Title (en)

METHOD FOR CORRECTING IMAGE DISTORTIONS IN AN X-RAY IMAGE

Title (de)

VERFAHREN ZUR KORREKTUR VON BILDVERZERRUNGEN IN EINEM RÖNTGENBILD

Title (fr)

PROCEDE POUR CORRIGER UNE DISTORSION D'IMAGE DANS UNE IMAGE RADIOLOGIQUE

Publication

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Application

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Abstract (en)

[origin: WO9840847A1] Method for correcting image distortion in an X-ray image which is obtained with the aid of an X-ray image device with an X-ray source mounted on a rotatable arm, an electrooptical image intensifier device positioned opposite the X-ray source and a digital image processor, comprising a calibration phase, in which deviations of the image are recorded with the aid of a calibration phantom and a correction phase, in which a correction is carried out on the basis of the recorded deviations, wherein the total image distortion is split into a geometrical component and a magnetic component; the geometrical component is split into a part caused by cushion-shaped distortion and a part associated with pixel dimensions; in the calibration phase, the pixel dimensions are calibrated and on the basis of an algorithm which contains exclusively geometrical parameters, the cushion-shaped distortion is determined and corrected; for a number of predetermined calibration positions of the rotatable arm, the residual image distortion is then recorded in a magnetic deformation table valid for at least a number of pixels and the X-ray image is separately corrected for the geometrical deformation and on the basis of the magnetic deformation table in the correction phase.

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