

U.S. Pat. No. 7,516,085

Petco

Retail Site Selection Based on Drive Time Areas

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Bailey

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(54) **MARKET DETERMINATION SYSTEM**

6,604,083 B1 8/2003 Bailey 705/10

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(*) Notice: Subject to any disclaimer, the term of this
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U.S.C. 154(b) by 351 days.

JP 59034918 A 2/1984

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705/36

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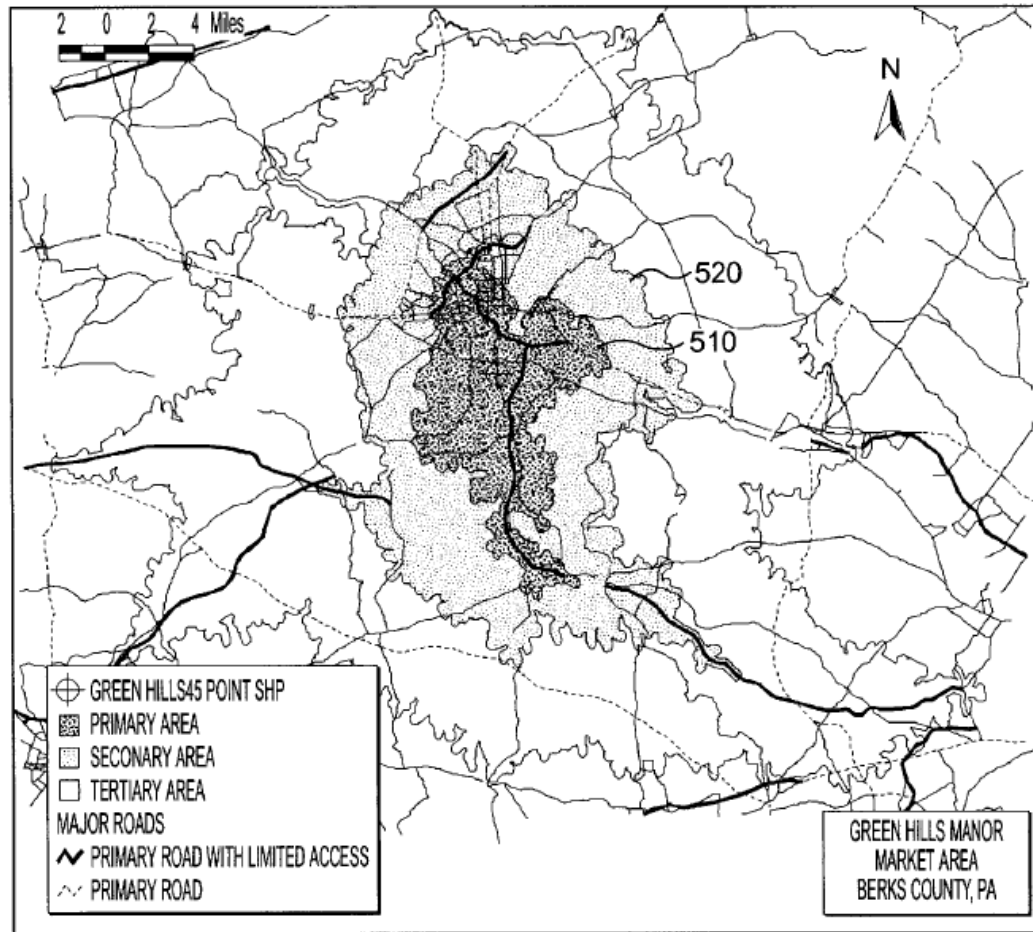
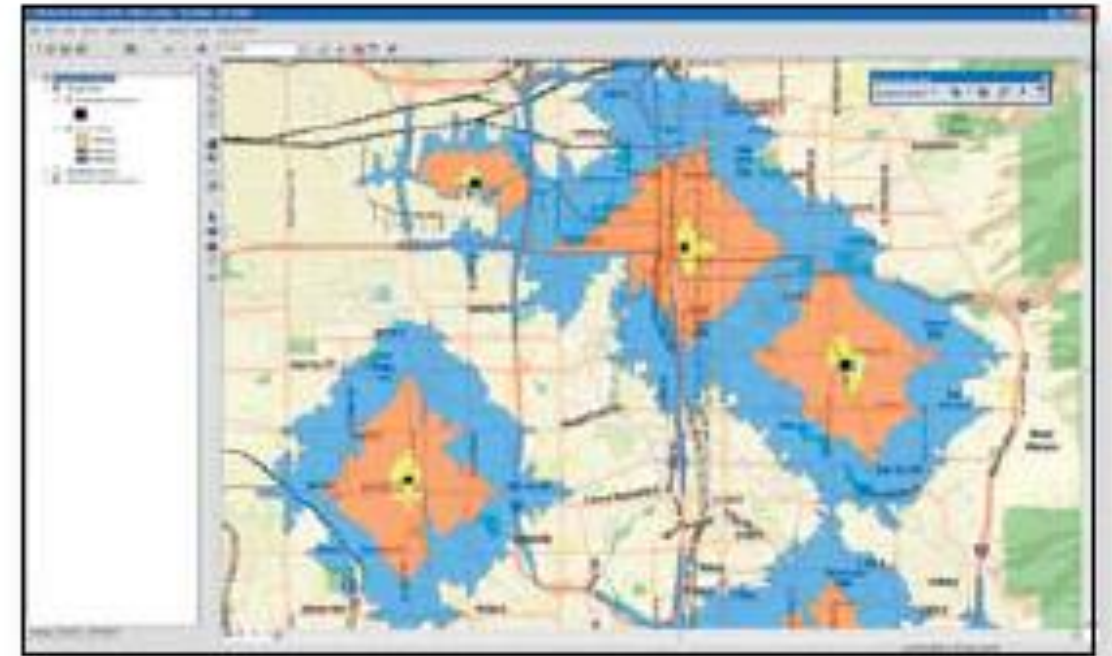


