



Bing Maps Isochrone API

The Bing Maps Isochrone API provides travel-time specific, isoline polygons for the geographical area that can be reached from a given location using different modes of transportation (i.e., driving, walking, and public transit). Supporting historical traffic, customisable parameters, and multiple modes of transportation, the Bing Maps Isochrone API provides enhanced visualisation and greater insight into the area that is of most interest.

Deeper Insights and Advanced Planning

Do you need to understand an area for a future business location, a customer delivery radius, or determine transit and commute times? With the Bing Maps Isochrone API, you can calculate an area of interest and visualise that as a 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 use REST service designed to support customisable parameters, reverse flow, predicted traffic, user's location, and more.

Customisation and Flexibility

Visualising 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 travelled.
- 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.

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.

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.

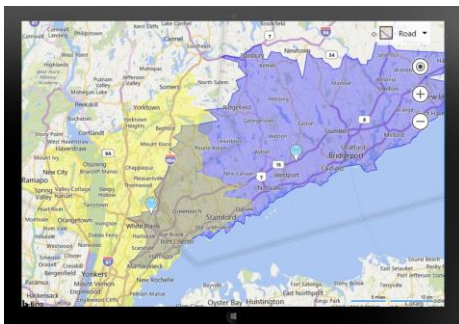


Figure 2

An advanced Isochrone scenario is when there are multiple polygon areas used to identify 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

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

Business Opportunities:

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

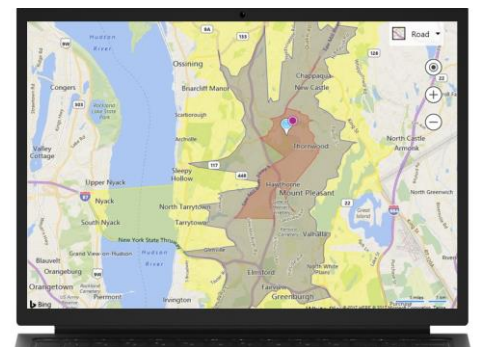


Figure 1

is common for solving problems 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 or address
 - routeMode (driving, walking or public transportation)
 - road types to minimise or avoid (highway- minimizeHighways, 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 and XML

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 personalised 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 – Snaps the path to the most logical path, using the vehicle's GPS trace, as well as returns road attributes, such as speed limit and elevation. <https://www.microsoft.com/en-us/maps/snap-to-road>

Multi-Itinerary Optimization API – Optimised routes, saving travel time and distance, with automated itineraries for single or multiple agents. <https://www.microsoft.com/en-us/maps/multi-itinerary-optimization>

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/maps/product/terms>

Bing Maps Sales Specialist <mailto:mapping@greymatter.com>

Contact your Bing Maps Reseller to learn more about Bing Maps licensing and the full set of APIs.

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