

Eagle Eye Application Note - AN089

Using Eeva with the Brivo Eagle Eye AI VMS

2026-04-15 Revision 2.0

Target Audience

This Application Note is designed for installers, technicians, and end-customers responsible for deploying and configuring Custom AI Analytics with Eeva and the Brivo Eagle Eye AI VMS. It outlines recommended best practices for analytics setup, camera configuration, and overall system optimization.

Introduction

Eeva is an advanced video intelligence system that lets users create AI-driven events with simple natural-language prompts. It is a multi-layer model that processes the full context of on-site activity, allowing it to detect complex conditions that traditional analytics cannot.

Eeva helps organizations solve operational, safety, and security problems by identifying objects, actions, or situations unique to their environment. Instead of relying solely on prebuilt analytics, users specify exactly what they want the AI to look for, test those prompts against historical video to confirm accuracy, and then deploy them with confidence.

Users engage with Eeva via the camera interface by selecting a camera, writing a prompt, choosing an AI trigger (e.g., person/vehicle detection, motion, or periodicity), and setting the frequency. When deployed, Eeva generates custom events that are viewable in the History Browser, searchable in Video Search, or usable for alerts and automations.

The underlying workflow is simple: a trigger event occurs, Eeva reads the written prompt, cloud AI analyzes the video segment, and creates an Eeva Event if the condition is met.

Example events that can be triggered using Eeva:

- Notify when a shopping cart is left blocking a hallway for more than 5 minutes.
- Notify if a door to a refrigeration room is left open for more than 30 seconds.
- Identify if a worker enters a warehouse aisle without a helmet or high-visibility vest.
- Trigger an event when boxes, carts, or equipment obstruct a fire exit door.
- Identify when someone parks a motorcycle or bicycle in car-only spots.

Prerequisites

The prerequisites for Eeva analytics are below.

| Hardware / Infrastructure/ Subscriptions | Model/Specification |
|--|--|
| Bridges/CMVR | Works with all Bridges/CMVRs. Works with Camera Direct. |
| Camera | Works on all cameras. Results on Fisheye cameras will not be good. Minimum of 1 FPS for preview frames; higher is better. Also, for a PTZ camera, do not adjust the focus, especially when using an ROI. |
| Resolution | Preview resolution - 640×360. Smaller resolutions will not give good results. Minimum of 1 FPS preview frame rate, higher is better. Full video resolution - Can work on all resolutions. |
| Video Subscription | Works on all Video Subscriptions. |
| Prerequisite SKUs | The Person/Vehicle SKU must be enabled for Eeva to function. Eeva relies on cloud-based AI, which requires a stable, reliable internet connection for the Brivo Eagle Eye AI VMS. |
| Interface | Eeva works only in Enhanced Interface |

Camera Settings Best Practices

Optimal camera installation is essential for achieving the best results with Eeva analytics. This section outlines the recommended practices.

Minimum Pixel Requirements

For Eeva to provide accurate results, position the camera to provide a clear view of the object/vehicle/person the Eeva prompt refers to. The desired minimum size is listed below.

- Person Height: 1/3 of the frame Height
- Object/Vehicle Width and Height: 1/4th of frame Height
- At least 80% unoccluded view of the person/object/vehicle is necessary.

For a smaller person/vehicle/object, Eeva would still work, but the accuracy would degrade.

The general rule is that users can expect good results with Eeva prompts and camera settings if a human can easily identify items by quickly glancing at the paused preview video.

Camera Health and Configuration Alerts

For optimal Eeva performance, the system issues a warning if a camera's preview resolution falls below the recommended level. Address these alerts immediately to ensure accurate analytics. If a warning appears (see example below), perform the recommended modifications:

Example Warning & Required Actions:

Eeva

▼ Eeva ● Enabled

Eeva uses advanced artificial intelligence to create custom analytics, helping you monitor unique events of interest.

Enable Eeva

Warning

1. Camera preview quality is set below the recommended level, update quality to [high](#).

Camera Zoom Alert

For Eeva to function reliably, the detected objects must meet the Minimum Pixel Requirements. If the camera is zoomed out too far, the system may issue the following warning:

Note: Increase the camera zoom, as some people or vehicles may be too small to detect.

Required Action: Increase the optical or digital zoom to ensure the object of interest is large enough to enable accurate Eeva analysis.

When should Eeva check?

Warning: Increase the camera zoom, as some people or vehicles may be too small to detect.

