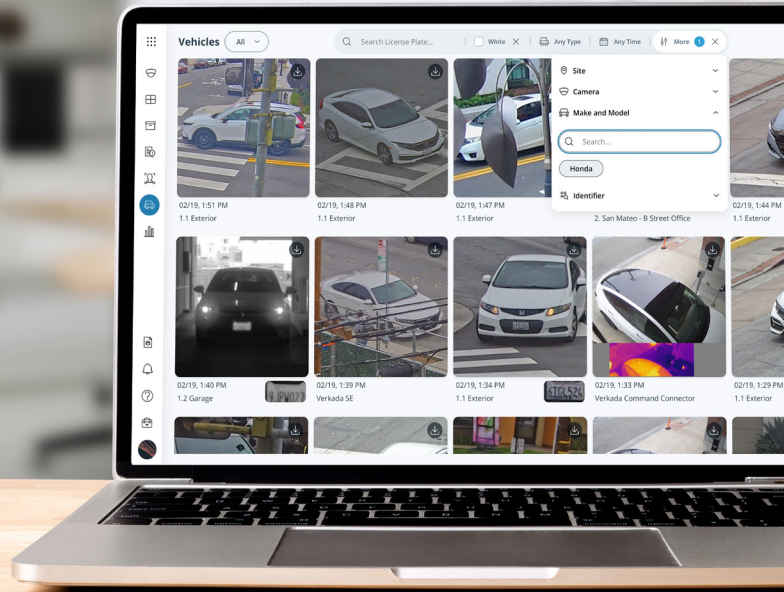


# Search on Verkada Command

Verkada offers numerous methods to search footage quickly and accurately for subjects of interest. This document provides an overview of how organizations can use Verkada's various search methods to address different use cases. This document also covers how different searches can complement one another to support more comprehensive investigations and insights. Verkada's search functionalities are designed to deliver results consisting of people and vehicles – typically the most relevant subjects of an investigation.<sup>1</sup> Limited search capabilities for animals are also available.<sup>2</sup>

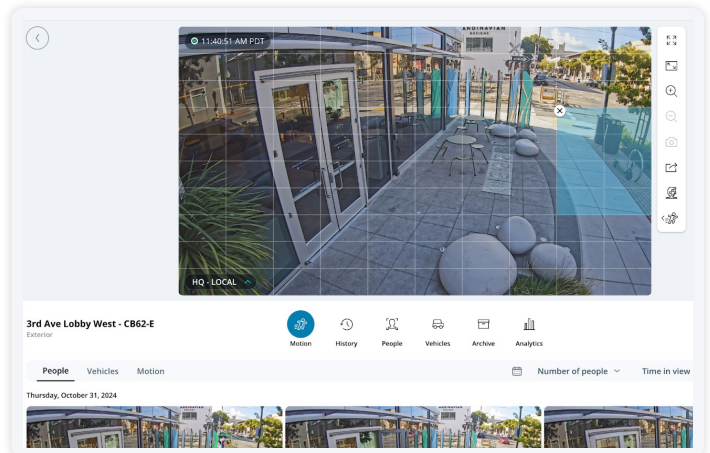


## Single-Camera Search Capabilities

### Motion search

Motion search allows organizations to search for motion of people, vehicles, and animals within specific areas of a camera's field of view. Organizations can simply click and drag across a thumbnail, create a searchable grid, and see all the people, vehicles, and animals detected in the specified area. Motion search is particularly useful when organizations require high-level information on a subject's movements – typically the starting point of an investigation when little identifying information about suspects otherwise exists.

See [here](#) for more information.

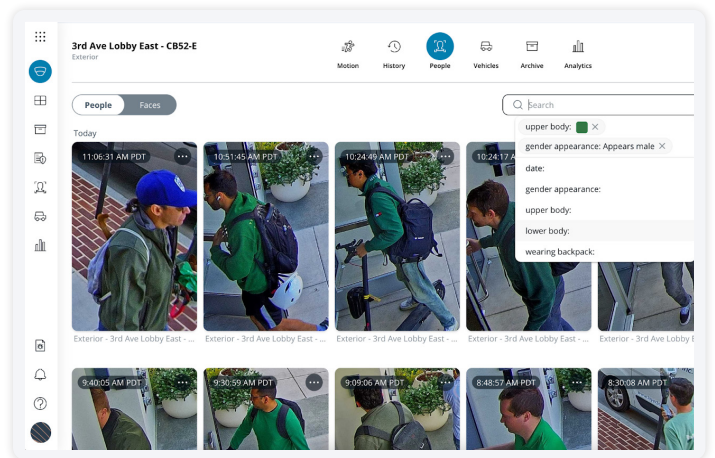


### Attribute search

Attribute search allows organizations to leverage a preset list of search categories for people (gender appearance, upper body clothing color, lower body clothing color, and the presence of a backpack) and vehicles (vehicle color and vehicle type) to return matching results in seconds. Attribute search is useful when organizations have some information about a person or vehicle of interest (e.g., shirt color or vehicle type) and need to explore all possible matches on a specific camera, or across one's fleet. Organizations using motion search to begin investigations can further narrow their investigation by drilling down into specific attributes that become apparent during a motion search.

