Re: i3Ai Service v7.3.2.90 Release Notice   February 5, 2024
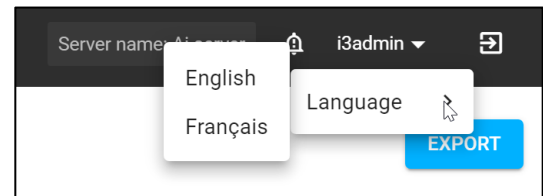
To all of our customers and partners;

This bulletin is the official notice of the **i3Ai Service v7.3.2.90** release. The new software installation package is now available for download from the i3 website: https://i3international.com/support/download.
Effective **February 1, 2024** this release package is used as the default Production software version for all i3Ai-enabled NVRs.

New Features:

- i3Ai Setup is now available in French (Français).
  (v7.3.2.90 | #67777)
  To switch between English/French interface, log into the i3Ai Setup, click on your username in the top right-hand corner and open the **Language** menu.

Improvements:

- Accuracy and reliability improvements:
  - CNN model updated to yolo5_22_072123 for better accuracy (v7.3.2.45 | #64789)
  - Support GPU decode (v7.3.2.45 | #63213)
    - *Direct GPU Decoding:* Frames are decoded by the GPU and fed directly into the Ai engine without memory copying between the CPU host system and the GPU device. This significantly reduces CPU usage and allows supporting more AI channels.
    - With GTX1660 and Xeon CPU, this release can support ~20 channels @MP (up from 6 channels)
  - Improve Ai performance for high-resolution camera stream (v7.3.2.60 | #64120)
  - Fallback to CPU decoding if GPU decoder failed (v7.3.2.60 | #65207)
  - Improve frame selection for Ai detection (v7.3.2.90 | #68230)
  - Revised high-res stream (>1280x960/1.3MP) scaling rules for GPU decoding (v7.3.2.90 | #67914)
    - No Ai Features: Display original stream resolution in the GUI by default.
    - Engagement Distance/Face Similarity Enabled: Use original stream resolution for best accuracy.
    - Max Detection Area (ROI AI Detection Area) Enabled: Maintain original stream resolution for accuracy.
    - General Rule: Scale down to a maximum of 1280x960, maintaining aspect ratio.
    - Application: Applies to MP4 clips, camera streams, and i3Ai Cloud mode (i3, hull, non-i3 formats). No GPU scaling for *.i3d clips.

- Change default NTP servers (v7.3.2.60 | #65330)
- Use Advanced Installer for i3Ai (v7.3.2.60 | #64952)
- Support menu 9 dot when integrating i3Host (v7.3.2.45 | #58792)
- Support Public port in CMS Settings/i3Host settings. (v7.3.2.45 | #58827)
- Disable all Ai features if no GPU available. Display error message under Setup > Ai if no compatible GPU found. (v7.3.2.45 | #61264)
- Reduce supported object types. Focus on the object types used for practical purposes and i3 solutions: Face, Head, Person, Automobile (v7.3.2.45 | #59159)
- Remove Social Distancing feature (v7.3.2.45 | #60961)
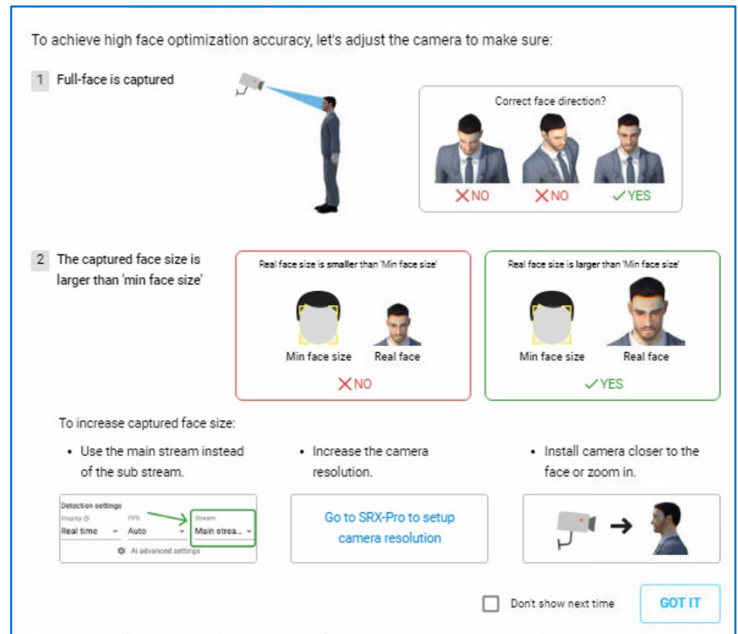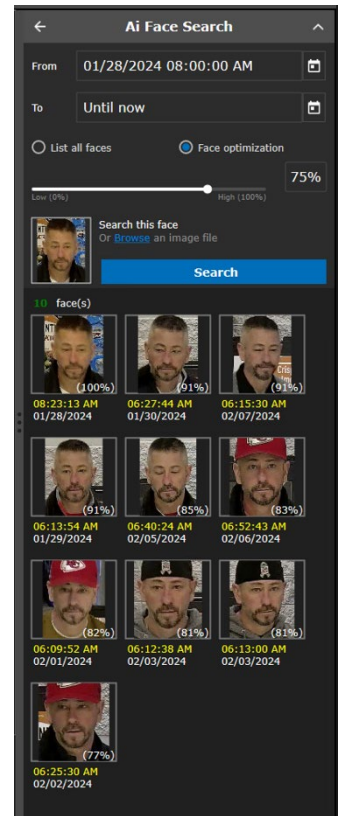
Fixes:

