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(54) METHOD AND APPARATUS FOR DEFINING A PANNING AND ZOOMING PATH ACROSS A STILL IMAGE DURING MOVIE CREATION

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Related U.S. Application Data

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(56) References Cited

U.S. PATENT DOCUMENTS

5,111,291 5,469,209 5,542,037 5,615,384	A A	*	11/1995 7/1996	Erickson et al	. 348/96 345/433
5,657,402 5,767,845	A A	*	8/1997 6/1998	Bender et al	382/384 345/473

FOREIGN PATENT DOCUMENTS

GB	2160748	*	5/1985	 358/83

OTHER PUBLICATIONS

Hoad et al. "Automatic Control of Camera Pan, Zoom and Focus for Improving Object Recognition", IEEE, published 7/95, pp. 291–295.*

Nakamae et al. "Computer Generated Still Images composited with Panned LAnscape Video Sequences", IEEE, published 1998, pp. 61–70.*

* cited by examiner

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(57) ABSTRACT

A method and apparatus for enabling a user to define a panning and zooming path across a still image in a digital imaging device during interactive movie creation. The method and apparatus include allowing the user to define the position of a plurality of key frames on the still image, allowing the user to size the key frames to control the zoom during the movie, and allowing the user to set the key frames on the still image to fix each of the key frame's position and size.

23 Claims, 12 Drawing Sheets

