

Geocoding: Convert addresses to geocoordinates & vice versa with high accuracy



#### **ABOUT PTV XSERVER**

PTV xServer is a software developer kit that offers accurate maps and data as well as high-performing software components for truck routing, route optimisation & scheduling and field service management.

The PTV xServer software components combine precise functions and algorithms with decades of experience in logistics. They can be flexibly integrated into any system environment and solve your logistical and geographical challenge from order entry to delivery at maximum level of detail and performance.

#### WHAT IS THE PURPOSE OF GEOCODING?

Geocoding is the process of converting addresses into sets of latitude and longitude coordinates and vice versa. It's a prerequisite for all geolocation-based applications: It enables you to search and precisely display geographic locations on digital maps. Therefore, geocoding is the foundation for all mapping and vehicle routing and optimisation tasks.

### WHY GEOCODE WITH THE PTV GEOCODING API?

The PTV xServer Geocoding API is a software developer component, available as a cloud-based web service or an on-premise solution. Due to its standardised interface, the component can be easily integrated into an existing software architecture. It handles geocoding requests quickly - for individual locations as well as for entire databases. The Geocoding API offers maximum flexibility and highest precision: It allows you to enter address information without specific formatting requirements. We provide a highly accurate database, enabling perfect matching of geocoordinates and geolocations. Moreover, we supply detailed geocoding documentation as well as continuous training and support.







#### **FEATURES**

### USE FORWARD AND REVERSE GEOCODING

In forward geocoding, you start with an address or point of interest and end up with the corresponding coordinates consisting of a latitude and longitude. In reverse geocoding, you request a geographic location based on its coordinates. Our geocoding web service matches geocoordinates and addresses with highest precision.

# USE BATCH GEOCODING TO PROCESS LARGE AMOUNTS OF DATA AT ONCE

Batch geocoding enables you to group addresses and geocode them together. Due to less protocol overhead, you benefit from reduced network traffic and are able to geocode your whole database at once.

### POSTCODE SEARCH APITHAT HANDLES ALL AVAILABLE FORMATS

Regardless of length and formatting: Our postcode search API reliably locates postcodes globally.

### ENTER INFORMATION USING EITHER FREE-FORM OR STRUCTURED INPUT

As user of the PTV xServer Geocoding API, you benefit from maximum flexibility: Use free-form input to enter addresses without considering the order of address elements, or use the structured input to determine the match quality of the single address elements.

## APPLY ADDRESS VERIFICATION TO SPOT ERRORS BEFORE THEY CAUSE PROBLEMS

Address validation checks your input data and evaluates the match quality of input and output to help you choose the correct address. This way you can be sure that you're always working with up-to-date and clean data and avoid inefficiencies.