

invisible

Geo-referenced security and safety management –
climb to the next dimension of situational awareness.

extend your view **4+**
T E R R A

New

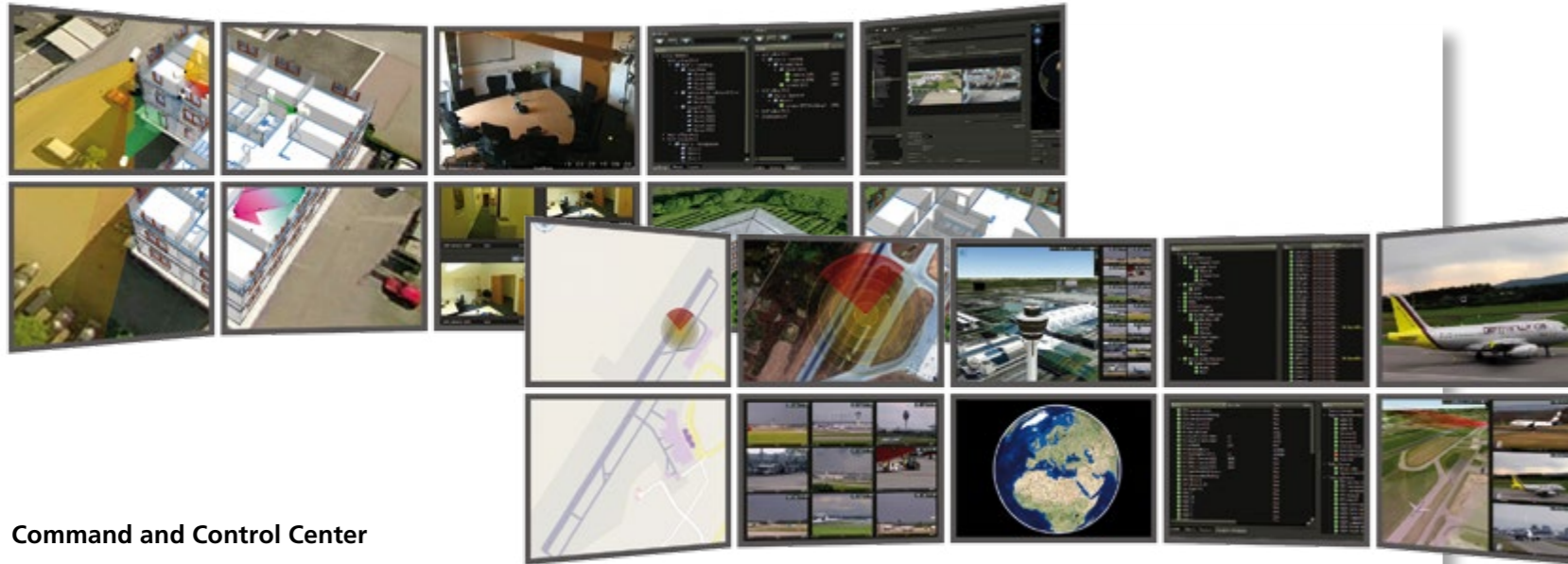
D I M E N S I O N S

With TERRA 4D.

The innovative software platform which immediately takes you to the next dimension in security management. It solves any unanswered questions related to your security and safety. Why settle for less?



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Command and Control Center

aware

TERRA 4+

Integration Platform

The platform that makes you aware of all risks.

The protection of people, property and critical infrastructure assets is crucial. TERRA 4D addresses these requirements providing its clients with an integrated geospatial command and control center solution which offers:

TERRA 4D provides Physical Security Information Management (PSIM) as well as Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) solutions to facilitate incident detection, security and safety related incidents, presenting complex information in a simplified geographical 3D context, thus offering operators superior situational awareness.

- Comprehensive protection
- Improved situation response times
- Correlation of all subsystem data
- Superior situational awareness
- No disruption of economic activities
- Increased operational efficiency



Subsystems

Security: CCTV, PTZ Control, Intrusion Detection, Access Control System, Radar, Facial Recognition, ANPR

Safety: Fire Detection, Public Address, Perimeter, Gate, Security Bollard, Building Management

Communication: Radio, Smart phone, Mobile client, SMS, Email, Satellite phone

Tracking & GIS: GPS Tracker, ADS-B, AIS, MAP Layer, GIS Database (Address, etc.)

pinpoint

4D. A1!

In today's increasingly interconnected world, system platforms involving multiple geographical sites, many sources of information and various areas of responsibility are more and more common. Therefore seamless integrations are needed for efficient operations such as crisis management, fight against crime or standard daily tasks.

The success of integrated platforms relies on the ability to anticipate and respond to events affecting multiple locations and areas of responsibility. At the same time a system platform should preserve the individual vision and responsibilities of the different stakeholders, keep control of information ownership and select and present only relevant information to the right operator.

