



# Outdoor Detection

## Intelligent perimeter surveillance solution range

Created more than 10 years ago, Foxstream has become a major reference in outdoor intrusion detection. Our product range allows us to offer optimized solutions to answer our clients' various needs & budgets, while keeping a high-scale efficient and reliable solution. Our R&D team has been working for several years with research labs such as the CNRS in order to offer edge-based technology. With several thousands of sites equipped, Foxstream is proud to offer powerful and effective security solutions that allow an efficient doubt removal.

Foxstream solutions are designed for **outdoor surveillance** of a building's surroundings or a site's perimeter. They provide an intelligent video analysis system that can detect **any type of intrusion whilst eliminating false alarms**. Our product range is conceived to help Monitoring stations by providing them an immediate doubt removal for all their perimeter protection needs.

- **FoxVigi:** powerful server-based solution, offering custom-made configuration and add-ons.
- **FoxBox:** packaged all-inclusive solution (serverless).
- **FoxIntruder:** camera embedded video analysis solution.

## ■ ■ ■ FoxVigi: custom-made solution

Intrusion detection is one of Foxstream's core developments for more than 10 years, and FoxVigi is the most powerful outdoor detection solution of our range: it offers tailor-made configuration with complex rules. It can be integrated with the Market's most famous VMS as well as with the main video alarm receivers.

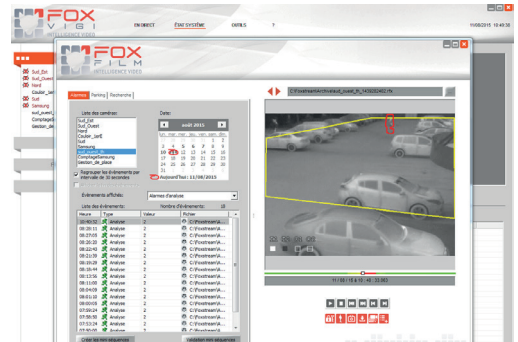


Process:

- **Detection** of all moving objects in the field of view of the camera
- **Filtering & classification** (real objects as opposed to oversized and immaterial objects: shadows, reflection...) to delete false alarms
- **Alarm feedbacks** to the operator **with the alarm video clip** that contains the red overlay on the detected object.

FoxVigi is an **autonomous tool** thanks to its live and playback functionalities, and its **event manager** that allows task creation (association of actions to events), such as:

- Parameter the forward of alarms and OSD towards **VMS, FTP servers, emails, XML protocols, etc.**
- **Matching the analysis** with other sensors.
- **Sending reports by email...**



FoxVigi holds a **parameter assistant tool**: the software includes a playback functionality where you can change the defined settings to view the direct consequences on the detected object. This functionality represents great added value as the analysis can be refined and optimized to improve the site's security.

It is also possible to configure add-ons for a custom-made solution: line or zone crossing, loitering detection, etc.

## ■ ■ ■ The FoxBox: all-inclusive

The FoxBox is an **all-inclusive solution**. The **hardware** consists in an IP (4 channels) or analog video stream acquisition Box that contains a powerful **software** performing 3 major key functions:

- **Video Analysis** (outdoor intrusion detection)
- **Storage**
- **Alarm Forwarding** to the Monitoring station.

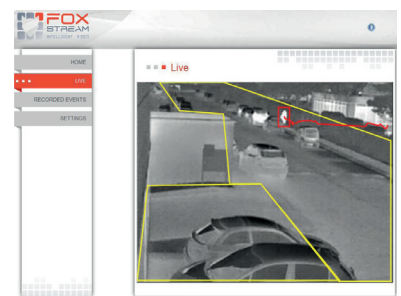


The goal of this packaged and ready-to-use solution is to **render the latest technological innovations accessible to all**.

