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(54) **DATA DRIVEN INTERACTION FOR NETWORKED CONTROL OF A DDI TARGET DEVICE OVER A HOME ENTERTAINMENT NETWORK**

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(51) **Int. Cl.**[7] **G05B 15/00**; G06F 13/00
(52) **U.S. Cl.** **700/83**; 700/17; 709/328; 710/10; 710/72
(58) **Field of Search** 700/11, 12, 17, 700/83; 710/8, 10, 12, 72; 709/201, 203, 217, 218, 220, 321, 328; 345/173, 326, 339, 327, 718, 746, 764, 810; 712/1

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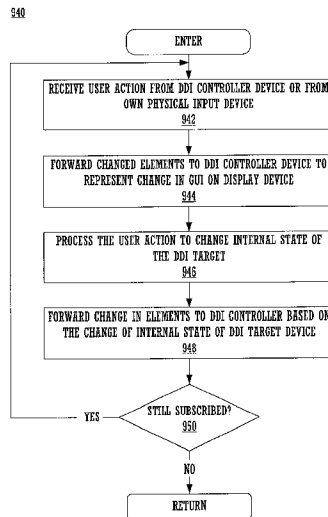
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(57) **ABSTRACT**

A method and system for providing a user interface for a networked target device within a home audio/visual network. The DDI allows any DDI target to describe its physical appearance including controls and displays, etc., to a DDI controller. The controller can be a remote physical device or can be a software program resident on the same or separate device as the target. The controller interfaces with the target to obtain the DDI data and generates a user interface for the target including: 1) interactive controls; and 2) user display information pertinent to the target. The DDI allows the controller to trigger actions on the target as if a user had physically manipulated the controls of the target. The controller and the target are connected to the same communication network. A particular embodiment operates within the HAVi architecture. The controller communicates with the user by using the input and output devices of (typically) the device upon which the controller is executing. This communication can be done in a controller-implementation-dependent manner. The target can be a DCM that controls its device in a implementation-dependent manner. The controller may be written in a generic manner that does not need to be implemented with knowledge of a particular target in mind; all target-dependencies are represented in the DDI data provided by the target to the controller.

24 Claims, 16 Drawing Sheets

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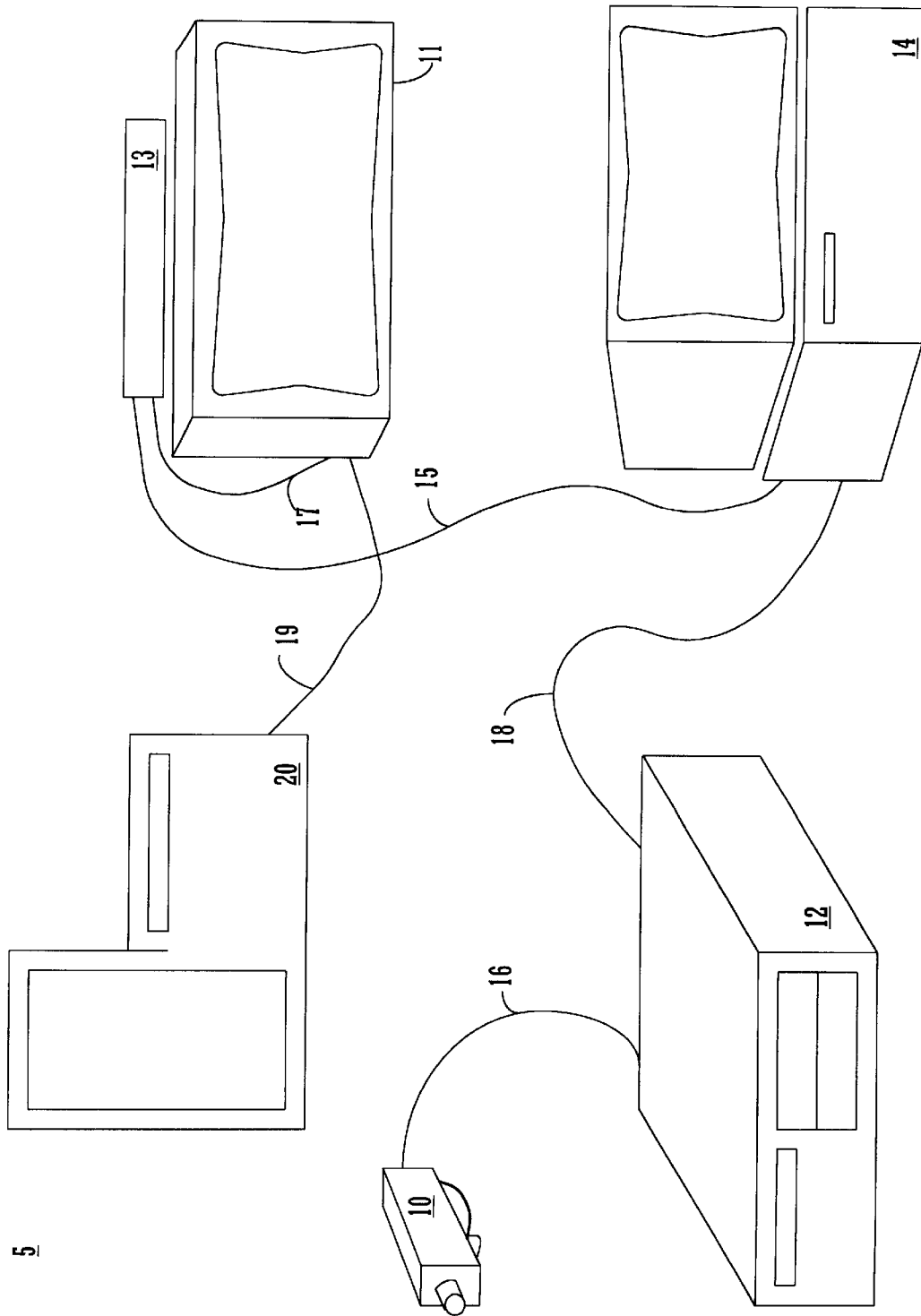|				
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FIGURE 1