FIG. 5b



Multiple Drive Times in Salt Lake City, Utah

<http://www.esri.com/library/brochures/pdfs/esri-busanalyst.pdf>

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Claim 14

A data processor implemented method for determining a demand for a product or service within a plurality of census units located within a market area, the method comprising:

receiving a location input for at least one business offering the product or service;

calculating a plurality of travel time traces around at least one business location using at least one geographical information system database;

determining a number of potential customers within each of the plurality of census units using at least one demographic information database;

weighting the number of potential customers in the travel time traces within each of the plurality of census units; and

determining the demand for the product or service offered by the business using the weighted numbers of potential customers within each of the plurality of census units using the data processor.

Mitigating the Risks of Expansion

Petco™ is a leading national pet specialty retailer, with more than 1,200 Petco and Unleashed by Petco store locations nationwide.

What did they do?

Petco staff members began using an Esri® geographic information system (GIS)-based site selection solution to mitigate the risks associated with expanding its network of stores. As the number of stores has grown, so have the risks of selecting inappropriate or marginal locations or new stores that have the potential to cannibalize the sales of existing stores. Petco sought to improve its ability to assess both the sales potential for new locations and any risks. Investing in the Esri solution provided scientific analysis that gave leaders more confidence in their decisions.

Do I need this?

Opening a new store often requires a long-term property rental contract and significant construction-related capital expenditures. Minimize costly mistakes and improve the performance of sites with accurate site selection using Esri GIS technology.

<http://www.esri.com/library/casestudies/petco.pdf>

"With the Esri solution, we have successfully avoided the downside risk associated with several locations, which more than pays for the investment."

Shawn Hanna
Director of Financial Analysis
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Site prospecting using the Site Prospecting tool context menu

The Business Analyst Site Prospecting tool has a context menu to provide alternatives for setting the center point of the analysis. This context menu allows you to choose the center point by entering an address, a geographic coordinate or by using a selected point on the map.

1. Click the Site Prospecting tool on the Business Analyst drop-down menu. You can choose from:

Site Prospecting: Use to click anywhere on the map. A basic form of prospecting when you don't know an address. This resembles throwing a dart at a map.

Find point by address: Use to enter a single address. The address will geocode and the location is placed on the map.

Use selected point on the map: Use to select any point on a map.

Input coordinates: Use to enter longitude and latitude coordinates. Used when a highly precise location is required or a postal address doesn't apply in the case of a cell phone tower or weather station.

