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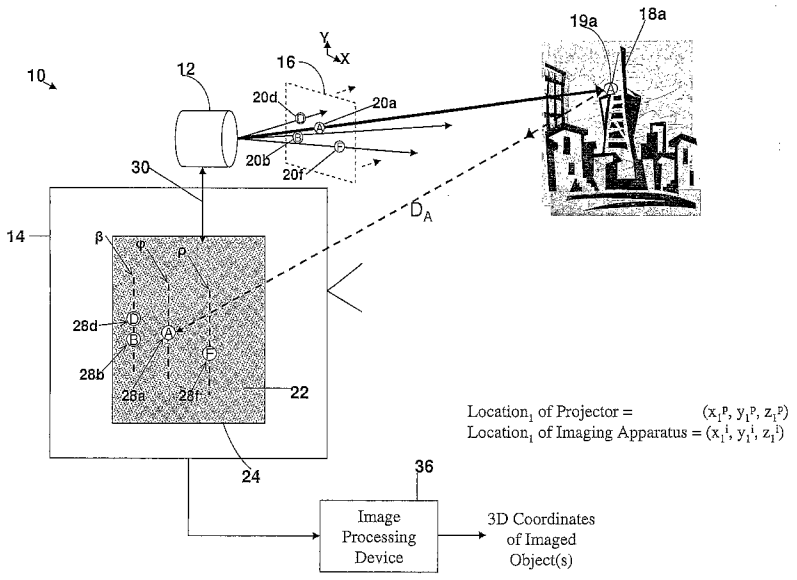

(57) **Abstract:** A method and apparatus for obtaining an image to determine a three dimensional shape of a stationary or moving object using a bi dimensional coded light pattern having a plurality of distinct identifiable feature types. The coded light pattern is projected on the object such that each of the identifiable feature types appears at most once on predefined sections of distinguishable epipolar lines. An image of the object is captured and the reflected feature types are extracted along with their location on known epipolar lines in the captured image. The locations of identified feature types in the 2D image are corresponded to 3D coordinates in space in accordance to triangulation mappings. Thus a 3D mapping or model of imaged objects at an point in time is obtained.

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