## ■ ■ ■ FoxIntruder: camera embedded

FoxIntruder is a **camera embedded intrusion detection solution** that offers many benefits among which:

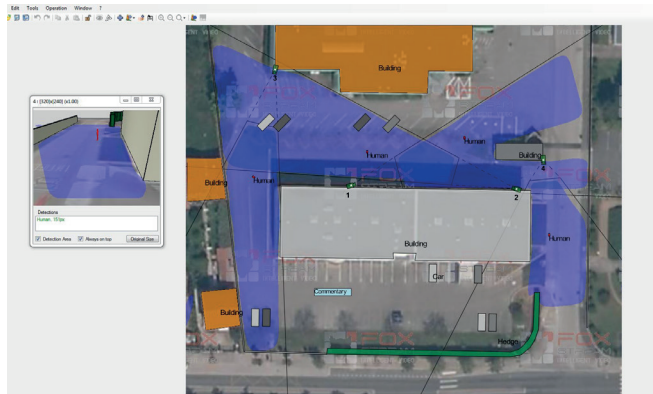
- **Fast installation**
- **Easy and simple access**: just connect to the camera's IP address via your web browser
- **No software to download on your computer**
- **Dedicated Interface**
- **Very low false alarm rate**
- **Multi-zone configuration**: up to 4 detection zones of 16 points each can be set up (no limitation to simple shapes)
- **VMS**: Milestone & CamTrace integration
- The alarm video clip is sent by **ftp**.



## ■ ■ ■ FoxTool: project study

Foxstream offers a unique **project study assistant: FoxTool**. This free software has been set up to help installers or study & engineer agencies to check their **project's feasibility**.

To use FoxTool, you just need to upload your site's ground plane and place your cameras to see the covered area usable for detection. **Parameters include the camera's height, its tilt, and the focal length. The areas of detection appear accordingly and show which part is covered by Foxstream's analysis.**



FoxTool is a **free useful & beneficial service** that offers added-value compared to other competing solutions, as it allows us to ensure the efficient functioning of the solution once deployed.

## ■ ■ ■ Thermal Imaging Cameras

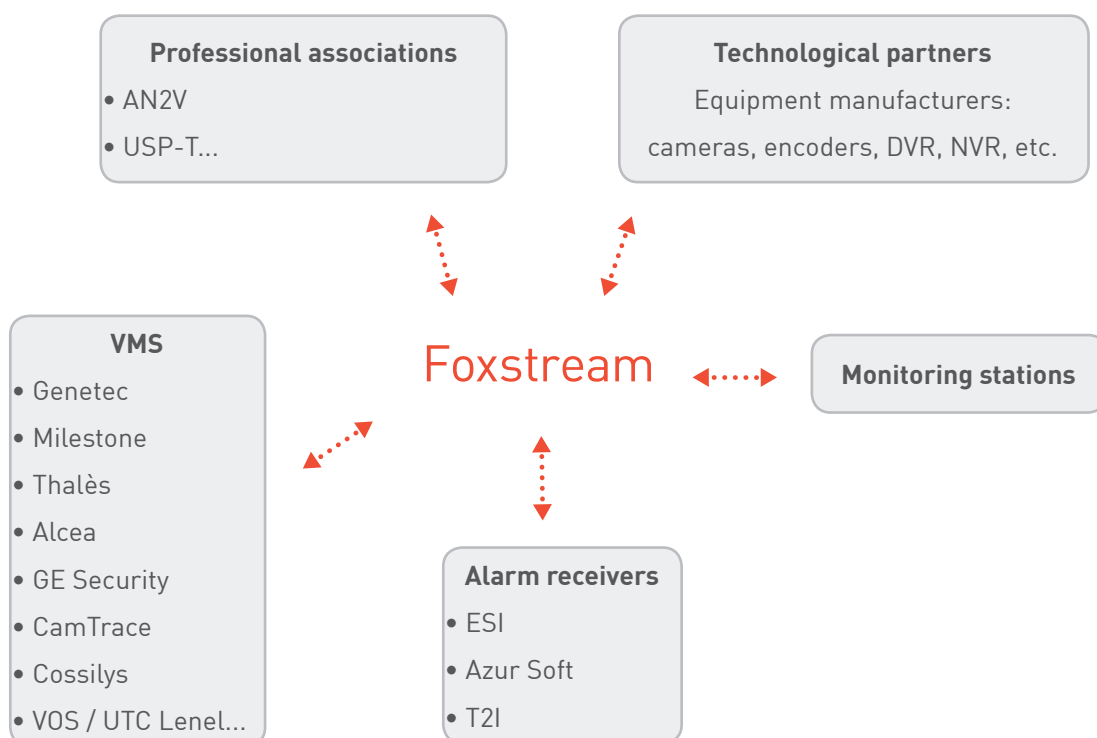
Used with video analysis, thermal imaging brings considerable advantages: it allows a more efficient detection as the detection principle is based on the analysis of the different temperature levels in a dynamic environment.



