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**Levanon et al.**

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(54) **OPTIMIZED IMAGE DELIVERY OVER LIMITED BANDWIDTH COMMUNICATION CHANNELS**

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(73) Assignee: **Inovo Limited**, The Valley Anguilla (VG)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
This patent is subject to a terminal disclaimer.

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(51) **Int. Cl.**  
**G06F 15/16** (2006.01)

(52) **U.S. Cl.** ..... **709/217**; 709/230; 345/625; 382/232; 382/305

(58) **Field of Classification Search** ..... 709/202, 709/203, 217, 230, 246, 247; 345/625; 382/232, 382/305

See application file for complete search history.

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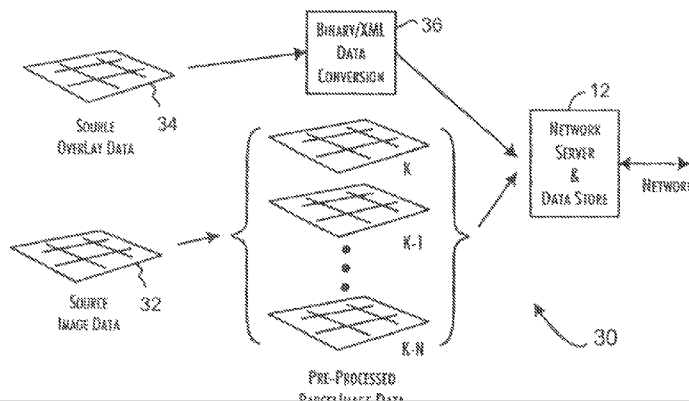
\* cited by examiner

