



Master Thesis

Title	Master Thesis in Multimedia Database Systems
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Subject	Audio-Video conversion benchmark "AVCOB" - analysis, design and implementation.
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Background	<p>There are many implementations of different conversion of audio-video standards, but there is no application that can measure the efficiency or the effectiveness of implementation. For example anyone can play a movie, but what kind of quality he can get and how efficient will be resources used. The same problem arises when doing conversion on server in order to provide audio-video data for users but with the much bigger importance regarding efficiency and available resources consumption. If we can benchmark available solutions of AV conversion we could choose only those between different converters, which do the same work, that are faster and/or gives better results when consuming the same amount of resources.</p> <p>This work is close related to RETAVIC project (http://www6.informatik.uni-erlangen.de/retavic/).</p>
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Task	<p>As it's written in the subject the project will have 3 stages:</p> <ul style="list-style-type: none">- analysis - here someone have to find tools that are used for AV conversion (popular, open source), have to recognize the parameters they are using and try to describe their influence on the result (target AV object) regarding quality- design - on the basis of previous part a student should propose a design of a benchmark (if possible it should be independent of the measured AV conversion)- implementation - in this stage the benchmark should be implemented and tested. Some examples of measurements should be provided, comparisons of measured AV conversions. It's desirable to use "C" programming language. <p>One of the interesting tools for AV conversion is <i>transcode</i> (http://www.theorie.physik.uni-goettingen.de/~ostreich/transcode/). It could be potentially used as a basis for analysis.</p>
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Requirements	<ul style="list-style-type: none">- good knowledge of English- interest in multimedia area, especially in audio-video conversion- good knowledge of "C" programming language
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