Flux is an intelligent software platform for use with a Traficon video detection system. Flux collects traffic data, events, alarms and video images generated by the video detectors.

The main goal of Flux is to manage and control all traffic information generated by these various detectors and to make it useful, meaningful and relevant to the user.

Communication with the video detection system goes over Ethernet. Flux stores all traffic data, events and alarms in a relational database.

Flux provides a user-friendly interface composed of a monitoring and a reporting application. Flux enables real-time monitoring of events and alarms. All event info is automatically documented and visualised in a straightforward way, allowing managing each traffic situation efficiently.

Real-time video can be viewed from several cameras simultaneously.

Via the reporter application the database is queried to generate data or event reports as exportable graphs or tables.

Flux allows defining different intelligent filtering functions to ensure relevant data presentation and event alerting to the operator during situations such as maintenance or roadwork.

Flux visualises the layout of the video detection system. The customised graphical user interface allows intuitive handling of the total video detection system to respond efficiently to any traffic alarm and event.

The open architecture of Flux allows scaling the system to the exact requirements of the project.
**Browser-based Graphical User Interface (GUI)**

The client of Flux is a web-based application. This means users only need a web-browser installed on their PC that is connected to the network of the video detection system to access the traffic management system.

This web-based zero-install GUI provides more flexibility and better manageability for all users because there is no requirement to install client code or software on the PC.

**Real-time Traffic Monitoring**

Flux enables real-time monitoring of events and real time traffic data. Traffic and technical events are automatically visualized and documented with their status, a camera image, all event info and an incident movie.

**Event Recording and Immediate Replay**

As Flux is used to store and collect data, events AND video, an operator can immediately retrieve these recorded video sequences comprehending pre- and post-incident images. This direct visual information is not only extremely valuable for the operator to take all necessary actions in case of an incident but also for traffic analysis and evaluation afterwards.

**Powerful Event Alerting and Intelligent Filtering**

To ensure relevant event alerting Flux allows maximum flexibility by the implementation of advanced filters. A filter is a set of inhibitions to be launched for a group of cameras. Each inhibition is characterised by events that must be filtered on one or more detection zones. These filters can be triggered directly from the Flux user interface, automatically from digital inputs from the video detection system or the built-in Flux scheduler or remotely from a larger management system.
**Intuitive Drag-and-Drop Simplicity**

Flux enables an intuitive and straightforward setup of the graphical user interface. Elements (e.g. camera icons) are added to the central map image via drag-and-drop. The result is a customised GUI for the operator.

**Streaming Grid Mode**

Via the streaming grid mode, and its underlying Imux streaming video server, real-time video can be viewed from several cameras simultaneously. This allows the user to have a perfect overview of different consecutive cameras.

**Reporting Tool**

Flux has a dedicated reporter application to generate data and event reports by querying the database where all traffic data and events are stored. Traffic data reports are available as exportable graphs or tables.
VERSATILE TRAFFIC MANAGEMENT PLATFORM FOR ANY SIZE SYSTEM

From small-scale video detection to large-scale systems with hundreds of detection devices, Flux enables transportation center operators to meet the challenges of today's transportation management demands. Flux allows to monitor the transportation network during normal, day-to-day traffic and to respond quickly and efficiently to unexpected traffic conditions.

Upon expansion of the detection system, Flux can be adapted easily. Because of its open architecture, Flux can be integrated into any traffic management system through an open TCP/IP protocol or dedicated Java plug-ins.

Flux is both Windows and Linux compatible. For large-scale systems requiring multiple servers (e.g., for redundant applications), Linux is recommended.

FLUX SYSTEM ARCHITECTURE

In a typical installation, data and events generated by the video detectors are transferred in real-time to the Flux server PC. Real-time data and events are available also on the Flux client PC. The client application is a web-based user interface for traffic monitoring, event alerting and data reporting. The Flux server and client can be installed on one or multiple PC's in a network.

Flux is designed to handle any type of Traffic detector. Not only VIP modules can be connected to Flux but also integrated sensors like TrafiCam x-stream and Collect-R. Depending on the type of application, it is even possible to combine both detectors in one system.

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