TERRA 4+



Geo-referencing

Geo-referencing all elements enables superior situational awareness.



Longitude, Latitude, Elevation and Time

Sensors, alarms, objects and even documents – we put everything in the 4 dimensional space.

TERRA 4D integrated solutions allows for:

- Comprehensive operational picture based on 3D GIS model
- Geo-referencing existing and future data sources
- Selective data distribution on a need-to-know basis
- Access to data services (environment, intelligence, weather, news ...)
- Improved notice, response and incident resolution
- Greater efficiency and cost savings
- Improved situation response times and minimized risk

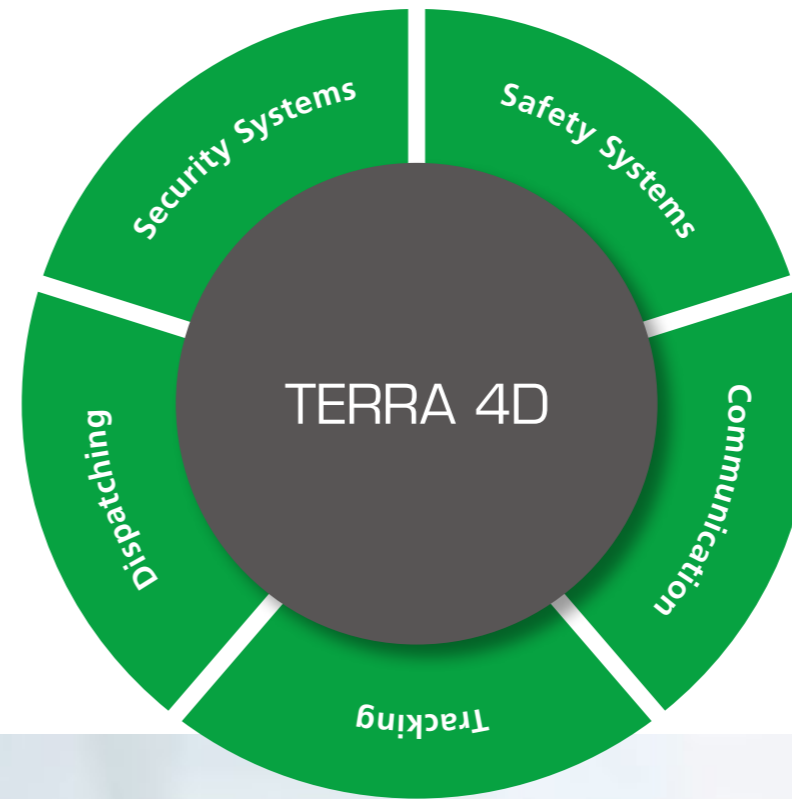
ROI

An integrated solution enables numerous organizational benefits, including increased control, improved situational awareness and management reporting. Ultimately, these solutions allow organizations to reduce costs through improved efficiency and to improve security through increased intelligence.

Security which pays off.