Note: attribute search is available for both single camera and cross-camera searches. See the "Cross-camera vehicle search" and "Cross-camera people search" in the section below to learn how attribute search applies in a cross-camera context.

See [here](#) for more information.



1. Search results leverage "hyperzooms," which are highly-detailed segments of a video frame that contain images of a person or a vehicle only, typically the most important parts of an investigation. Search at Verkada returns results for people and vehicles to deliver a low-latency experience. As such, at this time standalone object detection is not supported.
2. Animal sightings are only available using single-camera motion search capabilities.

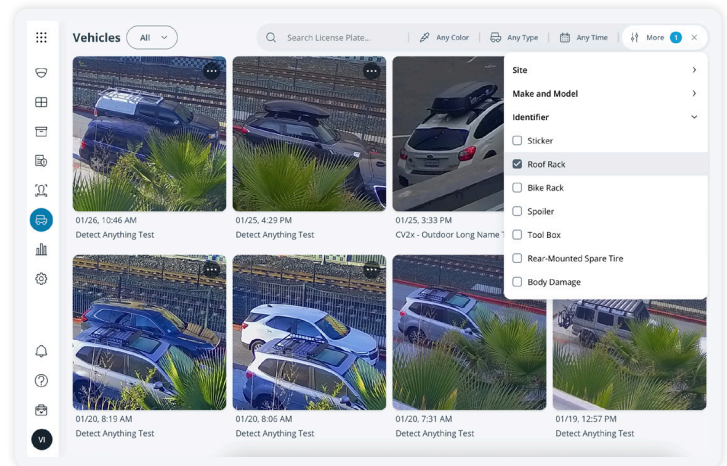


## Cross-Camera Search Capabilities

### Cross-camera vehicle search

Verkada's vehicle search tab centralizes information on all vehicles detected across one's camera fleet. From a single navigation bar, security teams can search for vehicles of interest using a variety of granular attributes: different vehicle types (inclusive of trucks, buses, SUVs, bicycles, and motorcycles), virtually any make and model, license plate search sortable by U.S. state, and unique identifiers like noticeable body damage and bumper stickers. Organizations can pair this search functionality with license plate recognition to reconstruct a map of a vehicles' whereabouts. This page will also collate any sightings of known license plates of interest that appear on any cameras.

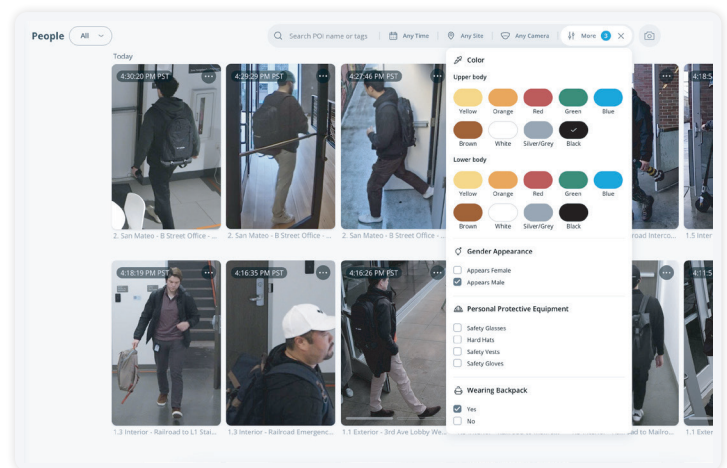
See [here](#) for more information.



### Cross-camera people search

Verkada's people search tab centralizes information on all people detected across one's camera fleet. From a single navigation bar, security teams can quickly surface all individuals that match specific criteria: clothing color, gender appearance, the presence of backpacks and even specific PPE, like safety vests and hard hats. Once an individual is identified, teams can use face search directly from the results to surface all other appearances of the individual in question. This page also collates sightings on any known persons of interest that appear on any cameras.

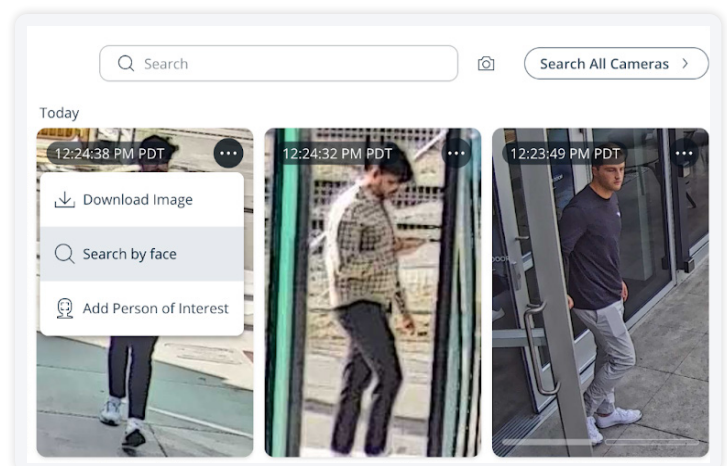
See [here](#) for more information.



