

**INTERNATIONAL ORGANISATION FOR STANDARDISATION
ORGANISATION INTERNATIONALE DE NORMALISATION
ISO/IEC JTC1/SC29/WG11
CODING OF MOVING PICTURES AND AUDIO**

ISO/IEC JTC1/SC29/WG11 **M8619**

MPEG02

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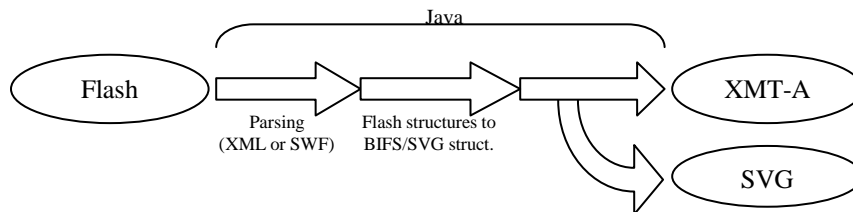
Title: Systems demonstration: more cartoons :)

Source: Jean-Claude Dufourd, ENST

Status: For consideration at MPEG meeting in Klagenfurt

During this demo, we will show the tools recently developed at ENST, as well as sample content.

Flash cartoons to MPEG-4: this program translates pure animations (no script yet) into BIFS Command streams. The output of this program is XMT-A. A separate program optimizes the resulting XMT for better compression. The optimized result is then fed into mp4tool for BIFS encoding and MP4 generation. We plan to add simple script support very soon (support of movie clip and instructions *goto frame*, *play*, *stop*). Support of more complex scripts is under study.



Flash cartoons to SVG: the above program also as an SVG output. This output was coded in a few hours by modifying the XMT-A output, proof that SVG and XMT-A are quite similar in this respect.

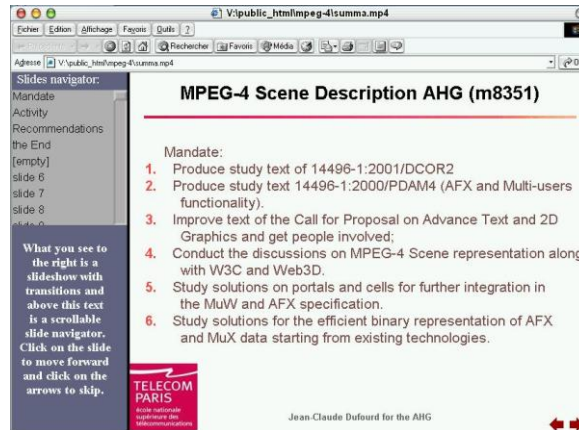
SVG stills to MPEG-4: the current version of this program is based on XSLT style sheets. This version translates 80-90% of the constructs. We are working on a version integrated in the freeware SVG-native authoring tool suite BATIK. The future version will achieve a better translation coverage.

Slideshows in MPEG-4: This activity has different sides.

First, we are integrating more features in our B4 language (higher level objects translated to XMT-A by XSLT style sheets) in order to allow its use in a context of distance learning. In the figure below, in gray is a slide navigator, complete with scrollbar; the slide show is one I used in a previous MPEG meeting for AHG report.

Second, as a university, we are committed to developing distance-learning material, and rather than use inadequate proprietary tools, we have started developing a course production chain targeting MPEG-4. The

initial tool reads a PowerPoint presentation and builds an IMS description (standard XML-based format for distance learning presentations, see www.imsproject.org). The second tool captures slides timing during a videotaped presentation and generates also an IMS description. The third tool mixes the IMS descriptions and creates a B4 description. The B4 description is compiled into MP4 by the same compiler used to



generate my AHG reports. Video and audio are encoded separately by any of the available media encoders (mpeg4ip, Envivio...). In the final content, a MediaControl node will drive the video and audio streams. Clicking on an entry of the slide navigator will position the slide show on the correct slide and the MediaControl node to the current position in the streams.

The plan is to offer real-life courses first to our students internally, then to students of other schools in our group (GET: 6 sites in France).