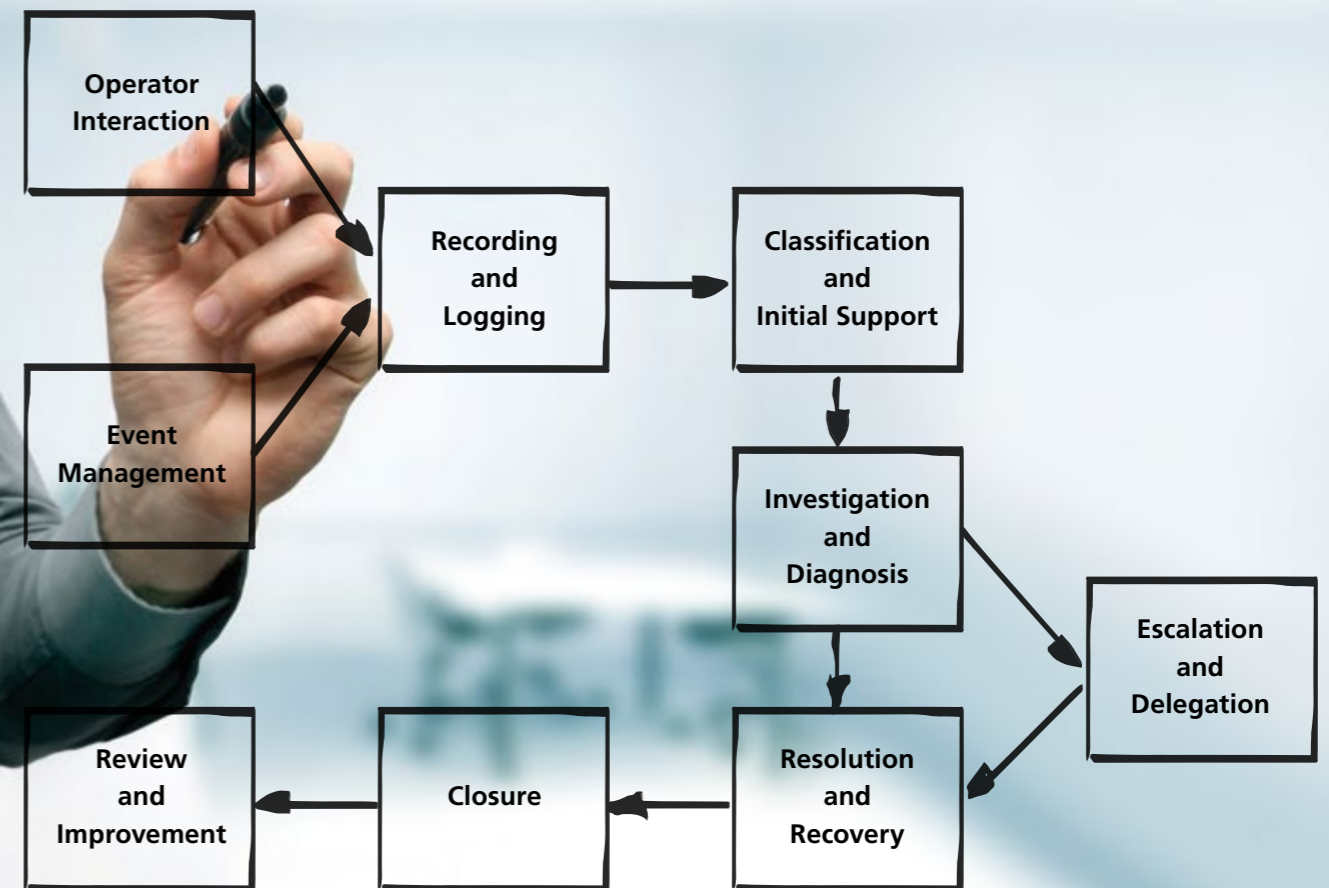
With TERRA 4D you can reduce the risk of human error, improve security response, protect existing security investments and reduce operating costs by converging all your security cameras, sensors, subsystems, data sources and operating procedures into a single unified and structured platform.

TERRA 4D is a software platform designed to integrate multiple unconnected security and safety applications and devices and control them through one comprehensive user interface.

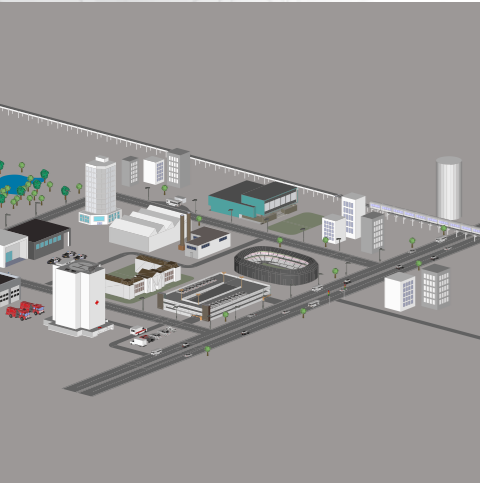


TERRA 4D system collects and correlates events from existing disparate security devices and information systems (CCTV, access control, sensors, networks, building systems, etc.) to empower operators to identify and proactively resolve situations.

The TERRA 4D incident workflow chart represents state of the art security and safety event processing.

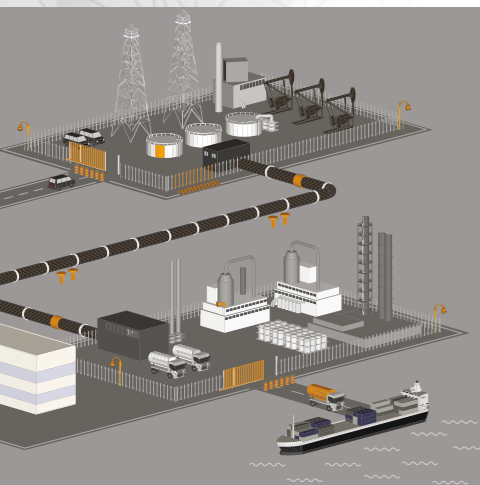


multi sensor



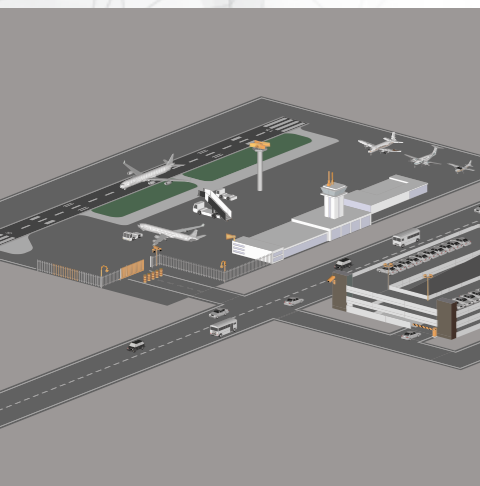
Smart City

Managing public sector operations involving local communities, city, state, federal and private organizations. TERRA 4D facilitates the gathering, coordination, and sharing of information, in real-time to resolve and manage situations effectively.



