

# Un-Risky Business

The Role of Location in Insurance Risk Management

WHITEPAPER:  
INSURANCE



## Un-Risky Business

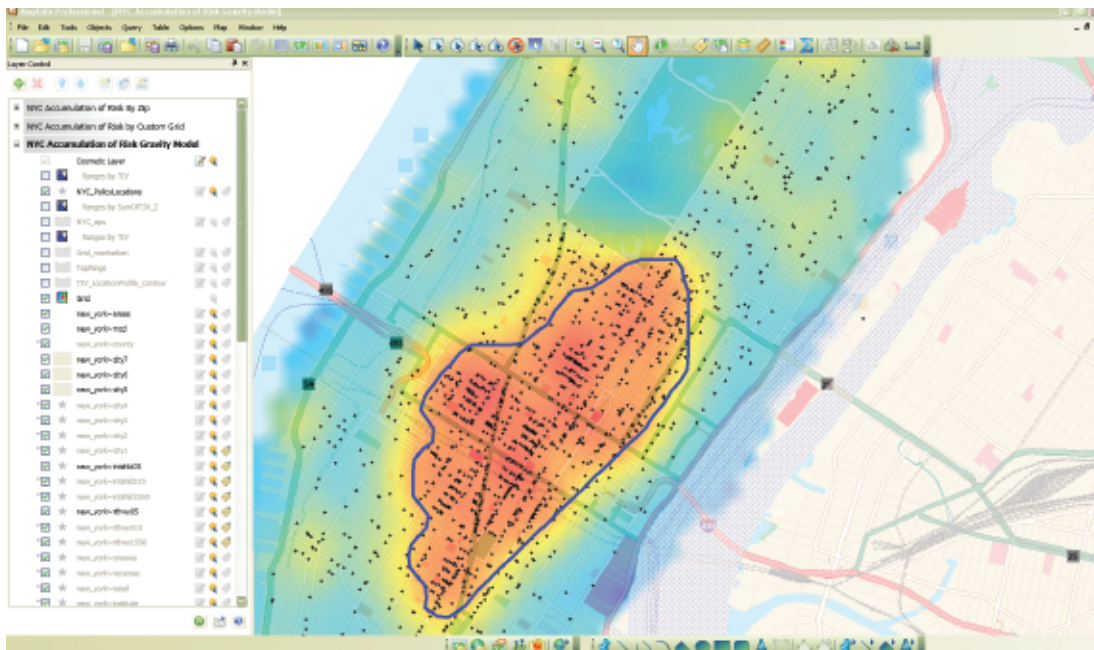
The Role of Location in Insurance Risk Management

### ABSTRACT

LOCATION HAS LONG BEEN A CRITICAL ELEMENT TO THE INSURANCE INDUSTRY. UNDERSTANDING WHERE A PROPERTY IS LOCATED, IN RELATION TO ITS RISK ELEMENTS, IS A CORE FACTOR AFFECTING AN INSURANCE CARRIER'S LOSS EXPOSURE AND PROFITABILITY. THE IMPORTANCE OF UNDERSTANDING 'WHERE' IN RELATION TO A MULTITUDE OF RISK ELEMENTS HAS BECOME AN EVEN MORE CRITICAL PROCESS.

USING LOCATION-BASED TECHNOLOGY IS A SIMPLE SOLUTION TO A COMPLEX, REAL-WORLD PROBLEM FOR THE INSURANCE INDUSTRY. IN TODAY'S BUSINESS ENVIRONMENT, LOCATION INFORMATION BECOMES THE FOUNDATION OF KNOWLEDGE THAT IS NOTHING LESS THAN THE DIFFERENCE BETWEEN PROFITABILITY AND DISASTROUS LOSS.

BUT UNDERWRITING IS NOT THE ONLY INSURANCE AREA WHERE LOCATION INTELLIGENCE (LI) IS CRUCIAL. OTHER DEPARTMENTS AND APPLICATIONS LEVERAGE LOCATION INFORMATION TO BETTER MARKET, SELL AND SERVICE CUSTOMERS.



Given an address, Pitney Bowes Business Insight solutions instantly display the associated risk factors, reducing decision-making to minutes instead of hours.

