

Digitally Augmented Collectibles

extending the functionality of collector's items beyond simple exhibition



Overview

The Digitally Augmented Collectibles system **establishes an emotional bond** by playing item-related multimedia and offers a simple interface to **access item-specific information**. It consists of a display and an exhibition platform for the collectibles and incorporates unobtrusively into a user's environment. The system identifies items through **RFID** and senses different combinations of collectibles. It is not limited to **home-user applications** but suggests potential to serve as a **marketing tool at the point-of-sale**.

User Interaction



Implicit Interaction

The system is **indiscernibly integrated in a stage** which many collectors already use as exhibition platform. Therefore no new elements are introduced and the **interaction with the collectibles remains unchanged**. If the collector exhibits the figurines, the system uses **item-specific multimedia** to leverage aesthetical pleasing and emotional engagement.



Explicit Interaction

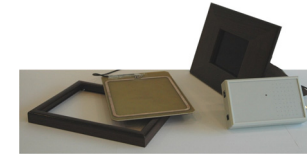
The user can access further item-specific information through the pocket PC's **touch-sensitive display** which allows for **simple user-system interaction** not requiring additional input devices.



The detection of each item is displayed by showing its picture. Further information is accessed by touch-selecting the item's picture.

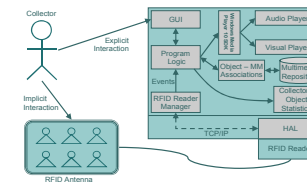
Implementation

Each collectible contains a passive high frequency **RFID tag** of 0.5"x1" in size (13.56MHz, **ISO15693**). This tag is attached to the figure's socket and is invisible to the observer.



The **FEIG PR100 RFID reader** is unobtrusively embedded in the picture frame connected to a **custom built antenna**, which is molded into the stage allowing for close proximity to the exhibited collectibles.

The **Sony Vaio U-71 pocket PC** runs the software application and provides a **touch-sensitive display**. It is embedded in a picture frame to make the hardware unobtrusive.



The **.Net-based application** is built on top of our **RFID middleware (RFIDStack)**. The system creates a play list for the exhibited collectibles based on their sets of characterization and the available multimedia files (music, pictures, video).

Applications

Home

Collectors can **exhibit their figurines** in various and alternating combinations on the stage and the system intends to **establish an emotional bond** by playing item-related multimedia. Items from the same product line form a homogeneous play list while the combination of figurines from different product lines leads to an interesting mixture.

Point-of-sale

The system can act as a **digital information-providing service** allowing customers to place items on the stage to request additional information. The features of the items are presented including information such as price, article number and other items a customer may be interested in. Customers are encouraged to interact with the products which potentially leads to increased sales.