Person Detection x

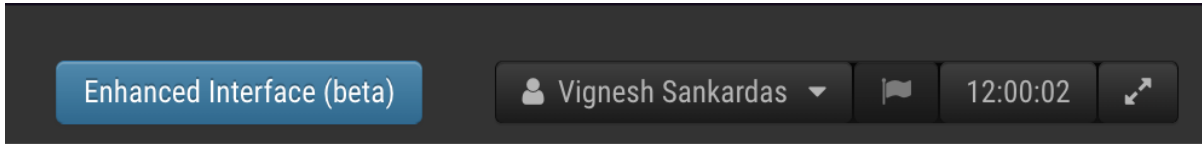
Camera Settings

Review Eeva's camera settings in this section.

| Camera Settings | Value |
|-------------------|--|
| Exposure settings | Max exposure settings at 1/120 to reduce motion blur for prompts relating to persons Max exposure settings at 1/512 to reduce motion blur for prompts relating to vehicles Gain to be set in Automatic mode. |
| Brightness | Turn up the Brightness so that during both day and night, the object of interest in the video looks clearly visible. |

Setting up Eeva Analytics

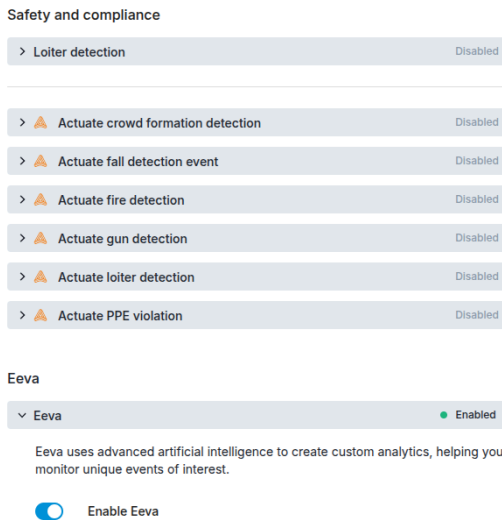
Eeva works only in the Enhanced Web Interface of the Brivo Eagle Eye AI VMS. Please switch from the Classic interface to the Enhanced interface before starting any testing. From the Classic Interface, click the button in the top-right corner to navigate to the Enhanced Interface.



To enable Eeva on your account, contact your Sales Engineer to activate it for the specific camera you choose. The Eeva Private Beta is available for a limited 60-day evaluation period.

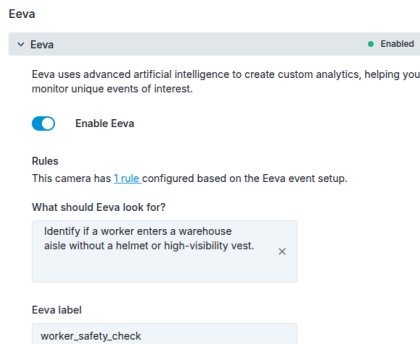
Enabling Eeva

You can find Eeva Analytics settings in **Settings** → **Analytics** → **Eeva**.



Creating an Eeva Prompt

Below is an example of an Eeva prompt that creates an alert when a person enters the warehouse aisle without a helmet or high-visibility jacket.



Selecting the right Eeva prompt is critical to configure Eeva for accurate event detection. A well-written prompt helps Eeva understand the scenario, objects involved, and the specific condition to detect. When formulating the prompt, keep the following guidelines in mind:

1. Clearly Describe the Object or Scenario of Interest

Eeva performs best for analytics involving people and vehicles, but also works well for many other object categories. Accuracy varies depending on:

- Object size and visibility
- Camera angle and zoom level
- The complexity or granularity of the question

As a general guideline, Eeva is more reliable when the prompt revolves around visible, distinctive characteristics rather than subtle or fine-grained details.

Examples (Higher Reliability):

- "Notify when a car blocks an entrance gate."
- "Alert if a vehicle is parked in the designated fire lane."

Examples (Lower Reliability, but possible with good camera placement and zoom):

- "Identify whether a pizza slice has sausage on it."
- "Detect if someone is holding a coin."
- "Determine if a person's ID badge shows the correct company logo."

2. Use Clear, Descriptive Natural Language

Eeva is designed to understand prompts written in human-like language rather than programming syntax. Users should write complete, descriptive sentences to express the scenario, which often leads to better performance than short, fragmented prompts.

- Use well-formed grammar, clear subjects, and explicit details with correct spellings.
- Provide context that helps Eeva interpret the scene correctly.
- Write longer, descriptive prompts (up to 1024 characters), especially when the scenario involves more than one condition.

Examples of well-structured prompts:

Use this [document](#) to find the updated Eeva prompts along with relevant settings information.

3. Understand Expected Accuracy Levels

With well-crafted prompts and correct camera placement, Eeva typically achieves 90% of human-level accuracy. Eeva's human-level accuracy reflects a person's ability to make a quick 2-second judgment on a preview frame. It is strong for broad events and visible behaviors, but limited for fine details or poor-quality imagery.

