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(54) **MODAL DISPLAY, SMOOTH SCROLL GRAPHIC USER INTERFACE AND REMOTE COMMAND DEVICE SUITABLE FOR EFFICIENT NAVIGATION AND SELECTION OF DYNAMIC DATA/OPTIONS PRESENTED WITHIN AN AUDIO/VISUAL SYSTEM**

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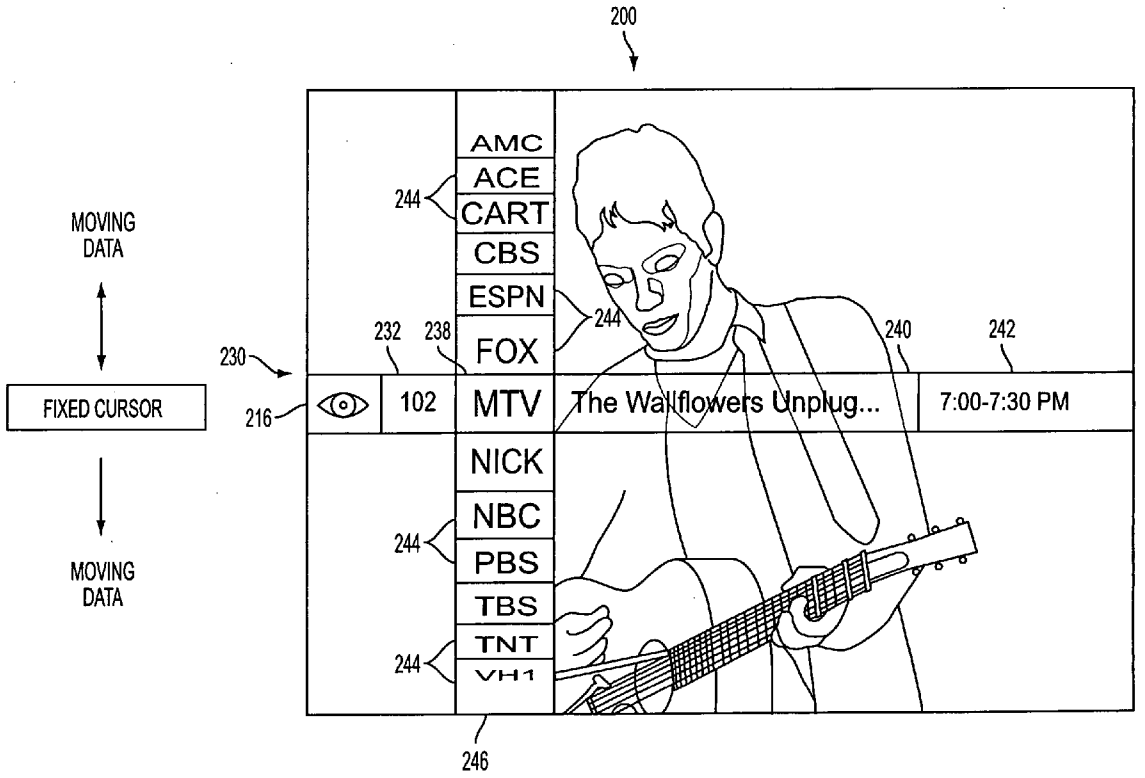
(57) **ABSTRACT**

The efficient and intuitive presentation, navigation, and selection of available AV information in a graphical user interface (GUI) that is displayed on a display apparatus of an AV system and controlled through user manipulation of a scrolling mechanism of a navigation and selection device of the AV system. Related AV information is organized as items within lists that correspond to various navigable fields of a status bar of the GUI during the GUI interactive mode. A highlighted navigable field of the status bar displays its list of related AV information and the items of the list are scrolled through the navigable field by a user causing the scrolling mechanism to move in a scroll. A different field of the status bar may be selected by the user moving the scrolling mechanism in a lateral movement. Activation of the selection mechanism of the navigation and selection device will cause an AV device of the system to be controlled in accordance with the AV options displayed within the status bar fields at the time the selection mechanism is activated.



