

GPS

GPS is an abbreviation of **Global Positioning System**. The Global Positioning System (GPS) is a global network of at least 24 satellites orbiting Earth 24 hours a day. It provides positioning, navigation, and timing (PNT) services for military and civil needs and is available all over the world.

GPS was launched in 1994 by the US Department of Defense (DoD). The original name of **GPS** is **Navstar**.

The **Global Positioning System** consists of three segments:

- **Satellite constellation** - the group of satellites that send one-way data signal, containing the satellite location and time.
- **Ground control/monitoring network** - a number of control stations, that provide path correction and other control.
- **Consumer GPS receiving equipment** - device, that process the information, received from the satellites.

GPS covers the whole of the Earth and is able to afford sufficient accuracy of consumer's coordinates. Taking into consideration all the averagings, it can provide the accuracy almost about 1-5 meters. The accuracy can depend on the weather, buildings around and a lot of other reasons. **GPS** provides 3D coordinates if there are more, than three satellites available at the moment, so you can also learn current height. At the beginning there were limitations of accuracy for common people, but on the 1st. of May, 2000 the limitations for civil needs (Selective Availability) were canceled by the president of the United States.

The customer's coordinates computing is based on the distance information received from at least three satellites. Distance to the satellite is calculated by measuring signal delivery time delay. **GPS** can be also supported by the number of Earth stations sending additional data (**Differential GPS**).

GPS is used for military need by the USA and can be used by every civil person, who have got special **GPS** receiver. **GPS** has become a sort of standard for navigation needs in sailing, flying and lots of others.

The number of newest Nokia phones have got **GPS** receiver built-in, so that you'll never get lost wherever you are.

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