

Title (en)

METHODS AND APPARATUS FOR USING IMAGE DATA TO DETERMINE CAMERA LOCATION AND ORIENTATION

Title (de)

BILDDATEN VERWENDENDE VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG VON KAMERAPOSITION UND -ORIENTIERUNG

Title (fr)

PROCEDES ET APPAREILS UTILISANT DES DONNEES D'IMAGES POUR DETERMINER LA POSITION ET L'ORIENTATION D'UNE CAMERA

Publication

EP 0892911 A1 19990127 (EN)

Application

EP 96911069 A 19960328

Priority

IB 9600424 W 19960328

Abstract (en)

[origin: WO9736147A1] Methods and apparatus for accurately surveying and determining the physical location of objects in a scene are disclosed which use image data captured by one or more cameras and three points from the same scene which may be either measured after the images are captured or may be included in the calibrated target placed in the scene at the time of image capture (800). Objects are located with respect to a three-dimensional coordinate system defined with reference to the three points (820). The methods and apparatus permit rapid set up and capture of precise location data using simple apparatus and simple image processing. The precise location and orientation of the camera utilized to capture each scene is determined from image data (860), from the three point locations and from the optical parameters of the camera.

IPC 1-7

G01C 3/00; G06K 9/00

IPC 8 full level

G01C 3/06 (2006.01); **G01C 3/08** (2006.01); **G06T 1/00** (2006.01); **G06T 7/00** (2006.01)

CPC (source: EP)

G01C 3/08 (2013.01); **G06T 7/70** (2016.12); **G06T 2207/30244** (2013.01)

Citation (search report)

See references of WO 9736147A1

Cited by

EP3178884A1; US10266655B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 9736147 A1 19971002; AU 5406796 A 19971017; EP 0892911 A1 19990127; JP H11514434 A 19991207

DOCDB simple family (application)

IB 9600424 W 19960328; AU 5406796 A 19960328; EP 96911069 A 19960328; JP 53597796 A 19960328