SecurOS CARGO is an intelligent video analytics module for the SecurOS video management platform providing recognition of cargo container ISO codes in a variety of applications. It implements the most advanced native image processing software, the ISS SecurOS framework, and advanced algorithms for the recognition of codes on cargo containers.

SecurOS CARGO provides a number of unprecedented advantages for users, including the ability to recognize codes on cargo containers from numerous sides. By developing a container code recognition solution that integrates with cargo management processes at port, intermodal, and logistics centers, SecurOS CARGO can dramatically improve throughput and turnaround time, reduce liability, and be utilized to better locate and track containers in large facilities. To further the ability to manage the security of a facility, the automated system can also incorporate facial and license plate recognition, along with tracking capabilities, for a more comprehensive search and report.

Technology Overview

Hardware-agnostic System
No specialized cameras or other hardware is required. System is hardware-agnostic.

Complete Logistics Management Solution
SecurOS Cargo can run on the SecurOS VMS platform alongside other ISS modules such as SecurOS Auto and Face. With the ability to integrate with other devices such as weigh scales, SecurOS Cargo can provide a complete logistics management solution.

Varying Recognition Environments
System can support a number of different recognition environments including: truck, crane, forklift, as well as use of hand-held devices.

ISS Native Technology
SecurOS Cargo is a completely ISS-native technology, making it easy to tailor our solution as per our clients’ needs.

Advanced Recognition Engine
System recognizes container ISO codes printed horizontally or vertically, on the top, side, or back of the container.

Result Consolidation
If multiple cameras are used (e.g. both sides and top of container), system will consolidate results into one best result. Also video from all the cameras will be time synced and easily available for playback and export.

Applications

• Airport / port customs
• Container yards / depots
• Logistics management
• Customs borders
• Inspection stations

Compatible with ISS SecurOS Premium and Enterprise

www.issivs.com
Key Features

Smart Search
Partial text/wildcard search for container codes against watchlist/external databases.

Advanced Search Data
Search results will include snapshots of recognized code, video sequence, and information of camera, time, date, location, and direction of container passing.

Watchlists
Add container codes to local watchlists (black, white, info), and set custom alarms for matches against the watchlist.

External DB Connectivity
Seamless connection to external databases, including prohibition/permission of pass, automatic notification regarding pass of container with flagged code.

System Automation
Provides advanced reaction capabilities and automatic operator notification based on container code recognition and/or comparison with information from a database/watchlist.

Reporting Tools
Quick report generation of the container(s): print frame and information about the recognized container code(s).

Direction Detection
Includes standard feature for container direction detection.

Third-Party Equipment Integration
System integrates with most third-party equipment and devices such as gates, weigh scales, and more.

SDK Support
SDK available for integration with third-party applications and can be used to feed data to third-party applications such as port management software.

Specifications

ISS Platform Support

<table>
<thead>
<tr>
<th>Supported Operating Systems</th>
<th>Windows 7, 8, 8.1, 2008 R2, 2012 R2, (32/64 bit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SecurOS VMS version support</td>
<td>SecurOS Premium, SecurOS Enterprise</td>
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</table>

Container Specifications

<table>
<thead>
<tr>
<th>Container types</th>
<th>10, 20, 40 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO Standard</td>
<td>ISO 6346</td>
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</tbody>
</table>

Supported Video and Image Formats

<table>
<thead>
<tr>
<th>IP</th>
<th>MJPEG, MPEG4, H.264</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog</td>
<td>NTSC, PAL</td>
</tr>
<tr>
<td>Image formats</td>
<td>JPEG, PNG, BMP</td>
</tr>
</tbody>
</table>

Additional Technical Data

<table>
<thead>
<tr>
<th>Minimal required resolution</th>
<th>640 x 240 (more than 800x600 not required)</th>
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</thead>
<tbody>
<tr>
<td>External databases supported</td>
<td>Any database with Windows ODBC drivers</td>
</tr>
<tr>
<td>System output</td>
<td>Camera name / ID, Recognition result, Container tracking timestamps, Container number track ID, Quality of recognition result, Container direction, Container ISO code location in image, Internal / External watchlist match info, Container speed (optional), Snapshot of whole frame / container / ISO code (optional)</td>
</tr>
</tbody>
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