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(54) METHOD AND APPARATUS FOR CONTROLLING MULTIMEDIA PLAYERS IN A MULTI-ZONE SYSTEM

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- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 1091 days.

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Related U.S. Application Data

- Continuation-in-part of application No. 10/816,217, filed on Apr. 1, 2004.
- (51) Int. Cl. G06F 17/00 (2006.01)G06F 3/00 (2006.01)
- (52) **U.S. Cl.** 700/94; 715/716
- 715/716, 734, 735; 709/220, 221; 381/56 See application file for complete search history.

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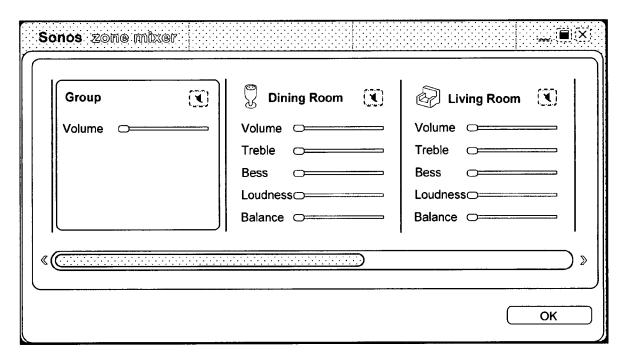
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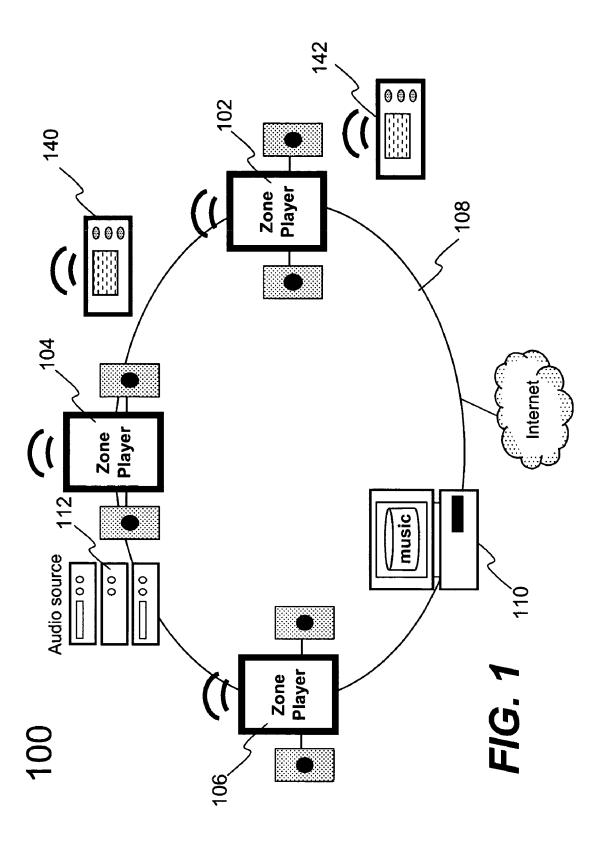
(57)**ABSTRACT**

Techniques for controlling zone group and zone group characteristics such as audio volume in a multi-zone system are disclosed. The multi-zone system includes a number of multimedia players, each preferably located in a zone. A controller may control the operations of all of the zone players remotely from any one of the zones. Two or more zone players may be dynamically grouped as a zone group for synchronized operations. According to one aspect of the techniques, a zone group configuration can be managed, updated, modified via an interactive user interface provided in a controlling device. The zone group configuration may be saved in one of zone players. According to another aspect of the techniques, the audio volume control of a zone group can be performed individually or synchronously as a group.

