Bing maps

Bing Maps Isochrone API

The Bing Maps Isochrone API is a service that uses time or distance specific isolines to determine a travel-time or travel-distance polygon for the geographical area that can be reached, given a starting point, a set of parameters, and the routes to avoid. Supporting historical traffic, customizable parameters, and multiple modes of transportation, the Bing Maps Isochrone API provides enhanced visualization and greater insight into the area that is of most interest.

Deeper Insights and Advanced Planning

Need to understand an area for a future business location, a customer delivery radius, or determine transit or commute times? With the Bing Maps Isochrone API, you can calculate an area of interest and visualize the polygon shape on a map, as well as use the shape for spatial math queries, to gain deeper insights and enhanced planning. For travel-time or travel-distance based searches, the Bing Maps Isochrone API is an easy to REST service designed to support customizable parameters, reverse flow, predicted traffic, user's location and more.

Customization and Flexibility

Visualizing your search with time or distance specific isolines can uncover valuable insights with polygons that capture the area of interest, allowing you to better understand and plan for opportunities.

Time or distance based user scenarios can be used across most segments:

- Real estate - Determining potential home locations near a given location (E.g., workplace, schools, amenities)
- Stolen vehicle recovery solutions to determine the search area, using a time-based search of how far the vehicle could have traveled.
- Zoning and transportation planning to determine the area for vehicle service.
- Time-based area of interest applications, such as social applications that determine matches within the area or determining the range for an electric car to travel and understand charging stations within the area.
- Retail and restaurants - Understanding new market opportunities at a location, expanding into new areas, developing promotional campaigns, etc.

Bing Maps Isochrone API

Enhanced visualization and greater insight: Calculate an area of interest from a given location for advanced planning solutions. Easy to use and deploy, with customizable parameters, various modes of transportation, and historic traffic data.

Business Opportunities:

- Greater visibility for advanced planning
- Maximize opportunities
- Fleet and Asset Management

For example, a company looking to open a new restaurant location can determine the area that is reachable within a 10, 15, or 20-minute walk or drive (as shown in Figure 1), to better understand the radius of potential customers or its delivery services.

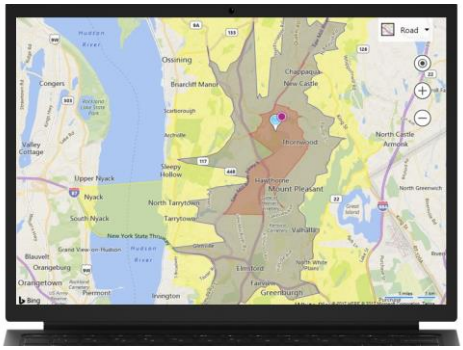

Figure 1

Additionally, the owner can draw a polygon on a map and use that data for spatial queries, to learn more about how many people live in the area, demographics, competition, and more.

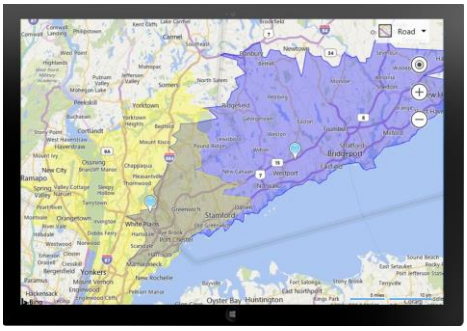

Figure 2

An advanced scenario is needed when there are multiple polygon areas and an intersecting area of interest. In this real estate example (as shown in Figure 2), a couple's house hunt is dependent on the commute time to each work location. Using the API to make a call for each polygon, as determined by each person's desired mode of transportation and commute time, the intersecting area of the two polygons is where the couple should focus their home search. This type of scenario is common for

Microsoft

application use, such as delivery planning from multiple factories, commercial transportation or driving services, determining a future warehouse location, and more.

Features and Capabilities

- Calculates a travel-time or travel-distance polygon array of latitude/longitude points that describe the isoline
- Supports drawing a shape on a map and using the shape in spatial queries
- API inputs:
  - startPoint Latitude/Longitude
  - routeMode (driving, walking or public transportation)
  - road types to minimize or avoid (highway- minmizeHighways, tolls-, minimizeTolls)
  - maxDistance for which the polygon shall be created
  - maxTime for which the polygon shall be created
  - departTime
- Limit of 1 hour to cache results
- Historic traffic data will be used in calculating the routes if the date and time are specified in the call
- GET requests are supported
- Supports Synchronous and Asynchronous calls
- The response format is JSON. Support for XML is coming soon.

Get Started

The Isochrone API uses billable transactions. If you have a Bing Maps key, review the Isochrone API documentation to learn more and start developing your solution. If you don't have a Bing Maps key, create a Bing Maps account and create a key to authenticate your application. Then follow the documentation to start developing your solution.

For Licensing questions, contact a Bing Maps Sales Specialist.

Bing Maps Fleet and Logistics API Solutions

From personalized experiences to advanced scenarios in the logistics sector, Bing Maps has you covered. Check out the geospatial API services and solutions for enhanced fleet management, routing, vehicle tracking and more.

Distance Matrix API – Calculate travel times and distance in many-to-many scenarios, with an optional histogram to predict traffic. https://www.microsoft.com/en-us/maps/distance-matrix

Truck Routing API – Determine travel routes that take into consideration a truck or commercial vehicle's attributes. https://www.microsoft.com/en-us/maps/truck-routing

Snap to Road API – Snap the path to the most logical path, using the vehicles GPS trace, as well as returns road attributes, such as speed limit and elevation. https://www.microsoft.com/en-us/maps/snap-to-road

Learn More

Explore the following resources to learn more about the Bing Maps Isochrone API:

Isochrone API website & FAQ https://www.microsoft.com/en-us/maps/isochrone

Documentation https://aka.ms/IsochroneApiDocs

Bing Maps Dev Center to create account https://www.bingmapsportal.com/

Bing Maps Terms of Use https://www.microsoft.com/en-us/maps/product/terms

Bing Maps Sales Specialist mailto:maplic@microsoft.com

Contact your Microsoft Reseller or visit our website for licensing advice at www.microsoft.com/en-us/maps/licensing