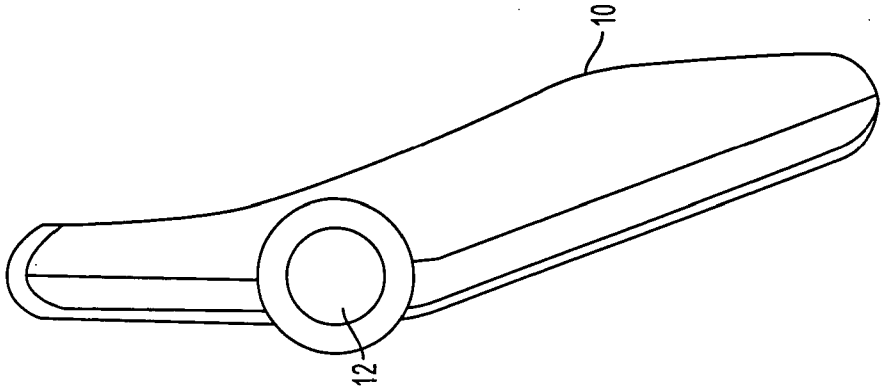

10
12

FIG. 1B

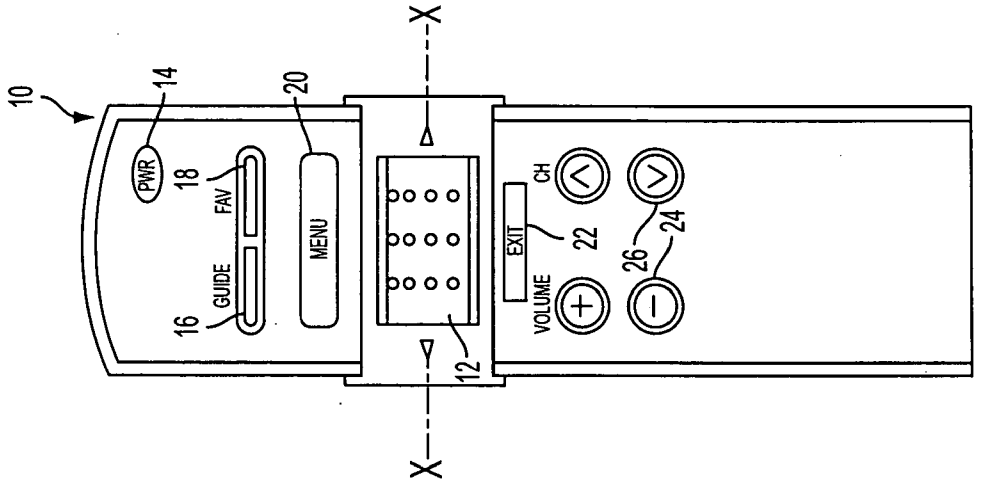

10
14
20
X
PWR
18
FAV
MENU
CH
EXIT
22
26
24
16
GUIDE
VOLUME
12
X

FIG. 1A

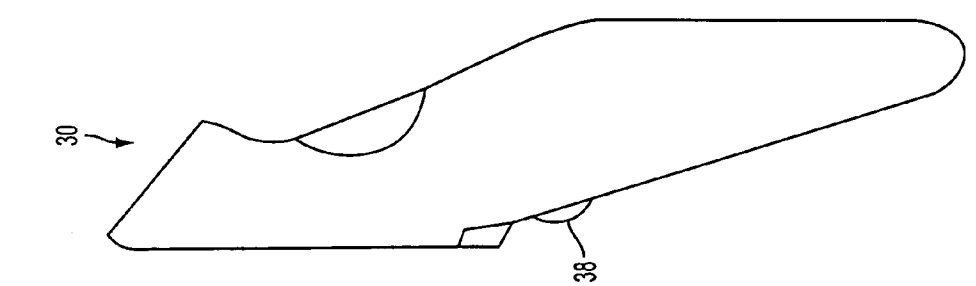

30
38

FIG. 2B

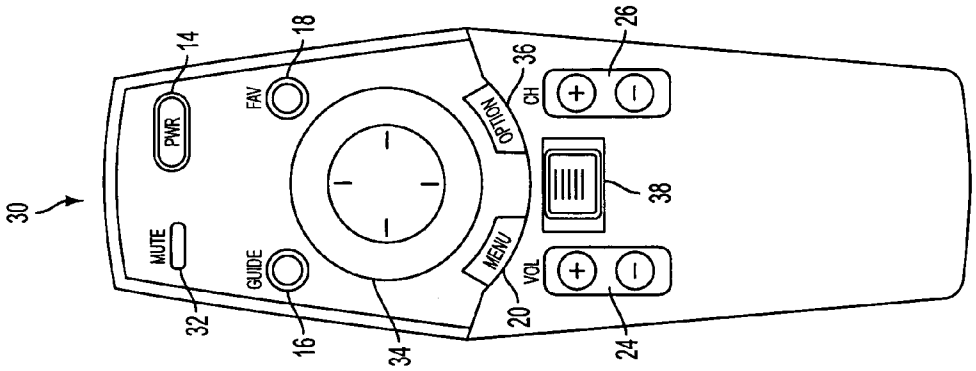

30
14
18
26
36
PWR
FAV
OPTION
CH
38
MUTE
GUIDE
MENU
VOL
32
16
34
20
24

FIG. 2A

