



# PRODUCT DATA SHEET

## Pitney Bowes Spectrum™ Enterprise Routing Module

RAPIDLY DELIVER POINT-TO-POINT  
CALCULATIONS – BY TIME OR DISTANCE

### Product Overview

The Spectrum Enterprise Routing Module (ERM) combines data quality functions with sophisticated spatial analytics to provide the location intelligence you need to optimize business operations – logistics, marketing, sales, service – across the enterprise. You can determine whether a specific address or coordinate falls within a pre-defined coverage area or calculate the most efficient route between two or many points, determine road distances, travel times and reduce travel costs.

### Benefit

Nearly every industry must make decisions based on time or distance between two points. As part of the Pitney Bowes Spectrum Technology Platform, the Enterprise Routing Module combines data quality, location intelligence and sophisticated algorithms to streamline decision making across the enterprise.

With the Pitney Bowes Spectrum Enterprise Routing Module, you can:

- Identify market penetration in areas around specific stores or branches
- Establish sales, risk or rating territories from coast to coast
- More effectively target customers based on proximity to specific outlets
- Identify the nearest service providers
- Determine if a prospect lives within your coverage areas
- Calculate the most efficient driving routes

### Time or Distance Functionality

By transforming addresses into precise coordinates, you can automatically calculate the distance between two or more points in terms of time or distance. The Enterprise Routing Module calculates both an isochrone – which is an area that can be traversed in a given amount of time; and an isodistance – which represents the points that are within a certain distance, such as miles or kilometers, from the starting point.

