

Title (en)

METHOD AND SYSTEM FOR REGISTERING THE POSITION OF A SURGICAL SYSTEM WITH A PREOPERATIVE BONE IMAGE

Title (de)

VERFAHREN UND SYSTEM ZUR REGISTRIERUNG VON DER POSITION EINES CHIRURGISCHEN SYSTEMS MIT EINEM PREOPERATIVEN KNOCHENBILD

Title (fr)

PROCEDE ET SYSTEME D'ALIGNEMENT DE LA POSITION D'UN SYSTEME CHIRURGICAL AVEC UNE IMAGE OSSEUSE PREOPERATOIRE

Publication

**EP 1016030 A1 20000705 (EN)**

Application

**EP 98906412 A 19980212**

Priority

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Abstract (en)

[origin: WO9836371A1] A method and system for transforming the image of a bone (60) into a system coordinate space, such as robotic system coordinate space, comprises identifying in the image data set at least two positional coordinates and at least one directional vector. The positional coordinates and directional vector are preferably defined by a pair of fiducial markers (70, 72) which are axially spaced apart on the bone (60). Corresponding positional coordinates and directional vector in the actual bone (60) are determined by contacting a probe (32), such as the probe at the end of a manipulatable arm (28) on a robot (26), against the fiducial markers (70, 72) in the bone (60) while the bone (60) is immobilized in the robotic space. The positional coordinates and directional vector within the image data set are then registered with the actual positional coordinates and directional vector determined by the robot (26) in the robotic coordinates base to produce a transfer function that can be used to transfer the image data to the coordinate system space for performing surgery or other procedures on the bone (60).

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