6 MP and 8 MP thermal panorama extensions. The thermal module is precisely aligned to cover the same field of view as the visible-light sensor. By spanning this broad range of the electromagnetic spectrum, the system ensures reliable operation in all visibility conditions, including complete darkness, fog, and haze.

The images from the two panorama modules are cross-mapped: each pixel of the thermal sensor corresponds to a group of pixels in the visible-light image. This tight integration allows the two modalities to complement and reinforce each other, creating a highly effective solution for wide-area surveillance. AI-based Video Content Analysis (VCA) algorithms process both image streams simultaneously, and detection results can be visualized on either image, regardless of which modality initiated the detection.



Device: Logipix 40° 320 MP Panorama Camera Image info: 87% of the full image

EMBEDDED **INTELLIGENCE**

Capturing ultra-high-resolution video across a vast area is only the first step toward more effective surveillance. Logipix recognized early the power of computer vision and used it to enhance security and video surveillance across a wide range of industries.

We developed embedded Video Content Analysis algorithms tailored to the specific needs of different applications. Because Logipix analyzes video content as close to the image sensor as possible, the calculations are not affected by resolution loss or software-based image enhancement. The result is a powerful combination of high-resolution panoramic imaging and precise video analytics that delivers reliable automation and stronger surveillance performance.

	Airside	Border	Critical Inf.	Highway	Harbor
Object Detection	+	+	+	+	+
Object / Target Tracking	+	+	+	+	+
Object Classification	+	+	+	+	+
Geofencing	+	+	+	+	+
Glide Path Monitoring	+	Not relevant	Not relevant	Not relevant	Not relevant
LND TOF	+	Not relevant	Not relevant	Not relevant	Not relevant
Runway Incursion Detection	+	Not relevant	Not relevant	Not relevant	Not relevant
Virtual Fence	+	+	+	+	+
Collision Prediction	+	Not relevant	+	Not relevant	+
Proximity Alert	+	Not relevant	+	Not relevant	+
FOD Detection	+	Not relevant	Not relevant	Not relevant	Not relevant
Local Traffic Enforcement	+	Not relevant	+	Not relevant	+
Perimeter Protection	+	+	+	Not relevant	+
Object History	+	+	+	+	+

OBJECT **HISTORY**

Logipix's specially developed computer vision technology and advanced server applications transform how video history is managed compared with conventional systems. Instead of relying only on traditional playback, Logipix enables object-based archive search. Operators can search for specific object types, objects with registered IDs, changes in object status, or objects that remained in defined areas during selected time intervals.

This approach makes archive searches much faster and more efficient, especially in environments where hundreds or even thousands of objects are moving around the clock.

Device: Logipix 180° 200 MP Panorama Camera Image info: detail (13% of the full image)

SENSOR **FUSION**

Logipix has developed an advanced Sensor Fusion Technology that integrates data from multiple sensors at both raw data and feature levels. By combining inputs from ultra-high-resolution visible-light and thermal sensors with radar systems, Logipix transponders, and external surveillance sources such as seismic or fiber optic sensors, the system creates a more complete and accurate representation of reality.

At the raw data level, synchronized sensor streams are processed together to enhance detection reliability under all conditions. Thermal sensors provide critical information in low-visibility environments, while radar ensures detection even through obstacles or in complete darkness. Logipix transponders further enrich the system with precise identification and positioning data.

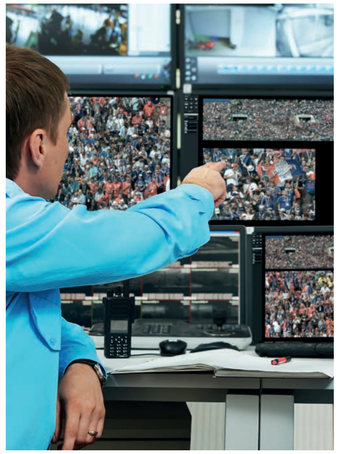
At the feature level, AI algorithms fuse and interpret extracted information to enable highly accurate detection, classification, geopositioning, and speed estimation. The system presents a unified, georeferenced view, highlighting the most relevant objects in real time and supporting confident decision-making in complex surveillance scenarios.

IN THE **MONITORING ROOM**

Utilizing the full resolution of large panoramic images during live monitoring or archive playback is not a trivial task. Continuously transmitting full-resolution panoramic images would place an excessive load on network infrastructure.

However, Logipix Panorama Cameras use the JPEG2000 image compression standard, which effectively overcomes this challenge. By leveraging its resolution scalability, the Video Management Software transmits only the pixels relevant to the current view. The resolution of the transmitted image dynamically adapts to the display. Full panoramic overviews are delivered in lower resolution, while zoomed-in areas are transmitted in higher resolution. As the zoom level increases, so does the image detail.