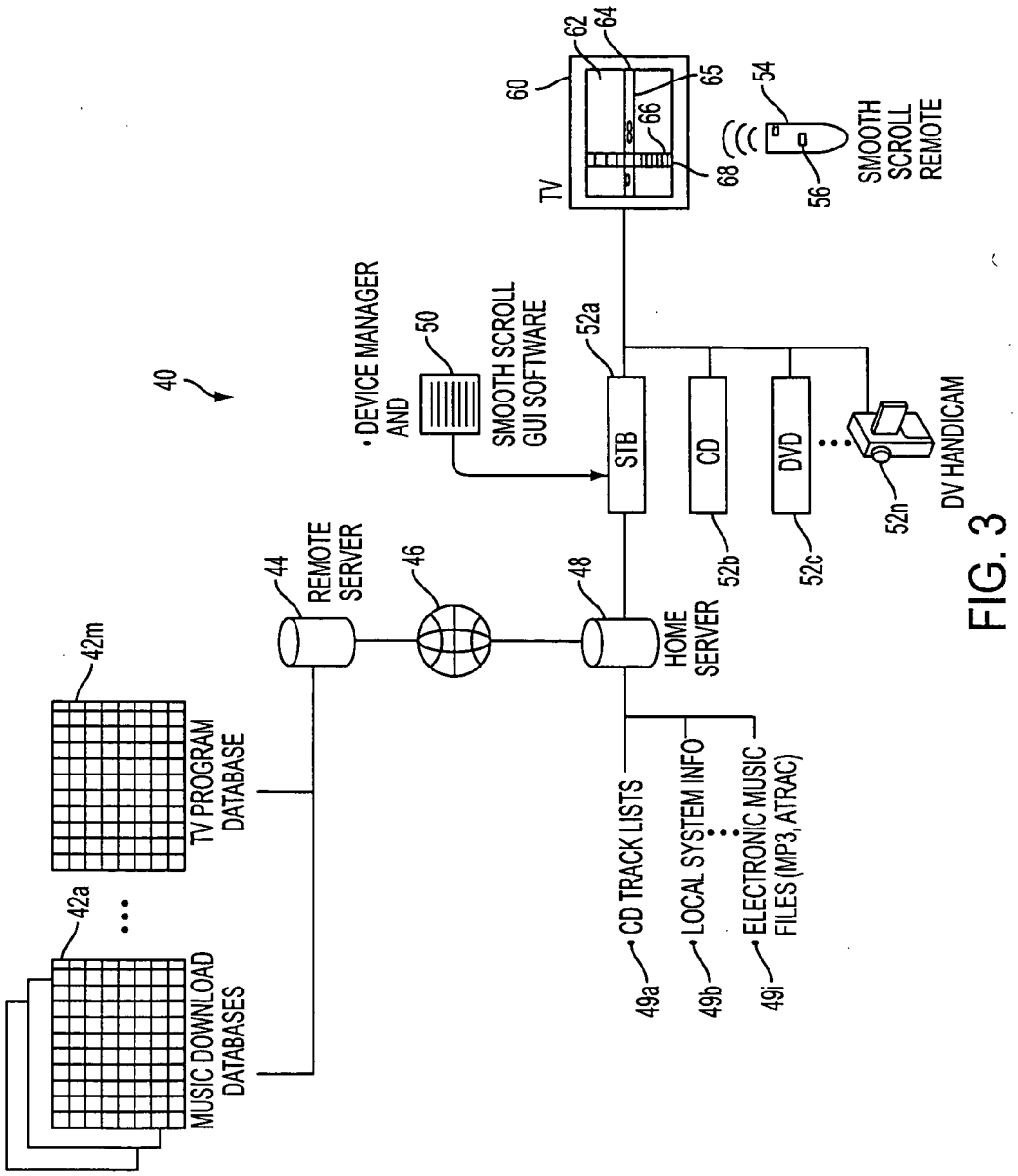

40
42m
TV PROGRAM DATABASE
42a
MUSIC DOWNLOAD DATABASES
44
REMOTE SERVER
46
48
HOME SERVER
DEVICE MANAGER AND
50
SMOOTH SCROLL GUI SOFTWARE
52a
STB
52b
CD
52c
DVD
52n
DV HANDICAM
60
62
64
65
66
68
TV
54
56
SMOOTH SCROLL REMOTE
CD TRACK LISTS
49a
LOCAL SYSTEM INFO
49b
ELECTRONIC MUSIC FILES (MP3, ATRAC)
49i

