State and local departments of transportation (DOTs) have to manage and analyze large volumes of crash data collected by local authorities. The federal government requires these DOTs to use this data to establish measures to reduce the number of injuries and fatalities per vehicle miles traveled.

Collision diagrams can provide you with a visual representation of pertinent, tabular-based crash data, but the process of creating and maintaining these diagrams are often manual and time consuming. Furthermore, because crash data can change so frequently, most of these diagrams are outdated soon after they are created. For safety analysts, traffic engineers, or DOT planning staff, the collision diagram process can be a tedious and sometimes frustrating task.

**CREATE AND UPDATE YOUR DIAGRAMS FASTER**

Because roadway safety is the main goal for any DOT, Intergraph offers the Automated Collision Diagrams solution to help you rapidly create diagrams that allow you to evaluate crash patterns within the road network and make faster, smarter decisions on the proper mitigation strategies. With Intergraph’s solution, collision diagrams that once took hours, or even days, to create can be generated in minutes. You can even maintain these diagrams easier with our intuitive and robust diagram archival functionality.

**STRENGTHEN YOUR PLANNING WITH ENHANCED VISUALIZATION**

Intergraph’s Automated Collision Diagrams solution helps safety analysts and planning engineers better visualize and understand the nuances of crashes and their associated relationship with other vehicles at an intersection or segment of road. You can also quantify crashes to identify the type of crash (e.g., side swipe, head-on, jack knife, etc.) and plot them on a GIS-based map, providing spatial context for any crash – rural or municipal.

After you complete the PDF-rendered diagram, you can further enhance your user experience with Intergraph’s dynamic reporting functionality, which places supporting reports at your fingertips.

Most transportation agencies maintain some sort of collision diagram data repository, but quickly turning that into meaningful information is a challenge. With Intergraph’s Automated Collision Diagrams solution, you can manage the complete life cycle of a collision diagram – from creation and maintenance, to archival and approval.

**KEY BENEFITS**

- Faster processing of collision information
- Accurate graphic depiction of collision locations
- Rapid identification of collision trends
- Better evaluation of design features
- Increased level of public safety
- Improved traffic flow
- Assistance with site remediation strategies
- Site rankings for safety improvements
- Streamlined budgeting system
- Easier access/dissemination of diagrams

**KEY FEATURES**

- **GIS Environment** – Map-based environment to layout the geometrics of an area and verify the location of collisions in that area
- **System Architecture** – Flexible architecture that can exist as a web-based application or a cloud-based hosted solution
- **Extendibility** – Use of collision safety features to extend safety processes, such as cluster and trend analysis (including hot spot and pin mapping)
- **Data Connectivity** – Seamless connectivity to the solution’s system with other crash databases
- **Diagram Type** – Ability to generate intersection, corridor, and single roadway diagrams
• **Intersection Type** – Support for both four-way and T intersection diagrams

• **Interface** – Form and map-based interface to interactively select crash data

• **Roadway Templates** – Support for a series of pre-defined roadway templates, as well as custom templates for you to create your own unique diagram

• **Display Rules** – User-defined display rules present the crash with the appropriate icon that represents the crash type; the crash icon is positioned on the diagram based on a set of established zoning rules

• **Diagram Editing** – Reposition of crashes to the correct location on the roadway template, change the crash icon depicting the crash, and rotate the diagram

• **Plotting** – Ability to plot crash data for a selected intersection, corridor, or single roadway on the map, and then save the diagram and report as a PDF

• **Report Generation** – Generation of standard reports or design of customized report templates for specific needs

• **Archival of Reports** – Archival of reports for historical trend analysis and flexible customization of how archived reports are organized

• **Administration** – Modification of the layout of the collision diagram report, and creation of secure, role-based access controls

This illustration shows how crashes are placed within the constraints of the intersection template. The Automated Collision Diagrams solution can easily integrate with other spatial layers for interpretive purposes.

The Automated Collision Diagrams solution supports several different intersection types, such as four-way and T intersections, to place crash data.

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**ABOUT INTERGRAPH**

Intergraph is the leading global provider of engineering and geospatial software that enables customers to visualize complex data. Businesses and governments in more than 60 countries rely on Intergraph’s industry-specific software to organize vast amounts of data to make processes and infrastructure better, safer and smarter. The company’s software and services empower customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure and millions of people around the world.

Intergraph operates through two divisions: Process, Power & Marine (PP&M) and Security, Government & Infrastructure (SG&I). Intergraph PP&M provides enterprise engineering software for the design, construction, operation and data management of plants, ships and offshore facilities. Intergraph SG&I provides geospatially powered solutions, including ERDAS technologies, to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is a wholly owned subsidiary of Intergraph Corporation responsible for the SG&I U.S. federal business.

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