

## Multi-Object Detection

### RAYPACK Multi-Object Detection

RAYPACK Multi-Object Detection is a ready-to-deploy AI model that enables the simultaneous detection of all kinds of objects (Fig. 1). It comes with a large number of pre-trained objects and can be extended to others relevant to your business needs. Its highly accurate performance and flexibility make RAYPACK Multi-Object Detection your best choice for almost any camera-based business application.

RAYPACK Multi-Object Detection is deployable as a service on our RAYPACK.AI platform or can be conveniently embedded into existing systems on-premise. Like all our models it is easy to use for AI novices, while still offering flexibility to AI experts. We provide businesses with the capabilities to use the enormous potential of AI models, without creating AI dependencies.



Figure 1: RAYPACK Multi-Object Detection at work.

### Possible Applications

By adding RAYPACK Multi-Object Detection to your business, you have the whole world of AI-based object detection at your fingertips. In combination with your existing video surveillance, you could count costumers or parking spots without having to hire data experts. By adding cameras, you could automatically identify damaged fruits in your market (see Use Cases).

### Privacy Regulations

All RAYPACK solutions offer anonymization of images and videos before storage, facilitating compliance to the European General Data Protection Regulation (GDPR). The AI model analyzes the acquired data in real time, and only the relevant output is stored in a vectorized form. RAYPACK.AI models have 3 modes of output:

1. The output of the AI models rendered onto the original image
2. Anonymization by replacement of persons with colored squares or blurring
3. Completely vectorized output including only relevant data

These modes give our customers the flexibility to decide how to handle data storage and processing.



Figure 2: Surveillance footage without anonymization (left) and with vectorized streaming based anonymization (right)

### Use Cases

RAYPACK Multi-Object Detection is used in many business applications. The model could identify and localize damaged fruits and vegetables in a grocery store and alert employees to dispose of them. We were able to implement this solution by just adding a few cameras over the fruit/vegetable display. This and many other applications are made possible by using RAYPACK AI Multi-Object Detection and our RAYPACK.AI platform – no AI expertise required.

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### Key Features

RAYPACK Multi-Object Detection provides several advantages as indicated below:

- Works with images, VOD or live streams
- Provides easy to use JSON or rendered images as output
- License on-premise or cloud
- Supports CPU, GPU Desktop and ARM
- Simple to embed in existing systems
- GDPR compliance facilitated

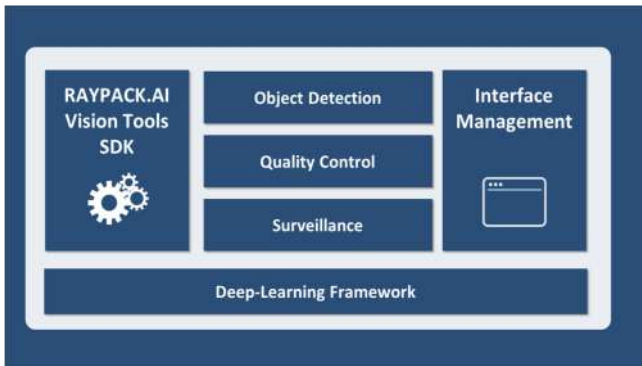


Figure 3: On top of Deep-Learning models our RAYPACK AI platform offers a variety of tools designed to increase the efficiency of your workflow.

### Architecture

Besides our ready-to-deploy models, our RAYPACK AI platform offers:

- An intuitive user interface and API
- RAYPACK Vision Tools SDK to simplify the import and usage of images and videos
- Surveillance and quality control of deployed models

The platform is designed to facilitate accessibility for AI novices and help experts to gain the highest possible flexibility. Together with our hardware partner [Rebotnix](#), we leverage extensive knowledge in the deployment of AI models.

### Want to know more?

Are you interested in learning more about RAYPACK Multi-Object Detection and try it yourself? Visit us and request your free trial key to our API and documentation on <https://raypack.ai/raypack-multi-object-detection/>.

### About RAYPACK

Having an experience of over 15 years in Big Data and Visual Analytics, our team has been continuously developing the roots of RAYPACK.AI to meet the market needs perfectly.

With substantial expertise in Visual Computing, we focus on bringing together AI and businesses by offering customized, highly scalable AI software solutions that power manufacturing, quality control, and other fundamental business processes.



### Contact us

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