### Why Mapping?

Insurers depend on geographic and demographic information to assess underwriting risk, handle claims, match coverage, expand markets, serve existing customers, and develop new business.

Complicating matters is the sheer volume of data — claims histories, natural and man-made hazards, risk factors, locations, competitive intelligence, and much more. Storing, retrieving, interpreting, and applying all of this data in a meaningful way can be a staggering and expensive proposition.

### Geographic Risk Assessment

Natural catastrophes continue to pose substantial risks to homeowners in the United States. According to the International Organization for Standardization's (ISO) Property Claim Services Unit, insured catastrophe losses for 2008 totaled an estimated \$25.2 billion. While that amount does not come close to the \$62.3 billion for 2005 (the year of hurricanes Katrina and Rita), it still ranks as the fourth most costly year in a decade. Insurers paid 3.9 million damage claims in 40 states as a result of 37 catastrophes, the highest number of catastrophic events in a single year since 1998. This trend towards higher potential losses will continue unabated given the risk factors of higher population densities and greater concentrations of insured values along the United States coastline.

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Location intelligence gives insurance executives, underwriters, adjusters, marketers and agents an intuitive, visual, and natural way to understand information and to discover the real meaning behind large amounts of data.

Spatial technology has become an invaluable strategic tool to many leading insurers. Location intelligence allows insurance professionals to see the data, recognize patterns and trends, and drill down into data for detailed analysis and sound decision-making.

Insurance companies are using Location intelligence to run mission-critical applications in various areas and for a variety of tasks, including:

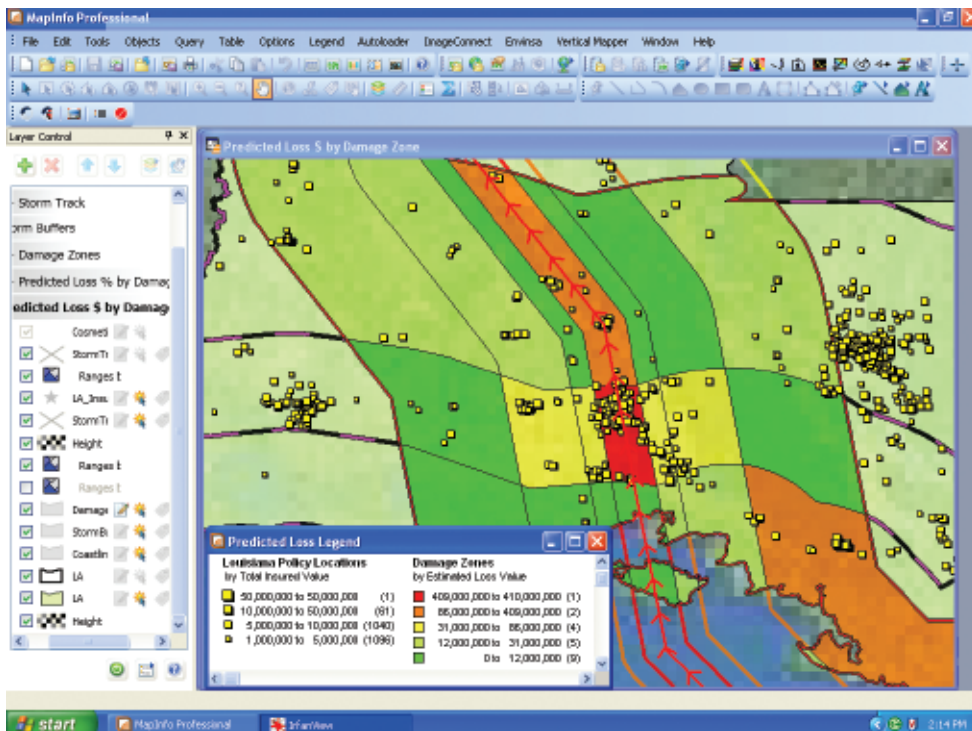
- Risk Management
- Validating addresses
- Determining rates and pricing
- Underwriting decisions
- Constructing natural disaster models
- Making reinsurance decisions
- Claims
- Tracking location of incidents
- Determining proximity to resources
- Allocating adjusters in real-time
- Determining service coverage
- Integrating into existing claims applications
- Catastrophe Management
- Identifying potential risk exposure
- Mitigating loss during real-time events
- Pinpointing locations where resources are needed
- Managing risk across the entire portfolio
- Agent Support
- Prospecting
- Processing policy applications
- Recruiting agents
- Determining service coverage
- Marketing
- Finding best customers
- Facilitating cross-selling
- Conducting mass-mailings
- Managing and measuring campaigns
- Web
- Locating agents
- Finding healthcare service providers
- Marketing tool for agents
- Locating certified repair shops

