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About GPS and maps

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About GPS and maps

The Global Positioning System

The Global Positioning System (GPS) is a space-based global navigation **satellite** system (GNSS) that provides **location** and time **information** in all weather, anywhere on or near the Earth, where there is an unobstructed line of sight to four or more GPS satellites.

It is maintained by the United States government and is **freely** accessible by anyone with a **GPS receiver**.

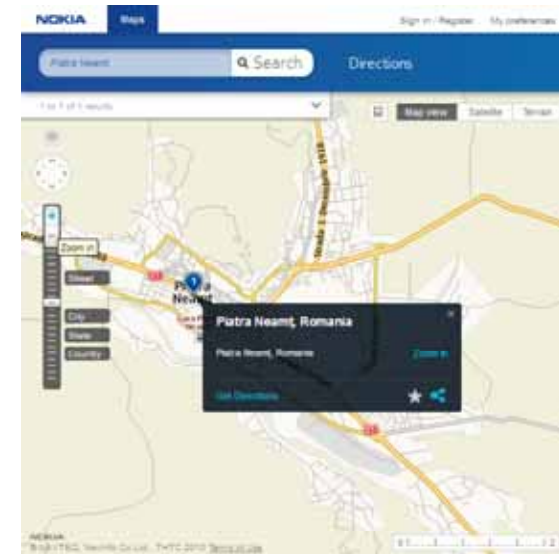
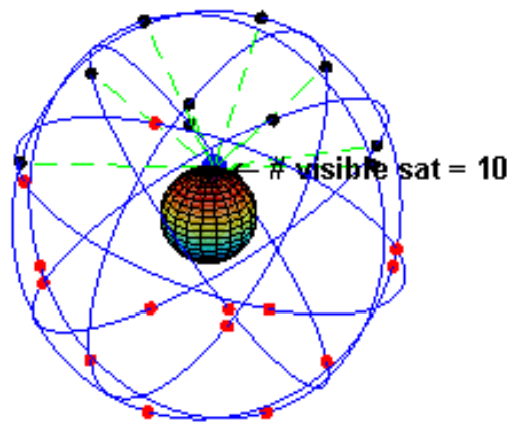
Current GPS-based devices include in **car** navigation system (like Tom Tom) and – increasingly – **smartphones** like the iPhone or Android-based mobile phones.



About GPS and maps

Longitude and Latitude

Positions detected through satellites (basically two **coordinates**: **longitude** and **latitude**) are “read” by data systems where thousands of coordinates of **Points of Interest (POIs)** have been previously stored – like for Google Maps or Nokia phones.

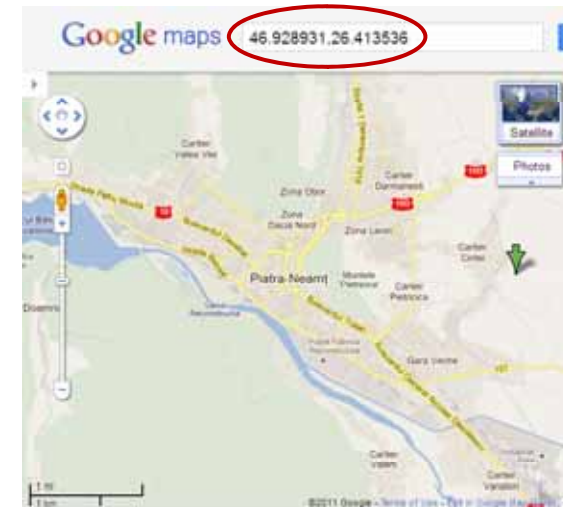
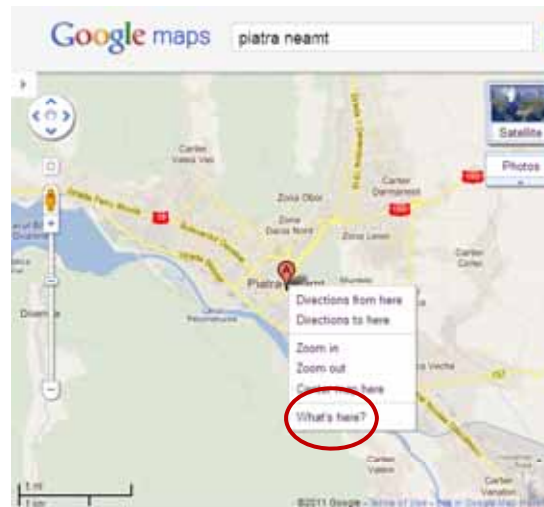
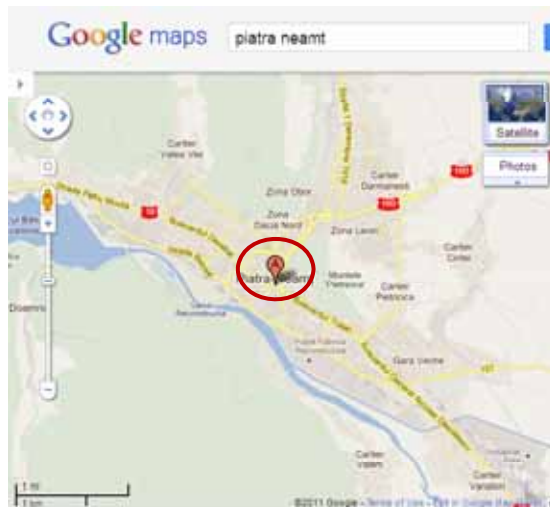




About GPS and maps

Coordinates on Google Maps

Coordinates can be read through **Google Maps** (though there are many coordinate systems, so that coordinates for a location differ in different systems...)





About GPS and maps

Location-based information

Indeed, there are seamless connections among

- locations – **tourist locations**, too! –
- their geographical representation on **the Web** (on Google Maps, but not only on Google Maps)
- and your customers' mobile **phones**.

This is very interesting from a tourist point of view.

1. Your website can use Google Maps to provide your customers with **drive directions** to your business.
2. Destinations can provide **location-based** information on their heritage and tourist services.
3. Destinations can provide such location-based info through **mobile devices** like smartphones.



About GPS and maps

Proximity, Language, and Speech

There's more to be considered.

- **Proximity.** Tourists equipped with up-to-date smartphones can get relevant information on the POIs they are **physically approaching** (museums, hotels, etc.), by the very fact they are approaching them.
- **Language.** Pieces of text designed to deliver information through smartphones should be devised and written in order to be easily – perhaps automatically – **translatable** under different cultures.
- **Speech.** Due to ergonomic limits that are part and parcel with smartphones, information is likely to be delivered less as readable text than as **voice**. In the tourist information world, too, Text-to-Speech may become more popular than it is today.