Selecting The Correct Triggers

Eeva currently analyzes images generated by Precision Person, Precision Vehicle, or Motion

Detection events. Properly configure these analytics for accurate Eeva results.

When should Eeva check?

Person Detection x ^

When an event occurs...

Loiter Detection

Vehicle Detection

For example, consider the Eeva prompt: "Identify if a worker enters a warehouse aisle without a helmet or high-visibility vest."

In this case, the relevant trigger is a Person Detection event. For Eeva to function correctly, Precision Person Detection must be properly configured and enabled in the Analytics Settings before Eeva is turned on, as shown below:

Precision person detection Enabled

Advanced AI that accurately identifies people in motion while minimizing false detections. Alerts & notifications can be configured

This analytic impacts billing

Enable precision person detection

This configuration includes:

- Defining the correct Region of Interest (ROI) so that people are detected only in the relevant areas of the camera view.
- Ensuring the ROI aligns with the intended use case.

In the example above, because the goal is to detect people close to the camera, the Eeva ROI (*Region 1*) is drawn to cover only the near-field area where detection is desired.



Note that the Eeva ROI applies only to custom Eeva prompts, so Eeva receives only the Person Detection events that occur within the configured ROI.

Example Scenario

Prompt: "Identify if a worker enters a warehouse without a helmet or high-visibility vest."

An Eeva event is triggered only when the worker is within the ROI and not wearing a helmet or high-visibility vest.

Eeva supports Periodic Mode, allowing users to run analytics at fixed intervals, regardless of motion, person, or vehicle detection. This is useful for routine verification. When setting up a scheduled event, Eeva provides three key configuration options:

- **How frequently should Eeva run:** Choose the interval at which the system should perform its checks—such as once per day, every hour, or at a custom frequency.
- **Start Time:** Define when the periodic checks should begin.
- **Set Hours:** Select the operating window for the scheduled checks. Options include **Always, Work Hours, Non-Working Hours, or Custom.**

These controls give users fine-grained flexibility to automate routine monitoring tasks and ensure critical operational workflows are consistently followed.

When should Eeva check?

Periodic Mode ×

During which hours?

Work hours (Sun-Sat, 09:00 - 23:59) ▾

How frequently should Eeva run?

5 min ▾

Subscription:

Eeva - L1

Testing the Eeva Prompt

After setting up the custom Eeva event, test it to ensure the prompt works as expected.

Testing your Eeva prompt is an essential part of building a reliable and accurate analytic. Iterative testing allows you to verify performance, make adjustments, and ultimately arrive at the most effective prompt for your use case. To begin, click the **Test Detection** button.

What should Eeva look for?

Identify if a worker enters a warehouse aisle without a helmet or high-visibility vest ×

