



Master Thesis

Title Master Thesis in Multimedia Database Systems

Subject Differences in coding methods of H.263 and MPEG4

Background There are a number of existing and proposed compression methods that can make use of many different audio, image and video compression techniques. World wide commonly used standards are defined as schemas that use specific algorithms and techniques i.e. H.263 or MPEG4. These two standards differ in assumptions as well as in solutions. In general, H.263 specifies the format and algorithm for the video codec used to send or receive video over low-bandwidth network connections, while MPEG4 addresses the coded representation of both natural and synthetic audio and visual objects.

This work will partly support the RETAVIC project (<http://www6.informatik.uni-erlangen.de/retavic/>)

Task The profound analysis of both of the standards should be performed - from the H.263 and MPEG4 specification through used algorithms and compression techniques to methods of implementation. Then advantages and disadvantages of each standard have to be concluded. At least two representatives of each standard should be analysed. The representatives could be respectively (but not must):

- H.263 - Telenor, R263
- MPEG4 - DivX (or OpenDivX), Microsoft MPEG4

Requirements

- good knowledge of English
- interest in multimedia area
- familiarity with Telenor, R263, OpenDivX, MS MPEG4 codecs or one of them is desired
- good knowledge of sound and image processing algorithms is also helpful

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