



D 1.3 Annual Public Report

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Abstract:

This document contains the text for the public annual report of the first year of the project LIVE.

Keywords:

- UCI World Bike Road Championship
- Live staging
- Media processing
- Metadata generation
- Dissemination
- Video conductor

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1.1 Live Staging of Media Events Annual Report



1.2 <http://www.ist-live.org>

The main objective of the project is to create new interactive TV formats and production methods to stage Live Media Events. For the Olympic Games 2008 in Beijing a non-linear multi-stream video show will be produced and broadcasted. For the production of a multi-stream video show under live conditions research and development in the area of content modelling and media technology will be carried out. The incoming video signals and the available archive material will be indexed and structured by semi-automatic metadata extraction tools. The identified video objects will be filtered and visualized to the professional users in the control room of a broadcast station. Additionally the feedback coming for the TV consumers over a back channel mechanism will be used by a recommender system to offer the director additional information. This scenario will allow that intelligent multimedia objects will match the needs and interest of the TV consumer. The experiments and the development of an integrated prototype will be carried out at the ORF in Austria.

1.3 Summary of Activities

As result of the requirement analysis the concrete user scenarios are described and the roles of the participants of the live productions are clarified. Also different dramaturgic concepts are proposed and evaluated. On the technical side the requirements for the system integration is finished and the system components are described in UML diagrams. As first important sport event the UCI World Bike Road Championship in September 2006 in Salzburg was chosen to collect huge amount of content which will be used for the next steps in the project. For this event a first concept to produce a 2 stream video show is developed and the required additional content was recorded. The first complex experiments in the production studios at ORF are carried out in October 2006 using the content from the Bike Road Championship simulating the live conditions. To produce interlinked video streams two control rooms are connected. The experiments have already shown that the directors are able to generate more then one stream in real-time and are willing to produce complex video shows.

The work of the first year provides the basis for the future work in the project. Based on the requirement analysis and the first experiments an integrated prototype system will be developed. With this prototype video conductor can produce several interlinked streams and investigate different dramaturgic concepts.

1.4 Content Modelling and Staging

During several experiments in the control room of the ORF with the professional producers the way of current content production are analysed. The new concepts to produce a multi-stream video show are developed and discussed with producers. Before the production of live

event takes place relevant archive material is selected manually. This time consuming effort demonstrates the need for sophisticated tools to optimize the process of preparing the content. The main content production experiment took place end of October 2006 in the control room of the ORF. The director of production demonstrated with the material recorded during the UCI world bike championship how a 2 stream signal can be authored by one person. This encouraging result will be used to offer the production team additional tools to recommend and select pre-processed content to allow them to produce more than 2 streams in a live sport scenario.

1.5 Research on Tools for Media Processing

The new idea to develop an intelligent media framework was investigated and filled with ideas and suggestions. To enable an intelligent media framework research on automatic metadata extractions tools were carried out. A close-up recognition based on face-finding technology was chosen to identify video segments in which a person has a prominent position in the picture. To provide the relevant metadata for incoming live material a concept for a human annotation tool is created. Here a semi-automatic approach is foreseen to support annotator during the data entry process. Also in the area of user modelling and recommendation a mock-up and small demonstrator is already realized.

1.6 System Requirements and Integration Plan

Due to the complex broadcast infrastructure available at the ORF an intensive requirement analysis is carried out. The architecture to integrate the modules developed in the project is designed and the data workflow described. As important components the media indexing server, the intelligent media asset management system, the recommender engine and the video conducting system are defined as central units in the complete architecture. The ORF suggested using the Multimedia Home Platform (MHP) as delivery platform to enable interactive broadcast applications.

1.7 User Involvement, Promotion and Awareness

The Live project was presented to the European audience during the IST 2006 conference in Helsinki. For the important event a project flyer and project post cards are designed. The concept of the project was rated very positive by the participants of the conference. For the end the first year the industrial advisory board will be invited to meet in first quarter of 2007. For this industrial advisory board decision makers from Thomson, DSF, ZDF and other media companies will be invited. The purpose of this board is to provide feedback from the industry to the project. For the SAMT conference (<http://www.samt2006.org/>) taking place in Athens in December 2006 two papers from the projects are already accepted. During the IST event in Helsinki co-operations with other ongoing IST projects, like Boemie and NM2 were discussed and will be evaluated in the near future. As additional mean of information a newsletter for the project was established. Invited external experts can order this newsletter to get regularly the actual information about the project. During the UCI bicycle road world championship in Salzburg a press release was delivered and a radio interview was given by experts from the project team.

1.8 Future Work or Exploitation Prospects

Until the review meeting in March 2007 the first integrated prototype system will be developed and integrated into the workflow of the ORF. Additional experiments for live staging will be carried out and research on content modelling will be continued. The human annotation tools for live sport content will be made available and tested for different kinds of sport. The available information about different types of content will be made available directly in the production environment of the ORF.

1.9 Further Information

More information can be found on the official web page of the project: <http://www.ist-live.org/>. On this web page the user can browse and access relevant information about the project using a knowledge map and a knowledge base.