Eeva label

worker_safety-check

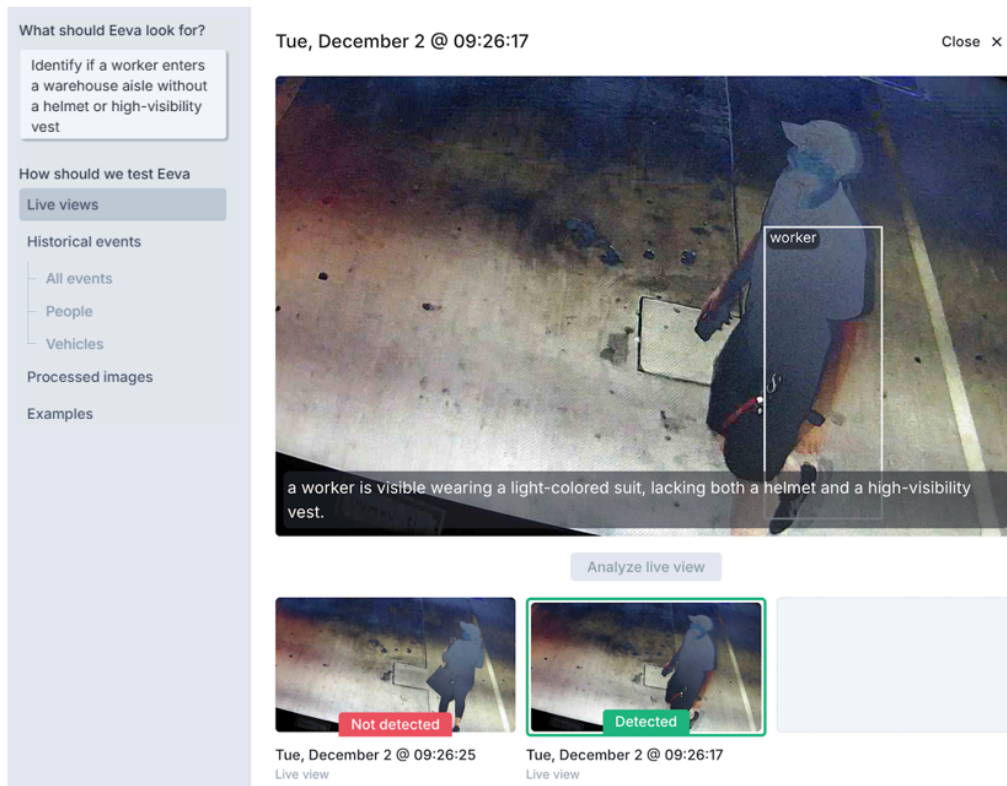
Testing Modes

The Test Detection interface allows you to evaluate your prompt using:

- Live Camera Feed
- Examples
- Historical Events, selectable from:

- All Events
- Motion Events
- People Events
- Vehicle Events

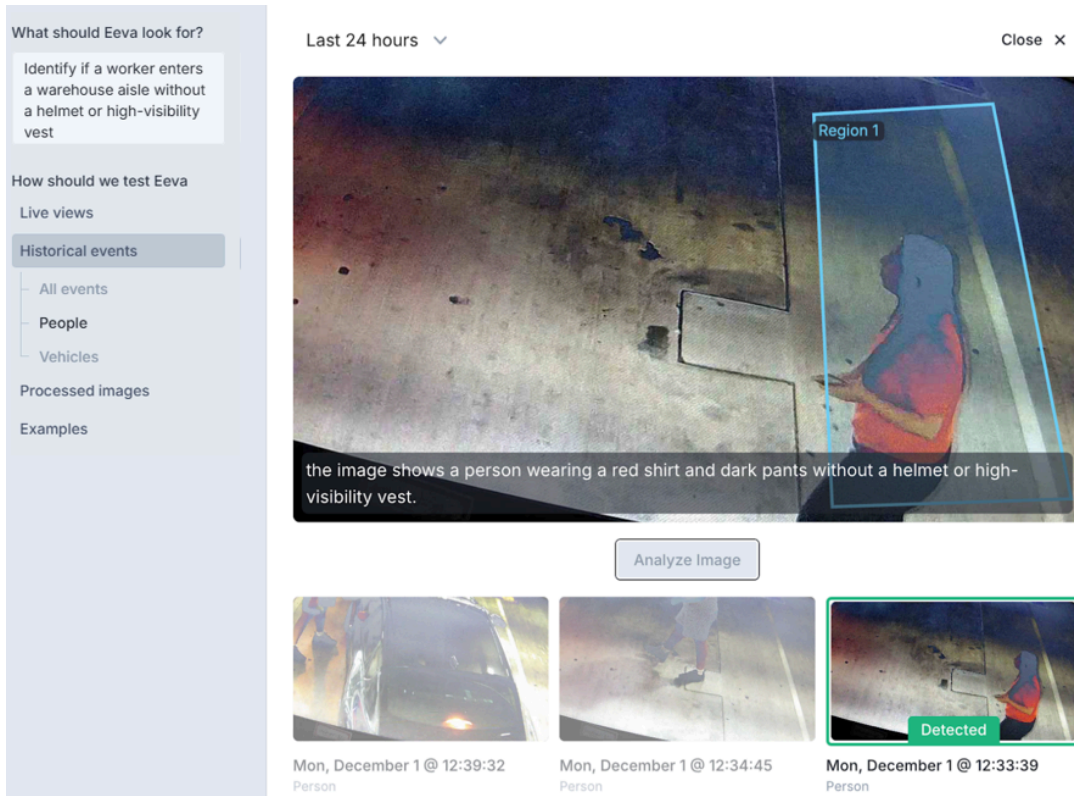
The image below shows an example of testing on a live camera feed.



Eeva lets you freeze a live camera frame and test your prompts in the real environment, so you can validate the exact conditions under which Eeva will operate and make any necessary adjustments for optimal accuracy.

