

## **AXMEDIS Mobile Player** and content production

## AXMEDIS mobile players allow to have a cheap and easy:

- · automatic creation and publication of interactive content via the AXMEDIS CP tools;
- support for e-commerce and control of user behaviour via the AXMEDIS DRM tools;
- offer at final users a highly innovative and immersive experience with interactive content.

The **AXMEDIS mobile players** may play a wide set of multimedia content: from simple files to complex collections, possibly presented in a highly interactive manner. AXMEDIS Objects are suitable for a wide set of applications for the (i) video on demand, (ii) continuous education and distance learning, (iii) valorisation of cultural heritage, (iv) content for museum visits and guides, (v) content for entertainment, (vi) paying systems, (vii) personal content collection, etc.

AXMEDIS mobile players are based on MPEG-21, and of two kinds:

- AXMEDIS Java Mobile player plays content objects with SMIL, text, images, video and audio, with hot spot that can be used to navigate the resource, create the menus and put in execution new AXMEDIS content objects. It can be easily installed on java enabled MicroEdition-Configuration: CLDC-1.1, MicroEdition-Profile: MIDP-2.0, such as Sony Ericsson, and Nokia. It supports:
  - SMIL interactivity, images, audio, text, etc.
  - AXMEDIS MPEG-21 DRM, different business models
  - Audio/video RTSP streaming
  - Access to content files from SSD
  - · Navigation via links and back
  - Content collection support
  - User monitoring possible
  - · Personal content collection management
  - Content in push for advertising and messaging

• AXMEDIS Windows Mobile player is capable to play SMIL, HTML, audio, video, text, and MPEG-4 content. It can be easily installed on all the smartphone endowed of Windows Mobile 5 or upper. This version of the AXMEDIS mobile player has been developed in C++. It supports:

- · SMIL and HTML interactivity
- · Audio, text, images, etc.
- MPEG-4 support for video and BIFS
- AXMEDIS MPEG-21 DRM, different business models
- Access to content files from SSD
- Content collection support
- User monitoring possible







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## Automated content production for mobile

The minimal AXMEDIS content production factory can be realized with a single workstation and it is connected to several databases from which it takes content for the automated content production. The AXCP language is capable to define active queries on the database to get updated content at every production. The production process is activated periodically and may be used for feeding different channels at the same time: Web Server towards PC, PDA, and mobiles and kiosks, plus sporadically also the posting on the AXMEDIS P2P network for promotional purpose.



The presentation model and thus the user interface of content can be developed through a SMIL template which was scripted into AXCP and created through AXMEDIS Rules. This allowed to easily 'feed' the scripts and automatically create the object(s) directly from the database. This kind of approach (templating) means that the application can easily be updated and improved (for instance by adding new instruments, videos, or simply changing the look and feel). A practical example might be the need to change the video/audio clip(s) associated with one or more scenarios: this simply means changing the mp3 files in the source locations and re-executing the production javascript of the AXCP. Likewise the "look and feel" of the objects can easily be updated by changing the sources once. The AXCP Rules can be used for producing content on demand on the basis of the user profiles and acquired content.



Screenshot of the AXMEDIS Content Processing Ruleeditor. The javascript generating the AXMEDIS objects.

**Personal collections** of content can be arranged and kept alive for the users. Personal content collections are also the vehicle for providing advertising and other content and information in push.

Templating solution plus scripting allows easily creating content for different platforms. This simply meant changing the visual template and the source files and 'feeding' them to the script.

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