

# RFID



## Emotional Value



### *RFID provides puts the emotion into museum exhibitions*

Although “edutainment” may not be a term that all museums are comfortable with, there is no doubt that museums need to engage with their visitors if they are to succeed in their goals. Gone are the days when museums were simply seen by the public as custodians of artefacts. Now, successful museums have to present a range of experiences that engage the public.

Museums have to meet the needs of different audiences. The casual tourist anxious to see particular iconic exhibits; the school pupil combining a museum visit with their classroom learning and the university student seeking to expand their understanding of a particular subject; all have different needs. One thing they all share, however, is the need to be connected, emotionally and intellectually, with the objects and ideas being displayed.

### Reaching Out To A Wider Audience

Emotional Value Group chose radio frequency identification (RFID) technology as part of their Emotional Museum solution; a solution now being adopted by museums in Italy. They selected CoreRFID as their RFID technology partner.

Emotional Museum is a solution developed to help museums to mount displays that combine education and entertainment and provide visitors with an interactive experience. Its flexibility makes it ideal for catering for the different needs of different audiences.

The system combines the use of electronic tags for exhibits and portable handheld devices for visitors. It provides a visitor experience that is more enjoyable and more readily accepted by those that are used to the interactive nature of today’s digital world. Supported by a wireless communication network within the museum and a database server that can stream material to any of the visitor devices, the Emotional Museum provides many innovative ways of enriching the visitor’s interaction with the displays, even allowing for the explanations or information provided to be related to other artefacts that the visitors has viewed or prompting the visitor to explore other displays.

By combining automatic identification of exhibits with an interactive device for the visitor, the Emotional Museum can provide a much richer experience for visitors than is possible with simple audio guides. The Emotional Museum is also tuned to delivering multi-media, easily updated, multi-level, multi-lingual, content. This approach supports strategies to widen the range of audiences for museums across age groups, social groups or ethnic groups.



**RFID can add interaction to existing museum exhibits, increasing their educational value.**

***"CoreRFID is an essential partner in the deployment of our Emotional Museum implementations,"*** Andrea de Santis, CEO, Emotional Value Group.

## Interaction Through Technology

Emotional Value was founded in 2007 by four MBA graduates with the vision of establishing themselves as an internationally recognised high-tech company specialising in customised interactive solutions. Central to this goal is their Emotional Museum solution. They worked with RFID technology specialists CoreRFID to create the exhibit identification component of the Emotional Museum. CoreRFID supplied tags, readers and the interactive hand-held devices that provide the electronic link between the visitors and the exhibits.

For the most recent implementation of the Emotional Museum, 900 exhibits were identified with high frequency, RFID tags mounted in 30mm disks. These particular tags were chosen because of their read range, performance and robustness, allowing one exhibit to be identified without the risk of interference from the tags on other exhibits nearby.

For the visitor's hand held device, the Emotional Museum uses a combination of the Hewlett Packard iPAQ114 hand held device and the SDiD1020 RFID reader. The iPAQ 114 was chosen because of its clear screen, suitability for use by casual users and wifi capability. The SDiD 1020 reader has been used in many RFID projects and has demonstrated its robustness and reliability.

The Emotional Museum solution includes a content management system which the museum's own staff can use to organise material that is provided to visitors. Content is automatically synchronised across all the visitor hand-held devices once it is "published", so enabling the visitor content to be easily updated.



**HP iPaq 114 visitor hand-held for the Emotional Museum**

Emotional Value supports their customers by providing multi-media development services for the hand-held devices including adding videos, like interviews with curators, artists, or critics; creating 2D or 3D animations; adding subtitles, and translations and integrating the system with the museum's own portal and web solutions

The Emotional Museum has been designed from both the make the visitor's and the museum's perspective. Specific features allow visitors to see which exhibits they have viewed and which they have missed. Visitors are free to choose their own path through the museum, avoiding the problem of the sequential nature of some audio guide and can access material at different levels of detail depending on the nature of their interest in the exhibits. For museum staff the devices are easy to give out and collect and the content management system allows new exhibitions or special displays to be implemented quickly.

CoreRFID has worked closely with a number of museums and with exhibition consultants in order to integrate RFID and NFC technologies with their installations. As a specialist in the auto-identification field CoreRFID is able to offer a comprehensive partnership to improving the visitor experience and helping museums better meet their goals.

## About CoreRFID

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### The Benefits

Emotional Value's RFID based museum visitor system provides:

- Delivery of multi-media content.
- Content linked to each visitor's information needs.
- Content linked to the visitor's own specific visit sequence.
- Easy content management for the museum's own staff.
- Automatic synchronisation of content with visitor hand-held devices.