Scientific/Technical offer for licensing

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Compression software for colour images

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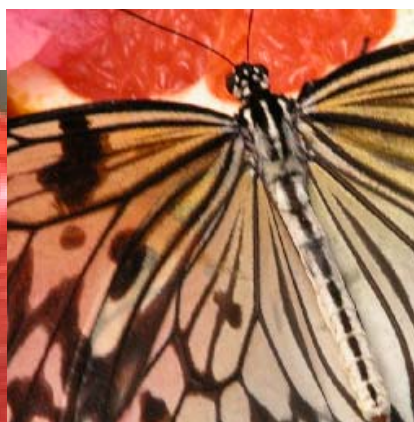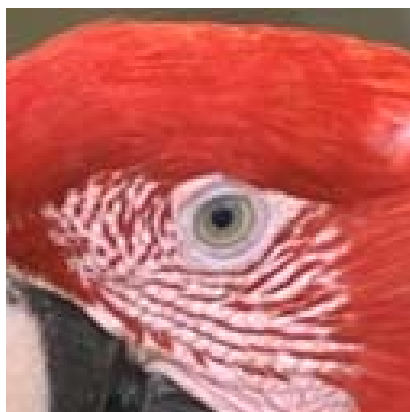
Background: Image compression is a critical technology with different problems and requires of transmission, storage and recovery of images, since the data volume increases exponentially with applications such as remote sensing, digital photography, medical imagery and digital libraries. The most utilized compression standard is the JPEG although it presents troubles that are solved by the described invention.

The invention: Novel software to codify and compress colour images, which combines new and known techniques, that obtains an average compression improvement of 50% respect to JPEG for different measures of distortion in the commercial rank of [1, 2.2] bits/pix and with a computational effort similar to that currently used.

Applications: The applications of the proposed technology would be basically in consumer electronics, such as mobile phone system, digital cameras, PDA's and computers, media centers, etc.

Advantages: The main advantages of the technology are:

o   The improvement in at least 50% of the colour image compression with a comparable computational effort to current methods (JPEG) depending on the utilized distortion measures. Visually it solves JPEG problems as the excessive smoothed of the highly frequency details.
o   Mobile phone systems: 50% of wideband saving in colour image transmission.
o   Digital cameras: increase of colour image storage capacity without quality loss.
o   Computers, PDA's and media centers: higher colour image storage capacity.