Insurance companies can realize the most immediate benefits in productivity and efficiency in the discipline most driven by complex data—underwriting. With location intelligence technologies, both homeowners and commercial underwriters can quickly identify and assess risk for any given address.

Address look-up and geocoding are the essential beginnings of the policy lifecycle. They provide instant location validation and correction to ensure clean data collection. They also assign precise geographic coordinates which are used later in other applications such as underwriting, claims, call center support, and marketing. For example, one of the nation's largest insurance and financial services companies recently implemented a risk management solution to help assess and plan for risk in the future, based on catastrophic scenarios. The solution required that they first prepare and clean their policyholder data. Location-based technology allowed them to validate the accuracy of the addresses currently on file for existing policyholders. As expected, they found that a large percentage of addresses were inaccurate and needed correction or further clarification. Once the data was cleansed, they added the location of a policyholder's branch office to obtain a holistic view of assets. In many cases, the insurer was covering an entire company, including branch offices and field assets, but did not know where the branches were located.

Underwriters have found location intelligence to be of particular benefit in assessing the risk factors associated with natural disasters and weather-related hazards, such as floods, earthquakes, hurricanes, tornadoes, hail storms, wildfires, and others.

An underwriter might receive a request to assess the risk of insuring a new car dealership and its entire inventory. The dealership is not located near a flood zone or fault line, and resides outside areas of past tornado activity. But location intelligence shows that the dealership is directly in the path of frequent hailstorms—a fact made clear by the graphic presentation of the dealership location, overlaid with weather pattern data. In this instance, an investment of



By combining location data with weather pattern, fault line, or distance-to-coastline data, underwriters get an immediate picture of the risk associated with any property.

several thousand dollars in location intelligence technology can save literally hundreds of thousands of dollars in hail damage claims.

Also, as new risk factors become evident, such as the growing mold problem in parts of the United States, that data can be incorporated into the solution for immediate impact on underwriting decisions.

Transamerica Flood Hazard Certification, one of the Transamerica Real Estate Information companies, is a leading provider of Flood Hazard Certification (FHC) services in the United States. The company combines Pitney Bowes Business Insight location intelligence technology with its own database of nearly 100 million records. This combined data allows them to determine whether any given property falls within a Federal Emergency Management Association

(FEMA) flood plain, and must carry flood insurance.

Prior to using this solution, Transamerica had 15 Geographic Information System (GIS) staffers involved in the tedious task of locating properties on paper or microfiche tax maps. Now, Transamerica processes 98% of its 10,000 daily requests in the same day, and nearly 90% within five hours of the request.

### Underwriting in a Terrorist Age

The entire insurance industry was unprepared for the events of 9/11—this was especially true in the case of underwriters. Many carriers with multiple lines of coverage made underwriting decisions and stored them in their separate business line databases. For example, commercial lines data was kept separate from personal lines, and auto data was kept separate from home data. Few insurers could look at all their policies in aggregate to visualize the ramifications.

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In addition, many carriers relied on outside third-party services to provide underwriting answers, and did not have an internal system to evaluate their book of business.

Insurance companies have turned to location intelligence technology to prepare for the next terrorist disaster and to incorporate location into their daily underwriting process. The first step is to visualize all of their current policies. New location intelligence solutions allow connection to disparate databases and combine their content into one view. At this stage, coverage limits are reviewed to ensure that Probable Maximum Loss (PML) is not exceeded in any given area. Insurance companies can then look at what policies are located in the same building. They understand which policies are located across the street, and which ones are within a block radius. Once the proximity of policies is realized, insurers can then begin to equate policy limit quantities.