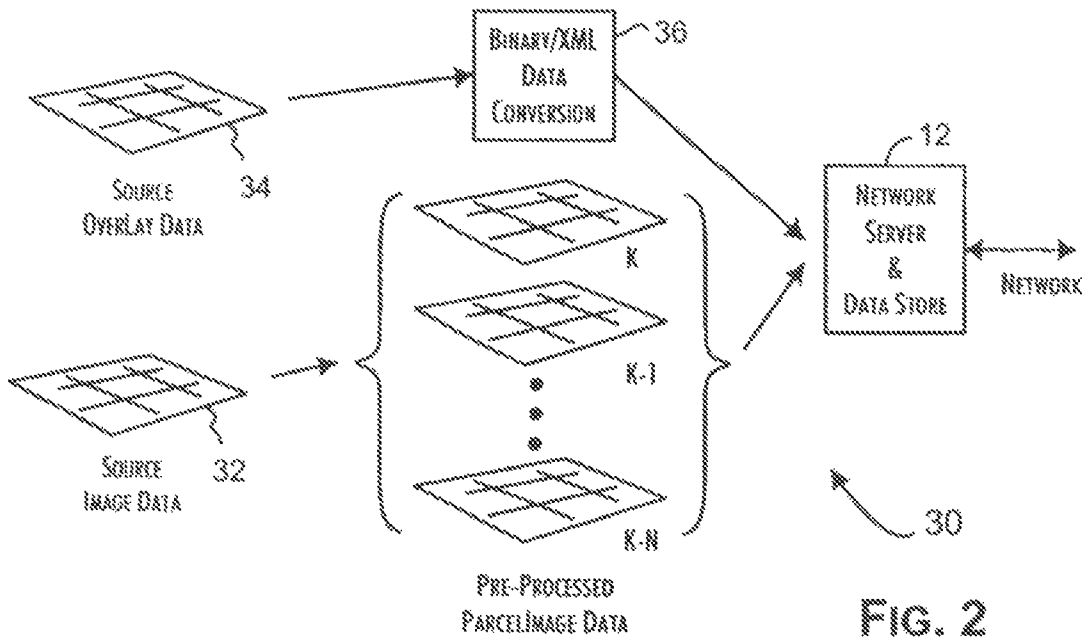
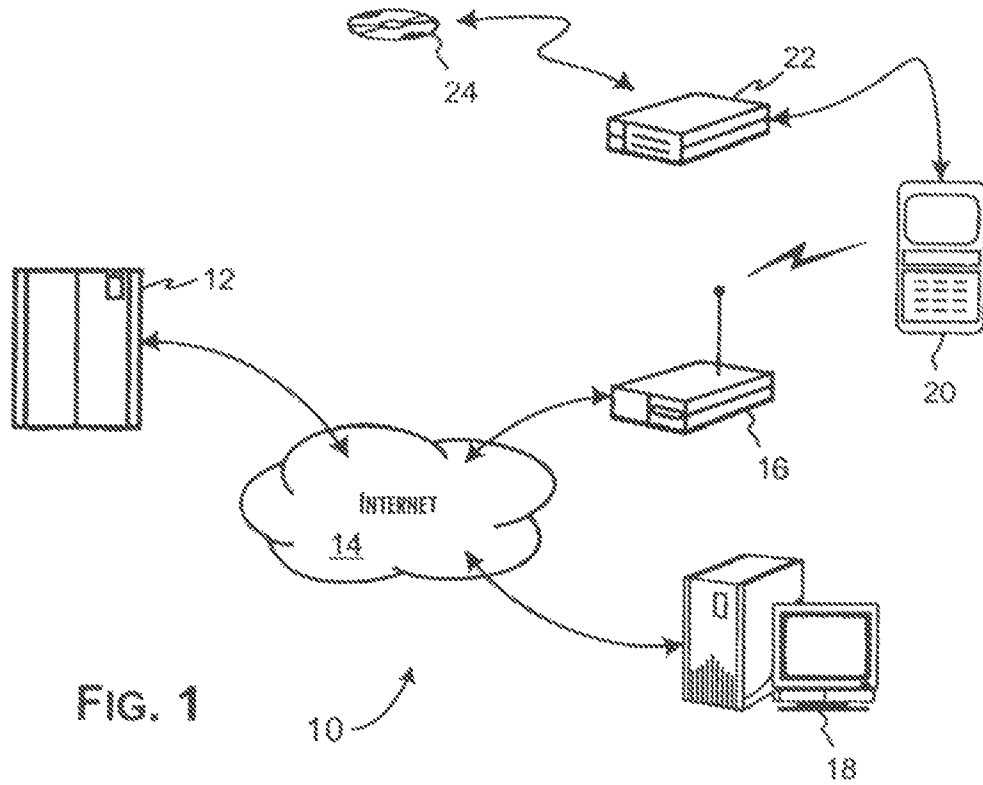
*Primary Examiner* — David Lazaro

(57) **ABSTRACT**

Large-scale images are retrieved over network communications channels for display on a client device by selecting an update image parcel relative to an operator controlled image viewpoint to display via the client device. A request is prepared for the update image parcel and associated with a request queue for subsequent issuance over a communications channel. The update image parcel is received from the communications channel and displayed as a discrete portion of the predetermined image. The update image parcel optimally has a fixed pixel array size, is received in a single and or plurality of network data packets, and is constrained to a resolution less than or equal to the resolution of the client device display.

