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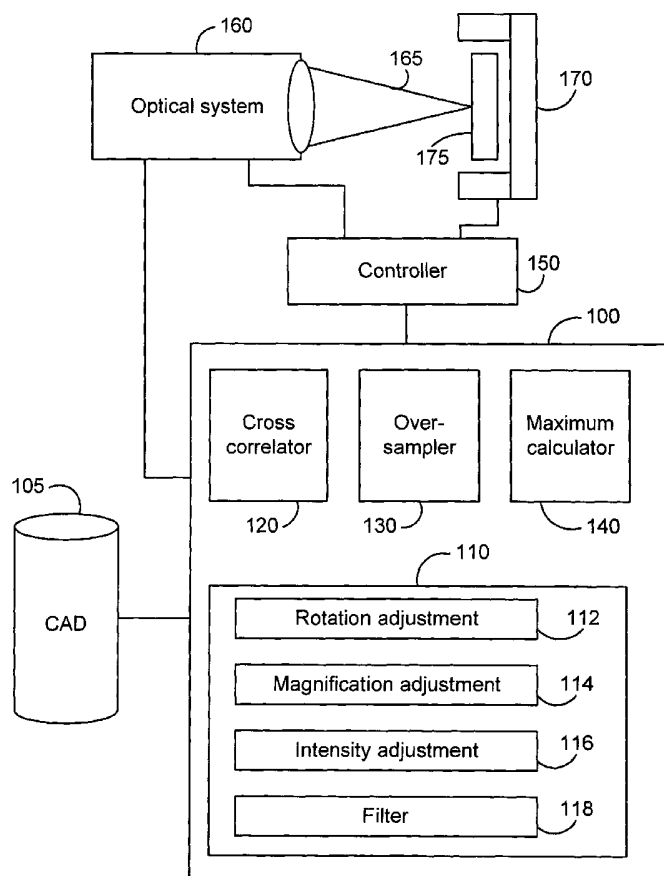
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[Continued on next page]

(54) Title: SUB-RESOLUTION ALIGNMENT OF IMAGES



(57) Abstract: A plurality of images, including a first image and a second image having a higher resolution than the first image, are aligned by generating an oversampled cross correlation image that corresponds to relative displacements of the first and second images, and, based on the oversampled cross correlation image, determining an offset value that corresponds to a misalignment of the first and second images. The first and second images are aligned to a precision greater than the resolution of the first image, based on the determined offset value. Enhanced results are achieved by performing another iteration of generating an oversampled cross correlation image and determining an offset value for the first and second images. Generating the oversampled cross correlation image may involve generating a cross correlation image that corresponds to relative displacements of the first and second images, and oversampling the cross correlation image to generate the oversampled cross correlation image.



European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US 02/17095

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G06T7/00 G06T3/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G06T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 949 588 A (COMMISSARIAT ENERGIE ATOMIQUE) 13 October 1999 (1999-10-13)  page 7, line 21 - line 41 ---	1-3, 5-7, 30-32, 34, 44-46, 56, 65, 74, 84
Y	US 5 550 937 A (BELL DAVID M ET AL) 27 August 1996 (1996-08-27)  abstract column 9, line 10 - column 11, line 10 --- -/-	1-3, 5-7, 30-32, 34, 44-46, 56, 65, 74, 84

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*G\* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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