
- Master/Bachelor thesis -

Digital Watermarking for Texture Images in Video Games

CASED

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Motivation & Goal

Protection of video games against illegal copying and unauthorized distribution is of great concern. Digital watermarking is an established solution for copyright protection and illegal copy tracking for multimedia data. Compared to DRM solutions, digital watermarking is more user-friendly. In video games multimedia content is ubiquitously involved, therefore digital watermarking can also be applied for video game protection. For instance, texture images are widely used in video games. However, existing image watermarking algorithms need to be adjusted for texture images, especially when they are stored in a specific compression format, e.g. DDS (DirectDraw Surface). The goal of this thesis is to develop a specific watermarking approach that is targeted for the protection of texture images in video games.

Task

- Identification of challenges of watermarking texture images and existing techniques;
- Development of a watermarking approach optimized for texture images, e.g. DDS format files;
- Evaluation of the developed watermarking approach, e.g. tests on image quality, robustness, efficiency, security and so forth.

Requirements

- High motivation and creativity;
- Strong interest to research work;
- Good knowledge in programming with C/C++, Java or Matlab;
- The thesis can be written in English or German.

Contact

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