Petrochemical

Secures correct usage, storage and distribution of chemicals from various threats including terrorism, accidents and sabotage



Airport

Enable efficient and safe transportation of people and goods with a superior situational awareness

The question is not if. The question is: when to begin?

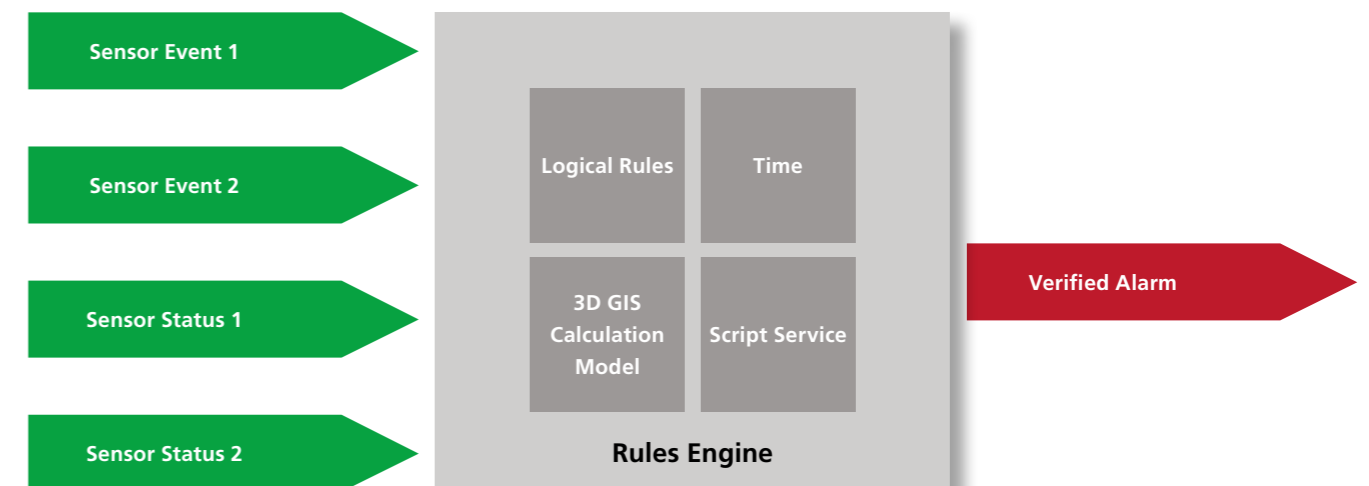
The benefits of TERRA 4D are obvious. The good news is the system is field approved and successfully operates around the globe. Therefore is it worth taking the risk, by not going to the next dimension?

- Improve overall security
- Reduce risk
- Increase efficiency
- Unified user interface allowing to manage intruder alarm, fire detection, production control, building management and other systems
- Access to live and recorded sensor and subsystem data
- Time-synchronized replay of all data including video
- Geospatial Data Fusion

Many sources, one platform. TERRA 4D doesn't just bring data together, it helps operations manage incidents from start to finish. Intuitive, clearly represented and accurate, this is new dimension security.

The TERRA 4D system combines and cross-references events from several subsystems or sensors to verify alarm conditions. Any incident or system event can trigger a preprogrammed event handler. Operator instructions, multi sensor correlation for alarm verification, automated object tracking and many more options are available to define the appropriate system reaction to a foreseen event.

Alarm and warning zones are defined centralized in the 3D GIS model. No matter what sensor type (e.g. video motion detection ...) has signaled the Avatar to enter a zone – an event is triggered immediately. Use geo-fencing in combination with alarm and warning zones to detect early threats and enable proactive actions. Multi camera auto tracking is available to verify type of threat or to improve object classification.



real-time



TERRA 4D. Win!

The requirement for organizations to provide continuously improving, cost-effective security solutions needs a new geospatial approach to manage large amount of information and present it to security control rooms in geographical context. The advanced geospatial analysis of TERRA 4D evaluates every single incident and assists through guided workflows offering a unique situational awareness for operators.

TERRA 4D provides tools that significantly accelerate response, improve efficiency and reduce operating costs in every phase of the situational management lifecycle.



Universal compatibility

The existing customer infrastructure can be utilized and the open architecture allows the integration of any third party system.



Guided workflow

The intuitive workflow steps reduce operator randomness, lower stress for the user during an incident and enforce compliance of company guidelines.



Multi-site control

Significant cost reductions as all buildings and locations can be controlled from fewer locations.