FIG. 3

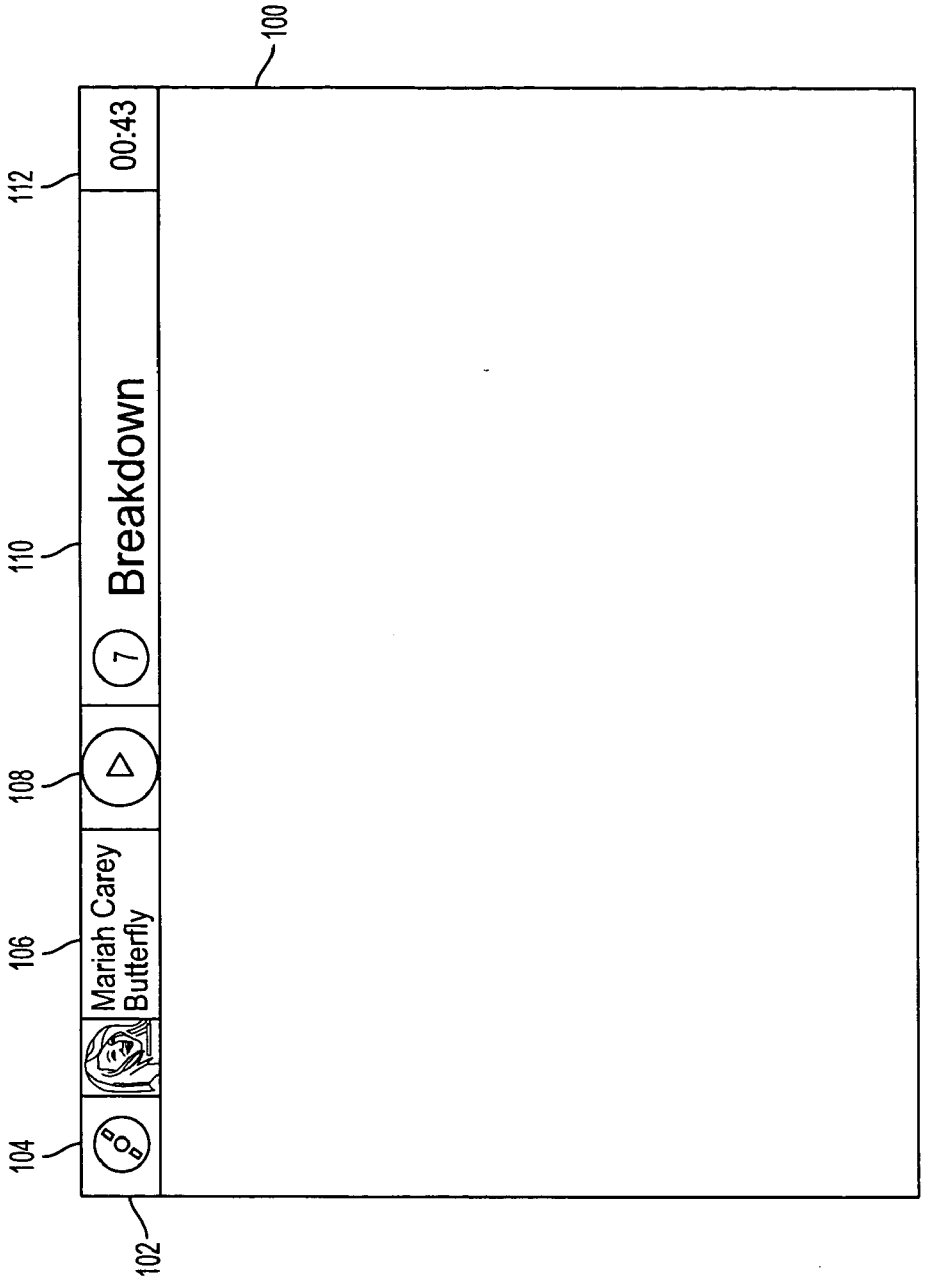

100
112
00:43
110
Breakdown
7
108
106
Mariah Carey
Butterfly
104
102

FIG. 4

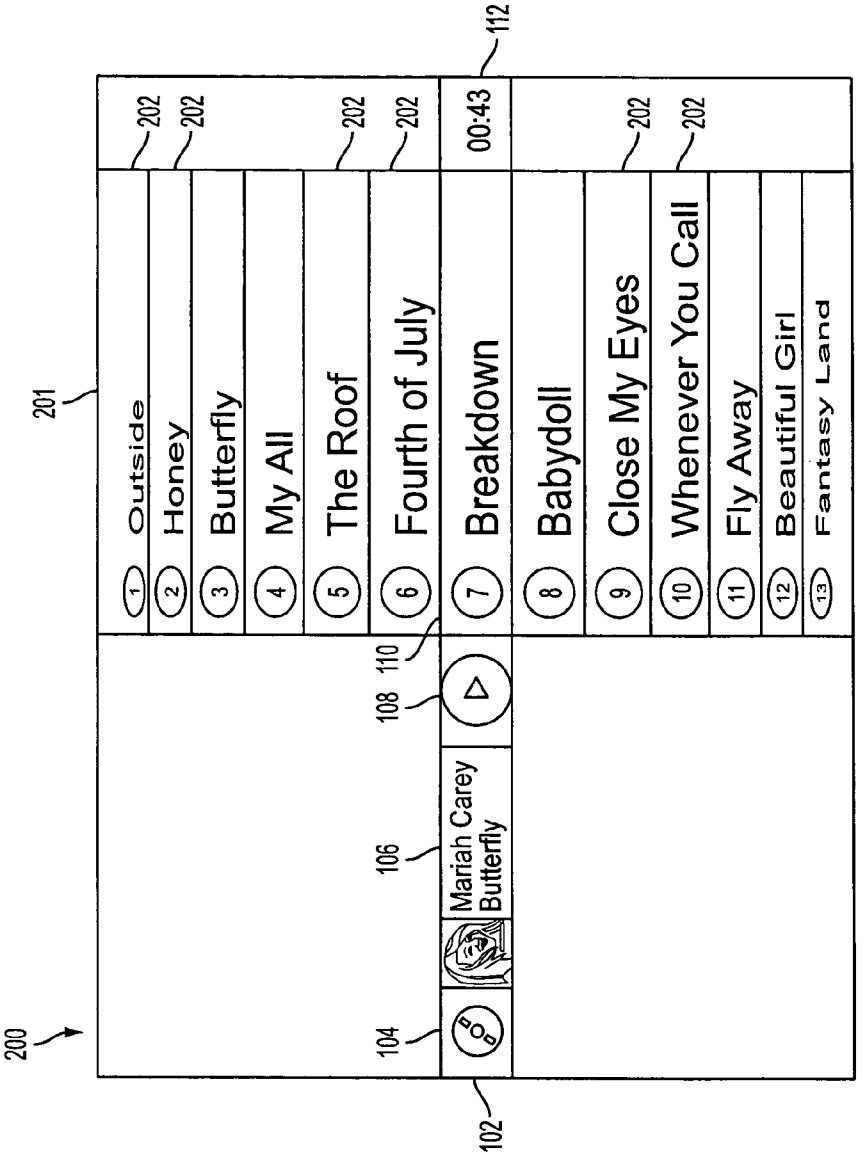

200
201
102
104
106
108
110
112
202
00:43
1 Outside
2 Honey
3 Butterfly
4 My All
5 The Roof
6 Fourth of July
7 Breakdown
8 Babydoll
9 Close My Eyes
10 Whenever You Call
11 Fly Away
12 Beautiful Girl
13 Fantasy Land
Mariah Carey
Butterfly