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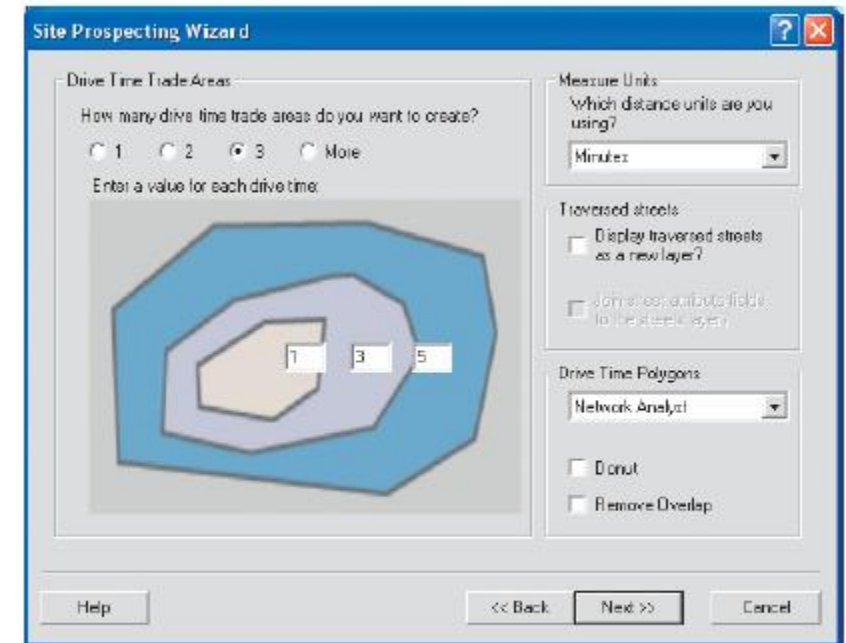
weighting the number of potential customers in the travel time traces within each of the plurality of census units; and

determining the demand for the product or service offered by the business using the weighted numbers of potential customers within each of the plurality of census units using the data processor.

If you choose Drive Time:

Choose the number of drive time trade areas you want to create, then type a value for each drive time in the text boxes. Click the Measure Units drop-down menu and click the distance units you want to use, then click Next.

Type a name for the new trade area, type any comments, then click Finish. ►



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Business Analyst

1. How is data calculated for a trade area?

ESRI uses a sophisticated Weighted Block Centroid geographic retrieval methodology to calculate data for rings and other trade areas. This method provides the most accurate information for rings and polygons.

The basic principle - A geographic retrieval methodology determines how data is gathered and then summarized or aggregated for each ring. For standard geographic units, such as counties or ZIP Codes, the link between a designated area — called a trade area — and its attribute data is a simple one-to-one relationship; if a trade area contains a selection of ZIP Codes, the data retrieval is a simple process of gathering the data for those ZIP Codes.

Census Blocks are the smallest unit of census geography. They are used to create all other levels of census geography. For example, one or many blocks are aggregated to create a Block Group. In the third map, the blue dots represent the geographic centroids for the 13 blocks that make up the highlighted (yellow) Block Group. Unfortunately, only a small subset of data (households, population, housing units, and number of businesses) is available at the Census Block level and, therefore, cannot be used to aggregate most data for a trade area.



Block centroids within a trade area are used to calculate a weight for the highlighted Block Group. These weights are then used to more accurately gather and aggregate demographic data for rings and other polygons.

http://downloads.esri.com/support/documentation/other/_BA91_Block_Group_Centroid_Aggregation_FAQ.pdf

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PETCO mitigates the risk associated with opening new locations by using ESRI Business Analyst for site selection solution.

In an effort to mitigate the risk associated with opening a new location and maximize the return on the invested capital it takes to build a store, PETCO decided to implement a GIS-based site selection solution in 2006. “We sought to improve our ability to assess the sales potential for new locations, which was born of a desire to be more risk averse with capital,” says Hanna. “The investment would give us a more scientific basis to feel confident in our process.” In addition to the significant construction-related capital expenditures, opening a new store often requires a long-term real estate lease. Improving the performance of sites with accurate site selection helps to minimize costly mistakes.

<http://www.esri.com/library/articles/petco-case-study.pdf>