Protecting your investment

TERRA 4D solution protects the investments in the existing security infrastructure made in the past by the customer.

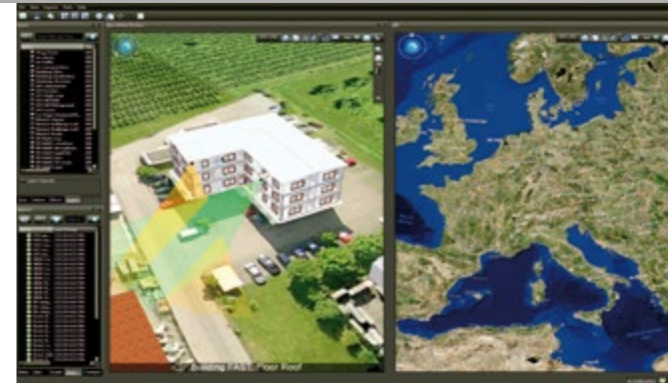
human ~~error~~

... Win!

You're only human! Don't worry because we have the answer! With a wealth of knowledge from various sources we have prepared an intelligent first class solution, promoting the correct response and avoiding human error – TERRA 4D.

Real View – Real Time.

TERRA 4D is vendor independent and supports crossplatform interoperability. The common unified user interface allows remote control of platforms, sensors and subsystems including air, land, maritime and space-based platforms.



Easily scalable

TERRA 4D solution can be scaled from a compact version on a single computer to a complex, worldwide distributed solution on multiple computers.



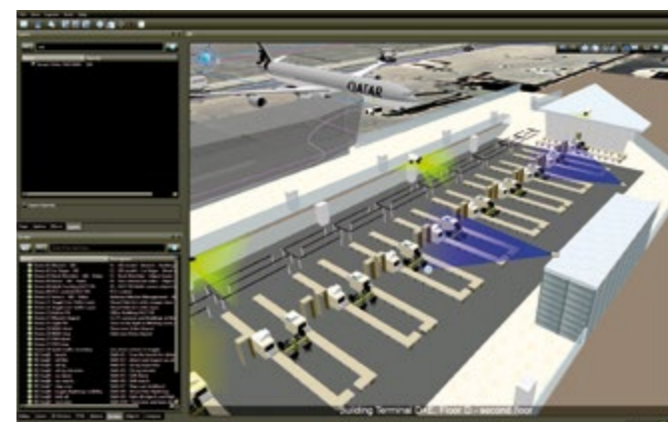
Enhanced CCTV Support

Existing or new CCTV cameras will become more powerful using TERRA 4D. The system geo-references each camera and thus adds latency compensated PTZ control, PTZ auto presets, augmented reality video overlay, measuring distances in video, multiple camera object tracking and more features.



Tracking and Dispatching

Thanks to the superior situational awareness TERRA 4D enables operators to understand the position of own units in the field by a glance at the screen. The dispatch functions enable efficient management of own resources and keep track of all activities.



Indoor and Outdoor

The 3D GIS model not only represents outdoor areas utilizing ortho imagery, maps and other GIS layers but also the 3D structure of buildings. TERRA 4D imports existing building plans, generates 3D inner structures and places sensors within the building.

Better safe than sorry.
Always and everywhere.

protect!on

Petrochemical

It is of national security and public interest to secure correct usage, storage and distribution of chemicals from various threats including, but not limited to terrorism, accidents and sabotage.

Smart City

Managing security breaches and public safety in communities, city, state, federal and private organizations. TERRA 4D PSIM facilitates the gathering, coordination, and sharing of information, in real-time to resolve and manage situations effectively.

Transportation Networks & Infrastructure

TERRA 4D helps transportation organizations like airports, seaports and major transport hubs. It enables efficient and safe transportation of people and goods with superior situational awareness.

Finance

PSIM systems aid financial institutions to protect their assets and ensure safe 24/7 operations. TERRA 4D supports the enforcement of Risk Management and Regulatory Compliance services that rely on proven consulting practices and deep knowledge of best-of-breed tools.

Utilities & Critical Infrastructure

Energy providers supply fuels to the transportation industry, electricity to households and businesses, and other sources of energy that are integral to growth and production around the world. TERRA 4D PSIM helps to protect and maintain smooth operations at these facilities.

