**Vizalytics Technology**

# Vizalytics City Builder

**Assess, Compare, Predict in Real Time**

Your city has dozens of distinct data streams to deal with – inspections, traffic, transit, construction, health and safety, water and air quality, permitting, crime, schools, business activity, complaints, social media, census, imbedded sensors. Each stream monitors its own events, often hundreds of them, in granular detail.

But you don't have time or resources to visit each of these data streams and figure out what they mean, how they relate to each other, and when and where each event impacts your city. You have your five senses, but not enough technological brain to tie them together.

Vizalytics City Builder merges your city's data senses into an interpretive creator of insight. City Builder ingests all the data sets at your disposal, and draws conclusions based on relationships and context across your data store.

City Builder finds the data, does the data science, and puts you in position to act.

**Vizalytics Technology** enables smart cities and data-savvy businesses by unlocking the potential of open and private data, connecting previously disconnected information sources to the citizens and businesses who need it. The cloud-based, patent-pending Vizalytics Knowledge Graph receives a continuous stream of data from hundreds of public and private data sources. The Knowledge Graph then applies context-focused analytical lenses to the data and feeds insights to our users, in real time, via geo-located alerts, visualizations, and maps. Vizalytics clients – local businesses, neighborhoods, governments, enterprises, and individuals – receive predictive guidance about issues that matter to them, saving money and time, increasing efficiency, and uncovering opportunities. They also avoid risk with their data securely protected in Amazon Web Services data centers.

**How You'll Use City Builder**

City Builder maps events and relationships among them against time and location. It models a given point, line, or polygon at hyper-local granularity – a region, a city, a neighborhood, a street, a building. Then City Builder returns insights, predictions, risks, scores, tips, and suggestions to users based on the significance of events, whether they are typical or unusual, where related events are clustered, and historical context.

Using City Builder, you'll spend your time executing on information, not searching for, correlating, and managing data. Is a prospective location appropriate for a given use? How does one neighborhood compare to another? Which is the better use case for a given location? What do local conditions tell you about how to solve a community problem?

Say your environmental quality office wants real-time agility to detect, locate, assess, and respond to threats to your clean air and water standards. You have the data – water and air quality, water levels in lakes and streams, fire reporting, health conditions, traffic, weather, all manner of sensors – but no way to easily sense patterns and issues across the data.

**vizalytics**

City Builder watches all your data, continuously, and creates a platform to give you real-time and predictive awareness of conditions and the factors that affect them, even creating a daily environmental quality score for both individual neighborhoods and your city.

- Permits for basement repairs signal a rising water table in a low-lying neighborhood – or detection of a rising water table spurs a notice to citizens about threats to basements.
- City Builder remembers that social media comments and 311 complaints about poor air quality followed a street project that stalled traffic, and alerts you before a new project is scheduled to begin.
- Your daily environmental quality score becomes a public resource, and community involvement in environmental affairs increases.
- A transit trip planning feature encourages public transport and bicycle ridership, and focuses attention on each trip's carbon footprint.
- Site a community center or discover where and why asthma rates have spiked – data in context on congestion, pollution, building code violations, and hospital admissions guides your planners in real time.

Use City Builder for all your city's data. Ask City Builder to alert you whenever a restaurant inspection turns up a rat, a resident complains about late-night bar noise, or graffiti appears on a building. Which areas of your city are amenable to investment? Can physical layouts of existing structures accommodate technical upgrades? What about nearby housing? Transit ridership and reliability? Heuristic and machine learning techniques enable City Builder, through the Vizalytics Knowledge Graph, to learn from evolving data and user activity to produce a smarter, increasingly robust and responsive data store.

**Contact Us**
Vizalytics has built solutions in New York City, Copenhagen, and Sydney, and we can tailor City Builder to your smart city. With City Builder, a collection of disconnected data sources becomes a unified portal to a fast-changing world.

Vizalytics.com

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