

Outline

Motivation

System Design

Implementation

Demo

Motivation: Safety Data Analysis

Large Volume of Safety Data

Store

Project	Boro	Unit	Owner	Date	
Columbia	BK	Freight	rmarqı	06/13/201	P
Columbia	BK	Freight	rmarqı	06/13/201	l
Columbia	BK	Freight	rmarqı	06/13/201	1
Van Brunt	BK	Freight	rmarqı	06/13/201	l
Imlay	BK	Freight	rmarqı	06/13/201	l
St Nicholas Ave 135 to 1	MN	PPG	kyeme	06/14/201	

Query

otal KSI SI/Mile
17
6
8
8.8 31

Visualize



Analyze

	Number of	Percent of Known	Percent of Known
	Crashes	Crashes	Crashes(Boro)
Signalized Intersection: Crossing With	28	40.6%	41.5%
Signal			
Signalized Intersection: Crossing Against	10	14.5%	12.7%
Signal			
Stop-Controlled Intersection / Crosswalk	0	0%	1.3%
Other Actions/Uncontrolled Intersection	14	20.3%	14.3%
Midblock	17	24.6%	30%
Other Control Types	0	0%	0.1%
Total Known	69	100%	100%
Unknown/Indeterminate	13	N/A	N/A

Pedestrian Crashes by Control and Pedestrian Action,

Source:Injury data:NYSDOT/NYSDMV Accident Database Fatality data:NYCDOT/NYPD Reconciled Fatality Database

Motivation: Data Analysis Tools

Microsoft Access

- Extensible with VBA
- Lacks visualization tools
- Requires professional training

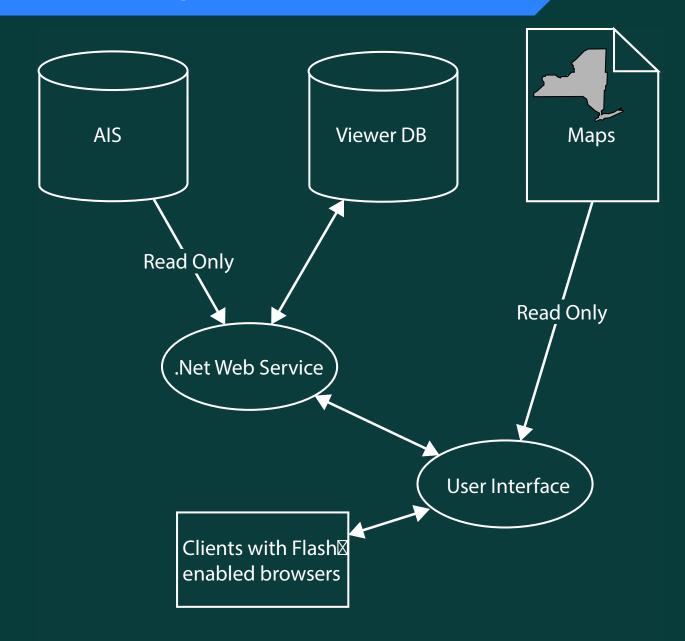
ESRI ArcGIS

- Provides visualization tools
- Toolbox extensions
- Requires license for each user

Motivation: Solution

- Easy-to-use (web based)
 - No training or expertise required
- Common functionalities
 - Standardized analysis queries
- Provide visualization
 - Presentation quality outputs
- Reduce license requirements
 - Does not require additional license for concurrent users

System Design:



Demo:

Demo

