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Artonne et al.

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(54) **METHOD FOR CAPTURING AND DISPLAYING A VARIABLE RESOLUTION DIGITAL PANORAMIC IMAGE**

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Related U.S. Application Data

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(30) **Foreign Application Priority Data**

May 11, 2001 (FR) 01 06261

(51) **Int. Cl.^{7}** **G02B 13/06**; G02B 13/18
(52) **U.S. Cl.** **359/725**; 359/718
(58) **Field of Search** 359/718, 719, 359/725, 728

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(57) **ABSTRACT**

A method for capturing a digital panoramic image includes projecting a panorama onto an image sensor by means of a panoramic objective lens. The panoramic objective lens has a distribution function of the image points that is not linear relative to the field angle of the object points of the panorama, such that at least one zone of the image obtained is expanded while at least another zone of the image is compressed. When a panoramic image obtained is then displayed, correcting the non-linearity of the initial image is required and is performed by means of a reciprocal function of the non-linear distribution function of the objective lens or by means of the non-linear distribution function.
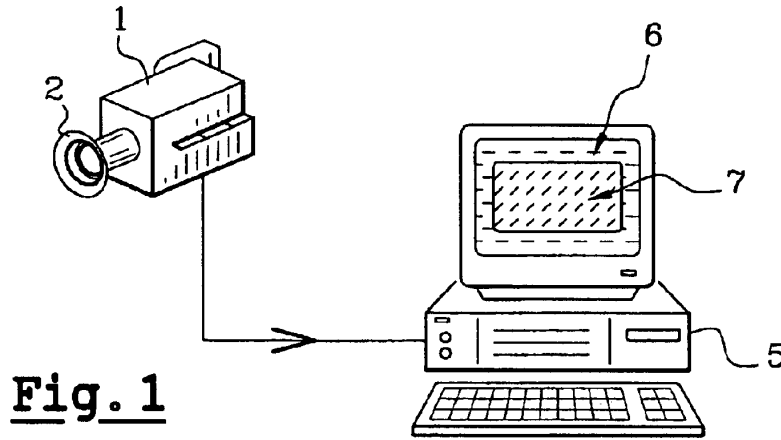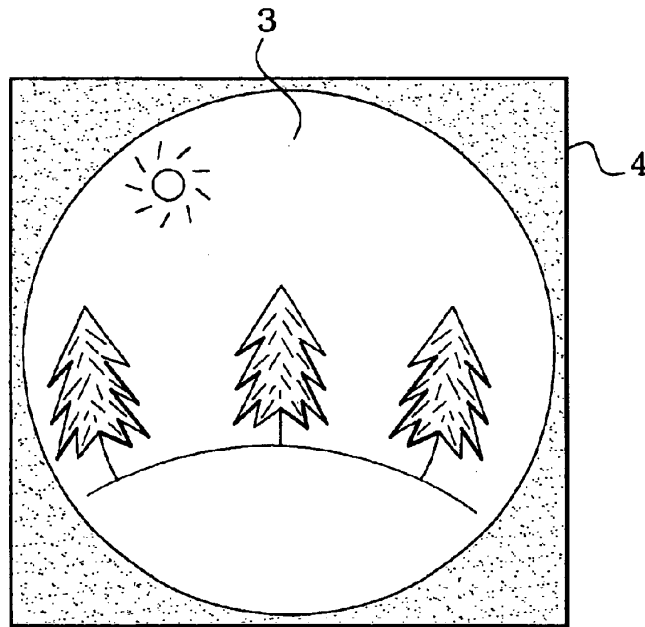
26 Claims, 11 Drawing Sheets
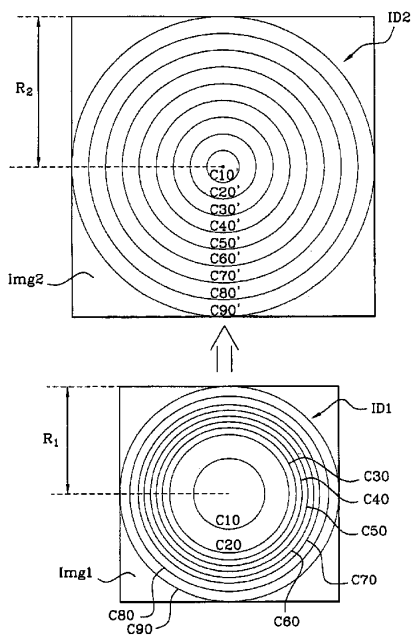
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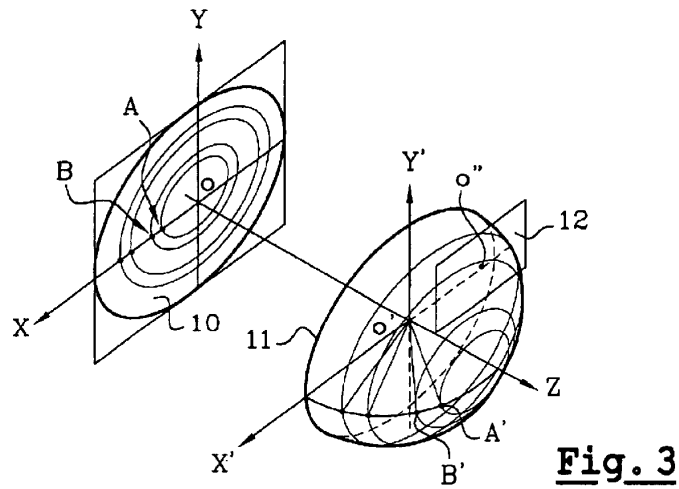

