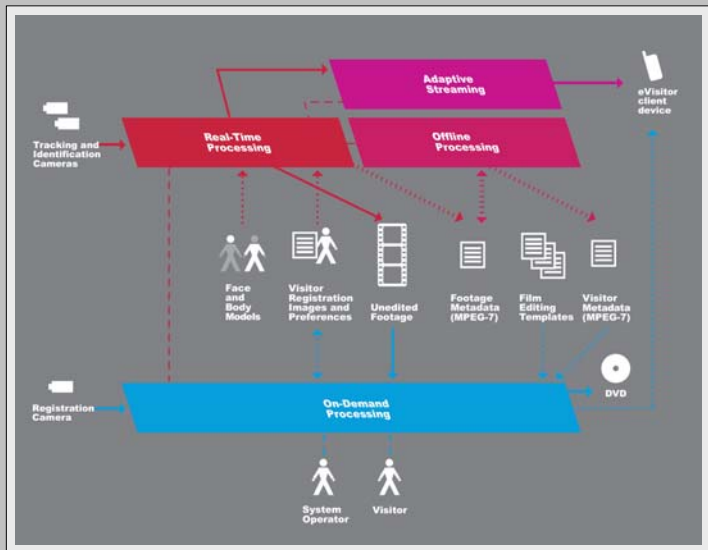


POLYMNIA

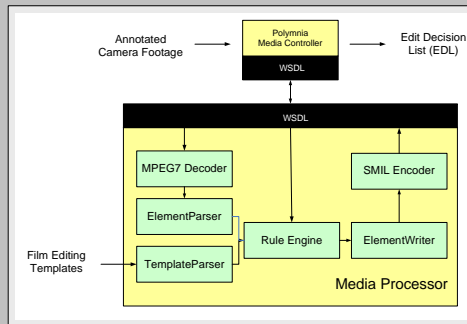
Ambient Multi-Camera Personal Documentaries

Digital technologies offer the ability to move beyond using personal camcorder or camera phones to document significant events in our lives, such as family celebrations or visits to tourist attractions. POLYMNIA supports ambient real-time video documentation of visitors' activities at cultural and leisure destinations to capture their experiences from entirely new perspectives.



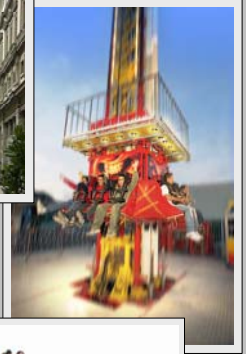
The MPEG-7 semantic annotation of the camera footage is processed using a rule engine that applies a set of pre-defined, venue-specific editing templates specified by a film director. Editing rules are triggered by the semantic annotations to define a series of shots that result in a personalised film for every visitor.

The engine creates an edit decision list (EDL) that describes how the raw footage of the visitor should be edited. Stock footage, still frame inserts and graphic overlays can all be included to provide context and background information. The visitor's documentary is then produced by executing the EDL and burning the resulting movie file to a DVD.



A rule-based approach to selecting and hierarchically composing visitor specific shots makes the system more robust to unexpected input, for example where the visitor is obscured and not detected by the tracking module. A rule-based approach also allows continuity rules to be easily observed and stock content to be matched according to time of day, season, weather and lighting.

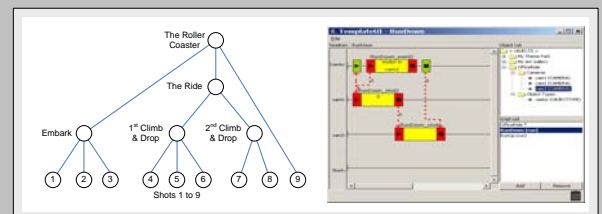
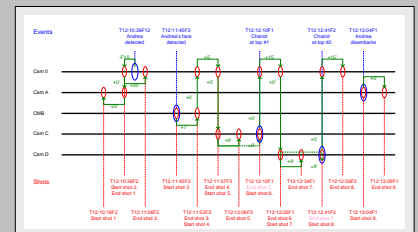
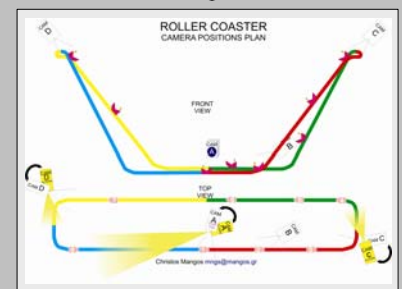
POLYMNIA provides a complete solution for automated video documentation of visitor activities in leisure destinations including amusement parks, art galleries and museums.



Video cameras covering different perspectives of specific attractions throughout the venue provide well-framed views of visitors at each key location. Live video from each camera is recorded continuously to a central media repository.

When a visitor registers with the POLYMNIA system, photographic images of their face and body are captured to help the system track the visitor as they progress around the venue and attractions. The video-based tracking, supported by RF triggered events, results in the raw camera footage being semantically annotated with visitor activity using the MPEG-7 standard.

The MPEG-7 record of on-camera appearances allows footage featuring the visitor to be automatically selected for the production of a documentary that the visitor can take away with them when they leave. A live switched-camera video feed can also be streamed to remote eVisitors, allowing friends and family to simultaneously share the experience.



POLYMNIA
polymnia.pc.unicatt.it

POLYMNIA (IST-2-004357) is funded by the European Commission under FP6-2003-IST-2 S.O. 2.3.2.7.

Partners include ICCS/NTUA, IT Innovation, Telefonica I+D, Hewlett Packard, Joanneum Research, Giunti Interactive Labs, Cinegram S.A., Università Cattolica del Sacro Cuore Description, and Hellenic Entertainment Park - ALLOU



www.it-innovation.soton.ac.uk

Contact:
Matthew Addis
Richard Beales
Stuart Middleton

Mail: {mja, rmb, sem}
@it-innovation.soton.ac.uk

