Automatic Incident Detection

SX-TRAFFIC
Sprinx SX-TRAFFIC system allows reliable detection of incidents and events in traffic flow on critical infrastructures such as highways, tunnels and intersections.

Based on the field proven video detection technology by SprinxLab (in-house R&D department), SX-TRAFFIC enables to quickly alert operators about incidents and traffic slowdown, to promptly send notifications of events to to 3rd party systems (ITS software platforms or Tunnel SCADA).
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<tr>
<th>CITY</th>
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Counting and Classification

Based on object tracking and 3D modelling algorithms SX-TRAFFIC allows vehicle counting and classification (motorbikes, cars, trucks/buses) for statistical purposes.
SX-TRAFFIC also measures the speed of each vehicle crossing the detection zone and it can estimate the average speed of the traffic, sampling the data every 15 minutes.
In urban environments, SX-TRAFFIC is able to count vehicles flowing through an arbitrary number of virtual gates, allowing the analysis of roundabouts and crossroads.
**Traffic Heat Mapping**

**SX-TRAFFIC** is capable of classifying the areas within the scene that are most frequently crossed by vehicles, allowing rapid identification of the “hottest” lanes or trajectories.
Through the web-pages of SX-TRAFFIC it is possible to visualize clear graphics and charts of the statistical data and to browse through the event journal, allowing the user to see the details and snapshots of the events.
SX-TRAFFIC
automatic incident detection

- Up to 16 video channels
- Up to 4 lanes for each video channel
- System and Detection settings via Client application
- Comprehensive alarm and event reporting via Web GUI
- Windows operating system
- ONVIF and RTSP cameras supported
- Easy integration via Modbus and TCP messages

SX-TRAFFIC Server
Server based automatic incident detection solution.

SX-VISION TRAFFIC
Intelligent network camera designed for automatic incident detection.

- All-in-one solution
- Full-HD resolution (1920x1080), 60fps @H.264
- Simultaneous video streaming and traffic event detection
- At-the-edge detection algorithms
- Up to 4 lanes
- Comprehensive alarm and event reporting via Web GUI
- Based on Sprinx SX-TRAFFIC core technology
### ASSUMPTIONS:

- Video Image processing of 12 fps (not less than 5fps) at 800x450 for each camera
- Optimal camera placement and Detection Zone no further than 80 meters
- No occlusion in the field of view and No flashing lights
- The Detection Time ($D_t$) reported in the table is suggested in order to obtain the Detection Rate declared
- Numbers based on average performances on 5,000 cameras processed by Sprinx **SX-TRAFFIC** in real installations, with different lighting and under different weather and environmental conditions

<table>
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<tr>
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<th>DETECTION RATE</th>
<th>FALSE ALARM (camera/day)</th>
<th>DETECTION TIME</th>
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<tbody>
<tr>
<td>STOPPED VEHICLE</td>
<td>96 %</td>
<td>0.05</td>
<td>5 sec &lt; $D_t$ &lt; 20 sec</td>
</tr>
<tr>
<td>SLOWDOWN</td>
<td>96 %</td>
<td>0.04</td>
<td>5 sec &lt; $D_t$ &lt; 30 sec</td>
</tr>
<tr>
<td>CONGESTION / QUEUE</td>
<td>96 %</td>
<td>0.04</td>
<td>5 sec &lt; $D_t$ &lt; 30 sec</td>
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<tr>
<td>WRONGWAY DRIVER</td>
<td>94 %</td>
<td>0.045</td>
<td>2 sec &lt; $D_t$ &lt; 6 sec</td>
</tr>
<tr>
<td>SMOKE / LOW VISIBILITY</td>
<td>96 %</td>
<td>0.05</td>
<td>10 sec &lt; $D_t$ &lt; 20 sec</td>
</tr>
<tr>
<td>PEDESTRIAN</td>
<td>92 %</td>
<td>0.05</td>
<td>5 sec &lt; $D_t$ &lt; 10 sec</td>
</tr>
<tr>
<td>LOST CARGO</td>
<td>80 %</td>
<td>0.15</td>
<td>5 sec &lt; $D_t$ &lt; 10 sec</td>
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Sprinx Traffic Flow is an edge-based application on Hanwha Techwin high definition cameras based on Wisenet chipset. It enables the detection of stopped vehicle, it estimates the traffic flow and automatically notifies alarms for slowdown and congestion, thus increasing the capabilities of a standard IP-based video surveillance system.

Sprinx Traffic Flow application enables simultaneous event detection on 2 independent lanes (zones).
Sprinx Traffic PSD is an edge-based application on Hanwha Techwin high definition cameras based on Wisenet chipset. It allows to keep track of vehicles and pedestrian providing quick detection and notification in case of stopped vehicle and pedestrian presence.

Sprinx Traffic PSD application enables simultaneous event detection on 2 independent zones.
Sprinx Traffic Data is an edge-based application on Hanwha Techwin high definition cameras based on Wisenet chipset. It allows to keep track of vehicles moving in the camera field of view, providing information about counting, classification and average speed. Focused for Smart City environment, it enables the collection of statistic data about vehicle flow.

Sprinx Traffic Data enables simultaneous data collection on 2 independent lanes (also in both directions of travel).
Total Video Monitoring
Sprinx **TVM** is a web-based innovative monitoring software platform for integrated management at enterprise level of video surveillance and security systems over IP networks.

Network cameras, video encoders, digital video recording systems, network decoders (connected to control-room monitors) and third-party security systems (incident detection, number plate recognition, ...) are managed through a central unit based on a web server.

Sprinx **TVM** allows operators to access the monitoring and management application using a simple web browser, without the need for any additional installation on the control computer.
TVM
total video monitoring

Cityring Luzern
Enhanced Video Surveillance
Sprinx Technologies is able to provide video surveillance solutions based on analog, over-IP and hybrid solutions, integrated with thermal imaging cameras and video analytics (VCA) enhancing the standard features of CCTV systems.

Sprinx offers a wide range of video surveillance products and solutions through a network of selected local and international Partners. Sprinx is not a simple solution provider but a true technology partner, specialized and qualified.

Sprinx Technologies offers cutting-edge support based on Customer's specific needs and requirements selecting technologies and products to suit every need.
For more information for UK & Ireland markets, please contact SVS:
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