

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



Title	Study Project in Multimedia Database Systems
Subject	The real-time implementation of XVID encoder in DROPS supporting QoS for video streams
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>One of the possibilities to support real-time operations and QoS is making of use a meta-data based XVID video encoder proposed in the previous project (done by Michael Militzer).</p> <p>This work supports the RETAVIC project (http://www6.informatik.uni-erlangen.de/retavic/).</p>
Task	<p>At first someone should analyse and understand the meta-data based XVID format - the most important is the compression algorithm (image processing methods, meta-data based motion compensation techniques, re-quantization method, etc.), so it must be studied really deeply. Then according to specification and recognized interface of the Dresden Real-Time Operating System (DROPS) the MD-XVID encoder should be adopted and reimplemented with the respect to correct functional execution.</p> <p>The current implementation of MD-XVID should be used as our base source code. It is the open source implementation in "C".</p>
Requirements	<p>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</p>
Contact and information:	<p>Maciej Suchomski, Room 08.156 email: ms@informatik.uni-erlangen.de</p>