

Basir

VISION AI ANALYTICS

Vision AI for Operational Intelligence

Convert Camera Feeds into Actionable Operational Intelligence

Use computer vision to detect safety risks, operational exceptions, objects, activities and quality conditions across live video and captured images.



Analytics running on cameras already installed

Basir is a general-purpose computer vision analytics platform that analyses authorised images and video streams to detect objects, people, activities, safety conditions, operational events and quality issues. It is an adaptable Vision AI platform rather than a single-purpose surveillance product, and it works with existing CCTV and IP cameras, industrial cameras, vehicle cameras, body-worn devices, smart helmets, smart glasses, mobile phones, uploaded images and authorised drone imagery.

Four things Basir is built to do

Analyse existing and new camera sources

Works with the cameras you already own, subject to a site assessment of camera suitability, angle, resolution and network capacity.

Detect defined events in real time

Models are configured against named outcomes - a missing hard hat, a restricted-zone entry, a pallet count - not generic monitoring.

Convert visual events into structured data

Each verified detection becomes a time-stamped, located and classified record with its supporting frame, searchable by zone and event type.

Integrate with operational workflows

Verified events reach incident management, EAM and CMMS, ERP and dashboards as configurable integrations agreed at design stage.

DEPLOYMENT

Edge · Central

HOSTING

**On-prem / UAE
cloud**

INTERFACES

Arabic · English

SOURCES

**CCTV · Mobile ·
Wearable**

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Vision AI Use Cases That Earn Their Place

Vision AI earns its place when a detection changes what somebody does next. Each use case below is configured against a named response rather than switched on because the model supports it. Basir is applied across construction, manufacturing, warehousing, oil and gas, utilities, transportation, retail, facilities, healthcare operations, smart cities and quality-control environments.



Warehouse throughput analytics running on existing security cameras

Safety, security and site-condition analytics

Safety analytics cover AI PPE detection for hard hats, reflective vests and eye protection; restricted-area entry with configurable exclusion zones; forklift and pedestrian proximity at defined interaction points; unsafe movement indicators such as climbing or entering a lifting radius; smoke and visible-flame indicators as an early warning; object left behind or removed; and camera-health monitoring, so a blinded or offline camera is reported rather than silently producing no detections.

Throughput, logistics and quality analytics

Throughput and quality analytics cover loading and unloading verification, package and pallet counting, shelf availability, vehicle classification and parking occupancy, product-defect detection on packing lines, surface-defect inspection for industrial visual inspection programmes, equipment-state recognition, visual evidence classification that files inspection photographs automatically, and before-and-after work verification pairing the same view at two points in time.

INDUSTRY	CAMERA SOURCE	VISUAL EVENT	OPERATIONAL RESPONSE
Construction	Fixed CCTV, smart helmet	Worker without a hard hat in an active zone	Supervisor alert with the frame attached; officer confirms and acts
Manufacturing	Industrial line camera	Surface or finish defect on a moving part	Operator notified; unit routed for human quality review
Warehousing	Dock and aisle cameras	Pallet count does not match the manifest	Exception raised to the WMS before departure
Retail	Ceiling and shelf cameras	Queue length exceeds the service threshold	Additional till opened; trend logged for staffing review

SCOPE AND CLASSIFICATION BOUNDARY

Basir provides safety-support and operations analytics. It is not a certified fire or life-safety detection system, it does not provide medical diagnosis, and it must not perform autonomous safety shutdown. Smoke and flame indicators supplement, never replace, certified detection and suppression. Every detection is advisory until a competent person has verified it.

Camera Frame to Verified Operational Event

Basir applies one pipeline to every source, whether the frame arrives from a fixed CCTV camera, a smart helmet, a phone or an uploaded image. The stages are separable, so a site can run detection at the edge, hold evidence on premise, and send only structured events to a central dashboard.