Testing on Historical Events

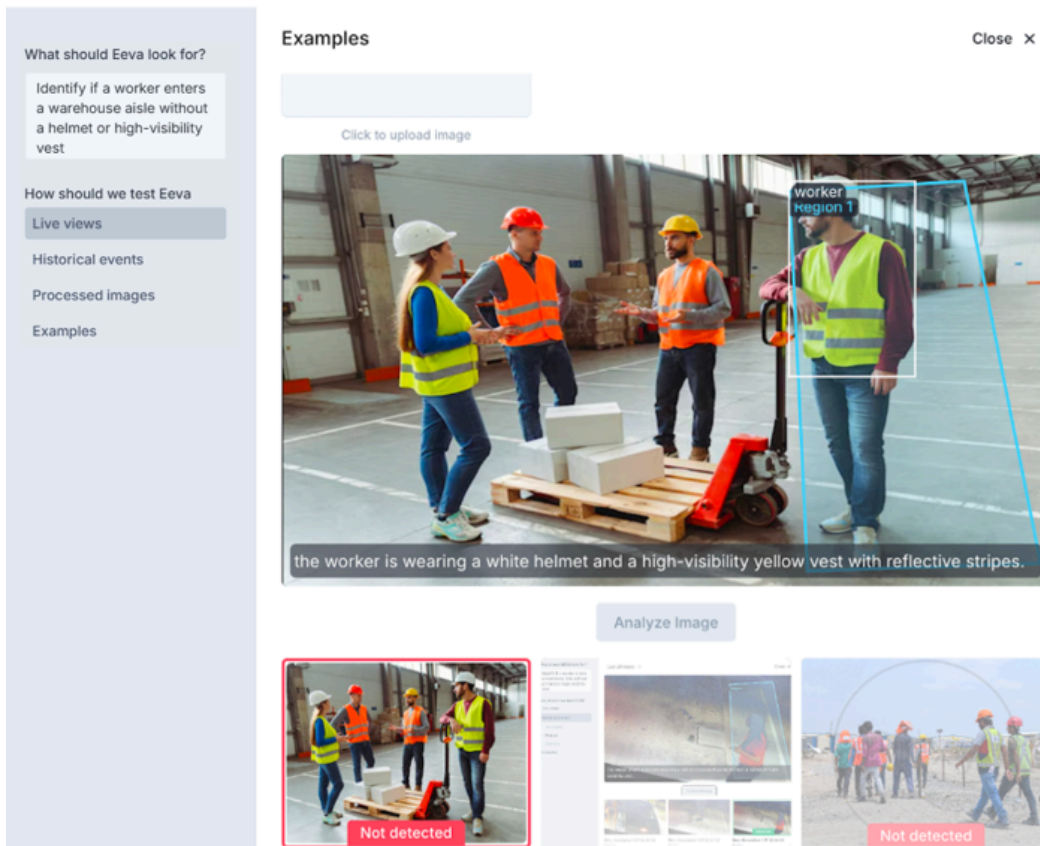
The image below shows an example of historical event testing.



- Select the desired time range at the top. This example shows the Last 24 hours.
- Allow the event images to load.
- Use the left and right navigation arrows to quickly browse through the images.
- Click any event image you want to test.
- Select **Analyze** to run your prompt on the chosen image.
- Test multiple samples to evaluate how consistently the prompt performs.
- Refine the prompt using the text bar in the upper-left corner of the Test Detection UI, making small, incremental adjustments until the accuracy meets your requirements.

Testing using Example Images

The image below shows the results of testing Eeva on example images.

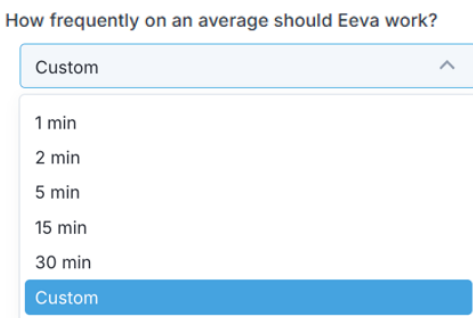


To test your Eeva prompt using example images, open the **Example** tab in the **Test Detection** interface. Upload the image to evaluate, then select **Analyze Image** when it appears in the preview area. Eeva runs your prompt against the uploaded image, allowing you to verify how well it detects the defined condition before applying it to live or historical footage.

Setting the Frequency of Eeva Prompts

Once testing is complete, set the frequency at which Eeva runs. This ensures the AI processes video at the correct intervals for your specific conditions and use cases.

From the dropdown menu, select how frequently Eeva should run. This setting determines the Eeva SKU, so the choice should balance cost and the nature of the application being built.



Using the Standard Frequency Setting

Eeva uses the selected frequency to determine how often to run the Eeva prompt in a credit-based system, ensuring it runs at the user-selected average rate.

Example: The user selects “Every 5 minutes” and links Eeva to Person Detection events.

1. After enabling and saving the settings, Eeva will run the prompt the first time it receives a Person Detection event.
2. After this, Eeva starts a 5-minute interval window.
3. Any Eeva Detection events that occur within those 5 minutes will not trigger Eeva again.
4. When the next Eeva Detection event arrives after the 5-minute window, Eeva runs the prompt again.

Using the Custom Frequency Setting

Eeva lets users create custom schedules for automated checks, monitoring routine activities without manual video review or event triggering. By instructing Eeva to “look for X at Y time,” alerts are sent only if the expected event does not occur or if an unusual event occurs.

