

Title (en)

SYSTEM AND METHOD FOR DYNAMIC METAL DISTORTION COMPENSATION FOR ELECTROMAGNETIC TRACKING SYSTEMS

Title (de)

SYSTEM UND VERFAHREN ZUR KOMPENSATION VON DYNAMISCHER METALLDISTORSION FÜR ELEKTROMAGNETISCHE TRACKINGSYSTEME

Title (fr)

SYSTÈME ET PROCÉDÉ DE COMPENSATION DYNAMIQUE DES DISTORSIONS DE MÉTAL POUR SYSTÈME DE SUIVI ÉLECTROMAGNÉTIQUES

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2010076676A1] A method and system for dynamic metal distortion compensation using an Electromagnetic Tracking System (EMTS) (10) using an electromagnetic field from an electromagnetic field generator (12). A plurality of fiducial markers (14) are provided, each having at least one electromagnetic sensor (26), the electromagnetic sensors oriented in a plurality of sensor orientations, and at least some of the sensors being located proximal to a volume of interest. The fiducial markers (14) are imaged to provide their position in image space. Position readings of the electromagnetic sensors (26) are monitored using the EMTS. A metal distortion correction function is calculated by comparing the positions of the fiducial markers in image space to the positions of the electromagnetic sensors. A medical device (16) moving through the volume of interest is also tracked using the EMTS, and the distortion correction function is applied to medical device position readings to compensate for the distortion.

IPC 8 full level

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