

RFID



Showing Off The Potential of RFID



windfallfilms

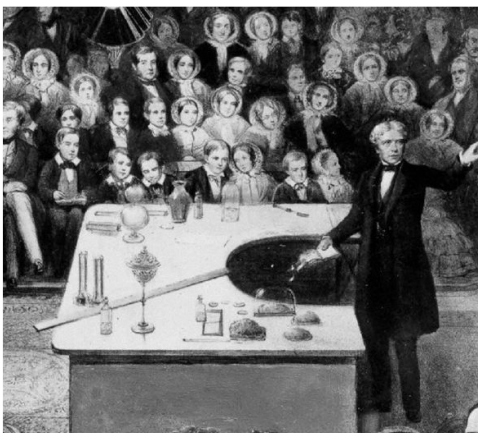
CoreRFID solutions bring retail therapy to the Royal Institution Christmas Lectures

Each year, the Royal Institution's series of Christmas Lectures provide young people with a chance to learn how different aspects of science affect their lives and how developments in science are changing the world we live in.

As part of the 2008 series of lectures on the ubiquity of computing, CoreRFID provided a demonstration of how RFID is helping to create an "internet of things".

Over 180 Years of Science For Young People

The Royal Institution's Christmas Lectures are a fine example of how education can be both informative and entertaining. Ever since the first lectures in 1825, young people have been invited to join lectures by some of the world's leading scientists. Michael Faraday, Frank Whittle, Desmond Morris, David Attenborough, Richard Dawkins, and Carl Sagan have all lectured at various times. In 1944 the lectures were presented by Robert Watson-Watt, the inventor of RADAR and originator of principles that are used today in RFID.



Michael Faraday presents the 1856 Christmas Lecture at the Royal Institution.

For many years the lectures have been televised. An important feature of the lectures is the interaction that the presenters encourage with the audience. Live experiments and audience participation are some of the reasons for the success of the lecture series.

In 2008 the series of lectures focused on computing with Dr Chris Bishop, Chief Research Scientist at Microsoft Research in Cambridge, and Professor of Computer Science at the University of Edinburgh, presenting five talks on the many different ways that computing touches our lives today and will affect us in the future.

The lecture "Chips With Everything" took as its theme the fact that every year more computers are manufactured than there are people in the world and showed how computing is embedded in an ever widening range of things. As part of this, CoreRFID was asked by production company Windfall Films to provide a demonstration showing how computers interact with the things around them through the power of the microchips embedded in RFID tags.

The demonstration showed retailers and consumers could benefit from RFID in retail.

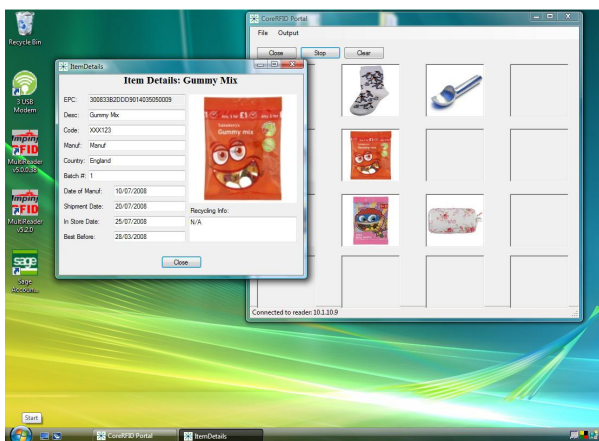
The Demonstration

Part of the challenge in the development of the demonstration was to provide an illustration of the possibilities of the technology that was both easy to grasp for the audience and, at the same time, highlighted the things that could be done with new technology that were not possible with existing systems.

To do this CoreRFID and Windfall Films selected a retail checkout scenario that involved a member of the audience choosing from a range of pre-tagged goods and placing them on a mock up of a supermarket checkout, still in their basket.

Unlike existing supermarket systems where each item is passed along a conveyor and scanned individually the RFID reader was able to interrogate the tags while the items to which they were attached were all still in the basket.

A display showed an image of each of the items in the shopping basket.



The demonstration used images to show how quickly the basket's contents can be scanned.

where retailers would advise individual customers if they were to be affected by a product recall relating to a faulty item. It is even possible to envisage an intelligent fridge which is able to determine best before dates for the goods held within it, so that it can warn of items needing to be replaced.

Of course such ideas may well turn out to be science fiction but the Royal Institution Christmas Lectures are there to fire the imagination of young people with the possibilities presented by advances in science. CoreRFID has been proud to support the presentation of the 2008 Christmas Lectures.

About CoreRFID

CoreRFID specialise in the technologies that help track, trace, audit and control; to learn more, contact us today:

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Benefits Shown

Retailer benefits from RFID include:

- Higher productivity at check outs.
- Better information on product movement down to item level.

Potential consumer benefits of using RFID in retail are:

- Faster check out of goods.
- Improved product traceability.
- Better consumer information
- Products that can "talk" to home systems like an intelligent fridge.

From the display it was also possible to highlight another key feature of RFID technology; the ability to provide information about not just the type of item being displayed but information about the specific individual item. So, as well as showing data such as price, description, and country of origin, the system was also able to show that RFID tags could trigger access to data such as best before dates, original supplier, date of shipment, manufacturing batch number and so on.

Using the demonstration it was possible to explain how RFID would potentially benefit both retailers and consumers. Retailers will be able to benefit by having access to more information about purchased goods and can use less labour intensive ways of serving customers. Consumers could benefit from improved traceability and the ability to be able, for example, to opt in to a scheme