



DRENTS MUSEUM PIONEERS THE USE OF RFID

DRENTS MUSEUM IN THE NETHERLANDS BOOSTS THE VISITOR EXPERIENCE THROUGH RFID



© Drents Museum : J. Collingridge

DRENTS MUSEUM

Drents Museum, based in Assen, in the Netherlands, receives an average of 253,000 visitors a year. As well as housing large permanent collections of prehistoric artefacts from the local region and of figurative art, Drents puts on major temporary exhibitions, such as its 2008 exhibition of figures from the Chinese terracotta army.

The museum is constantly looking for ways to improve the visitor experience in an ever more competitive market. And as part of this drive brought in Motorola partner Ferm RFID Solutions to implement a radio-frequency identification (RFID) solution.

Every visitor who comes to the museum now receives an entrance card containing an RFID tag. Each room in the museum contains RFID readers, which pick up the signal from the tag in the card, enabling the museum to keep track of where visitors have been. The museum is able to identify the most popular rooms and artefacts and plan future exhibitions accordingly.

Visitors can also use their entrance cards to connect to computer kiosks situated in some rooms, and look up more detailed information about a particular artefact. When the visitor returns home, they can visit the museum website, enter their card number, and see the same information again.

CUSTOMER PROFILE

Organisation
Drents Museum

Location
Netherlands

Industry
Museums

Partner
Ferm RFID Solutions

Motorola Solutions' products

- Motorola AN480 antennae
- Motorola FX 7400 readers
- Motorola FX 9500 readers

Applications

- **Location tracking:** RFID connectivity that allows the museum to keep track of visitors during their visit and give them detailed personalized information via the kiosks

“The whole interaction with the public has changed, because we have added an extra communication method with RFID. We are the first museum with a successful implementation of RFID, so it’s good to be regarded as innovative in this area, and we get lots of information requests from other museums who are looking at it.”

Annabelle Birnie, director, Drents Museum



THE CHALLENGE

Museums face a major challenge in the 21st century. The average age of museum visitors is rising, and museums find it harder to attract young people. They find themselves in competition with other forms of entertainment, such as television, social media, computer games and mobile phones. In response, museums are using interactive technology such as games and quizzes to attract visitors.

Drents Museum wanted to make the experience of visiting the museum more engaging for visitors of all ages and to gather information that would help it plan and design its exhibits. Like most museums, a large proportion of its artefacts are not on display, but there is no easy way of knowing which hidden artefacts might prove popular with visitors. And while museum staff might have a rough idea of which rooms visitors are spending most time in, they have no objective information about where visitors are likely to linger and which exhibits they walk straight past.

THE SOLUTION

The museum brought in Motorola partner Ferm RFID Solutions to install a passive RFID network. Every visitor to the museum is given a unique (but anonymous) entrance card that includes an RFID tag. In each museum room, there are several readers that can read the tags and, using triangulation, record how many people entered the room and how long they stayed in front of each exhibit. This data is conveyed in real time to a database.

Some rooms also have computer kiosks equipped with RFID readers. The visitor can hold their card in front of the reader and look for information related to the exhibit they’re interested in. The reader records the entrance card ID and the information accessed by the holder, saving this information in the database. When the visitor returns home, they can enter their card number into the museum website and look again at the same information, and share it with friends.

Children are given entrance cards that include information about their age, so when they visit the children’s section, age-appropriate information or games are shown on the computer screens.

THE BENEFITS

Visitors to the museum now enjoy real time information tailored to their interests. Drents museum plans to extend this, so that the RFID tag in the entrance card will trigger a computer screen to tell the story of an exhibit as the visitor walks past.

Managers have accurate information about how long visitors spend in each room, which objects attract most attention, and which information visitors look up at home, enabling them to plan exhibitions based on sound knowledge of what visitors like. The cards’ lengthy life span means that the museum can partner with local retailers to offer discounts on display of the cards.

Finally, because the museum knows the whereabouts of all visitors, in the case of an emergency evacuation, it can identify anyone unaccounted for.

For more information, see www.fermrfid.com and www.drentsmuseum.nl.

Benefits

- **Accurate, up-to-date location information:** the museum now knows where visitors are in the museum
- **A more tailored visitor experience:** visitors see information of interest to them
- **Information about which exhibits are popular:** the museum can monitor the time visitors spend looking at each exhibit
- **A child-friendly experience:** child visitors see personalized, age-appropriate information and games
- **Better planning:** the museum can create exhibitions based on what visitors find appealing
- **Improved marketing opportunities:** the museum can offer discounts with partners
- **Better fire safety:** the museum knows where all visitors are
- **Environmentally-friendly:** Ferm RFID Solutions designed a special entrance card, with a read range of five metres. The card itself, including the chip and the antenna, is the first biodegradable tag solution worldwide

For more information on how Motorola Solutions’ RFID technology can improve your customer experience, please visit us on the web at www.motorolasolutions.com or access our global contact directory at www.motorolasolutions.com/contactus