



SUCCESS STORY AUTOMAKER

GERMAN AUTOMAKER LABELS 12M OBJECTS PER ANNUM FROM STREET VIDEOS

Apexon accelerates video analysis
speed while also increasing accuracy



The proliferation of sensors and cameras fosters next-generation ecosystems such as smart cities, smart transportation, smart infrastructure, etc.

The value lies in accurately translating visual data into actionable insights in real-time. This leading German Automaker wanted to automate the labeling process for street videos with live footage from various daytime conditions and locations to identify objects such as vehicles, street lights, and pedestrians.



THE RESULTS

KEY OUTCOMES

With our deep learning platform for visual data analysis, the customer was able to:



**DRIVE 45% FTE SAVINGS WITH
LABELING AUTOMATION**



**IMPROVE THE QUALITY OF
ANNOTATION BY 10-20%**



**ACHIEVE MORE THAN 92%
LABELING ACCURACY**



**REDUCE TIME TO LABEL NEW
OBJECTS BY 50% WITH REUSABLE
COMPUTER VISION COMPONENTS**

THE CHALLENGE

3 KEY AREAS

Manually labeling objects from street videos was leading to:



Protracted cycles

Protracted cycles for object analysis



Increased Costs

Increased cost due to higher manual labor



Human Errors

Higher scope for human errors

THE SOLUTION

4 KEY AREAS

Apexon brought onboard its Image and Video Analytics platform, a proprietary deep learning platform that speeds up analysis of visual data to enable:



Deep Learning Algorithms

Proactive prediction of objects seen in the video with deep learning algorithms such as EfficientDet, Resnet 50, Mask CNN, and the COCO weights



Object Tracking & Computer Algorithms

Identification of object location across all frames and annotation generation with object tracking algorithms and computer vision



Pinhole Camera & Tool Resolution

Conversion of annotations to XMLs with an XML generator to calibrate pinhole camera position and tool resolution



Data Generator Tool

Curation of tags and corresponding images with XML parser – a data generator tool



Apexon is a pure-play digital engineering services firm focused on helping companies accelerate their digital initiatives from strategy and planning through execution. We leverage deep technical expertise, Agile methodologies and data-driven intelligence to modernize systems of engagement and simplify human/tech interaction.

We deliver custom solutions that meet customers' technology needs wherever they are in their digital lifecycle. Backed by Goldman Sachs and Everstone Capital, Apexon works with both large enterprises and emerging innovators – putting digital to work to enable new products and business models, engage with customers in new ways, and create sustainable competitive differentiation.



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