ADJUSTABLE COMPRESSION METHOD FOR DIGITAL IMAGES

(P) PATENTED TECHNOLOGY

ABSTRACT

The research group "Specialized Processors Architecture Laboratory (SPA-Lab)" of the University of Alicante has developed a digital image system that dynamically adjusts its compression/decompression time processing regardless of image characteristics. This adjustable feature allows the system to maintain quality of service (QoS) at any application, especially those with limited resources.

The research group offers to industry the know-how for the adaptation and implementation of the compression system, the technology license which is protected by patent or a combination of some of these services.

ADVANTAGES AND INNOVATIVE ASPECTS

MAIN ADVANTAGES OF THE TECHNOLOGY

The developed system has the following advantages:

• The adjustment capability of the system allows maintaining the quality of service (QoS) in images/video sequences in highly demanding environments (e.g.: high frame rate).

• The system is real-time predictable and, therefore, it allows compatibility and integration in other more complex systems.

• The system can be implemented via software, can be built in a reconfigurable card or, can be manufactured into an integrated circuit.

INNOVATIVE ASPECTS

• The system allows dynamically adjusting the compression/decompression time delay to the needs of each environment.

• The system meets timing constraints regardless of the characteristics of the image, the rate of compression, size, number of colours and resolution, as well as operating environment.

• The system overcomes issues with the predictability of operations of compression/decompression of digital images.

MARKET APPLICATIONS

The system can works in several environments and it is especially useful for those applications with restricted resources that maintain the quality of service (QoS) in the images/video processing is required.

Industrial sectors of interest:
    1.4. Data Communications
    2.1. Computers
    2.2. Computer Graphics Related

The group is interested in:
- Research and Development (R&D) project for technical cooperation in order to adapt and implement the technology to company applications.
- Subcontracting project for technical assistance and training in order to adapt or deploy the technology into the company customer environments.
- Transfer project for knowledge cooperation or patent license in order to use, manufacture or marketing the technology.