The second step is the implementation of terrorist factors into the underwriting process. Mapping technology allows for countless data sources to be layered together, including corporate, natural hazards, streets, territories, industry, and business.

The ability to manage catastrophic risk is tied to managing the density of risk within a particular area. To quantify risk and manage exposure to acceptable levels, insurers and reinsurers must be equipped to ask, and answer, a new set of questions. These include questions about the location of the business in relation to target structures, such as an office tower, stadium, chemical plant, or other highly valued or densely populated structures. To manage insurance portfolios accurately, the industry must consider the potential risks and how they relate to geography across various lines of business. Location-based technology is necessary to address these new concerns.

Because addresses can be accurately identified on a map, underwriters can assess risk and set premiums in ways that may otherwise have been difficult. For example, location intelligence can reveal whether one building

being underwritten is actually touching another, and thus potentially affecting risk. The exact proximity of addresses to fault lines, flood zones, and other hazards can also be seen easily.

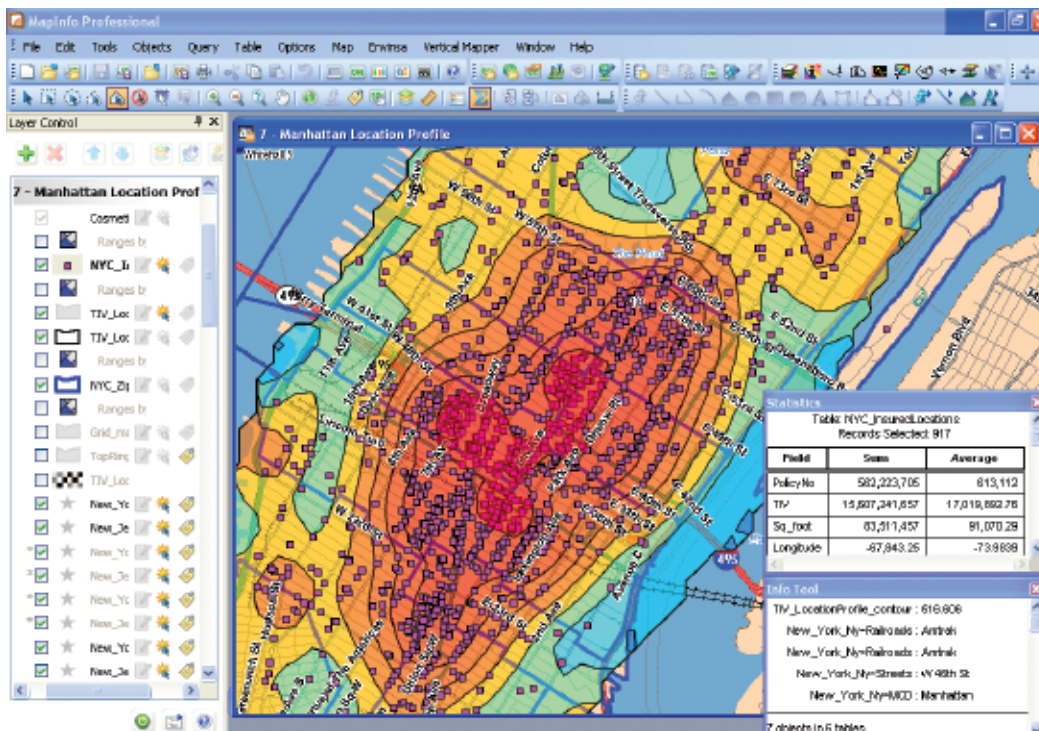
Location intelligence solutions lead to substantial dollar savings. Prior to using Pitney Bowes Business Insight, the Florida Farm Bureau (FFB) Insurance Companies were spending two to five dollars per record for rating information from an outside service, costing the company more than \$250,000 annually. With Pitney Bowes Business Insight technology, FFB batch geocodes on demand with the option of using interactive or manual geocoding to match new records and hard-to-find addresses. With relatively low fees for software, data — much of which they already owned—and development costs, FFB is saving money on every look-up.

