

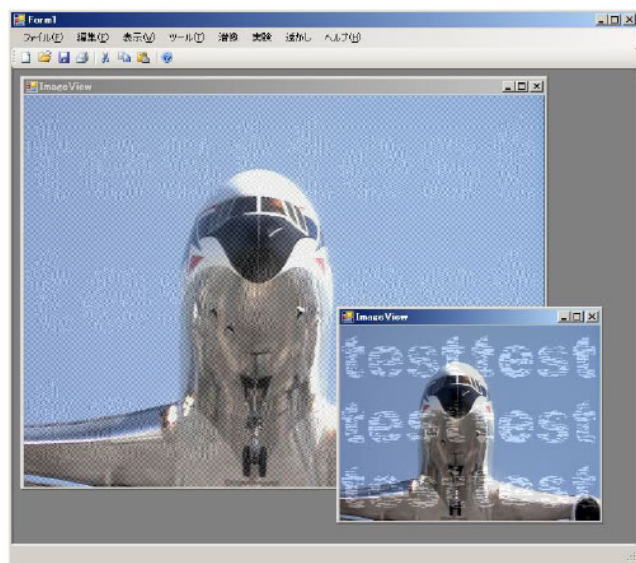
Digital Media Information & Communication Systems Field

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Hitachi, Ltd. web site [20th October 2011 News Release] <http://www.hitachi.co.jp/New/cnews/month/2011/10/1020a.html>

Digital latent watermark image technique to alert users when illegally copying video contents

※This sample picture was specially processed to maintain its visual contents, so even if the picture is processed, the latent watermark image will not re-emerge.



Sample picture

(Left: Picture before processing / Bottom-right: Picture after processing)

Hitachi, Ltd. has developed a digital latent watermark image technique that embeds latent watermark image, which are difficult to see during normal playback, into the images to alert users when they are illegally copying video contents. The technique alerts users who are infringing on a copyright, such as when they are illegally uploading video contents to video sites.

■ Characteristics

- ① The latent watermark image was designed using aliasing where the image resolution vastly deteriorates in response to the shrinkage ration of the copy.
- ② The latent watermark image sign should be near invisible before copying, and very visible after illegal copying.

■ Plan

This technique is expected to be used in fields that demand the confidentiality and authenticity of their video contents, such as in the medical services, construction, and public institutions, and for further security control such as copyright protection and illegal copying alerts.

■ Conference presentation

The result was presented at IWSW 2011 (International Workshop on Digital-forensics and Watermarking).

A word from the development team

Cloud computing will spread, and a large volume of data will accumulate, which will increasingly demand better security control for the input and output of the data. We will contribute to the security control of video contents using this technique.