**20 Claims, 5 Drawing Sheets**





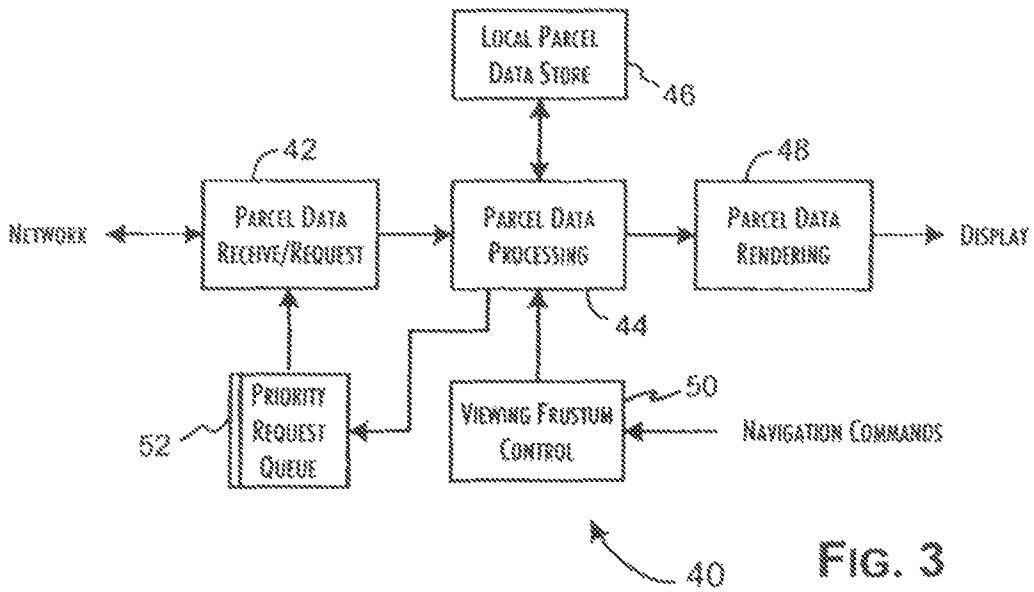


FIG. 3

