Fully Automated Traffic Analysis Framework

Modern cities face numerous challenges related to vehicular traffic.

Controlling and managing traffic while safeguarding human safety and security are paramount for any city administration. Camera infrastructure is a key enabler of traffic management and has become the backbone of modern smart city visions. However, investments in cameras have not been sufficient. Capabilities to integrate and analyze camera feeds into various enforcement mechanisms have proven difficult. DataFromSky is addressing this problem with a novel video analytics platform.

FLOW from DataFromSky is a multi-platform video analytic solution for real-time traffic analysis. FLOW enables users to design and convert any camera into a smart traffic sensor for smart-city management. This universal and interactive traffic data mining tool can process footage from varied sources, be it drones, fixed cameras, or panoramic. FLOW can accurately recognize vehicle types, pedestrians, and even bicycles, detect speed, acceleration, or other time and distance measurements with high precision. It is a universal solution with unlimited scalability created for all types of architectures, from AI cameras, embedded devices up to local servers or cloud. Thousands of hours of video footage from around the globe has been employed for training the FLOW neural engine built on NVIDIA GPUs, Caffe, and TensorFlow.

One Traffic Framework Stack Components

DataFromSky

 FLOW is an interactive traffic framework, created to transform any video data to traffic knowledge in real-time. One sensor for multiple purposes

NVIDIA

- NVIDIA Metropolis platform with pre-trained models, transfer learning toolkit, and DeepStream SDK
- EGX GPU hardware Jetson,
 Quadro, Tesla®

Arrow Intelligent Solutions

- Solutions: Tiers of products designed specifically for analytics applications
- Solution range: Embedded, workstation, and rack mount form factors
- Product services: Design, support, or professional services
- Manufacturing services: Supply chain, integration, and logistics

Real-Time Traffic Analysis



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How the Solution Works

FLOW is a comprehensive platform for the analysis of traffic movements based on proprietary AI, machine learning, and a trajectory-based approach. It's easy to configure, runs in real-time, and can communicate with other devices and systems. With FLOW's intuitive visual traffic language, any camera can be turned into a sensor for smart city parking and traffic management or smart retail in a few clicks. FLOW is very versatile, easy to use, and can be deployed on diverse platforms, be it in the cloud or at the edge.



FLOW Interface With a Unique Visual Traffic Language

Benefits of the FLOW Platform Include:

- Real-time traffic and situation analysis
- Intuitive user interface
- Visual programming dashboard
- Multi-platform support
- Open APIs for 3rd-party integration
- Support for both edge and cloud-level deployments

In partnership with:





Company Profile

DataFromSky is a product by RCE systems. RCE develops and produces market-leading technologies in robotics, computer vision, and embedded systems. The core value of the company is technology innovation. Through this innovation, DataFromSky is redefining the concept of smart cities with its solutions for smart parking, traffic control, and retail. Learn more about DataFromSky (product by RCE systems).

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