Tracking

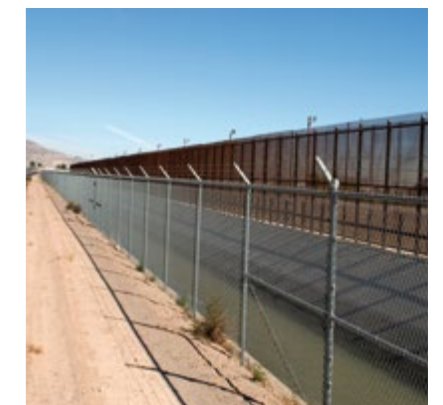
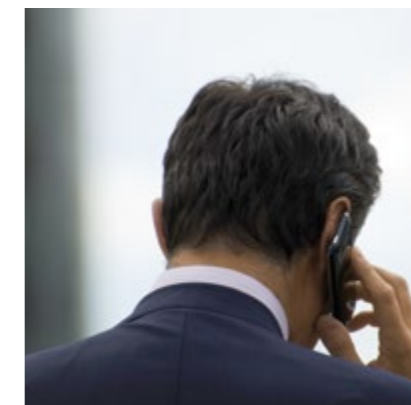
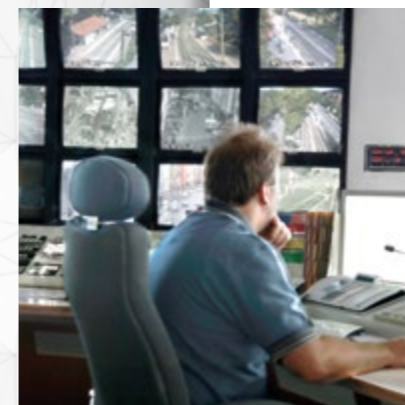
TERRA 4D assists organizations in monitoring their employees and assets. It tracks all activities including location and status, allows geo-fencing and the definition of warning and alarm zones.

Intelligence & Law Enforcement

TERRA 4D solution is designed to reduce potential vulnerability and risks in the field of information sharing, physical access control, perimeter protection, building and incident management and production.

Border Protection

As new risks and global threats emerge, governments are calling for a higher level of safety and security to protect their citizens and infrastructures. TERRA 4D surveillance and control solution has been designed to detect and intercept unlawful activities on sea and land borders.



augmented+ed

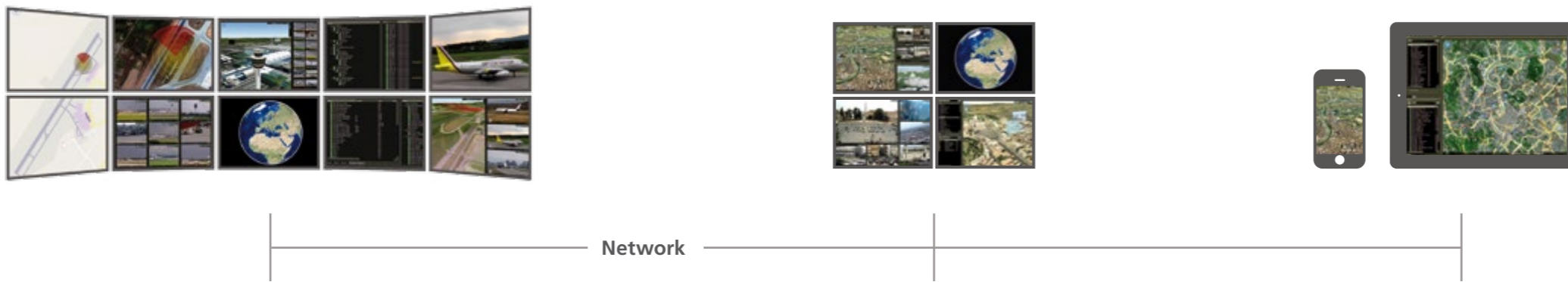
Objective. Intuitive.

Greater overview, quicker response, this intuitive system makes it possible. Behind this is a clever system architectural design – which leaves no question unanswered.

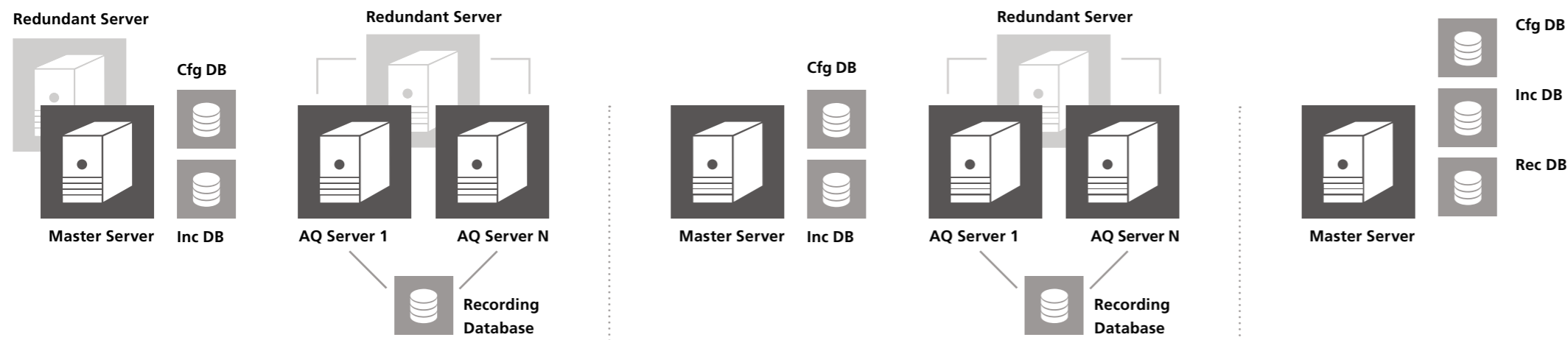
- Scalable from compact version on a single computer to complex, worldwide distributed solutions
- Support of multiple site operations
- Autonomous site operation in case of site isolation

