

Javier Dahl

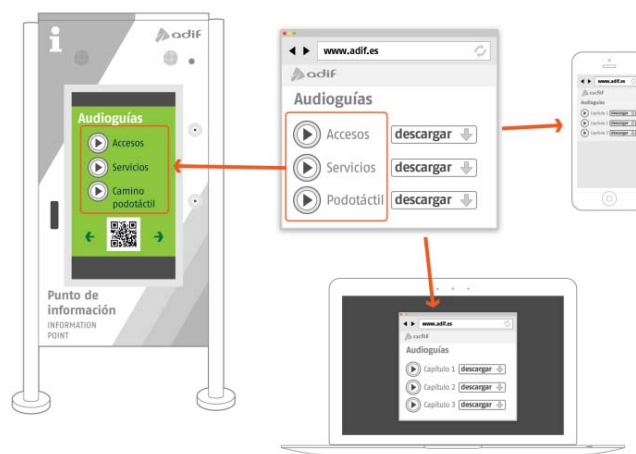
Javier Dahl, Architect, has been working for the past 24 years in Spanish Railways Infrastructure companies, where he has participated, and still does, in the design, construction and operation of every single High Speed Station in Spain. Nowadays his current position is as Technical Assistant Manager at ADIF-Passengers Station Directorate, where technical support to needs arising from station operation & management and commercial activities is given. He has also an active role in international projects, such as Haramain High speed Railway in Saudi Arabia and in the future HS line in Brazil.

The objective of his office is to make the most out of stations in operation from a technical point of view giving response to passenger needs with economic sustainable criteria, and considering future operation & maintenance needs as a key station design feature

AUDIOGUIDE PROJECT: Guiding visually impaired people through stations

The aim of this lecture is to present ADIF's AUDIOGUIDE PROJECT: a new software development that will improve stations universal accessibility giving a high quality service to disabled users, especially to visually impaired collectives. This software project is part of ADIF's overall strategy to enhance universal accessibility in Spanish Stations.

AudioGuide Technology has been developed so visually impaired people can be as autonomous as possible during their access, stay and transit through stations.



To be fully functional the AudioGuide Project is supported, in stations, by specific devices called Interactive Information Points placed along the guide paths.

The final aim of the AudioGuide Project, which will be implemented in the final phase is to allow every single user of the station, not only impaired collectives, to download an application for smartphones to get location, facilities and station services information.

AudioGuide Project: Making the most out of guidepaths

As a **first phase** of ADIF's accessibility strategy for stations, Guide Paths have been installed to grant accessibility to 50% of Spanish Passengers. These Paths connect main station areas and facilities and are formed by different types of pavements:

- Path Pavement with longitudinal grooves in the walking direction.
Width = 40cm.
- Caution Pavement with perpendicular grooves to the walking direction.
Width = 80 - 120cm.
- Turn Pavement with buttons.
Dimensions = 120 x 120cm.

Audioguide Project: Interactive Information Points

Interactive Information Points (IIP) are the physical devices that will contain the Audioguide Project Software. There are already 30 IIP in 17 Spanish Stations to provide customers and passengers, in an interactive way, station and train schedules information. Placing these devices in strategic locations along the GuidePaths will enhance the use of both of them.

IIP features make them fully accessible for all disabled collectives:

- Physically impaired: IIP are easy to use from a wheelchair since the control touch screen height is adjusted.
- Visually impaired: equipped with braille buttons and audible handling and contents.
- Hearing impaired: equipped with magnetic induction loop.

The Audioguide software will be implemented in Madrid Chamartin and Puerta de Atocha Stations Interactive Information Points as a first phase of the project.

Audioguide Project: Operation

The Audioguide messages can be listened using standard headphones from IIP's located in stations.

Interactive information points (IIP) will provide a function, by means of audible descriptions to guide visually impaired people, using guide paths, to the main station facilities: ticket sales office, toilets and platforms.

The possibility to guide users also to Atendo Service and Access and Exit points is being evaluated.

In a near future it will be possible to download Audioguide to mobile devices from the internet.

Audioguide Project: Technology

The Audioguide Project can provide the following information via properly structured audio files.

- Access information.
- Location of station main services. Moving around the station.

The Audioguide software will be available from:

- ADIF's website: www.adif.es
- Interactive Information Points (IIP).
- Future mobile/tablet app "Station in your pocket".