FIGURE 2

FIGURE 3

DOCKET ALARM
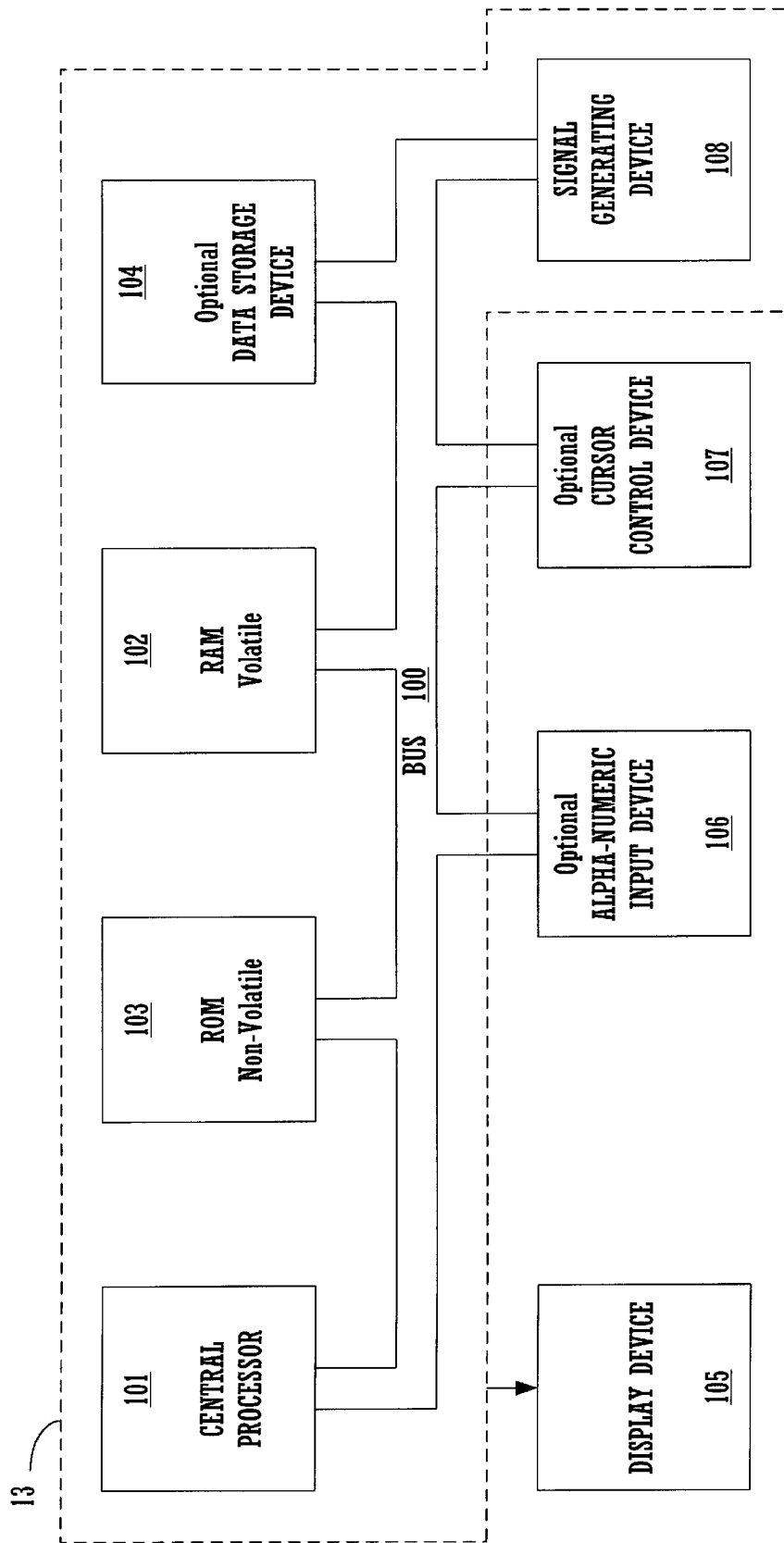