- Redundancy for every crucial part to avoid single points of failures
- Designed to receive, analyze, visualize in 3D, retrieve and securely share data across multiple agencies and users
- Reliable and secure architecture consisting of management server, acquisition server and operator's client workstation
- The management server hosts all system wide information and controls the whole installation
- The acquisition server manages the configuration of the peripheral devices and controls the device status permanently
- Features like centralized user access management, cross client chatting, selective data exchange across all users supported

Clients



Servers



Subsystems



Client

- Command and control center
- Mobile clients
- Seamless access to all sites

Master Server

- Manage configuration
- User Management
- Alarm Management

AQ Sever 1 ... N

- Collect sensor data
- Configuration of subsystems
- Track sensor status

Databases

- Cfg DB: Configuration data
- Inc DB: Incidents reporting
- Rec DB: Sensor data recording

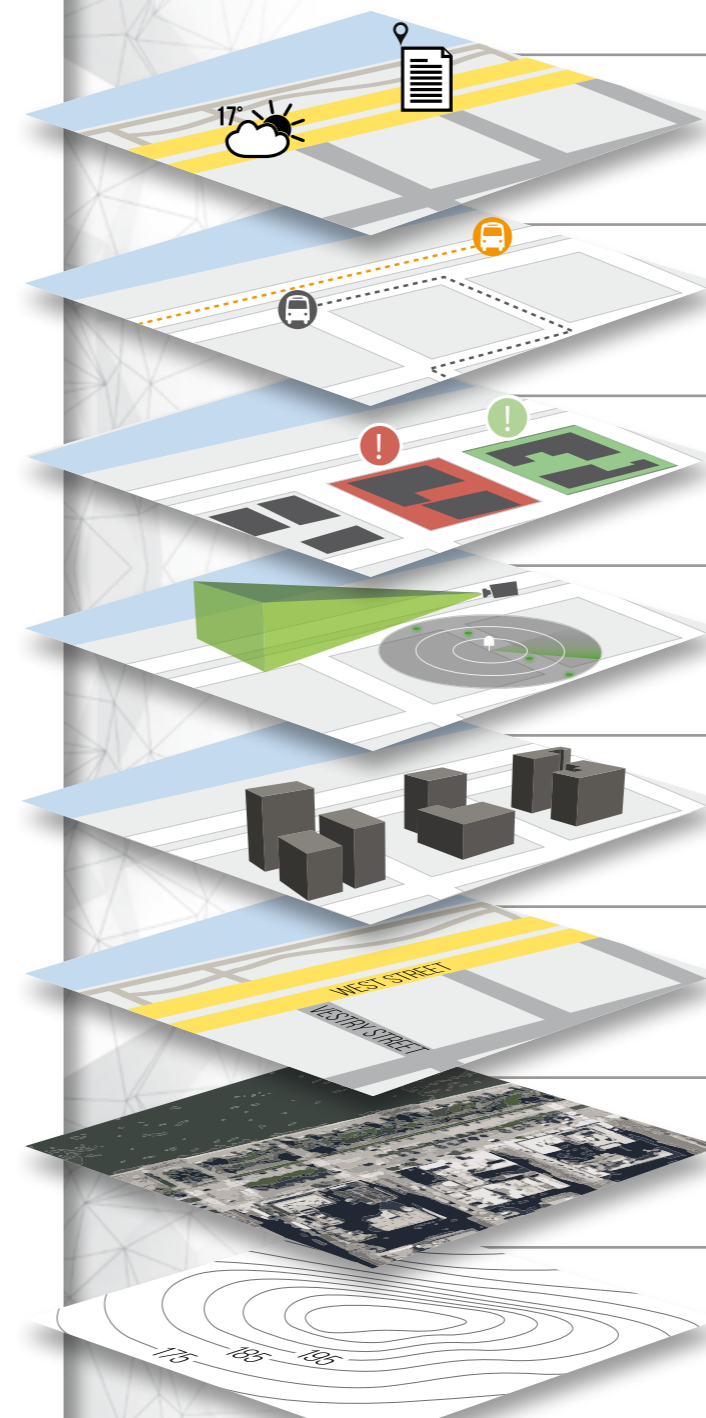
individual

Multifunctional as your task.

