AUTOMATED CRASH GEOLOCATOR

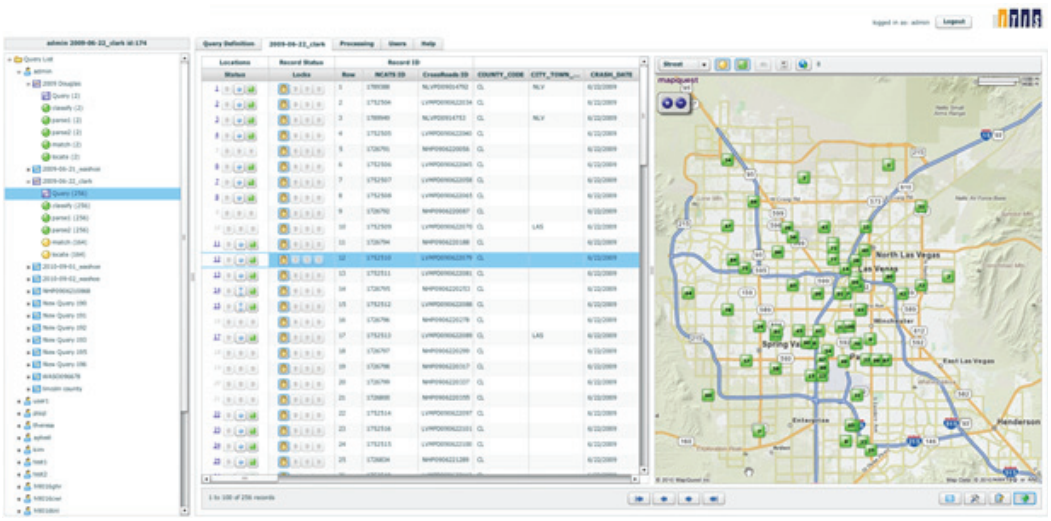
OnSafety™

Crash ETL Application

CONSERVE RESOURCES: GEOLOCATE UP TO 95% OF YOUR CRASHES AUTOMATICALLY

→ Process Crashes in Batch or Singular Mode

The OnSafety™ Automated Crash GeoLocator application automatically locates crashes for use in a Geographic Information System (GIS). When implemented properly, the system can raise the accuracy of crash locations to an optimal 95% hit rate.

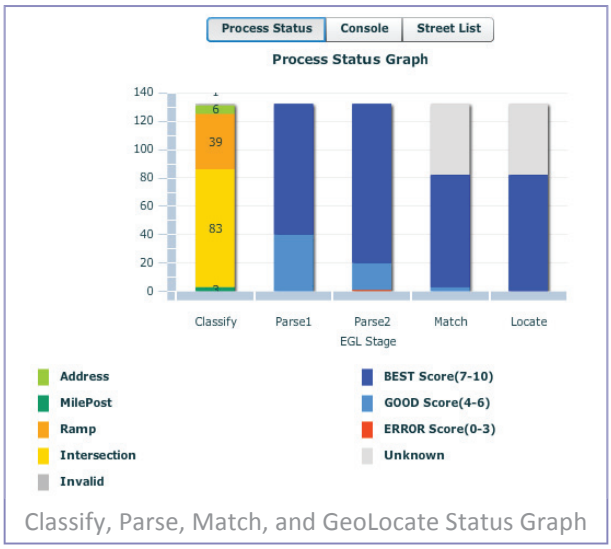


The solution contains all the elements to extract, transform and load (ETL) crash data into a custom high performance data warehouse

REDUCE THE LEARNING CURVE ASSOCIATED WITH IMPLEMENTING A NEW SYSTEM

→ Uses Standard Database Technologies

The Automated Crash GeoLocator basically takes raw crash data and automatically determines coordinates for each crash. The solution utilizes sophisticated techniques to rapidly process data using a four step method. These steps include: Classify, Parse, Scrub, Match, Geo-Location.



Classify, Parse, Match, and GeoLocate Status Graph

Classify

The Classify Tool interrogates crash data to determine the reference method most likely used to locate the crash. Currently supported methods include milepost offset, intersection offset, ramp, crash, and address. Others may be added with ease.

Parse

The Parse Tool uses pattern recognition to identify pertinent elements of the road description and related data elements to identify the core road name, suffix, prefix, and other data elements. It is also used to construct uniform ramp names and to correctly identify mile marker and offset values.

AUTOMATICALLY CORRECT ALL TYPES OF REFERENCING ERRORS

→ Agency-Specific Spell-Check Application for Route and Alias Names

Scrub

The process also performs a robust scrubbing of the data to remove unwanted data and to replace non-standard terms with standard values. In addition, the process performs a spell check on the core road names against a master street list to generate the correct road name.

Rank	Street Name	Occurences
1	IR15	26
2	US95	24
3	TROPICANA	14
4	CHARLESTON	13
5	SAHARA	11
6	FLAMINGO	10
6	CHEYENNE	10
8	PARADISE	9
9	RANCHO	8
9	LAS VEGAS	8

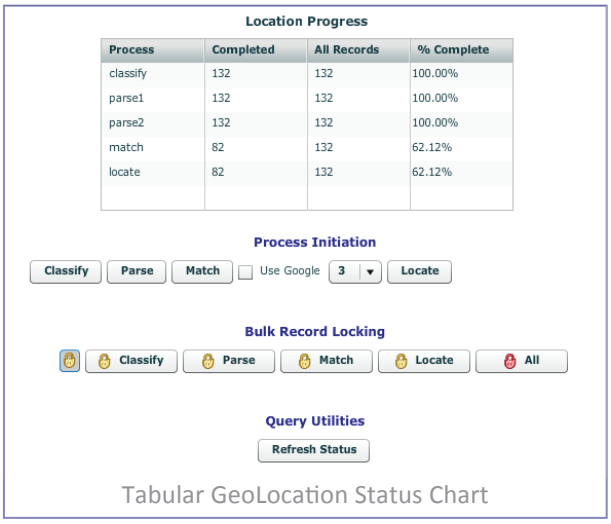
Correct all types of referencing errors including: GPS, Intersection Offset, Milepost, Street Address

EDIT AND CUSTOMIZE DICTIONARIES FOR YOUR AGENCY'S NEEDS

→ Includes a Standard Set of Route, Street, and Other USPS Dictionaries

Match

The matching utility performs an extensive process to match pairs of crash route names to pairs of map route names. The system will match both primary and alias names, as well as suffixes and suffix alternatives; substrings, soundex, and spelling matches are also found. This process provides a matching score and identifies the correct intersection or ramp of each crash site.



Tabular GeoLocation Status Chart

GeoLocate

The GeoLocator utility uses the matched crash data to accurately compute a set of linear reference coordinates along a roadway. This tool takes into consideration many anomalies that can exist in the road network, including equation locations, duplicate intersections, name changes, feet/miles errors, compass vs. cardinal direction, and others.

CONVIENIENTLY MANAGE YOUR CRASH LOCATION SOLUTION

→ Includes a Web-Based Client for Query and Location Process Management

Web and Desktop Access

The OnSafety™ GeoLocator solution can be managed through multiple client systems including client desktop GIS, .net Client systems, and even web access.