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(54) **METHOD AND SYSTEM FOR CREATING A USER-SELECTABLE ARBITRARY COORDINATE FRAME**

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(52) **U.S. Cl.** **701/207**; 356/3.01; 356/622

(58) **Field of Search** 701/200–213, 701/216; 33/556, 557, 558, 553, 554, 555, 559; 356/3.01, 3.03, 622

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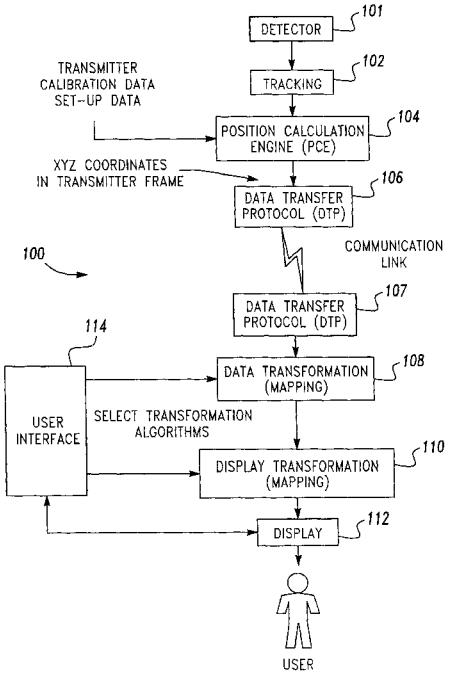
(57) **ABSTRACT**

A method and system allows conversion of three-dimensional data from a default coordinate frame to an arbitrary user-selected coordinate frame. The method includes obtaining position data in a default coordinate frame and transforming the data into an alternate coordinate frame defined by the user. The alternate coordinate frame can be defined by allowing the user to select a plane, an origin, and an axis, using any desired coordinate system and in any desired orientation. The transformed data allows presentation of position measurements in a form that is relevant to the user's specific application.

17 Claims, 3 Drawing Sheets