From small to huge. From simple to complex. From standard to tailor-made. TERRA 4D comprises of numerous intelligent tools, designed for your exact requirements. The result is always the same, first class security in every situation.

More TERRA 4D features:

Alarm management, workflows and incident reporting	The intuitive workflows remove operator randomness, reduces stress for the user during an incident and enforces compliance of company guidelines.
Spacial data correlation	Any sensor can be used to control additional sensors. Example: A radar detects an object. TERRA 4D allocates the closest cameras with line of sight and initiates automated multi camera tracking.
Geospatial rules engine	Defines rules and methods allowing TERRA 4D to auto-respond to incidents and to detect abnormal behaviour.
Layout Independent Program (LIPO)	Keeps system maintenance up to date: changing sensor location needs only a correction of sensor coordinates. No additional system reprogramming required!
Video wall	Support of video walls and multiple screens per desk.
Time machine	Use the player control to navigate through space and time and see all recorded data (video, tracked objects, PTZ positions, ...) time-synchronized.
Supported cameras	Analog (with encoder), IP, fixed, PTZ, 360, mobile or airborne.
Position dependent salvo	Shows closest cameras to a static or dynamic object location.
Direct PTZ control	Video latency compensating method to control any PTZ device fast and precise.
PTZ auto presets	Automatic configuration of all interesting locations (POI) in PTZ camera's field of view as PTZ preset positions.
Geo-referenced video	Determine object location (latitude, longitude, height), speed, direction and size from video image.
Meta data recording	PTZ head data, tracks of objects, video analytics data, communication activities and others are recorded.
Multi camera tracking	Follow a moving "tagged" (GPS, RFID, AIS, ADS-B) or "untagged" object even in crowded environments using one or more fix or PTZ cameras simultaneously. If altitude information is available even airborne objects can be tracked from ground or airborne.
Augmented reality	Augmented reality layer on top of video image display including context sensitive interactions.
Mobile app for iOS and Android	GPS tracker and target interception app. Target waypoint is received and independent navigation to target is possible. Messenger with bidirectional text and image exchange is supported.
Tracking	Get current positions of all units in the field and record history tracks over time.
Locate, Dispatch & Intercept	The coordinates of any object seen in video or in 3D GIS model can be converted into a target waypoint and sent to "closest" intervention team as target position.
Geo fencing	Define geographical alarm or warning zones to receive alarms when tracked objects enter or leave such zones.
Dashboard	Browser based high-level system overview including overall system status, incident history, operator performance and many more.



Information

Weather, crisis, documents, addresses, points of interest

Mobile Units

Current positions, 2D and 3D avatars, history tracks

Events

Events or alarms as 2D/3D avatars, alarm zones

CCTV Cameras and Sensors

Mounting positions and current field of view, radars and perimeters

Buildings

3D buildings, photo-realistic or artificial texture, buildings with inner 3D structure

Street Maps

Roads, footpaths

Ortho Imagery

Acquired by satellite, aircraft, UAV

Digital Terrain Model

Elevation data, representation of terrain surface

fast



Your Security is our Strength.

FAST is a pioneer in the field of digital security and surveillance technologies and is revolutionizing the way organizations and governments protect people, property and assets. The core R&D team of FAST comprises the combined experience of over 100 man-years and 300 000 installed video channels in over 15 000 installations worldwide.

FAST is assisting government agencies and enterprise organizations to improve security, reduce risk and increase efficiency.

We are quick to respond, flexible and always at your service. On the topic of security may no time be lost ... we look forward to your call!

Our Services – Your Success.

Consultancy at its best

We take a holistic approach to managing critical sites by integrating physical security, intelligence, analytics, training and procedures to proactively deal with threats.

As unique as your project – Solution Design

We provide to our customers a tailored solution utilising our vast knowledge, industry expertise, concept of operational and system features. These can include an advanced sensor network with analytics, command and control capabilities, intelligence, enrollment, access management, access operation and gate management.

Highly educated – Training

We train and certify our local partners for system implementation guaranteeing top standards.

Always at your service – Technical Support and Maintenance

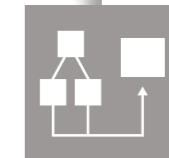
Support is provided locally by certified partners offering a 24/7 hotline and 1st and 2nd level support. FAST as developer and manufacturer is offering 3rd level support.

Always up to date – Mapping & Photogrammetry

Based on aerial data acquisition by UAV we process geo-referenced ortho-mosaics and digital elevation models. We design 3D Models of buildings and convert 2D floor maps into 3D building models.



Identify demands, requirements or challenges and define designated solutions



Realize solutions based on our TERRA 4D (ISTAR or PSIM) software architecture



Education of system integrators, solution providers and operators



1st, 2nd and 3rd level technical support



GIS data acquisition

smart recognition + rapid response + gapless reporting + timely security



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this innovative technology? Contact us**

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