BASIR PROCESSING PIPELINE

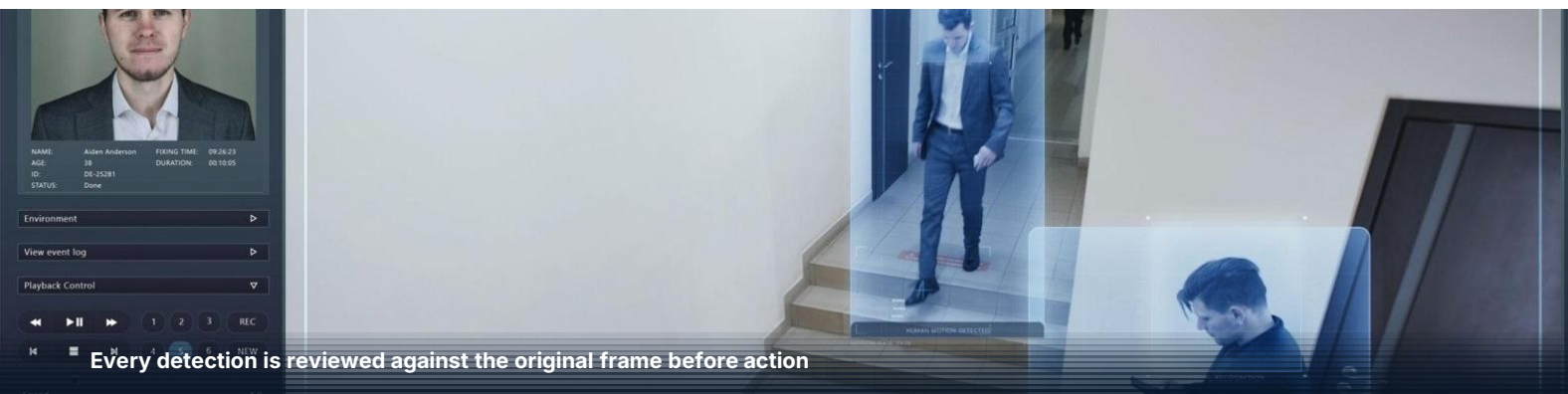


Vision techniques applied

The model layer combines object detection to locate and label items, classification to decide what a region is, segmentation where the exact boundary matters such as a spill or surface defect, and tracking so one person is not counted repeatedly. Pose and activity analysis supports posture and movement indicators, while optical character recognition reads asset tags, equipment labels and printed identifiers. Where one camera cannot establish context, multi-camera correlation links detections across adjacent views into a single event.

Rules, context and control

Around the models sits the control layer that decides whether anything is raised at all. Configurable zones restrict a rule to a drawn area, time-based rules limit it to shifts or permit windows, and confidence thresholds are set per event class so a high-consequence detection is tuned differently from a routine count. Alert suppression stops one persistent condition generating hundreds of notifications, and privacy masking blanks areas that must not be analysed, such as neighbouring property or rest areas.



Model performance is a property of the site, not of the software alone. Before any alert is enabled, the configuration is tested against actual site lighting through the working day, real camera angles and mounting heights, the resolution and frame rate the estate can sustain, seasonal weather including glare, dust and rain, the uniforms and protective equipment the workforce genuinely wears, and the operational pattern of each shift.

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Integration, Security and Model Quality

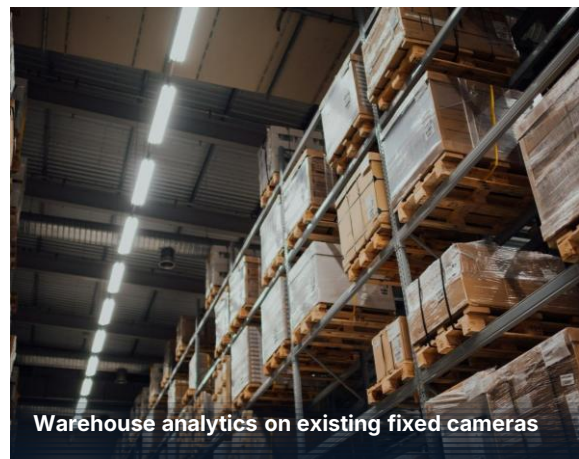
Every integration described here is configurable and subject to a site assessment, the supported APIs and licences of the receiving platform, cybersecurity approval, camera suitability, available network capacity and the final agreed scope. None of it should be read as an out-of-the-box connection.

Camera and video estate

Existing IP and ONVIF cameras, VMS and NVR platforms, industrial cameras, mobile applications, smart helmets and glasses, and authorised drone imagery.

Operational and enterprise systems

IoT platforms, GIS, EAM and CMMS, ERP, WMS, incident management, Power BI and operations dashboards, plus email, SMS and approved messaging.



Warehouse analytics on existing fixed cameras

AI quality controls, before and after go-live

Model quality is managed as a programme, not a one-off acceptance test. Site-specific datasets are annotated to a written standard with class-balance analysis so rare but important events are represented. Precision and recall are measured and reported per event class, because a configuration acceptable for pallet counting may be unacceptable for a restricted-zone alert. False positives are analysed by cause rather than counted, lighting and weather testing is repeated across conditions, and model drift is monitored so a change in uniform, plant or camera position is caught before results degrade.

