



PROJECT RESULTS

# Personalised ambient domestic media

Simplifying access to tailored high definition media content at home and away

**PASSEPARTOUT focused on bringing tailored high-definition (HD) media content into the lives of the family. Results not only help to make sense of the input available but also to select, filter, scale and schedule HD content for presentation in the best possible way in the networked home on multiple large and small display devices. Work included seamless integration into home media centres and networks, with smart graphic displays controlling systems operation and interactive contents packaging. The approach developed exploits the advantages of MPEG4 object-oriented TV with metadata, making the most of the deep source of background content available via Internet.**

Access to home media content is ever easier as the number of sources for digital TV, packaged media and broadband content explodes each year. The capability to control, access and present this content is a challenge for every family. However, those that can exploit the media will be able to use the knowledge and experience to enrich their lives.

While it has been suggested that Internet search-engine service providers such as Google could dominate this market, finding content is only part of the process. Content must be selected, filtered, scaled and scheduled for presentation. Moreover, the home itself is changing as multiple in-home display devices, coupled to ambient controls, replace the single TV.

**Infotainment scenario**

Key to the project is the Maxima scenario. This defines the role of a media-aware parent with the skills and aptitudes to use traditional and emerging media sources to maximum effect to enrich the lives of the whole family. This includes solving challenges to individual family members, such as disabilities or language learning, and maintaining and developing family heritage and cultural awareness in a cosmopolitan community. They might also help the family to make a contribution to community media, such as Wikipedia, as a video repository.

The Maxima scenario demonstrated the future of family infotainment as a participation in society and not just passive consumption.

**Preparing own content**

A scene in the film 'Minority Report' involves the leading character sorting and studying data files on a large screen. With such a visible approach to the handling of visual media and related metadata, the full value of the data is clear and it is possible to create a presentation based on exploitation of the artistic potential of the media in the living space and the need to be entertained.



Smart packaging simplifies programme selection by all the family

## PASSEPARTOUT (ITEA 04017)

**Partners**

- ARTEMIS Institut National des Telecommunications
- BCE
- Centre Henri Tudor
- CharToon
- CWI-Amsterdam
- Electronics and Telecommunications Research Institute (ETRI)
- GRADIENT/LARES/IRUTIC
- Inria Loria
- Philips Applied Technologies
- Prewrite
- Stoneroos
- Technische Universiteit Eindhoven
- Telvent
- Thomson R&D
- Universidad Polit3cnica de Madrid
- Universidad de Vigo
- V2\_, Institute for the Unstable Media

**Countries involved**

- Finland
- France
- Luxembourg
- The Netherlands
- Spain

**Start of the project**

January 2005

**End of the project**

March 2007



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PASSEPARTOUT exploited this concept as a way of enabling parents to manage content for the whole family to access. Interactive entertainment packages can be assembled from broadcast and pre-packaged content using conventional control units or more powerful smart tables. The smart table contains an embedded LCD display that provides an overview of programme elements. The user can send media packages from the table to single or multiple HDTVs or LCD projectors, as well as providing ambient support with sound and coloured lighting, using simple hand gestures and a touch-screen interface.

### Strong European synergies

The project consortium achieved its goals by encouraging close co-operation between key European players in the industry. Related projects within ITEA and the EU Information Society Technology (IST) programme had important pieces for the puzzle. During PASSEPARTOUT, two workshops were organised with related projects.

Specifically, open-source and peer-to-peer networks have enabled users to have a much greater say in the way media is created and used in the home. Most users will grasp this chance to improve their family's life style and education, for example by using OSGi as a home media hosting platform on a home gateway.

This influence on the technology is an explicit part of the Maxima scenario, i.e. the desire of European people to own their culture and language and to create it, is shared by all in the group. A focus on localisation issues and language translation standards in multimedia content is a strong driver in the modelling of object-oriented MPEG-7 content forms that opens the path to more reactive design in the media.

Key project results include:

1. Decoding of video streams for multiple sized displays – from HDTV to quarter common intermediate format (QCIF) on mobile phones – using the scalable video codec (SVC);
2. Exploitation of Blu-ray middleware technology for optical storage media used for distribution of HD and strong interactive media;
3. Use of new communications technologies (802.16) for broadband communications in the home media environment; and
4. Development of the iFanz electronic program guide (EPG) for cable and IPTV providers – providing a personalised EPG that can be used at home or elsewhere.

### Major project outcomes

#### Dissemination

- 77 publications
- 53 presentations at conferences/fairs
- Presentation to the European Parliament in Brussels in March 2007

#### Exploitation

- Five new products: Blu-Ray middleware, SVC codec, 802.16 in Home, SMIL player, iFanz

#### Standardisation

- Five contributions to standardisation bodies: Blu-Ray-Interaction, SVC, 802.16, SMIL, MLIF

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ITEA - Information Technology for European Advancement - is an eight-year strategic pan-European programme for pre-competitive research and development in embedded and distributed software. Our work has major impact on government, academia and business.

ITEA was established in 1999 as a EUREKA strategic cluster programme. We support coordinated national funding submissions, providing the link between those who provide finance, technology and software engineering. We issue annual Calls for Projects, evaluate projects, and help bring research partners together. We are a prominent player in European software development with some 10,000 person-years of R&D invested in the programme so far.

ITEA-labelled projects build crucial middleware and prepare standards, laying the foundations for the next generation of products, systems, appliances and services. Our projects are industry-driven initiatives, involving complementary R&D from at least two companies in two countries. Our programme is open to partners from large industrial companies, small and medium-sized enterprises (SMEs) as well as public research institutes and universities.



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