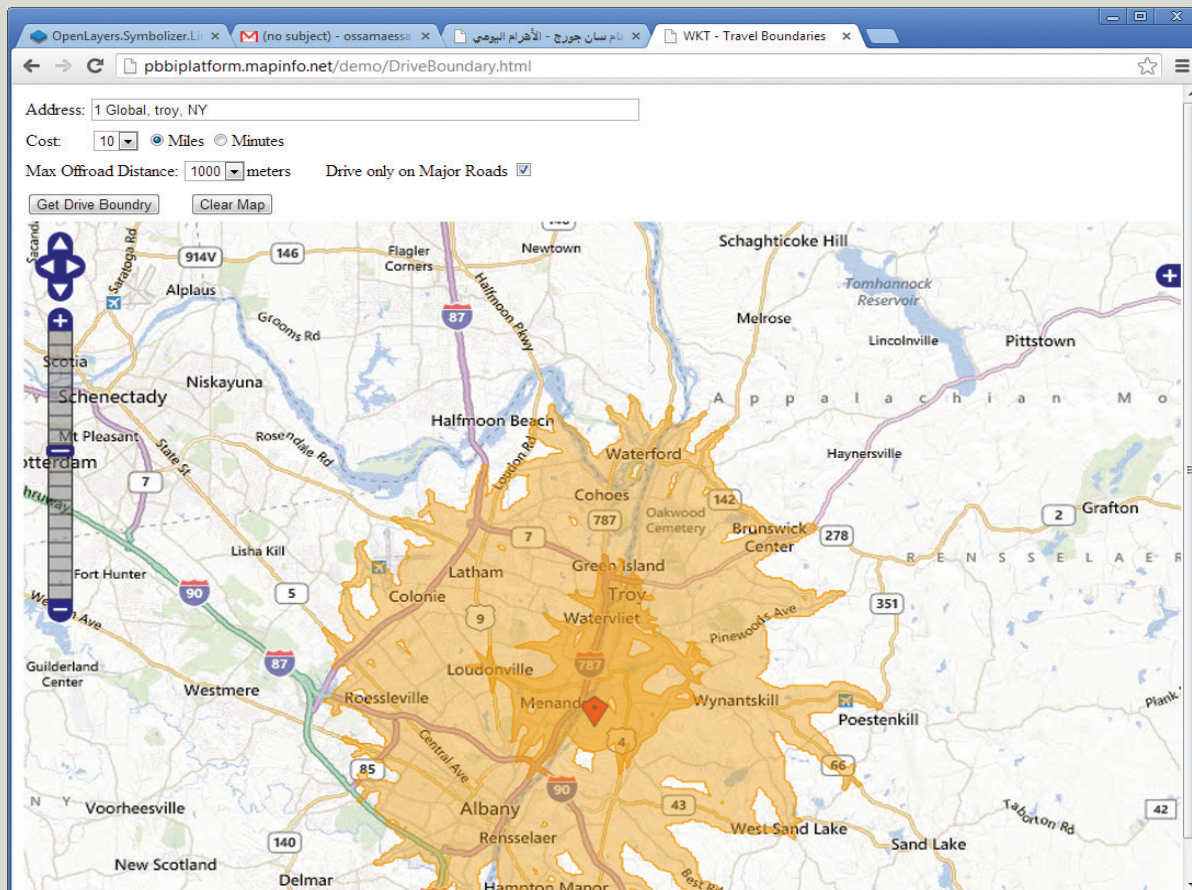
### EXPECTED ROI

The Pitney Bowes Spectrum™ Enterprise Routing Module is a simple solution that delivers powerful results to your company:

- Gain highly accurate location-based insights designed to fuel better business performance.
- Benefit from powerful address geocoding and efficient enterprise routing.
- Reduce risk and improve both operations and customer satisfaction.

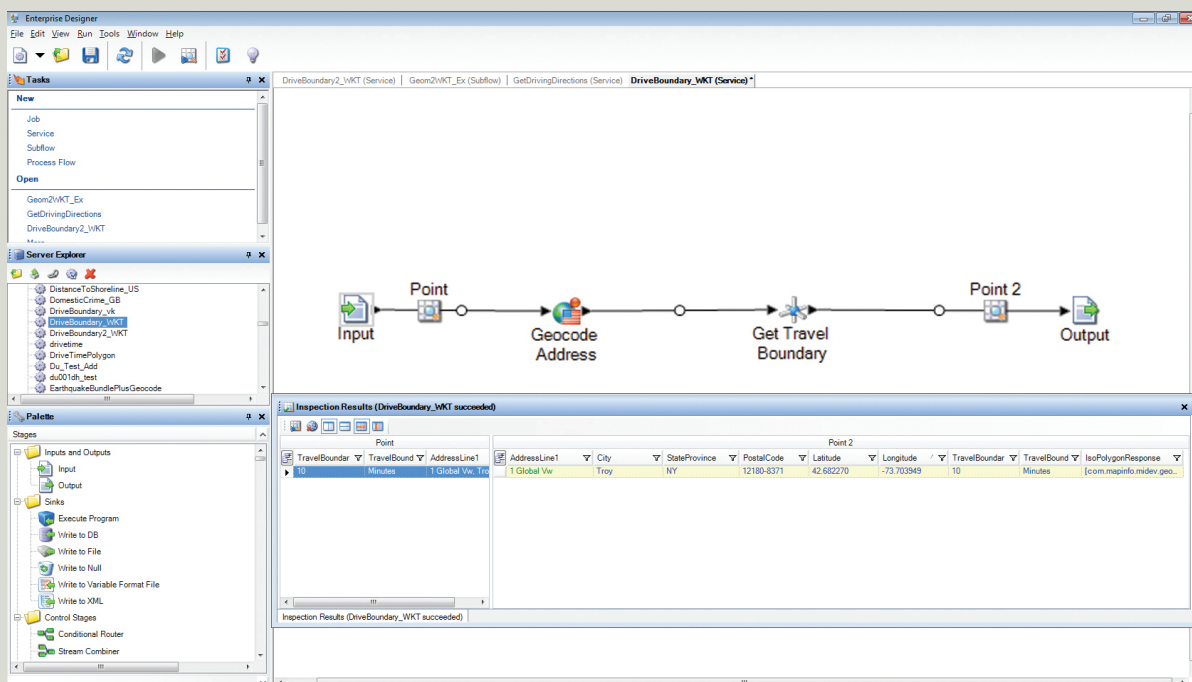
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THE ENTERPRISE ROUTING MODULE COMBINES DATA QUALITY, LOCATION INTELLIGENCE AND SOPHISTICATED ALGORITHMS TO STREAMLINE DECISION MAKING ACROSS THE ENTERPRISE.



Travel Boundary from  
"1 Global Vw, Troy, NY."

- inner ring: 5 miles travel boundary
- outer ring: 10 miles travel boundary



Dataflow representing  
the Get Travel Boundary  
operation.

