

Study Project (equiv. "Studienarbeit (SA)")



Title	Study Project in Multimedia Database Systems
Subject	The real-time implementation of AAC encoder in DROPS
Background	<p>In order to provide end-to-end real-time communication for RETAVIC project, which stores and handles large MOs and conversion of them in real-time, the idea of controlled compression by the server side as well as the client side is suggested. In order to provide data independence between stored format and client-side desired format the conversion process has to be done in the real-time with the quality-of-service taken into consideration. Especially this control may be influenced by the client actual quality i.e. the perceived quality required by the end user.</p> <p>This work supports the RETAVIC project (http://www6.informatik.uni-erlangen.de/retavic/).</p>
Task	At first someone should analyse and understand the AAC format - the most important is the compression algorithm (filterbanks, MDCT, perceptual model, etc.), so it must be studied really deeply. Next, the existing AAC implementation should be chosen (the best open source e.g. FAAC). Then according to specification and recognized interface of the Dresden Real-Time Operating System (DROPS) the selected AAC encoder should be adopted and reimplemented with the respect to correct functional execution.
Requirements	good knowledge of English interest in multimedia area, especially in audio-video conversion understanding of operating system issues is welcome good knowledge of "C" programming language
Contact and information:	Maciej Suchomski , Room 08.156 email: ms@informatik.uni-erlangen.de