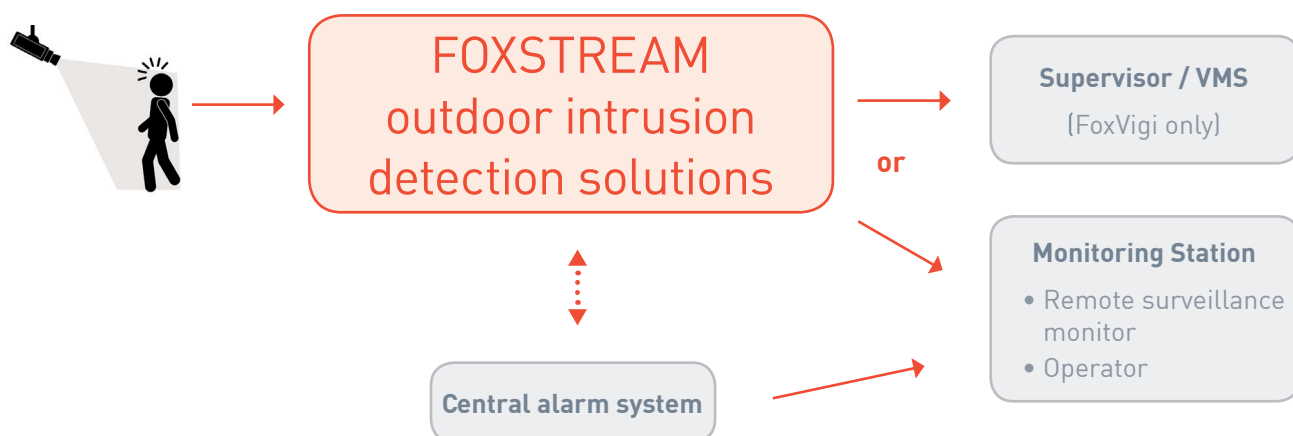
Thermal imaging is ideal for intelligent and powerful outdoor intrusion detection as it allows a reliable detection day and night independently of the light or weather condition (fog, rain, etc.).

As a result, **the false alarm rate is extremely low (1 per week in average), and the detection range is increased.**

## ■ ■ ■ An important ecosystem



## Software architecture



## Product range: key points

In order to determine which solution best matches your monitoring needs, this table shows the different key points by solution.

	FOXVIGI	FOXBOX	FOXINTRUDER
Max. number of cameras	Unlimited (server based)	4	1
Cameras (brands)	All	All	Axis
IP / Analog	IP / Analog	IP / Analog	IP
Thermal / Color	Thermal / Color*	Thermal / Color*	Thermal
VMS	★ ★ ★	★	★
Monitoring station (alarm receivers)	★ ★ ★	★ ★ ★	★
Refined settings	★ ★ ★	★ ★	★
Adaptability / architecture	★ ★ ★	★ ★	★
Simplicity of use / Plug'n Play	★	★ ★ ★	★ ★

\* Foxstream solutions work well with both camera types but we highly recommend the use of thermal imaging for an optimal analysis (see paragraph "Thermal Imaging Cameras" for further information).



## Automatic video doubt removal for greater efficiency

Foxstream's perimeter intrusion detection solutions allow an automatic video doubt removal in "PUSH" mode:

- **Forward of the video clip** with the alarm enhanced by the red on-screen display around the object
- **Immediate doubt removal** and alarm qualification: intrusion, authorized staff...
- **Action:** granted entry, call for security staff or to law enforcement by the Monitoring station (according to the art. L613-6 of the French Internal Security Code - for other countries, different laws may apply).

To sum up: great efficiency & optimized time management.