Input:  
1 – Street Address  
2 – Travel Boundary Cost  
3 – Travel Boundary units (miles, kilometers, minutes, hours, etc); time units generate isochrones and distance units create isodistances

## Mapping Capabilities

The Enterprise Routing Module provides routing information and directions from one location to another location (1:1) or from one location to multiple locations (1:many). The ERM is able to perform these capabilities around the globe through accessing up-to-date databases for the specific countries you select.

- Calculate road distances and travel times
- Calculate shortest or fastest route
- Automatically adjust directions based on configurable vehicle (e.g. length, width, height, weight, etc.) and other attributes (e.g. speed, road type, etc)
- Pedestrian or driving directions
- Batch routing directions simultaneously calculates a large number of routes

For companies, this point-to-point optimization helps reduce the costs of fuel, maintenance and manpower, while shortening overall delivery times. For customers, it provides easy-to-understand information that can be accessed through your own Web site.

- Simplify logistics
- Determine accurate delivery costs
- Load trucks in a last-in, first-out order
- Set realistic expectations
- Save time and money

## Boundary Setting Tools

How far are you or your customers willing to travel? The Enterprise Routing Module allows you to create a precise set of points (polygons) which represent an area that can be traveled in a network from a starting point in an user defined amount of time; or represents the area that is a user-defined distance from the starting point. ERM goes beyond driving directions and supplies valuable information which can be used for identifying new site locations, more effectively target customers and more accurately determine eligibility of service, all of which can create or extend your competitive advantage.

- Improve customer satisfaction: identify areas within your trade area or territory that cannot be reached within the desired time or distance
- Determine underserved markets: spot pockets that fall outside your traditional service boundaries that can be reached within a desired time or distance

### Gain important capabilities for:

- Calculating distance in miles or minutes
- Setting travel boundaries
- Mapping out the most efficient routes
- Targeting more effectively
- Reducing costs
- Expediting delivery of goods and services

### Set boundary definitions including:

- Flood zones
- Rating territories
- Sales territories
- Individual store markets
- Tax or voting districts
- Other business-specific zones

## Added Value

### User-Friendly Functionality

The Enterprise Routing Module combines innovative data quality functions and analytics in a single, service-oriented architecture that seamlessly integrates into business operations. You can set default settings through a centralized Management Console, while making it easy for business units to customize output for their precise needs. You can even integrate in-house business data, including customer records and network locations, and run analysis in batch or real-time mode.

### Enable Location-intelligent Decision-making

The true value data brings to your organization is reflected in the many ways it can advance your overall goals and objectives: increased profits; more efficient operations; and stronger customer relationships. That's why the Enterprise Routing Module easily integrates with other mission-critical components of the Pitney Bowes Spectrum Technology Platform:

- Enterprise Geocoding Module – analyze geographic data and improve business decisions with powerful address geocoding. You will gain accurate location and address information fueled by a wide range of up-to-date, reliable data from major sources. The result: more matches, fewer false positives, and better data quality – so you can know your markets, customers and competitors better.
- Location Intelligence Module – gain a true view of your data and customers, so you can solve even the most complex of business problems. Verify locations and transform location insights into valuable business intelligence to reduce risk, increase customer satisfaction and streamline operations. Easily harness the power of a range of spatial data and applications, easily performing sophisticated analytics to help optimize business operations – including marketing, sales, service, logistics and network management – across the enterprise.

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- Part of the Pitney Bowes Spectrum Technology Platform
- Certified OGC compliant
- 64-bit operating system support
- 64-bit runtime support
- Compatible with WMS, WFF, CSW, SOAP, REST as well as simple URL-based interfaces

## Specifications

Supports the Application Programming Interface (API) specifications defined by the Open Geospatial Consortium and has certified on the WMS 1.3, WFS 1.0 and CSW 2.0.2 specifications.

### Supports the use of the following tools:

#### Databases

- Oracle 10 and 11
- SQL Server Spatial 2008
- PostGIS 1.5.2

#### Web Browsers

- Microsoft Internet Explorer 8, 9
- Mozilla Firefox 10, 11
- Google Chrome 17, 18
- Safari (Mac OSX)

#### Operating Systems (Server side)

- Windows 2003 and 2008
- SUSE Linux 10 and 11
- Solaris 9 and 10
- RedHat 5 and 6
- HP-UX V11iV3 (Itanium)
- AIX 6.1 and 7.1

For more information contact:



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