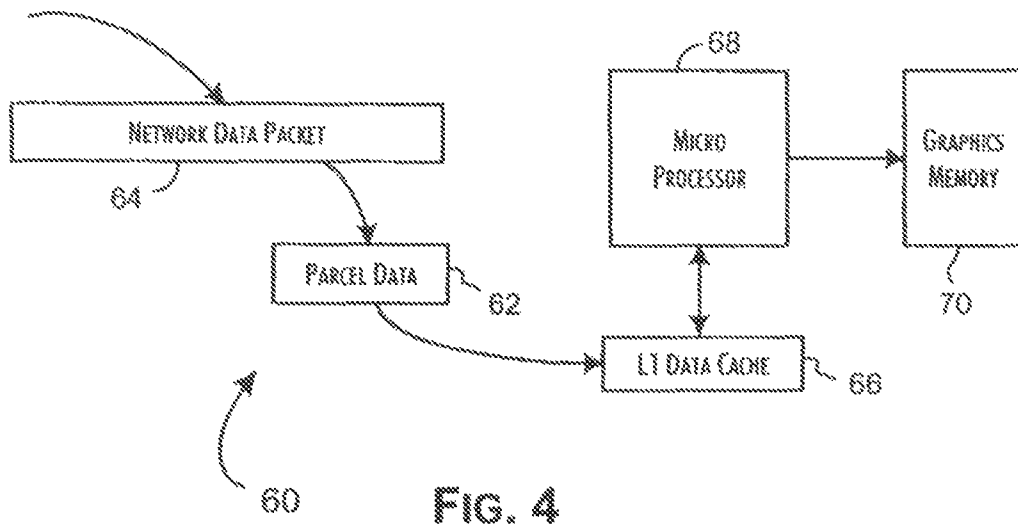
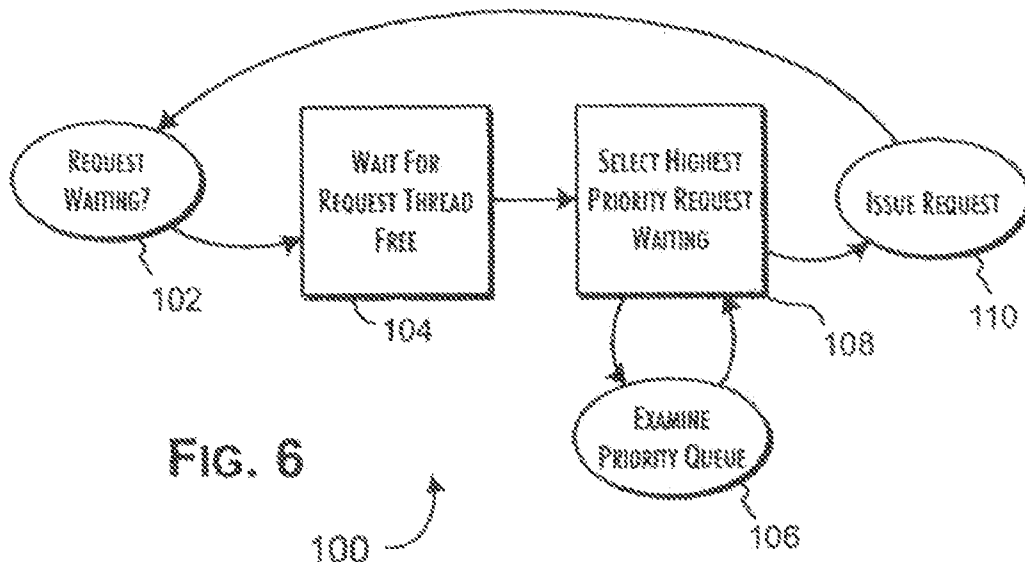
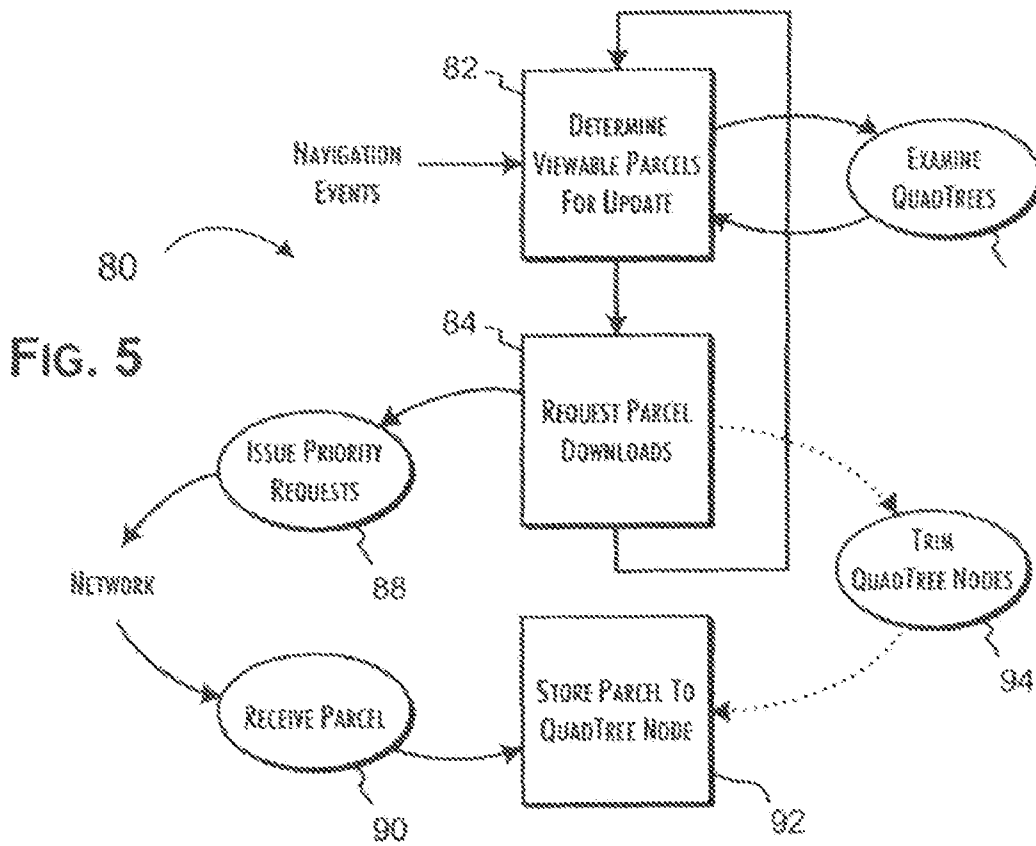


