

The EDCINE vision

by the EDCINE consortium, December 2007

The EDCINE partners are industrial companies supported by a several academic teams sharing a common goal. They want to expand their horizons in the digital cinema field with new products, to increase movie goers experience in Europe by adapting Digital Cinema standards and guidelines to European specificity, and to be innovative enough to keep Europe at the top level of the underlying technologies.

More efficient and interoperable products

The EDCINE developments are guided by a careful study of the needs of the European digital cinema community. Among those needs is a request for a common set of standards flexible enough to answer the complex requirements of such a multi-cultural and heterogeneous set of countries. Small size theatres, small production budgets, and multiple languages use are specific to Europe and cannot be addressed with US-developed technologies and guidelines only. As an example, Europe is a long-time repository of cultural heritage, and that is also true for the cinema field. A great attention is thus devoted to keep compatibility with movies from the past century. Efficient ways to preserve digitally old movies, to share them between cinema archives and to make them available to the general public will be developed in line with archives' needs and policies.

Benefits for the European Cinema Community

The gap between the large number of small European studios and the industrial concentration found in Hollywood is staggering. While accepting US-originated standards, EDCine's goal is to have them realistically adapted to the specific European needs. In that sense the project works at releasing open source software tools for coding, decoding and distribute Digital content, creating and distributing guidelines such as the 'European Digital Cinema Security White Book', remaining active in standard proposals and technical committees such as SMPTE DC28 or JPEG2000 Committee. One of the goals of EDCINE is to find improvements beneficial to Europe to the DCI spec that will not broke compatibility; in other words we will find improvements and new functionalities that are compatible with existing standards and practice. Finally, technical improvements that could help adapting to Europe reality are also tackled such as solutions to distribute cinema files on the heterogeneous networks typical of what is found in Europe on wired and wireless infrastructures.

Technology Innovation

The partnership between complementary R&D teams and commercial companies offer a unique opportunity to beta-test technical innovations earlier that what is possible without the help of a big European research project like this one.

Integrating novel features in near future real products is another goal of EDCINE industrial partners, bringing EDCINE innovations in reach of the cinema professionals all along the production chain. These various improvements in the digital cinema workflow tools will contribute to strengthen the European position on this emerging market. With tools fitting its specific requirements, Europe should experience a higher adoption rate and a higher satisfaction during it transition to the world of fully digital movies.

Some of the technologies that are studied in order to enhance movie-goers experience are higher bit rates and higher frame rates, advanced 3D audio formats, stereoscopic coding, and human visual system models used to optimize the perceived image quality. Others features, like anti-camcording and advanced in-theatre watermarking will protect the whole production chain.