Operators can open multiple zoom windows within a single panoramic image, performing monitoring tasks as if using several PTZ cameras simultaneously, while still maintaining a complete overview. This approach significantly enhances spatial awareness and enables operators to understand and assess situations in their full context.



Device: Logipix 40° 320 MP Panorama Camera Image info: detail (25% of the full image)

ADVANCED ZOOM FUNCTIONS

- **Panorama and PTZ camera cross mapping** – This specially developed function enables Panorama and PTZ cameras to be aligned by registering common spatial reference points visible in both views. As a result, PTZ cameras can be automatically controlled based on AI-Powered Computer Vision algorithms running on panoramic images, ensuring precise and immediate zoom-in on detected events.
- **ePTZ** – ePTZ is an automatic zoom function that provides operators with instant detailed visual information. When a VCA event or an external trigger generates an alarm, a close-up view of the detected object appears immediately in a dedicated zoom window. The system automatically tracks the object's movement. Both the Panorama camera and the associated PTZ camera can deliver synchronized tracking views of the target.
- **Zoom tour** – Multiple predefined zoom positions can be assigned within the panoramic view. Operators can step through these presets to navigate across the scene, even switching seamlessly between different Panorama cameras. Automatic tours can also be configured to scan selected areas in a defined sequence, enabling efficient and continuous monitoring.

Click to watch the video

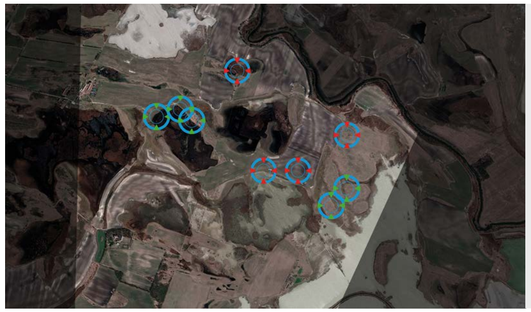
Port coverage

Distance of the rear boat: 1500 m

Distance of the license plate: 35 m

ASSOCIATED INTERACTIVE MAPS

- **Interactive object map** – Logipix enables the use of interactive maps with panoramic views, where detected objects appear as real-time, color-coded, moving icons. This provides operators with a comprehensive, georeferenced overview of the monitored area, allowing them to understand situations in a broader context. Objects can be easily selected directly from the map to open automatically tracking zoom windows, ensuring immediate visual verification and continuous monitoring.
- **Map-based zoom navigation and virtual patrol** – Zoom functions can be directly controlled via an interactive schematic map, where camera views and zoom presets are georeferenced to real-world positions. Operators can navigate intuitively by selecting points on the map, instantly jumping to the corresponding zoom view. This enables efficient virtual patrol tours, allowing users to remotely inspect large areas as if physically moving through the environment, significantly improving coverage, responsiveness, and operational efficiency.



Georeference Map for BORS

Shematic Map for HIGS

Device: Logipix 180° 200 MP Panorama Camera Image info: detail (70% of the full image)

ADVANCED APPLICATIONS
DRONE PANORAMA

The Logipix Drone Panorama Camera is a military-grade imaging solution designed to enhance the visual capabilities of unmanned aircraft systems. Equipped with a 120 MP multi-sensor panorama, it provides continuous 120° coverage, delivering high-resolution visible-light images for reliable reconnaissance. The system enables detection of targets from several hundred meters, while advanced Logipix stitching and display technology allows operators to pan and zoom within the panoramic image as if using a single-sensor camera. Its lightweight, rugged housing is engineered to withstand vibration and harsh environmental conditions, ensuring stable image capture and consistent performance across extreme temperatures ranging from -40°C to +70°C.

Device: Logipix 120 MP Drone Panorama Camera Image info: 50% of the full image

THE CONCEPT OF THE VIRTUAL PANORAMA

Logipix recognized there are certain areas that can be covered more effectively if the number and also the position of the cameras can be freely customized. As our panorama technology allows to stitch the images of individual Logipix cameras, we created the Virtual Panorama.
The solution is based on several individual 20 MP Logipix camera images that are stitched together to create expanded panoramic views with resolutions up to hundreds of megapixels. There are neither hidden nor redundant areas in the stitched images. As the devices are installed individually, the structure of the camera system is easily tailored to newly emerging needs.