### Maximize Premium Dollars by Pinpointing Addresses

Knowing the exact location of an address often leads to a need to set premiums higher. In the case cited above, FFB experienced a 900% net return on investment in the first 10 months of running their Pitney Bowes Business Insight solution. By verifying policy rates, FFB found that one third of their premiums decreased, while two thirds increased. FFB's ability to verify rates is also helping them retain more customers through policy renewal, reduce fines and pressure from regulatory agencies, and streamline their validation processes.

### Mapping in Auto Insurance

One major factor to pricing an auto policy is the distance driven to work by the insured. Today, many insurers rely on their agents for determining and reporting the true driving distance. The reality is that most agents report less than the actual amount and insurers are losing potential billings. Location intelligence technology provides driving distances accurately and quickly—in just a matter of milliseconds.



A complete view of risk requires a comprehensive understanding of all the different policies and loss potential in a densely populated metropolitan area.

There is a growing supply of data sets that aid in the pricing process. Traffic volumes, crime statistics, and demographics are three examples. These datasets explain both the types of roads the insured drives and where they park their car.

### Maximize Exposure, Minimize Risk

In evaluating risk exposure, some insurance carriers set limits for given counties or regions to minimize potential catastrophic claims. For example, a carrier may decide to underwrite only a certain dollar volume of business in a county near the coastline. But in doing so, the carrier may be ignoring the fact that a large part of the same county is far enough away from the coast and is not actually in a high-risk area.

Location intelligence solutions show the exact location of any address with regard to coastlines, fault lines, flood zones, and other potential hazards. In many cases, a carrier can use maps to significantly increase its business in areas once thought out-of-bounds.

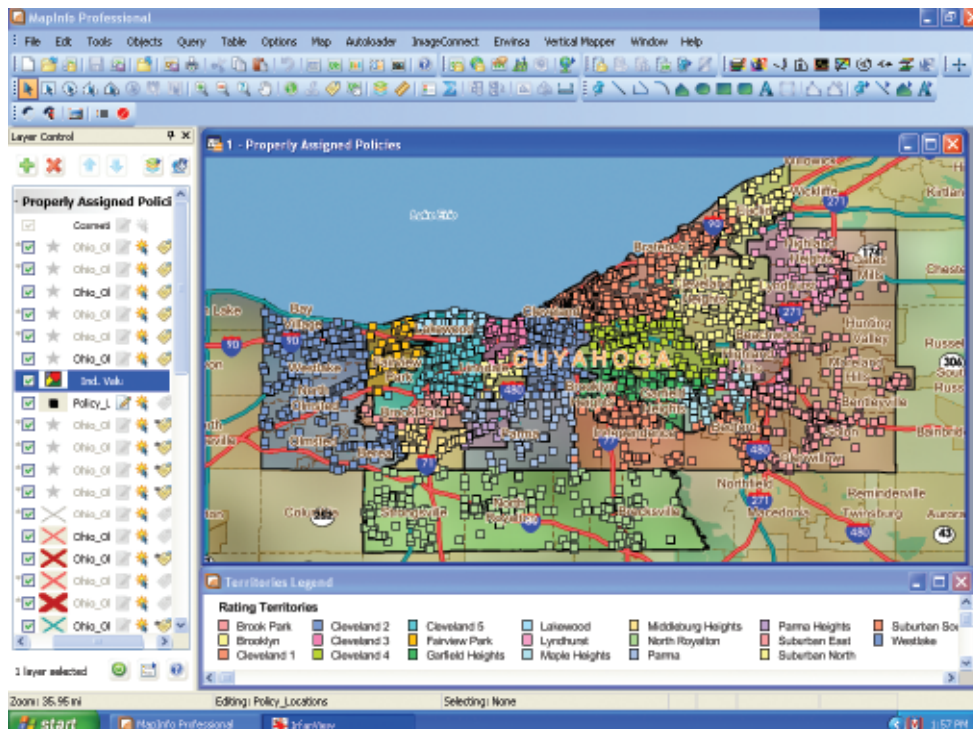
### Settle Disputes Regarding the Exact Location of a Property

When a dispute arises over the exact location of a property, particularly with regard to risk factors, insurance companies can use location intelligence technology as authoritative geo-verification resources. Because the information is digital, precise, and presented visually, property owners, mortgage companies, and others involved in disputes can readily agree on locations and come to prompt decisions.

