

awiloc® is...

...easy to use

- Runs on a mobile device, no data connection
- Uses standard infrastructure such as Wi-Fi or BLE
- Software integrates easily with apps

...secure

- Mobile devices determine their own positions
- Involves no data communication or central server
- Approved by data protection authorities

...reliable

- Positioning in buildings and built-up areas
- Accurate to a few meters
- Basis for LBS for both indoors and outdoors

...Your Route to Success!

Consulting on Positioning Technology

- Technical feasibility studies
- Custom solutions

Testing under Real-Life Conditions

- Evaluation kits for Wi-Fi and BLE
- Several test-beds available

Develop Your Own Applications

- Licenses available for the awiloc®MobileLocator software
- Licenses available for the awiloc®ToolChain, allowing clients to set up and maintain projects
- Commissioning by Fraunhofer IIS and partners

Workshops and Customer Support

- Workshops and seminars on awiloc® and positioning
- Customer support for the entire awiloc® software suite

Networking through the awiloc®alliance

- Network of developers and users
- Competitive head start, joint projects
- Superior conditions for testing and using awiloc®

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awiloc® UBIQUITOUS POSITIONING AND NAVIGATION





SEAMLESSLY MOBILE WITH awiloc®

Both at work and in our leisure time, mobility plays a larger role in our lives than ever before. Smartphone apps with positioning functionality help us find our way around, locate restaurants or discover points of interest in our vicinity. Location-based services (LBS), which allow users to interact with their surroundings, are becoming more and more popular.

In the industrial sector, manufacturing and other processes are being increasingly digitized and mobilized. As a result, LBS are also starting to become widespread in professional apps.

GPS and other positioning technologies commonly used for LBS are far less effective indoors and in built-up areas such as inner cities or industrial parks, because the satellite signal tends to be lost. For navigation and LBS to work inside buildings, a positioning technology needs to perform reliably anywhere.

Against this backdrop, Fraunhofer IIS developed the awiloc® software solution; awiloc® is specifically designed for indoor use and easy to integrate with a very wide range of apps.

EASY TO INTEGRATE AND RELIABLE

The strength of signals received from wireless infrastructure such as Wi-Fi access points or Bluetooth beacons varies in characteristic ways from one location to another. Based on these spatial patterns, awiloc® calculates positions using a method known as fingerprinting. Each location is characterized by a unique signal strength distribution, or “fingerprint”. By matching the strength of received signals to known fingerprints plotted on a virtual map, the mobile device independently determines its own position to an accuracy of a few meters. Position data is made available only to the respective user.

Since this method uses existing wireless networks, no dedicated infrastructure is required, making awiloc® simple and efficient to install. However, no data is exchanged with wireless networks or a server; awiloc® does not collect or process personally identifiable data.

awiloc® runs on standard smartphones, tablets and wearables and supports both Android and iOS.

APPLICATION AREAS



Culture, Leisure, Shopping

- Ideal for multimedia guides, shopping and gaming apps
- Used worldwide in multimedia apps

Travel



- Seamless navigation through public transit, parking garages, etc.
- Concept proven in diverse projects



Industry and Manufacturing

- Efficient technology for reliable lone worker protection or tool tracking
- Successfully trialed in various industries

Logistics



- Enables tracking of materials handling vehicles, helps derive performance indicators
- Helps optimize processes in supply chain management and intralogistics



Health and Convenience

- Basis for support systems such as personal emergency alarms or home automation
- Successfully used in a range of projects