Security, hosting and data protection

Basir supports centralized, edge and hybrid AI processing, fully on-premise deployment and private UAE-hosted cloud, so organisations with UAE data-residency requirements can keep video and inference inside their own estate. The camera network can be segmented from corporate systems, streams are encrypted in transit and evidence at rest. Access is governed by role-based access control with single sign-on and multi-factor authentication, and every search, export and configuration change is written to an audit log.

Central and edge inference running beside existing operations systems

INFERENCE

Edge or on-prem

TRANSPORT

Encrypted

ACCESS

RBAC · SSO · MFA

RETENTION

Configurable

HUMAN VERIFICATION AND MODEL MONITORING

No model reaches live alerting without a human-verification step and an agreed recalibration cycle. Where a detection could affect safety, employment or access rights, a competent operator confirms it before any action is taken.

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Proposed Deployment: Construction Safety

ILLUSTRATIVE CASE STUDY — PROPOSED DEPLOYMENT SCENARIO

The following scenario is illustrative. It describes a proposed deployment for a typical UAE construction programme, not a completed project or a named customer. All figures are pilot objectives and estimated improvements.

A large UAE construction project operates fixed CCTV on the perimeter and tower cranes, mobile inspection cameras carried by engineers, smart helmets on selected supervisors, and approved drone imagery flown to a permitted schedule. Safety officers review footage manually at shift end and assemble weekly reports from spreadsheets, messaging-app images and handwritten notes. Evidence exists but cannot be searched, and one hazard seen twice is recorded twice.



Proposed Basir deployment

Hard-hat and vest detection

Configured for the PPE actually mandated and tested against site conditions.

Restricted-zone monitoring

Zone and time rules covering lifting areas, excavations and energised plant.

Worker and vehicle separation

Proximity indicators between pedestrians and plant at crossing points.

Visual progress comparison

Fixed-position captures compared over time to evidence completed sections.

Material and equipment recognition

Defined material types and plant recognised to support delivery checks.

Mobile and helmet capture

Handheld and smart-helmet images filed into the same searchable evidence set.

Illustrative targets

- PPE exceptions detected within seconds (illustrative target).
- Manual review of routine footage down 30-50% (estimated improvement).

Pilot objectives

- Evidence searchable by date, zone and event (pilot objective).
- Per-camera false-alert baseline in month one (simulation result).

HUMAN RESPONSIBILITY

Safety officers remain responsible for confirming every violation and deciding what action follows. Basir shortens the path to the evidence; it does not issue findings and does not replace competent supervision or statutory inspection.

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Roadmap, Measurement and Governance

EIGHT-STEP IMPLEMENTATION METHODOLOGY

- 01

Define the outcome each camera must support.
- 02

Assess cameras: angle, resolution, lighting, network, power.
- 03

Collect representative footage across shifts and weather.
- 04

Configure and evaluate models against that footage.
- 05

Pilot a limited camera set in observation mode first.
- 06

Integrate verified alerts into incident and work-order flows.
- 07

Train operators and safety teams on verification.
- 08

Monitor accuracy and recalibrate on an agreed cycle.

OPERATIONAL KPIS AGREED BEFORE GO-LIVE

PRECISION Per event class	RECALL Per event class	FALSE ALERTS Per camera / day	VERIFIED EVENTS % of total
ALERT RESPONSE Time to action	CAMERA UPTIME Availability %	USABLE FOOTAGE % of hours	REPORTING Hours saved



Central and edge inference beside existing operations systems

WHAT EVALUATORS ASK BEFORE COMMITTING

- Can Basir use our existing cameras, and what infrastructure does it need?**

In most cases yes. Basir consumes streams from existing IP and ONVIF-compatible cameras and from established VMS and NVR platforms; the site assessment confirms whether a given camera can actually see the event at sufficient resolution and angle. It needs inference capacity at the edge or in a server room, network capacity, and storage sized to retention.
- What are the limitations, and why is this relevant to UAE and GCC operators?**

Accuracy depends on camera placement, lighting, weather and how closely site conditions match the training data; no configuration is perfectly accurate and every event is advisory until verified. For UAE and GCC operators the decisive points are on-premise or private UAE-hosted deployment for data residency, Arabic and English interfaces, and analytics on existing cameras.

Montaj
hizmeti



KISA montaj ekibi, doğru bir şekilde kurulumu, bakımını ve onarımını sağlar. Ayrıca, işi bitirdikten sonra, her türlü teknik ve montaj hizmetlerini de sunar.

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