intuVision – Solutions

The next-generation in video intelligence

intuVision, Inc.
+1 781 497 1015
Copyright intuVision, Inc. 2015

info@intuvisiontech.com – www.intuvisiontech.com
intuVision Video Analytics Solutions

- **intuVision-VA** Custom solution modules for **Security, Retail, Traffic and Parking**
- **intuVision-VA Core** High performance analytics with basic rule set
- **intuVision-LITE** Low-cost, light-weight simple analytics
- **intuVision-SDK** Most comprehensive full-featured video analytics SDK
- **VideoRecall** Post analysis of multi source video
- **Camera Edge Analytics** Embedded analytics for AXIS, SAMSUNG and Cisco cameras

Copyright 2015, intuVision, Inc.
Real-Time Video Event Monitoring
with intuVision-VA

- Video event alarms, arm/disarm schedules, alarm triggers for 3rd party devices
- VMS integration: Exacq, Milestone, HikVision, Cisco, Pelco
- Distributed Architecture, user management and system audits, Enterprise support
- Robust object classification
- Live or archived video streams
  - BW, Color and IR, CIF to HD resolutions
- GPU Acceleration
  - Reduced hw costs
  - Faster than real-time processing of archived video (up to 120fps)
Intuitive User Interfaces

Easy navigation with task-centric views

Current Alarm marked with a flashing red frame

Event View: List of Alarm Events

Selected Alarm Event Details

IR Camera Detection
**Robust VMS Integration**

**Seamless Video Ingestion**

- Robust VMS integration with: Exacq, Milestone, Cisco VSM, HikVision, Immix (SureView)
- Video ingestion directly from VMS system
- Instant compatibility with all cameras in VMS
- Send triggers to VMS upon detection of events for video recording, or object metadata

---

**Video Management System**

- Video Recording, Archive, Query

---

**intuVision-VA**

- Event Detection and Video Analytics

---

**Event triggers**

**Video stream**
intuVision VA
Powerful video analytics for every application

- Parking
- Retail
- Security
- Traffic

Comprehensive set of event rules in four application modules
Robust video analytics event rules

Core Events are included with each of the application modules

- Parking
- Retail
- Security and Traffic

Core module can be purchased individually for installations requiring robust analytics for basic requirements

CORE Event Rules:
- Activity
- Camera Tampering
- Direction
- Idle
- Line Crossing
- Smoke Detector
- Zone Intrusion
intuVision VA Parking Module

Analytics developed specifically to monitor parking areas

- Secure, track, and manage commercial, city, and business parking
- Percent fullness, spot occupancy, vehicle counts, etc.

CORE Event Rules

- Enter/Exit
- No Parking Zone
- Short-Term Parking
- Speeding Vehicle
- Stopped Vehicle
- Parking Lot Occupancy
- Wrong Way

52% Full
Video analytics to gain valuable business intelligence

- Monitor and collect data for a wide range of metrics

![Image of a shopping mall with intuVision VA Retail Module]

**CORE Event Rules**
- Capacity
- Coverage
- Dwell
- Enter/Exit
- Heat Map
- Loitering
- Object Taken
- People Counting
- Queue
- Throughput
Video analytics watch for security threats to facilities

- Monitor for a wide range of events and add multiple events to each camera
- Send email alerts and soft triggers to alert staff upon event occurrence

**CORE Event Rules**

- Capacity
- Crowd Density
- Idle Vehicle
- Loitering
- Left Object
- Object Taken
- Speeding Vehicle
intuVision VA Traffic Module

Collect traffic data for intersections or road segments

- Multiple metrics can be combined on one camera
- Faster than real time post processing to get results quickly and efficiently

CORE Event Rules

- Pedestrian Activity
- Speed Detection
- Stopped Vehicle
- Turn Count
- Wrong Way
- Vehicle Counting

Avg Speed: 55
Event Features

- Most extensive list of events
- Top rank in NIST Video Event Detection Evaluation (TrecVid08)
- Flexible event set-up templates
- Hot swappable event set-up while the system is running
- Count occurrences of any event, event graphs over time, periodic event digest report e-mails.
- Compound events that combine multiple analytics in a camera, over multiple cameras or with external device inputs.
- External event triggers to and from 3rd party devices.
Crowd Detection is a notification event to detect the density level of a crowd.

**Possible Use Cases**

- Detect the people density in a view, such as an entry area or a hallway
- Monitor the density level of people at a terminal, bus stop or a train platform.
Event Spotlight
Parking Lot Monitor – Parking

- Parking lot map display of spot availability
- Periodic updates of parking spot status
- Parking lot percent full notifications
- Parking violation alerts
Event Spotlight
Turn Count - Video Event Statistics

- Query events and produce charts with up-to-date counts of vehicles, intersection turns etc.
- Line-graph, bar-graph and pie charts
- Excel ready exportable text reports

Vehicle Count by hour

<table>
<thead>
<tr>
<th>CAMERA_ID</th>
<th>DATE_STAMP</th>
<th>TIME</th>
<th>TRAFFIC_IN</th>
<th>TRAFFIC_OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>8</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>9</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>10</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>11</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>12</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>1</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>2</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>SIDE_DRIVeway</td>
<td>2/7/2014</td>
<td>7</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
User – Trainable Object Classification

- User trainable object classification
- Automatic training tool
- Robust classification models for people, vehicles and animals
- Event specification by object type (e.g., alarm only for people)
Color Based Object Search

- Search objects by their color
- Narrow down the investigation for a vehicle or a person
- Find their path in the scene
Foot and Vehicle Traffic HeatMaps

- Get a glance of foot or vehicle traffic patterns
- Select and adjust time periods to review activity by
  - Person
  - Vehicle
  - Event type
- View object and event counts
  - Overlay on camera view
  - Select Detail Area
intuVision's algorithms have received top ranks in government and organizational evaluations including the first place in Video Event Detection Evaluation run by National Institute of Standards (NIST TRECVID08) and IEEE Change Detection Challenge2012.