How frequently on an average should Eeva work?

| hh | mm | |
|----|----|----------------------|
| 06 | 07 | <input type="text"/> |
| 07 | 08 | <input type="text"/> |
| 08 | 09 | <input type="text"/> |
| 09 | 10 | <input type="text"/> |
| 10 | 11 | <input type="text"/> |
| 11 | 12 | <input type="text"/> |
| 12 | 13 | <input type="text"/> |

Now [Done](#)

This matters for customers because it:

- Reduces manual monitoring
- Ensures routine activities are consistently tracked
- Helps detect missed tasks or anomalies quickly
- Saves time by only alerting the user when something is off track

Using Credits in Eeva

Credits allow Eeva to compensate when events occur less frequently than expected.

- If the next Person Detection event (the third) occurs 15 minutes later, Eeva now has two unused opportunities (two credits).
- If another Person Detection event (the fourth) arrives 2 minutes later, Eeva uses an available credit and runs the prompt immediately, even though it falls within the 5-minute interval.

This ensures that Eeva honors the selected frequency, even as event patterns vary.

Recommended Frequency Settings

When should Eeva check?

Person Detection ×

During which hours?

Always

How frequently on an average should Eeva work?

Recommended frequency: 2 min ⓘ

2 min

Total events count: 2271
Total time range in minutes: 10079
Average time interval: 4.44
Rounded average time interval: 4

Cancel Save changes

Based on the detection type, Eeva analyzes the camera's historical activity and suggests an ideal frequency setting. This facilitates the selection of a setup for accurate results and Eeva efficiency. A frequency suggestion requires at least 10 historical events.

Using Fidelity in Eeva

Eeva includes a feature called Fidelity that lets users specify how the system should balance speed, accuracy, and model complexity for each use case. This ensures that customers can choose the right model for their specific scenario, without needing any technical expertise.

Model Levels (Fidelity 1, 2, 3)

Fidelity options 1, 2, and 3 are user-friendly labels that map to Eeva's internal AI model tiers:

Fidelity

1

1
2
3
Custom

Higher Fidelity would give higher accuracy.
Fidelity 3 has highest accuracy.
Please refer to the App note for more information.

- **Fidelity 1:** For custom events combining simple objects, locations, and durations.
Examples:
 - Detect if a delivery vehicle stops on the entry ramp for more than 60 seconds.
 - Alert if a person carrying a ladder stops next to the restricted door for more than 30 Seconds.
- **Fidelity 2:** Advanced Model → For events involving specific sequences of actions, complex attributes, or state monitoring.
Examples:
 - Notify if a door opens, but no one goes through the door for 10 seconds.
 - Detect a person entering the stockroom without closing the door in 15 seconds.
 - Notify if a housekeeping cart is left in the hallway, and no staff member returns to it within 5 minutes.

- **Fidelity 3:** → Fidelity 2 + multi-frame analysis → Designed for the most challenging, high-precision, or multi-step scenarios that require temporal consistency across frames. Examples:
 - Alert if an unattended forklift is idling with a raised fork for more than 20 seconds.
 - Answer Yes if an image clearly shows a person dropping trash into an open bin. If the bin is closed, the action is unclear, or they are walking nearby, answer No.

Options 1, 2, and 3 in the UI correspond to distinct AI capability levels, allowing users to select the desired accuracy tier without needing to know the underlying model names.

Custom Fidelity Mode

For advanced users, Eeva includes a **Custom Fidelity** mode that unlocks additional controls for fine-tuning performance based on specific scenarios. *(Currently accessible via Shift + double-click on your profile icon)*

Fidelity

Custom

Model:

AI Model Advanced

AI Model Base

AI Model Advanced

Custom Model Selection

Within Custom mode, users can explicitly choose between:

- AI Model Base
- AI Model Advanced

This allows power users to decide exactly which model variant to run for that specific event.

Adding Time Shifted Images (in seconds)

Model:

AI Model Advanced

Add time shifted image (in seconds) Add image +

60

300

Min past images:

1

Min future images:

2

Custom Fidelity lets you choose how often Eeva checks frames to best match your query's complexity. Eeva analyzes this screenshot at the event time, plus two additional frames from 1 and 5 minutes later. It processes these together for a more accurate result.

You can also control how many past and future images are required for Eeva to run:

- Minimum past images = 1: Eeva will still process the event as long as it receives the event image, even if future images fail.
- Minimum future images = 2: Eeva will process the event only after it receives at least one future frame (either the 1-minute or 5-minute image).

In summary, the user defines how many images Eeva should wait for, and Eeva makes the best decision based on what it successfully receives.

