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(54) **SYNCHRONIZED, INTERACTIVE AUGMENTED REALITY DISPLAYS FOR MULTIFUNCTION DEVICES**

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H04N 5/222 (2006.01)

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(58) **Field of Classification Search** 348/333.01
See application file for complete search history.

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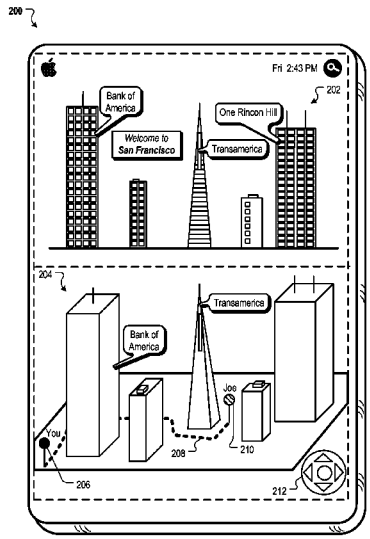
(57) **ABSTRACT**

A device can receive live video of a real-world, physical environment on a touch sensitive surface. One or more objects can be identified in the live video. An information layer can be generated related to the objects. In some implementations, the information layer can include annotations made by a user through the touch sensitive surface. The information layer and live video can be combined in a display of the device. Data can be received from one or more onboard sensors indicating that the device is in motion. The sensor data can be used to synchronize the live video and the information layer as the perspective of video camera view changes due to the motion. The live video and information layer can be shared with other devices over a communication link.

24 Claims, 9 Drawing Sheets