FIG. 5

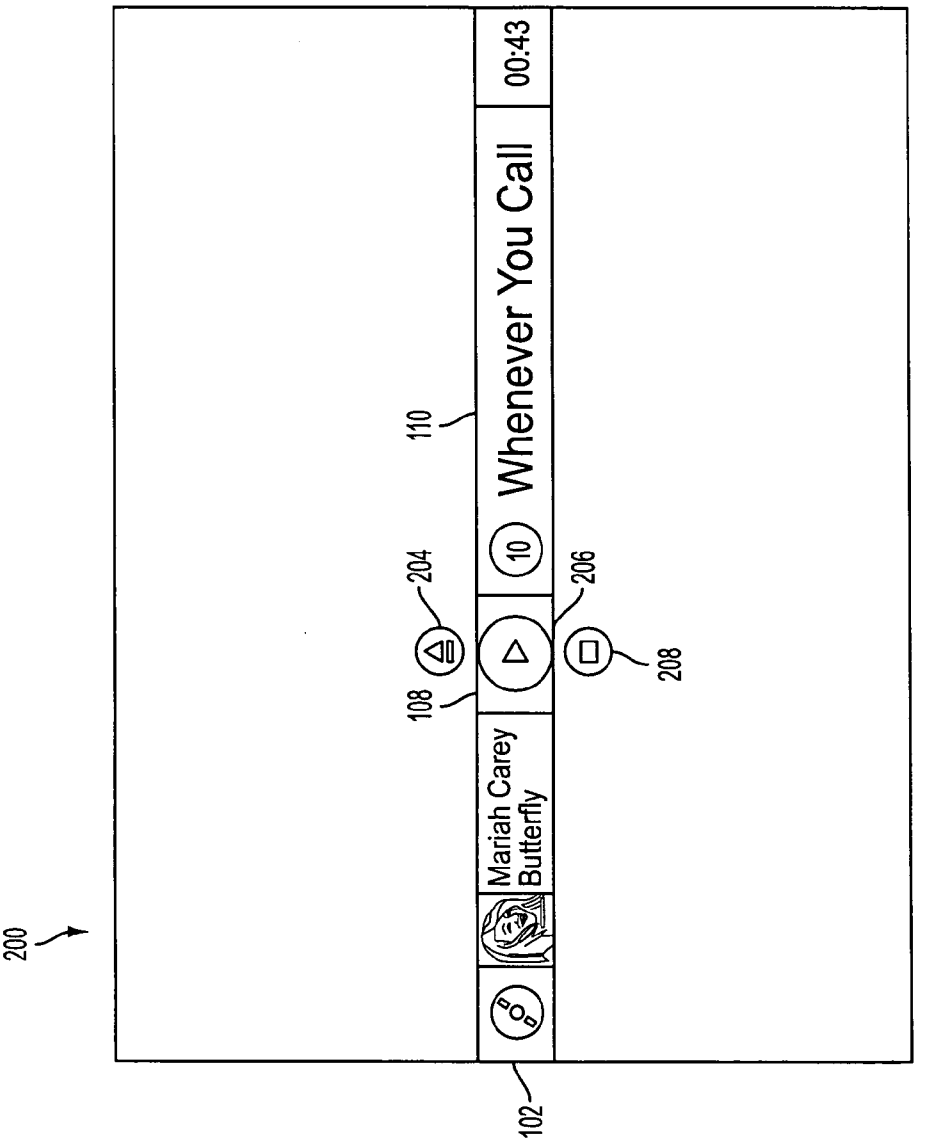

200
102
108
110
204
206
208
Mariah Carey
Butterfly
Whenever You Call
00:43

FIG. 6

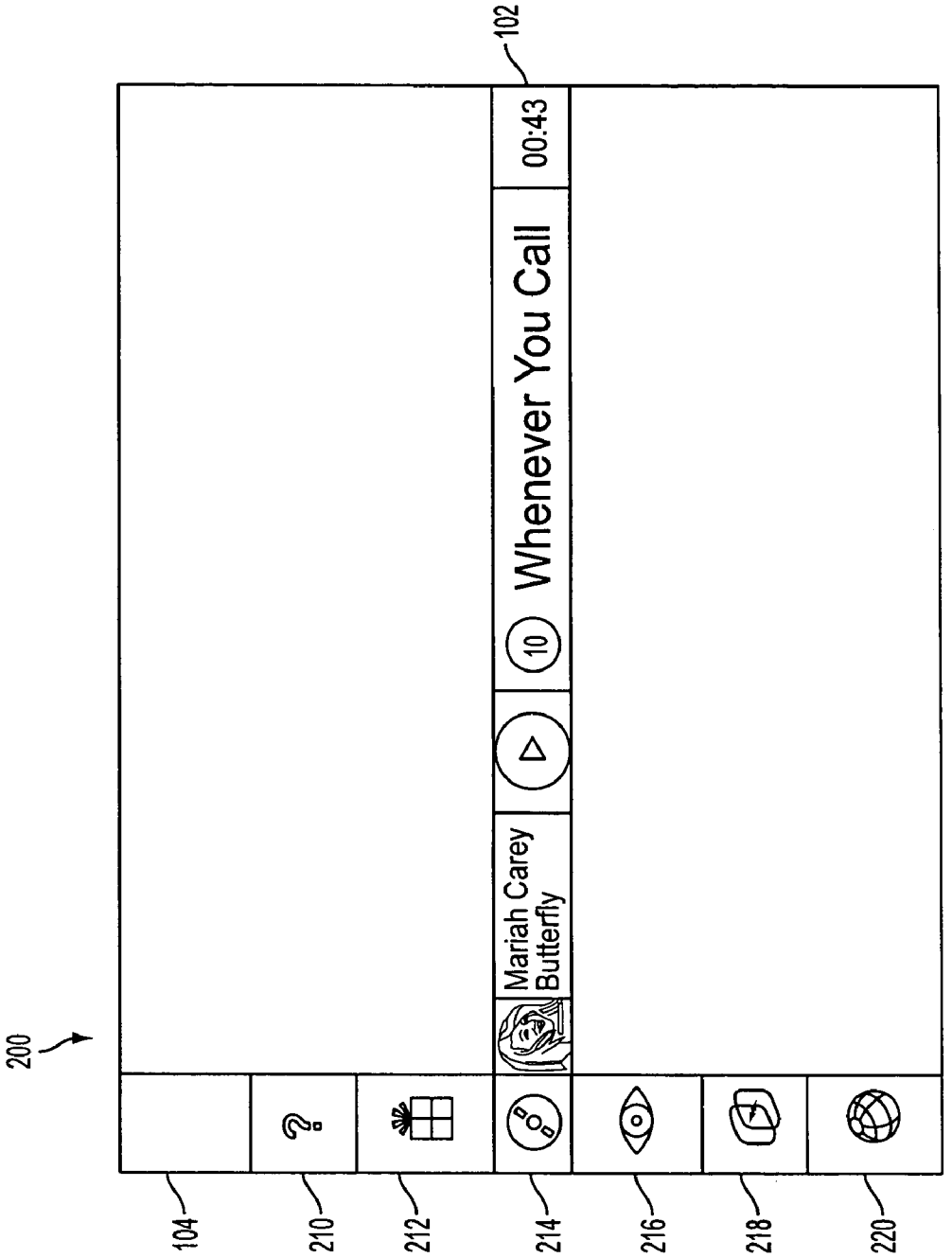

200
102
00:43
Whenever You Call
10
Mariah Carey
Butterfly
104
210
212
214
216
218
220

