Title: Analytics module for the Videolytics system

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Abstract: Videocameras and monitoring devices are widely used in public space. With the growing number of these devices, manual data analysis becomes inefficient, so the goal is to obtain efficient automatic video processing. The Videolytics system is a web-based system for advanced video analytics. It is built on the detection of simple objects concentrating in a database. This work is an extension of the Videolytics system with by complex analysis. The analytics module provides processing of complex queries that are created by user. The formulation of a complex analytical query is natural for users, but the exact definition of a query for a computer system is complicated. Analytical queries consist mainly of alphanumeric and spatial predicates, which are analyzed by the module, and based on them, an exact SQL query is generated. At the same time, the module also provides functionality for direct execution of an SQL query on a database. The combination of the analytics module and the user interface creates an advanced user tool for analytics, which has great use because of its generality.

Keywords: video analytics, analytical query, database