Why Fidelity and Custom Settings Matter

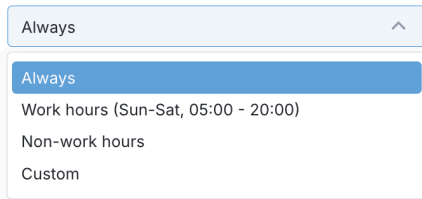
These options give sales engineers, resellers, and end-users the ability to:

- Match the AI model complexity to the scenario.
- Improve accuracy in challenging environments.
- Optimize performance for slower networks or cameras.
- Fine-tune results for edge cases.
- Provide predictable, repeatable outcomes for enterprise workflows.

Scheduling the Eeva Prompt

The Analytics interface provides total flexibility for the Eeva prompt's operating time period.

During which hours?



Always

Always

Work hours (Sun-Sat, 05:00 - 20:00)

Non-work hours

Custom

Creating a Search Label for an Eeva Event

Setting this label will make it easy to search for events in the **Video Search** page.

Eeva label



worker_safety-check

Setting up Multiple Eeva Analytics on a Single Camera

Users can add multiple Eeva analytics on a single camera stream by clicking the **Add Eeva Analytic+** button. This creates a new Eeva analytic on the same camera. Users can create up to 10 Eeva analytics per camera. Each analytic will be billed separately.

Eeva - Your AI Video Agent That Keeps an Eye on Anything

Eeva uses advanced artificial intelligence to create custom analytics, helping you monitor unique events of interest.

> Eeva: Safety_Vest

● Enabled

> Eeva: Hard_Hat

● Enabled

Add Eeva Analytic +

Searching for Eeva Events in Video Search

Eeva can be searched using two keywords in Video Search

1. Use "Eeva", or
2. Filter for only one kind of Eeva event using the "Eeva: Video Search Label."

Video Search

Search for person or vehicle

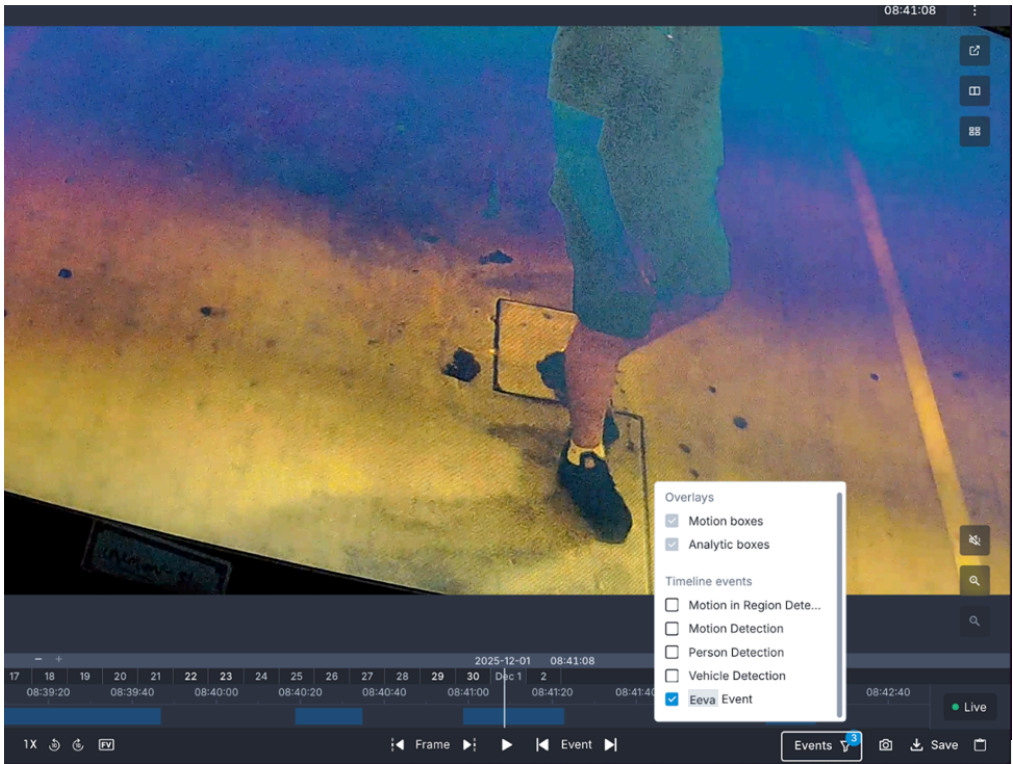
Last 24 hours

ⓘ eeva : worker_safety_check

ⓘ eeva :

