

# **POINTSCREEN – Touchless Interaction**

## Fraunhofer <sub>Institut</sub> Intelligente Analyse- und

Informationssysteme



"PointScreen" makes it possible to control the computer intuitively with gestures. The user navigates by merely pointing toward the screen; contrary to touch screen technology, the interaction proceeds completely without touch. The multimedia implementation of screen design and content programming exploits the potential of the interface. Thus the visitor becomes the "conductor" of an audiovisual presentation.

## Technology

The PointScreen technology is based on the principle of Electric Field Sensing (EFS): The dynamics of the body – such as gestures and movement – are measured and digitally recorded. This novel form of man-machine communication enables the use of gestures for real-time navigation and interaction. This innovative paradigm of HCI technology provides the possibility to produce touchless input systems that are both cost-effective and easy to maintain and offer design flexibility (patent pending in USA, Europe).

## The "Interactive Poster"

The "Interactive Poster" is a multi media interpretation of the classic poster format. Alongside interactive interfaces, moving images extend the potential for communication. It presents, in conjunction with the PointScreen Technology developed at the Fraunhofer IAIS, a contact-free information terminal for public spaces. Through movements, the user interacts with the text objects and their forms. Information becomes a play with the knowledge of the observer.

#### Product

The PointScreen technology is avail-able as a complete installation or as a modular component solution consisting of:

- Hardware (PointScreen Controller, display technologies)
- Design (design of the PointScreen housing)
  - Graphic surface (individual appearance on the screen)
- Content Management System (the CMS enables the user to exchange his or her contents without any difficulties)
  - Training, consulting and conception.

## Research themes

Electric Field Sensing (EFS), Tracking, Intuitive Interfaces, Human-Computer-Interaction

## Concept

Wolfgang Strauss, Monika Fleischmann, Yinlin Li

#### Realization

Jens Muuss, Microprocessor-Controls Lina Lubig, Productdesign Thomas Goldstrasz, Text Thomas Küber, Concept "Interactive Poster"

#### References

VW, Exxon Mobile, Volke Kommunikations.Design

#### Kontakt

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