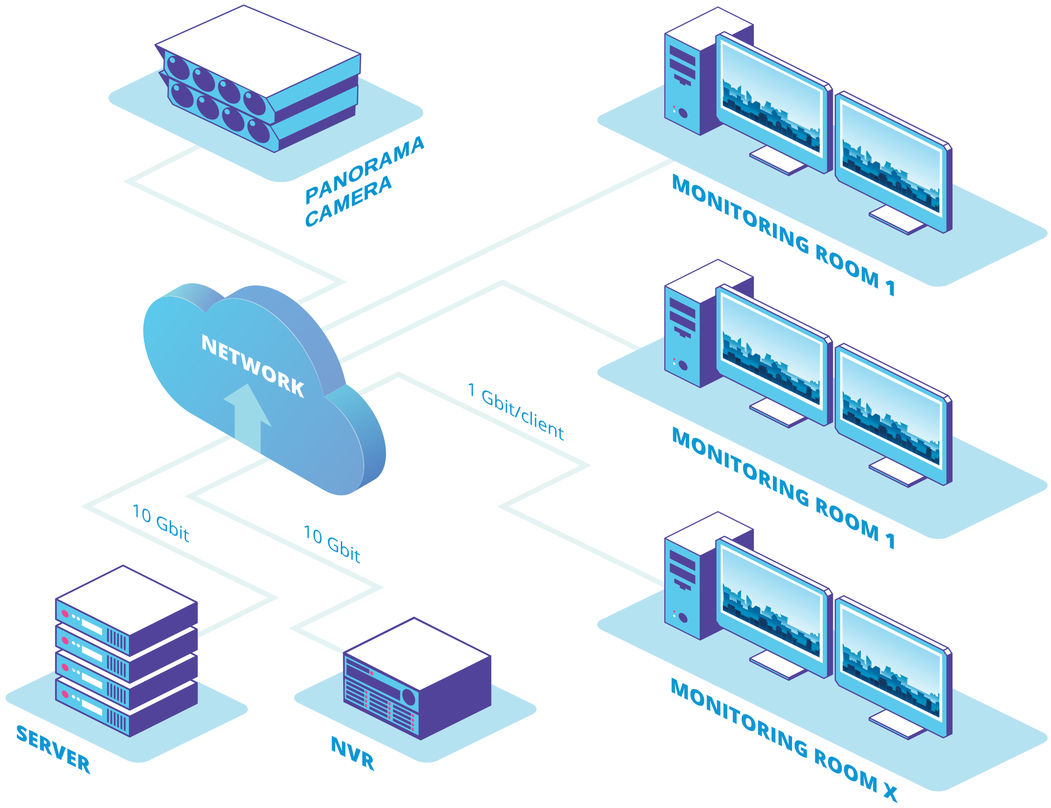
Click to watch the video

Logipix Stadium Video Surveillance

Device: Logipix 200 MP Virtual Panorama Camera Image info: 100% of the full image

MULTI-USER ACCESS

Multiple users can access the Logipix Panoramas at the very same time. This allows synchronous work for operators in the same monitoring room or even simultaneous operation of different monitoring rooms, which are set up for different monitoring purposes.



RECORDING

Different models of the 4th generation Logipix Network Video Recorders are specifically designed to handle the huge amount of data that the Panorama cameras produce. Logipix NVRs have up to 256 TB storage capacity and can be customized to individual needs. Some models of the 4th generation design can be further expanded with our specially-developed external storage units, reaching a total of 768 TB capacity. Logipix always considers the specific surveillance task and designs the most suitable storage system and storage management that helps keep costs at bay.

STRENGTHS OF THE
LOGIPIX PANORAMAS

- Our advanced stitching technology delivers a seamless panoramic view without duplication, blind spots, or color inconsistencies.
- Dual Vision Panorama Cameras combine visible-light and thermal imaging over the same area, with pixel-level cross-mapping for enhanced, multi-spectrum surveillance.
- Logipix Panoramas deliver ultra-high resolution for reliable human detection and recognition over long distances.
- JPEG2000 compression enables full-resolution viewing during live monitoring and playback.
- Large panoramic images provide continuous views for enhanced spatial awareness.
- Multiple zoom windows allow PTZ-like operation on a single Panorama while at the same time providing the overview panoramic image.
- Panorama imaging combined with AI-powered Computer Vision ensures accurate wide-area surveillance.
- Logipix systems can simultaneously track hundreds of objects with high precision.
- Sensor Fusion with transponders integrates radar and external data for precise detection and geopositioning.
- Logipix Sensor Fusion Technology, enables the fusion of visual data of different imagers and transponders, radars and other external sensor inputs at both raw data and feature levels.
- Low-maintenance design reduces costs through fewer devices, built-in self-monitoring, and integrated physical maintenance systems.