

[0078] As described above, individual map items are preferably grouped according to a number of specified categories. Graphical features (the land masses in FIGS. 1-3) associated with the categories are displayed along with indicia representative of the genre or category. At a relatively low level of magnification (see FIG. 1), the preferred embodiment of the present invention displays broad categories such as Movies, News, and Sports. Those map items located on or proximate to a given geographical feature represent programs or stations that are generally related to that category. Thus, all of the map items contained on or near graphical feature 122 are associated with movies. In contrast, at a relatively high level of magnification (see FIG. 3), a given category may be further divided into one or more subcategories. In this respect, a first number of active map items from the general category are displayed on or proximate to a first area of the graphical feature and a second number of active map items may be displayed on or proximate to a second area of the graphical feature. In the context of FIG. 3, the general category of "Movies" includes the subcategories of "Mystery" and "Drama." Map items located near to the "Mystery" label represent mystery movies, while map items located near to the "Drama" label represent dramatic movies. Although not depicted in FIG. 3, the navigation map may display separating lines or zones to designate the different subcategory areas of the respective graphical feature. In addition, any number of subcategories may be displayed at any given zoom level.

[0079] The map display may also support a "show category" feature. This feature allows a user to select an individual category (usually via a menu, a hot key, the selection of an icon, or other functionality) while using the system. In response to the identification of a category (or subcategory), the magnification, panning, and/or other display characteristics of the map may be adjusted to focus on the selected category. When this feature is invoked, the selected category is displayed near the center of the display element and, preferably, at the maximum possible magnification that allows all of the respective map items to be shown. In a practical embodiment, the map system may store a "boundary region" for each category and/or subcategory, where the boundary region represents the maximum extent of the category. For example, FIG. 3 represents an exemplary display that may be generated in response to the selection of the "Movies" category. In an alternate embodiment, the "show category" feature may highlight the selected category or change the appearance of graphical features and items outside of the category (e.g., by shading, coloring, dimming, or darkening such graphical features). The "show category" capability allows the user to quickly and easily view a desired category without having to pan, zoom, and otherwise traverse the map.

[0080] As the level of magnification increases, the level of detail on the navigation map may also increase. Thus, additional subcategories (and lower order subcategories) may begin to appear at higher magnification levels, along with additional map items associated with the various subcategories. As more subcategories appear, the corresponding labels or other indicia of such additional subcategories may also appear on the respective area of the graphical land mass feature. This hierarchical display of categories, subcategories, and respective grouping of map items allows the user to easily and intuitively locate and select appropriate programs by genre.

[0081] It should be appreciated that, in addition to categorizing by geographic area, the navigation map can also categorize map items in a hierarchical manner using any desired criteria. For example, as shown in FIG. 3, each of the map items 302, 304, 306, 308, and 310 include the label "PPV" to identify that those stations are pay per view stations. In the preferred embodiment, these map items are further distinguished from other map items by use of a different color (green indicates a free station and red indicates a pay per view station). The use of distinct labeling and distinct coloring in this context is akin to a sub-categorization scheme. Furthermore, because these pay per view map items may not be visible at a relatively lower magnification level (see FIG. 1), their display follows the hierarchical protocol described above in connection with the subdivision of the graphical features and the display of subcategory labels.

[0082] With respect to the hierarchical visibility scheme, a relatively limited number of map items are displayed at the lowest magnification level (see FIG. 1). In contrast, as the magnification level increases (see FIG. 2 and FIG. 3), more map items become visible and more map items become active. In the example map 108 shown in FIG. 1, the Network feature 118 includes five active map items, each of which is represented by a round, three-dimensionally shaded button. One of the active map items, identified by reference number 126, represents a currently selected or highlighted symbol. The remaining active map items on Network feature 118 (and on the other graphical features shown in FIG. 1) may be selected by the user such that the related programming information can be displayed in information element 106 and/or in a pop-up window in map 108.

[0083] At higher magnification levels, the number of active map items associated with a given region or category increases because active map items displayed at relatively lower magnification levels remain displayed at higher magnification levels. In this respect, the active map items associated with a relatively lower magnification level is a subset (preferably a proper subset) of the active map items associated with a relatively higher magnification level. Accordingly, the number of active map items associated with a relatively higher magnification level will be greater than the number of active map items associated with a relatively lower magnification level.

[0084] In accordance with a preferred aspect of the invention, a number of inactive map items may also be displayed at any given magnification level. For example, Network feature 118 includes seven inactive map items displayed at the level shown in FIG. 1. The inactive map items include a map item 128 representing the station TNT and a map item 130 representing the station TBS. Although the inactive map items are displayed, they have limited or no functionality. For example, inactive map items may not be selectable by the user and they may not convey any information other than the information contained in the actual rendering of the inactive map item. In the preferred embodiment, the inactive map items are rendered on the display element in a visually distinguishable manner relative to the active map items. For example, as shown in FIG. 1, the inactive map items are smaller than the active map items and the inactive map items exhibit a faded or transparent characteristic relative to the active map items. As used herein, "visually distinguishable"