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*Insurance companies maintain vast amounts of data on their policyholders, and can use analytical tools to profile customers of any given product.*

Location intelligence plays a key role in customer service as well. One benefit is the ability to quickly locate resources closest to the claimant. For example, an auto insurer can locate certified repair shops closest to the insured, and direct them to the most cost-beneficial location.

Location intelligence provides the ability to add mapping to any claims-handling application. This is especially true when an insurance company must respond to a catastrophe. Location intelligence technology can help establish temporary claims offices in the field and locate them in areas that will serve the most policyholders most efficiently. Maps can be generated that help adjusters identify the policyholders hardest hit by the disaster and prioritize meeting their needs. In some cases, insurers have even generated street-level maps of disaster areas to help adjusters find the

locations of buildings that had collapsed, blown away, or become damaged beyond recognition.

### Marketing and Strategic Planning Initiatives

In addition to the many ways location intelligence streamline operations, save money, boost productivity, and expedite the flow of information, location intelligence also helps insurance companies develop new products, bring them to market, and plan for the future.

### Profiling an Existing Customer Base

With a customer profile for a specific product, the insurance carrier can use location intelligence solutions to overlay demographic data, such as age, occupation, household

income, and more, onto maps. This enables the carriers to find other areas with similar demographic profiles or to target and cross-sell existing policyholders with the company's other products.

### Generating Demographic Reports for Key Geographies

When an insurance company is looking to grow, what is the best way to assess the potential of new geographic areas? The answer is location intelligence. Specifically, carriers can use location intelligence to accurately locate regions with high sales potential by overlaying demographic data. By incorporating information about the presence of competitors in these areas, insurance providers identify and prioritize the areas with the highest potential—and allocate resources accordingly.

### Locating Potential Customers for Commercial Lines

As the science of risk management evolves, insurance professionals are becoming more adept at creating coverage specifically to serve the needs of commercial niche markets. Location intelligence solutions help insurers determine when and where to introduce niche products by identifying potential customers and matching them with the best sales channels.

### Assessing and Adjusting Agent Penetration

How do you know when you have too many, or too few, agents in a given geographic territory? Location intelligence provides the answer in a format that is easy to understand and interpret. With this technology, gaps and significant overlaps in agent penetration become visual. The result is that you can actually see territories in a way that was previously hidden in a table or list of data.

Maps are also excellent for illustrating sales patterns. The knowledge gained from maps can be used to create and direct motivational programs, refocus sales into more productive areas, or restructure an entire sales organization.

### Gauging Competitive Penetration

Property and Casualty markets in general are more competitive than they have ever been, and carriers must be aware of challenges from competitors. Location intelligence solutions allow insurance companies to visualize the competition's penetration in key geographic and demographic markets and make the necessary adjustments. For example, carriers have benefited by minimizing their sales efforts in areas with strong competition, or by making a stronger push into areas in which the competition is vulnerable.

### Helping Agents in the Field

Location intelligence is as valuable to agents in the field as it is to insurance carriers. Salespeople use location intelligence to show customers how risk factors impact their businesses, where their employees live, and more. Location intelligence help agents prospect new customers for commercial lines and identify demographic characteristics to push sales of individual lines.

