

# Digitally Augmented Collectibles

extending the functionality of collector's items beyond simple exhibition



Overview

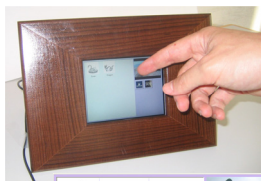
The Digitally Augmented Collectibles system establishes an emotional bond by playing item-related multimedia and offers a simple interface to access item-specific information. It consists of a display and an exhibition platform for the collectibles and incorporates unobtrusively into a user's environment. 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.



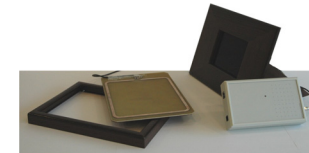
The detection of each item is displayed by showing its picture. Further information is accessed by touch-selecting the item's picture.

## Implementation

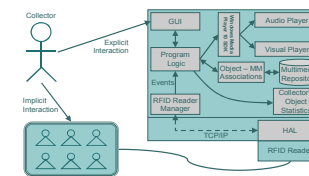
Each collectible contains a passive high frequency **RFID tag** of 0.5"x1" in size (13.56MHz, **ISO15693**). This tag is attached to the figure's socket and is invisible to the observer.



The **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 **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 **.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 **exhibits 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.