Fig. 2

Fig. 3
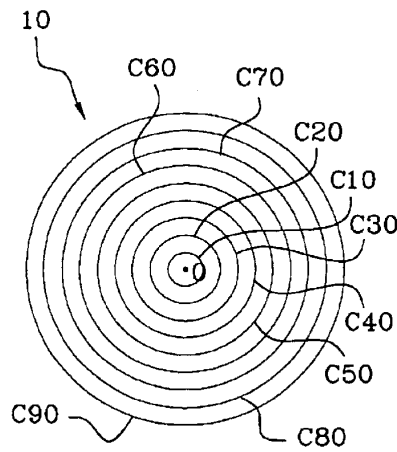
Fig. 4A
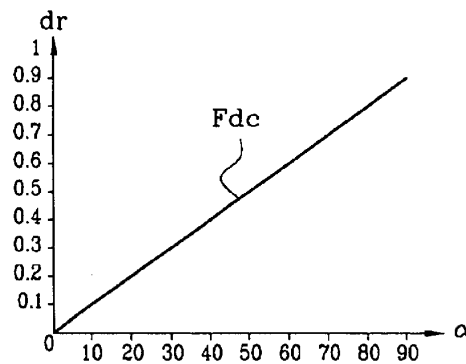
Fig. 4B
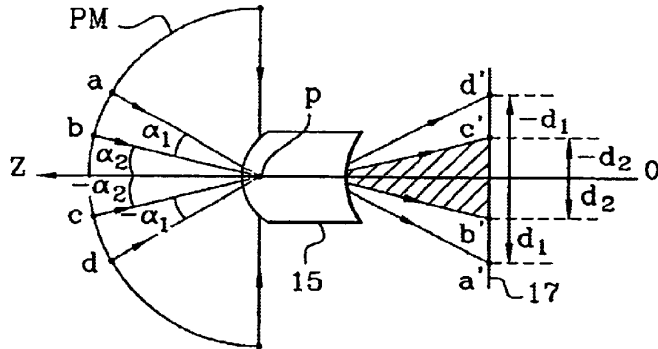
Fig. 5