### Face search

Face search allows organizations to search for specific faces of individuals that appeared across one's camera fleet (see "Search by face" in the screenshot to the right). Organizations can also see a log of faces captured on specific cameras. Face search adds an important actionable element to search, with the ability to save an individual's face as a designated person of interest (POI). Once an organization has identified an individual from their location (via motion search) or specific attributes (via attribute search), organizations can also save the individual's face as a POI and create an alert for when the POI appears on any camera.

See [here](#) for more information.







### AI-powered search

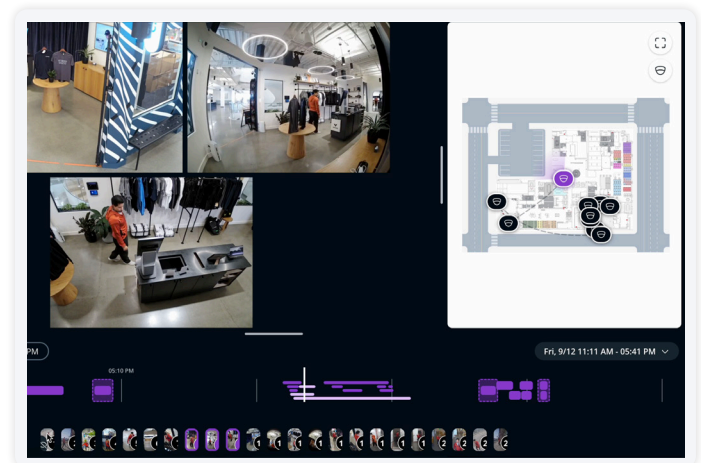
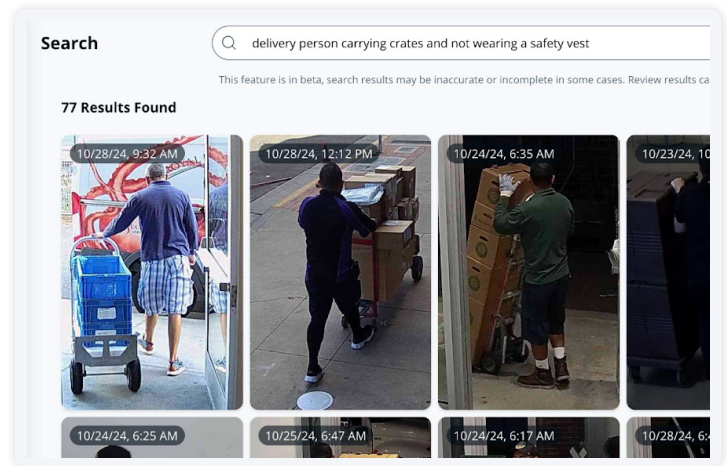
AI-powered search expands on Verkada's attribute search by giving organizations the ability to use everyday language in a freeform search bar to find relevant footage. With AI-powered search, organizations can search for footage on almost any defining attribute of a person or a vehicle – well beyond the list of predefined categories in the attribute search model.<sup>3</sup> In addition to using freeform text, organizations can upload a photo to the AI-powered search bar to see if any people or vehicles from one's footage match the attributes of the photo. This reverse image search functionality can, importantly, support uploading a photo of a standalone object (e.g., a suitcase leaning against a wall) to then determine if a specific person carried or held that object.

See [here](#) for more information.

### AI-powered unified timeline

Organizations can reconstruct a historical view of specific people and vehicle movements using AI-powered unified timeline. Simply navigate to historical footage via one of the above search methods and pause the footage when a person or vehicle of interest appears. Click on the highlighted person or vehicle of interest and a timeline of all sightings of the person or vehicle will be automatically compiled, including a floorpan view – creating a complete picture of the person's or vehicle's movements. One person and one vehicle can be added to an individual timeline, providing an easy way to tie associated people and vehicles together. Once a complete timeline has been constructed, all footage can be archived or added to an [incident report](#) with one click. AI-powered unified timeline is particularly helpful when searching for people or vehicles that traveled over a wide area with many cameras, such as a mall or retail outlet, a large facility like a warehouse, or several city blocks.

See [here](#) for more information.



3. Note: if a user were to input a query whose results can also be determined from attribute search (e.g., "person wearing a red shirt") the user will see results from the attribute search model (as if they used the predefined "upper body: red" color selector). If a user were to structure a more complex query (e.g., "person wearing a red shirt and brown jacket with sunglasses"), then the user will see AI-powered search results pertinent to the complex query. This way, AI-powered search offers the benefits and results of both attribute search and its own AI-powered results. See [here](#) for more information on how the AI-powered search model operates