

# New Global Motion Algorithm

Tech ID: 20739 / UC Case 2003-210-0

## TECHNOLOGY DESCRIPTION

UC San Diego inventors have devised a global motion estimation technique for affine motion vectors with the following benefits:

- ▶ Requires less computational overhead.
- ▶ Relies on the easy-to-compute FFT.
- ▶ Highly parallelizable.
- ▶ Robust to illumination changes and occlusion.
- ▶ Not significantly effected by calculations involving large movements.
- ▶ Does not require a starting guess.
- ▶ Scalable between accuracy computational power.
- ▶ MPEG4 object layer coding.

## STATE OF DEVELOPMENT

Software has been implemented using this algorithm (see SD2010-813) and is available for licensing with the patent rights. Also see issued patent [7,349,583](#).

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	<a href="#">7,349,583</a>	03/25/2008	2003-210

## ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [A Novel Multi-Stage Motion Vector Processing and Application in Motion Compensated Frame Interpolation](#)

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## INVENTORS

- ▶ Nguyen, Truong Q.

## OTHER INFORMATION

### KEYWORDS

image processing, motion estimation,  
frame rate conversion, compression,  
MPEG4

### CATEGORIZED AS

- ▶ **Communications**
- ▶ Wireless

### RELATED CASES

2003-210-0