## 100% French

Foxstream is a French independant firm: R&D, conception, manufacturing, assembly and support are all 100% French.

Our dedicated team provides pre-sale technical support, deployment and customer service from France.



## Test us

Still not sure? Test us.



Simply ask and we will be happy to install **FoxVigi** and give you a 1-month licence activation key, or we can lend you a **FoxBox** during a month. As regards **FoxIntruder**, Axis offers a 30-day free trial directly on their website:  
[www.axis.com/techsup/compatible\\_applications/](http://www.axis.com/techsup/compatible_applications/)

## Discover Foxstream

Intrusion detection is one of Foxstream's core developments, but it is not the only one.

Foxstream also develops solutions that analyze people's motion for statistic applications such as heatmapping, dwell times, etc. The main functionalities offered are:

- People counting
- Waiting time estimates in queues
- Attendance rate
- Density measurement

These solutions are either server-based or embedded inside cameras. They can adapt to each site's needs, and currently equip stores, airports, ski resorts, museums...

### In a nutshell

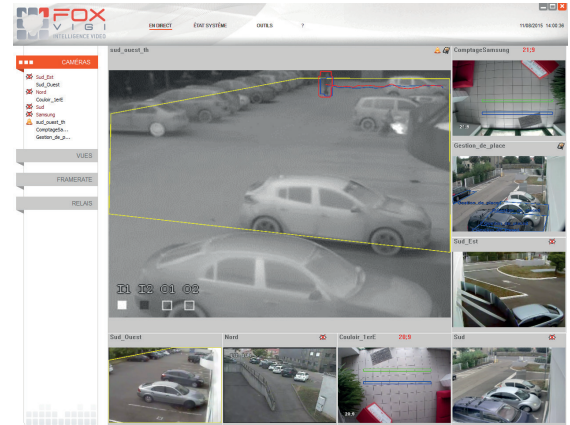
- A complete range: server-based, packaged, and camera embedded solutions.
- "PUSH" mode doubt removal: the video clip is sent with the alarm to the Monitoring station.
- Fast & easy to install & set-up.
- Very low rate of false alarms.
- Recommended with thermal imaging.
- Free FoxTool software to identify the best possible camera locations.



## Foxstream's added value concerning video analysis

### ➤ Compared to other software

- **Video Intelligence:** Automatic differentiation between real objects and noises (animals, vegetation...), and classification according to perspective.
- **Efficient solutions that stay simple to use:**
  - No placement constraint.
  - Dedicated interfaces.
  - Quick and intuitive configuration, that can nevertheless be very indepth.
- **"Toolbox" that allows to parameter custom-made tasks (FoxVigi):**
  - The event manager offers the possibility to create tasks in order to associate actions to events (i.e. parameter the sending of alarms & OSD to the VMS, FTP servers, emails, XML protocols, etc.).
  - Parameter assistant tool.
- **Integrated into the ecosystem:**
  - Integrated with video alarm receivers (ESI, Horus, T2I).
  - Integrated with VMS (Genetec, Milestone, CamTrace, etc.).
  - Can be integrated with other devices.



### ➤ In relation to simple motion detection

There are many equipments providing "embedded intelligence" as standard or on option available nowadays (DVR, NVR, cameras...). What is the difference?

- simple motion detection algorithms work sometimes well with indoor environments but they definitely cannot be used outdoor or on a large scale;
- very high rate of false alarms;
- **unmanageable system** that no longer fulfills its support function with regard to surveillance help for operators or Monitoring stations.

### ➤ In relation to other detectors

Infrared barriers, cables on fences, hyper-frequency barriers, buried cables, etc.

What do they imply?

- important list of contraindications;
- limitations in the solutions' configuration: some may not classify the detected objects (or very little) and it is nearly impossible to measure their omission rate;
- no possible doubt removal: the operator cannot distinguish between real events and false alarms inherent in all perimeter detection system.

**Video analysis** by comparison, is subject to fewer installation constraints and allows real doubt removal, as well as an event triggering on certain types of objects only.

**FOXSTREAM's intrusion detection solutions filter** false alarms and offer the possibility to optimize the relevance of the returned events by refining the system's configuration.