# awiloc®
# WIRELESS LAN POSITIONING
# 3D POSITIONING FOR MUSEUMS

Rather than have to work their way through printed guides, today's museum visitors have the option of accessing multimedia content about exhibits. What's the story behind this sculpture? What would life have been like for city-dwellers in times past? Museums and application developers are increasingly turning to awiloc®, a Wireless LAN-based 3D positioning technology, to bring art, history and technology to life for the benefit of museum-goers.

### What awiloc® positioning adds to multimedia guide

Multimedia guides equipped with awiloc® positioning technology make for a whole new museum experience: Using intuitive, pocket-size devices, visitors can retrieve any desired content as directly and simply as if they were being shown around individually by a human guide. awiloc® does away with the need to search for relevant information. It enables mobile devices such as smartphones to automatically determine which exhibit is closest to a particular visitor. This gives visitors the opportunity to take in the exhibition at their leisure and with undivided attention.

### Easy to install and integrate

awiloc® is a purely software-based solution that can be easily integrated into mobile museum guide systems to add 3D positioning functionality. It is ideally suited to use indoors, where conventional positioning technologies such as GPS are less effective. awiloc® determines positions with an accuracy of about one meter and requires no interconnected Wi-Fi infrastructure. All that is needed is a plugged-in Wi-Fi transmitter.

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Benefits of awiloc® for museums:
– Compliance with data protection regulations
– High positioning accuracy (up to 1 m)
– No data transmission involved, no interconnected Wi-Fi infrastructure required

Benefits of awiloc® for visitors:
– On-demand access to content, based on preferences and current location
– Intuitive use, no exhibit numbers or keypads involved
– Convenient, pocket-sized handheld devices

## Example projects

Perot Museum (Dallas, USA): NOUS and Perot Museum of Nature and Science have realized together with SAMSUNG a major multimedia project in 2013. Using the museum's in-house guide and an App with awiloc®, visitors explore the world of dinosaurs, simulate climatic conditions, and discover the human body.

State Museum of Egyptian arts (Munich, Germany) The visitor´s high precision position in a virtual 3D world is determined using awiloc®. According to the visitors position the NOUS-guide visualizes which exhibit offers additional information and further directs the user to the next stop on the tour.

Heinz Nixdorf MuseumsForum (Paderborn, Germany): Boasting an extraordinary multimedia guide created by Antenna International, the world's largest computer museum has been using awiloc® positioning technology since 2012. Modern smartphones are used to provide supplementary information that both educates and entertains.

Museum "Sonnenwelten" (Großschönau, Austria): A multimedia guide with awiloc® leads the visitors through a time journey of living cultures in constant view of the impact on our environment. The guide was created 2013 by the media agency Informationsgesellschaft/xpedeo.

Museum Industrial Culture (Nuremberg, Germany): A mobile multimedia guide with awiloc® offers background information on numerous exhibits. The guide was created in 2010 by art2guide.

House of History (Stuttgart, Germany): This museum of the history of the German state of Baden-Württemberg has a multimedia guide system in place which was implemented in 2012 by xpedeo. Mobile devices running awiloc® display  visitor's current position and allow them to explore the museum as they choose.