



Digital Radio Reception Forecast Tool

The Customer

The Digital Radio Project Bureau, based in Baden-Baden, is a joint initiative of the ARD, Deutschlandradio and Digitalradio Deutschland GmbH (DRD), a consortium of private broadcasters involved right from the start in the national digital radio project. The participants pursue the objective of establishing digital radio in Germany as the „radio of the future“.

It is the Project Bureau's job to coordinate all the activities and to inform the public of the launch of the new digital radio services available both nationally and regionally, as well as the possibilities that this affords.

www.digitalradio.de

The Challenge

The assignment was to develop a reception forecast tool for the Digitalradio Deutschland information portal (www.digitalradio.de), the purpose of which would be to give users a fast and simple means with which to determine whether they are capable of receiving digital radio broadcasts at a particular reception site, and if so, in what quality. Moreover, the solution had to be such that any subsequent extensions to content or functionality could be implemented rapidly and without causing any problems. A particular challenge was the fact that only a very short timeframe was available within which to implement the initial version.

The Solution

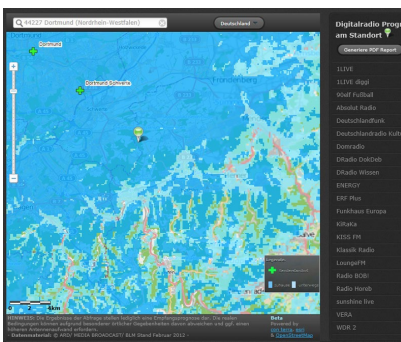
A reception forecast tool was developed, based on mapApps, the Web 2.0 technology for geo-applications developed by the Esri group, which is available to users as a cloud-based application. Using FME technology, the heterogeneous database was merged into an Enterprise Geodatabase and published with ArcGIS for Server as a high-performance map service.

In addition, external geoservices were incorporated in the application, for the purpose of navigation and to provide a background map display.

The solution is based on

- mapApps
- ArcGIS for Server
- FME
- GeoNames
- OpenStreetMap

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Customer comment

„The reception tool in the central information portal for digital radio provides a modern and above all uncomplicated response to queries from listeners wishing to know if they are able to receive digital radio, and if so, which stations are available to them.

Without the flawless cooperation between the broadcasters and network operators involved and the partners of con terra GmbH and the Broadcast Technology Institute (IRT), this ambitious project would never have been possible.“

Michael Reichert
Head of the digital radio project office

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Benefits

The reception forecast tool at www.digitalradio.de allows users to query the current coverage for any location throughout the Federal Republic of Germany, at any time. Moreover, an optimised version for tablet computers is available from www.empfangs-prognose.de. The reception forecast tool was deliberately designed to be easy to use. To make a query, a marker is placed on the map of Germany either by clicking on the map or searching for a postcode or place name. All available stations are then displayed in an alphabetical list. In addition, the system provides information on individual reception conditions and even takes into account any potential interference from neighbouring transmitters in the broadcast area. This is the first tool of its kind which enables digital radio coverage in Germany to be queried via the internet, without having to perform timeconsuming searches of broadcast information provided by broadcasters or network operators.

Users can also select individual frequency blocks to configure the coverage area for the displayed station ensemble. This is particularly useful for listeners living in border areas between adjacent federal states. A PDF export function is available for outputting the postcode query, augmented with additional information regarding frequencies, broadcasting networks, programmes and additional services. It is therefore a service that is of particular benefit to specialist retailers.

Summary

- Easy-to-use reception forecast tool for providing precise location-based information.
- Maximum information advantage for a minimum of user effort.
- Future-oriented Web 2.0 technology for geoapplications.
- For rapid implementation.
- Allows flexible design and expansion.

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