FIG. 4



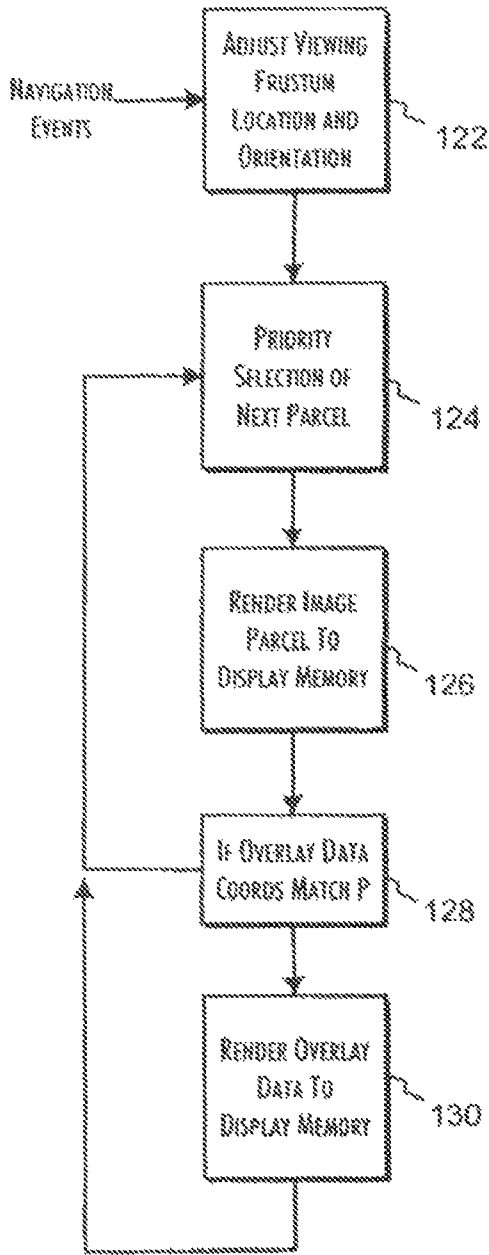
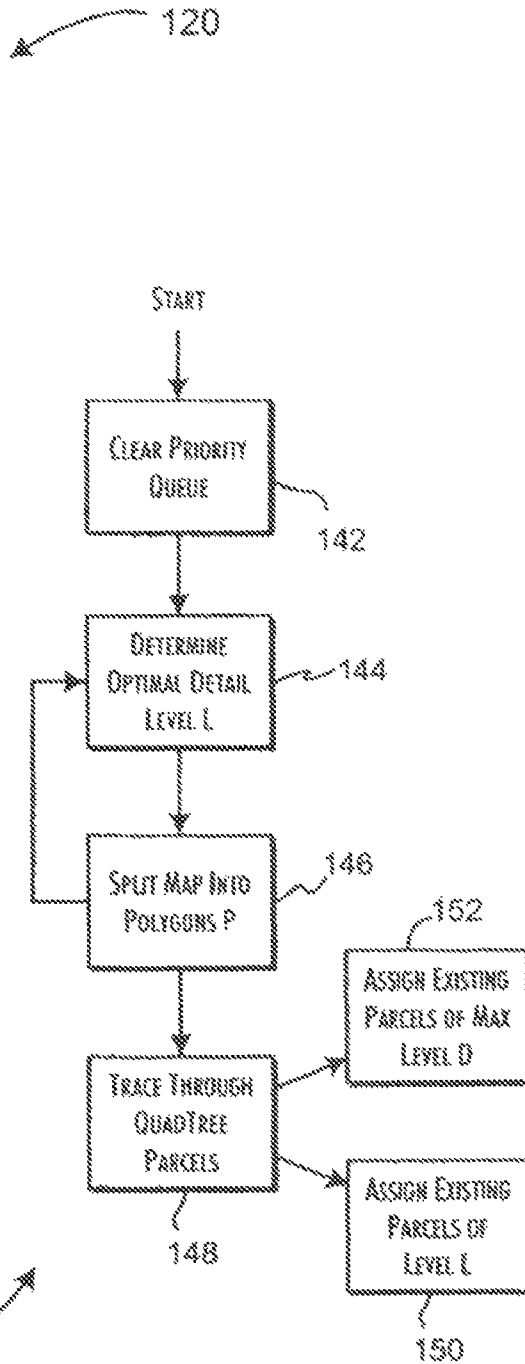


FIG. 8

FIG. 7



140

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