

VACCINE

Visual Analytics for Command, Control, and Interoperability Environments
A U.S. Department of Homeland Security Center of Excellence

iVALET – Mobile Visual Analytics Law Enforcement Toolkit

Benefit: iVALET technology provides users from law enforcement agencies to the general public with a suite of tools that allow for the spatiotemporal exploration of multivariate criminal, traffic and civil incidents records on-the-go. This suite of tools also enables the analysis of crime patterns and trends as well as provides risk assessment of the users based on a given time and location using historical data.

Data Layers:

- Criminal, Traffic, Civil
- GIS
- Law beats
- Bus stops
- Bus routes

Collaborators:

- Purdue Police
- West Lafayette Police
- Lafayette Police
- Tippecanoe County Sheriff
- Indianapolis Police

Funded by:

U.S. Department of Homeland Security, Command, Control and Interoperability Center of Excellence

Mission Need

Modern datasets are often massive and complex, making it difficult for analysts and decision makers to extract relevant information for making effective decisions. The mobile Visual Analytics Law Enforcement Toolkit (iVALET) provides linked spatiotemporal views that allow users to visualize criminal, traffic and civil (CTC) incidents over geo-space and time. Developed for the mobile platform, iVALET provides on-the-go support to law enforcement officials for determining the risks associated with CTC incident levels within their areas of operation. iVALET also provides enhanced analytical tools including risk assessment capabilities that factor in the user's spatial and temporal context to enable him/her to identify regions of potential high risk at any specified location and time.



The Mobile Visual Analytics Law Enforcement Toolkit (iVALET) is seen here where the user is exploring crime reports for Lafayette / West Lafayette, IN using an iPad (right) and iPhones (left). The heatmap signifies the areas with higher crime rates and the boundaries on the map are police law beats. Also seen in this image are the 24-hour clock view (left, inset) and the interactive time series graph view (right, bottom).

Early Development

Lab Prototype

Commercial Product

For more information, contact:

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<http://www.VisualAnalytics-CCI.org>