44 Claims, 14 Drawing Sheets









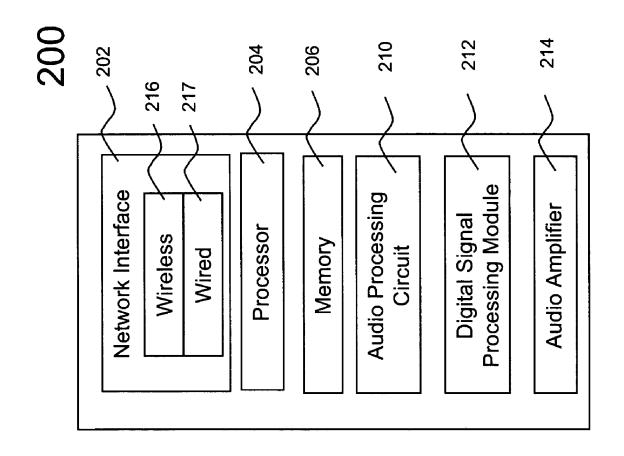
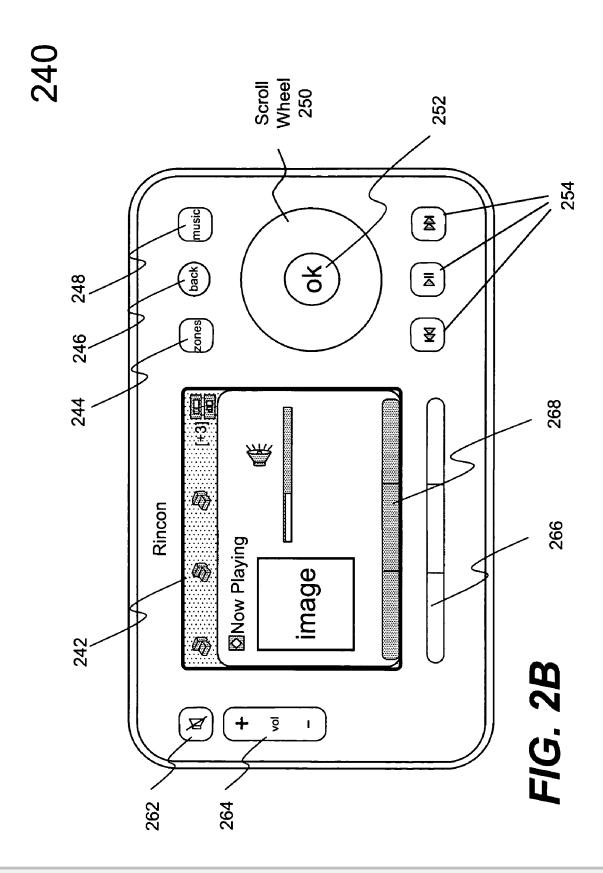
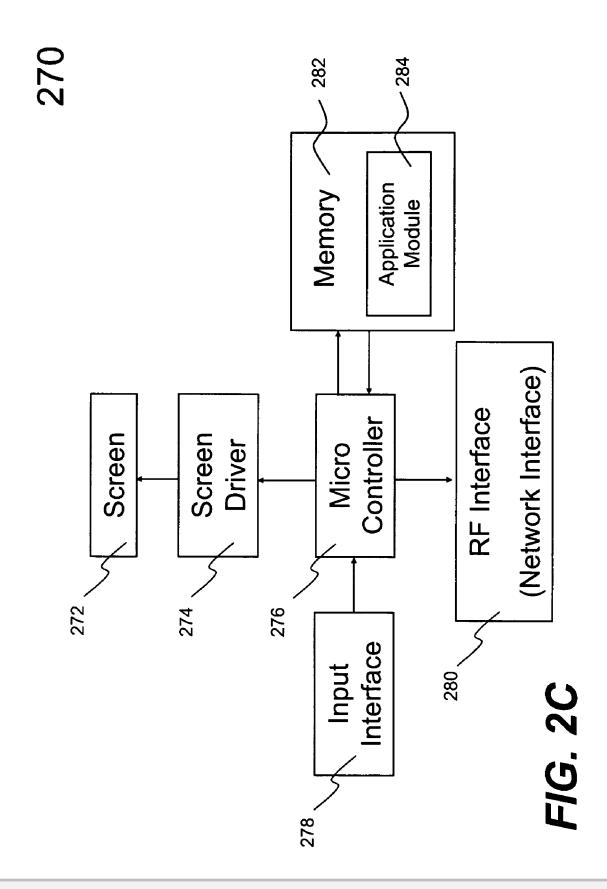


FIG. 2A





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