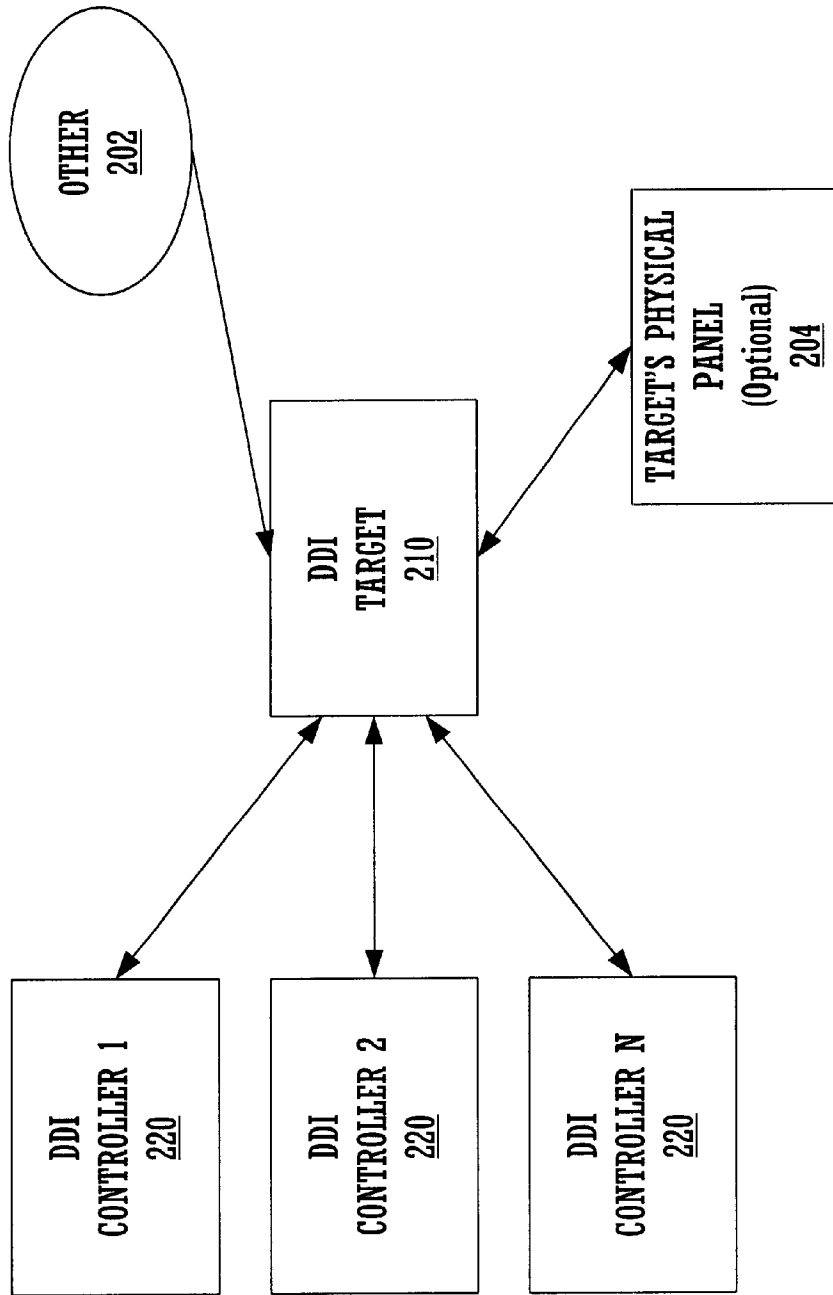
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