### Competitive Benefits of Pitney Bowes Business Insight Solutions

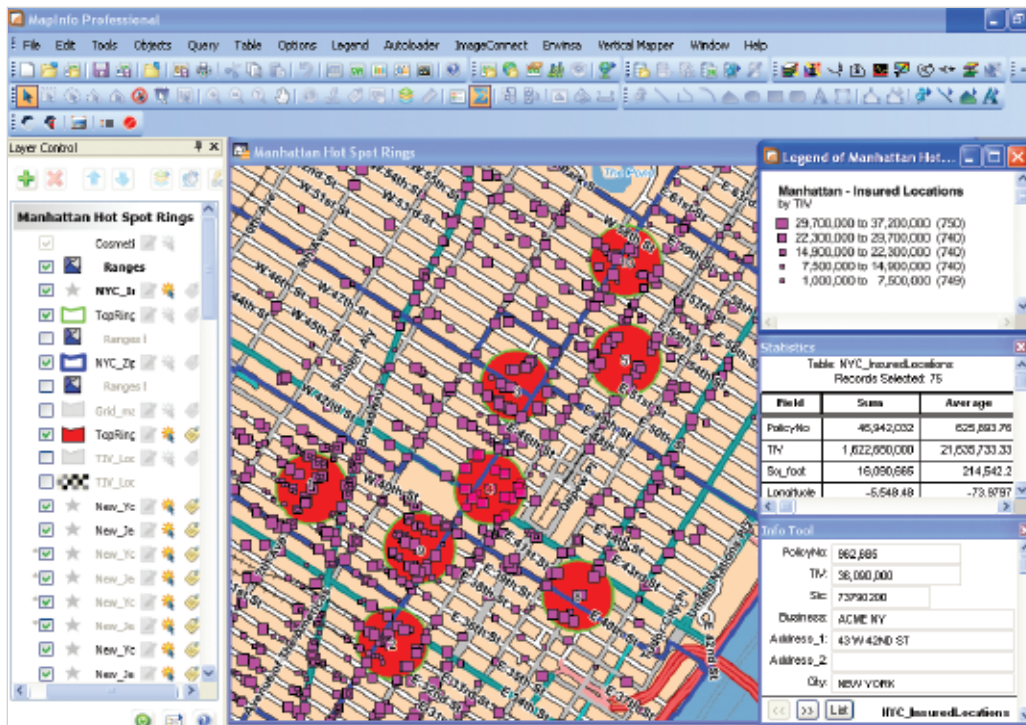
Pitney Bowes Business Insight continues to be a proven leader in location intelligence technology. Our solutions help insurers:

- Save money previously spent employing outside resources
- Perform underwriting and risk assessment tasks quickly and efficiently
- Boost productivity and maximize internal resources by streamlining complex, time-consuming tasks
- Maximize premium dollars with accurate risk assessment
- Respond to claims more quickly and efficiently
- Expand profitably into new markets and geographic regions
- Position intelligently against the competition
- Plan for future growth and expansion

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*Pitney Bowes Business Insight and its expert partners have created a number of industry-standard products for insurance applications. Many may be customized to meet the unique needs of any company.*

### Proven Success

Pitney Bowes Business Insight is the worldwide leader in location intelligence solutions for the insurance industry. We were the first company to develop easy-to-use, PC-based mapping software for business applications. Today, Pitney Bowes Business Insight is a worldwide company with hundreds of thousands of customers using our technology in a variety of computing environments, including standalone desktops, client/server networks, data warehouses, and the Internet.

But we are much more than a software company. Working with partners around the country who understand the unique requirements of the insurance industry, Pitney Bowes Business Insight integrates software with comprehensive data and hands-on consulting services to provide technology

solutions tailored specifically to each organizational need. Many customers also use in-house developers to create their own unique solutions.

The benefits of Pitney Bowes Business Insight solutions to the Property and Casualty insurance industry are many. Scores of leading insurance companies are already using our location intelligence solutions to make their underwriting operations more efficient, thereby minimizing risk exposure while maximizing premium dollars. Our location intelligence solutions enable companies to quickly assess claims and facilitate rapid claims response, particularly in catastrophic situations, and for a wide variety of marketing and strategic planning purposes.

*Pitney Bowes Business Insight is proud to be a member of ACORD*





#### UNITED STATES

One Global View  
Troy, NY 12180-8399  
main: 518.285.6000  
1.800.327.8627  
fax: 518.285.6070  
pbbi.sales@pb.com  
www.pbbusinessinsight.com

---

4200 Parliament Place  
Suite 600  
Lanham, MD 20706-1844  
main: 1.800.327.8627

#### CANADA

26 Wellington Street East  
Suite 500  
Toronto, Ontario  
M5E 1S2  
main: 416.594.5200  
fax: 416.594.5201  
pbbi.canada.sales@pb.com  
www.mapinfo.ca