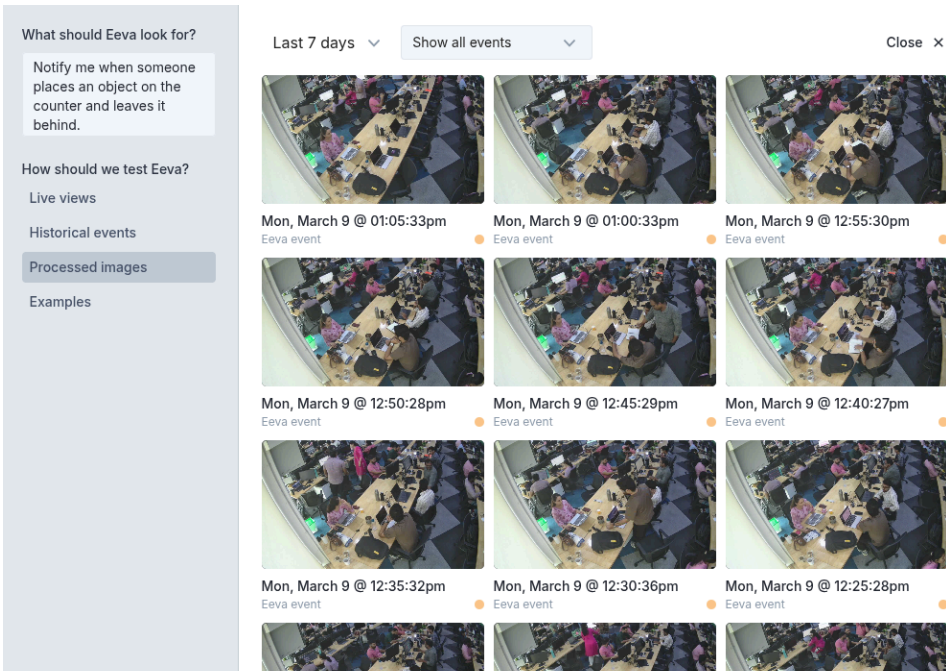
Checking Eeva Events in History Browser

Go to **Events** in the bottom right of the History Browser and filter for only Eeva events.



Checking Processed Eeva Events in Settings

The new Processed Images section in the Eeva Settings-Test Detection UI verifies scheduled Eeva prompts. It logs images processed during Periodic Mode checks, showing a green label when the prompt's custom condition is met and a red label when it is not, allowing a quick performance review of routine verification tasks.



Creating Alerts with Eeva

This section shows the UI workflow of creating an alert with Eeva.

Note: Review the Automations chapter in the User Guide for the Enhanced Web Interface or [AN 96: Eagle Eye Automations and Sentinel Integration](#) for prompts on how to use Automations.

The screenshot shows the 'Add rule' configuration interface. At the top, there is a back arrow and the text 'Add rule'. Below this, the rule name is set to 'worker_safety_event_check'. The source is set to 'Video', and the priority is set to '9 (high)'. There is a 'Notes' field with the placeholder text 'Add notes...'. A section titled 'Conditions (if)' is expanded, showing 'Alert type' set to 'Eeva event'. A dropdown menu is open, listing various detection types: 'Intrusion detection', 'Loitering', 'Motion detection', 'Motion region detection', 'Object line cross', 'Thermal threshold crossed', 'Vehicle detection', 'Person detection', 'Eeva event' (which is highlighted in blue), and 'Gun detection'. To the right of the dropdown is a plus sign and a help icon.

SKUs for Eeva Levels

| | |
|------|--|
| SKUs | Eeva L1 - Base Subscription Eeva L2 - Medium Subscription Eeva L3 - High Subscription. |
|------|--|

Depending on the user's settings, Eeva automatically calculates the compute required for the use case and provisions it on our AI servers. This provisioning determines the Eeva SKU. The more complex your use case is, the higher the compute requirements, and the higher the SKU. The exact SKU is dependent on the following settings:

- **Fidelity:** The higher the Fidelity, the higher the compute requirements
- **During which Hours:** The more hours, the higher the compute requirements
- **How frequently on average should Eeva work:** The higher the frequency, the higher the compute requirements.

To keep the SKU selection transparent and user-driven, we dynamically calculate the compute requirements and add a description of the SKU in the Eeva Settings UI. Please refer to the red

box in the screenshot below. This SKU will change when you modify the settings above.

Fidelity

1

Test detection

When should Eeva check?

Person Detection

During which hours?

Always

How frequently on an average should Eeva work?

1 min

Subscription:

Eeva - L2

Depending on your budget, you can achieve the same SKU by trading between these three settings.

Conclusion

Eeva delivers proactive, intelligent operations via custom, natural-language AI analytics. Optimal camera setup, precise prompts, and careful trigger selection ensure highly specific and reliable AI events. Eeva's end-to-end workflow, from setup to event management and SKU transparency, provides unparalleled precision, boosting efficiency and insight for complex operational and security needs.