- Ai Node_ undetectable with 2 GTX 1660 Super (v7.3.2.60 | #63148)

Features in the *testing stage*.

- Support SRX-Pro v10 data with i3Ai Cloud (v7.3.2.90 | #64537)

- **Face Similarity / Face Optimization.** Please contact your sales rep to learn more.
  Note: Face Similarity ensures public privacy by not storing or extracting photo thumbnails, linking them to user IDs, or creating user profiles. The data is recorded solely as vector data. No face photos or videos are stored or extracted, even while the original video is still available. Once the original video is overwritten, no face photo or video is retained.
  Video Pilot Client v7.3.2.88 and above is required to interact with this function.

  o Enhance face similarity accuracy with the new facenet model (v7.3.2.90 | #66497)
  o Support yolov5-face algorithm to make Face similarity independent of AiSearch module (v7.3.2.45 | #58865)
  o Improved formula for calculating face similarity percentage accuracy (v7.3.2.60 | #65706)
  o Face similarity search speed improvement (v7.3.2.60 | #65808)
  o Support both *.jpg and *.png file format for Face Similarity searches using external images (v7.3.2.60 | #64937)
  o Include on-screen setup instructions guide to help achieve optimal accuracy (v7.3.2.45 | #62643)

  Limitation:
  Face similarity accuracy may be compromised if the person's head moves up, down, left, or right too quickly or if the face is not directly facing the camera.
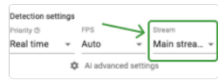
- **Engagement distance** (v7.3.2.90 | #65427) Please contact your sales rep to learn more.

i3 Engagement solution continually measures the distance between the employee and the customers. When the distance is below a set threshold (e.g., 3 feet), the system assumes the employee is actively helping the customer with the checkout process, and the customer is counted as "engaged." The system differentiates the staff members from employees by the color of their uniforms. Part of the initial setup process is to train the Ai system on the color of the employee uniform. Ensure you have sufficient training data for your system by asking your employees to wear all available uniform colors.

This Ai "training" process can be done live or by importing a snapshot of the previously recorded video. This function is supported on both Stand-alone and i3Ai Cloud

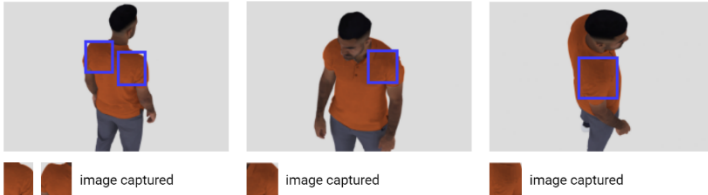**Limitation:** Ax88 Fisheye camera required.

- **Trajectory Anomaly.** Please contact your sales rep to learn more.
  i3 Trajectory Anomaly leverages advanced AI to track and analyze the movement of individuals within a store or facility, identifying unusual behaviors that may indicate theft or suspicious activity. By monitoring customer trajectories and comparing them against expected movement patterns, the system detects anomalies such as cart push-outs through unauthorized exits or bypassing self-checkout stations without paying. These insights empower businesses to make the necessary actions to mitigate these concerns proactively.

  Limitation: Fisheye camera is required.

  o Support trajectory anomaly feature (v7.3.2.90 | #65428)
  o It just has the basic Alarm support on Stand-alone to test/study the feature on any real site. No CMS alert/clear application request or No support on Ai Cloud yet.
  o Basic stand-alone alarm support only. No CMS alert is available yet.

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i3Ai v7.3 Compatibility Table.

Note: For i3 application compatibility, refer to i3's Software Compatibility Chart

i3 Application / Device	Compatibility
AiCloud	2.1.X.X
SRX-Pro	v.7.3.2.X
VPC	v.7.3.2.X or higher
CMS Web	CMS v6.3.2.X or higher
PACDM	PACDM v7.26.2.X PAC Converter v3.7.2.X

About Version:
Version 7.3.2.90
Build Date: January 15, 2024
Engine: yolo5_22_072123_trt

Release History

Version	Release Type	Build date
7.3.2.90 (this version)	**Production**	January 19, 2024
7.3.2.60	Interim	September 29, 2023
7.3.2.45	Interim	July 13, 2023
7.3.2.0	**Production**	March 6, 2023