PRIOR ART
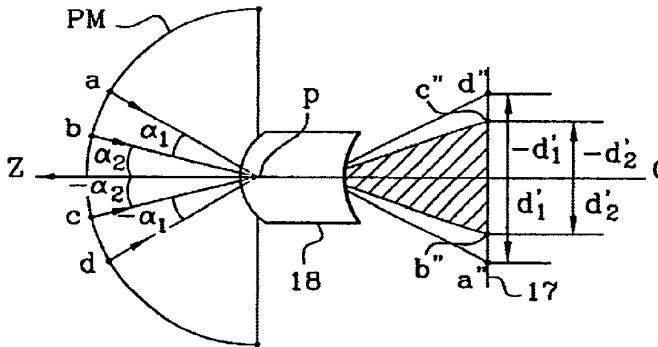
Fig. 6
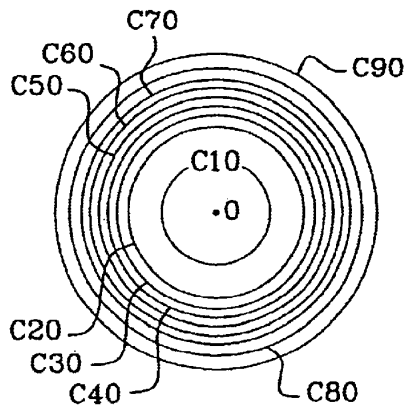
Fig. 7A

Fig. 7B

Fig. 8

Fig. 9

DOCKET ALARM
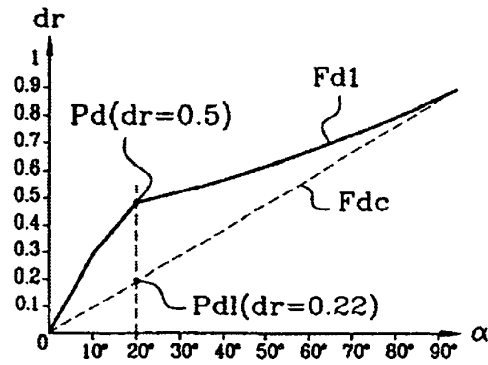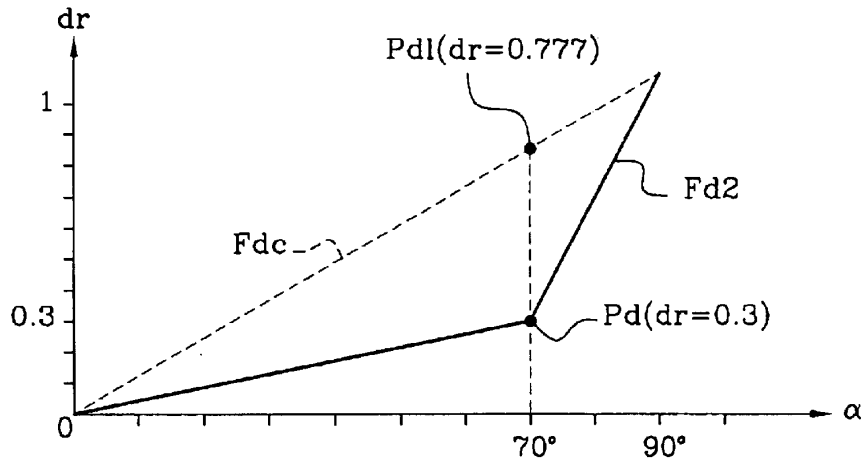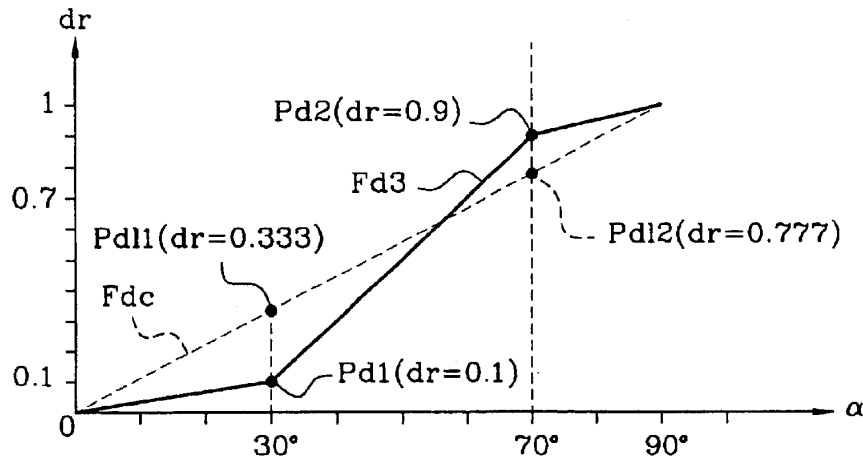
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