FIG. 7

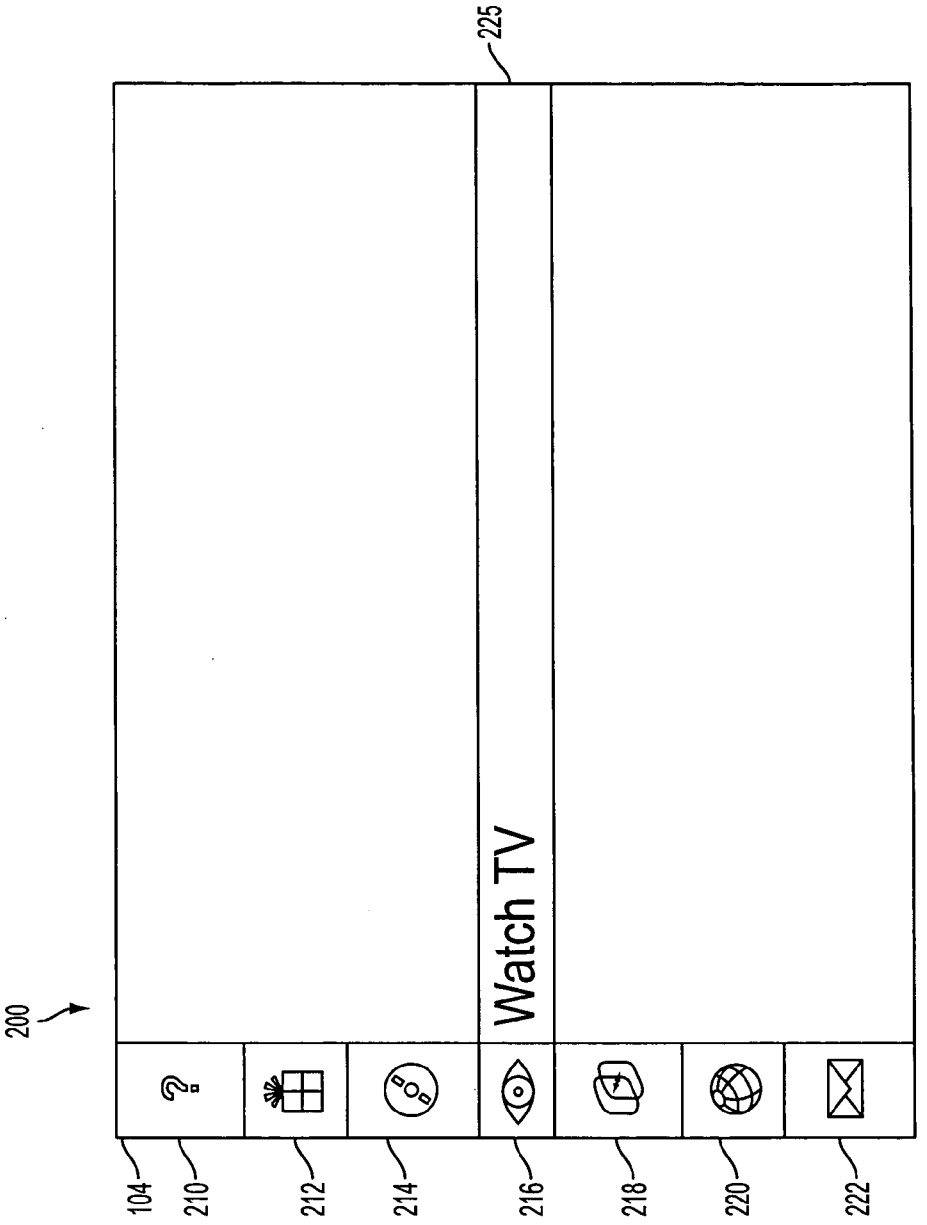


FIG. 8

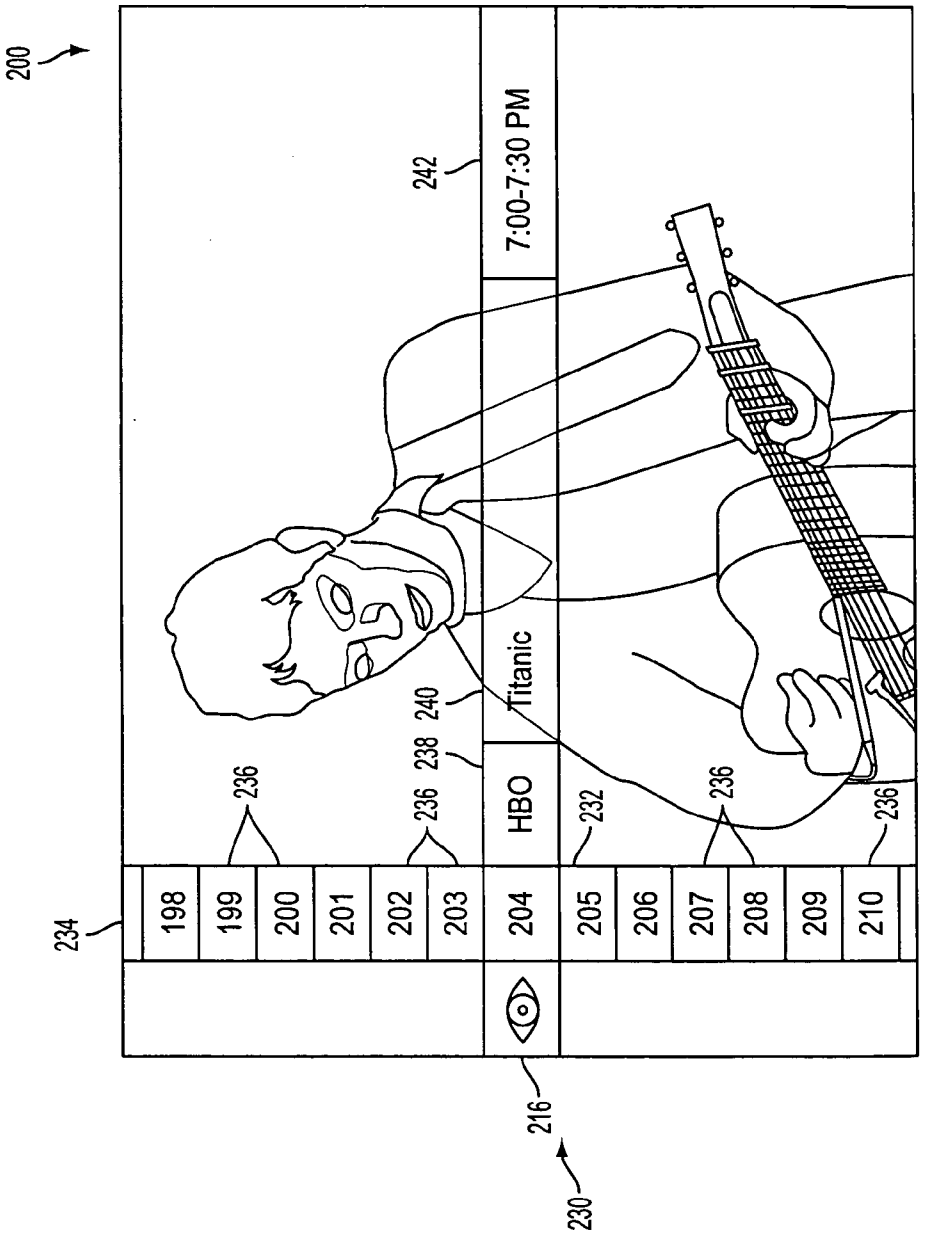

200
242
7:00-7:30 PM
240
Titanic
238
HBO
236
232
234
198
199
200
201
202
203
204
205
