

IMAGE PROCESSING METHOD AND SYSTEM

ABSTRACT

The present invention relates to the field of image processing. In one
5 form, the invention relates to a method and system of matching regions of a
first image and at least a second image, said regions being non-overlapping
segments of an image, to provide a fundamental algorithm in use to perform
image registration, comprising:

a) determining a set of region properties for each region of the first and
10 second images;

b) for each possible pair of regions in the set of all possible pairs of
regions, where each said pair comprises a region from the first image and a
region from the second image, performing the following;

i) determine a hypothetical transformation;
15 ii) transform a portion of each region of the first image into a
corresponding transformed location in the second image using the
hypothetical transformation;

iii) determine whether a region in the second image has a
corresponding existing portion proximate the transformed location;

20 iv) allocate a support reference to the hypothetical transformation for
each determined proximate portion;

c) determining a true transformation between the first and second
images in accordance with the hypothetical transformation which is allocated
the maximal support references.

25 Figure 1 accompanies the abstract.