206
207
208
209
210
216
230

FIG. 9

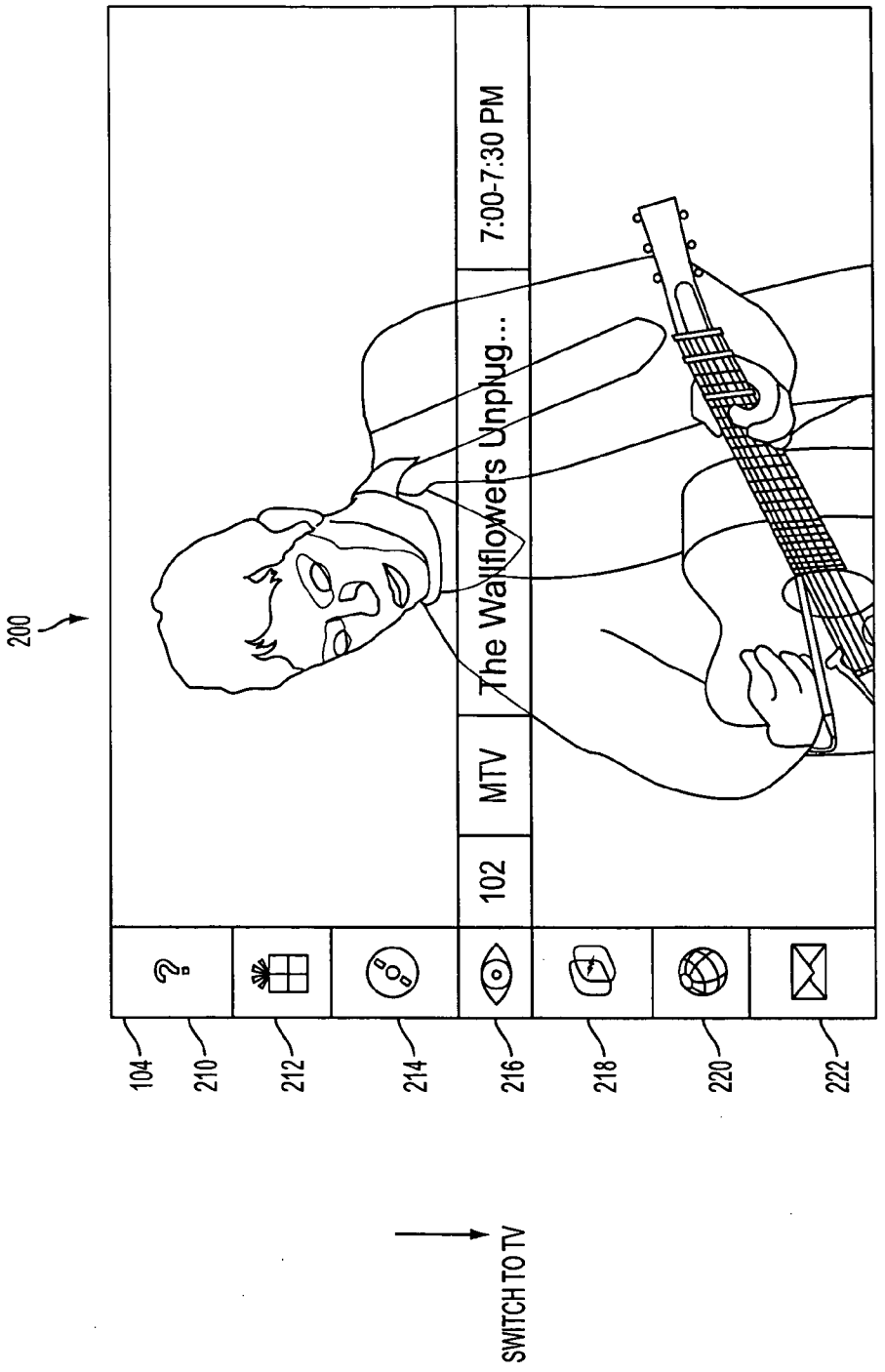

200
7:00-7:30 PM
The Wallflowers Unplug...
MTV
102
104
210
212
214
216
218
220
222
SWITCH TO TV

FIG. 10

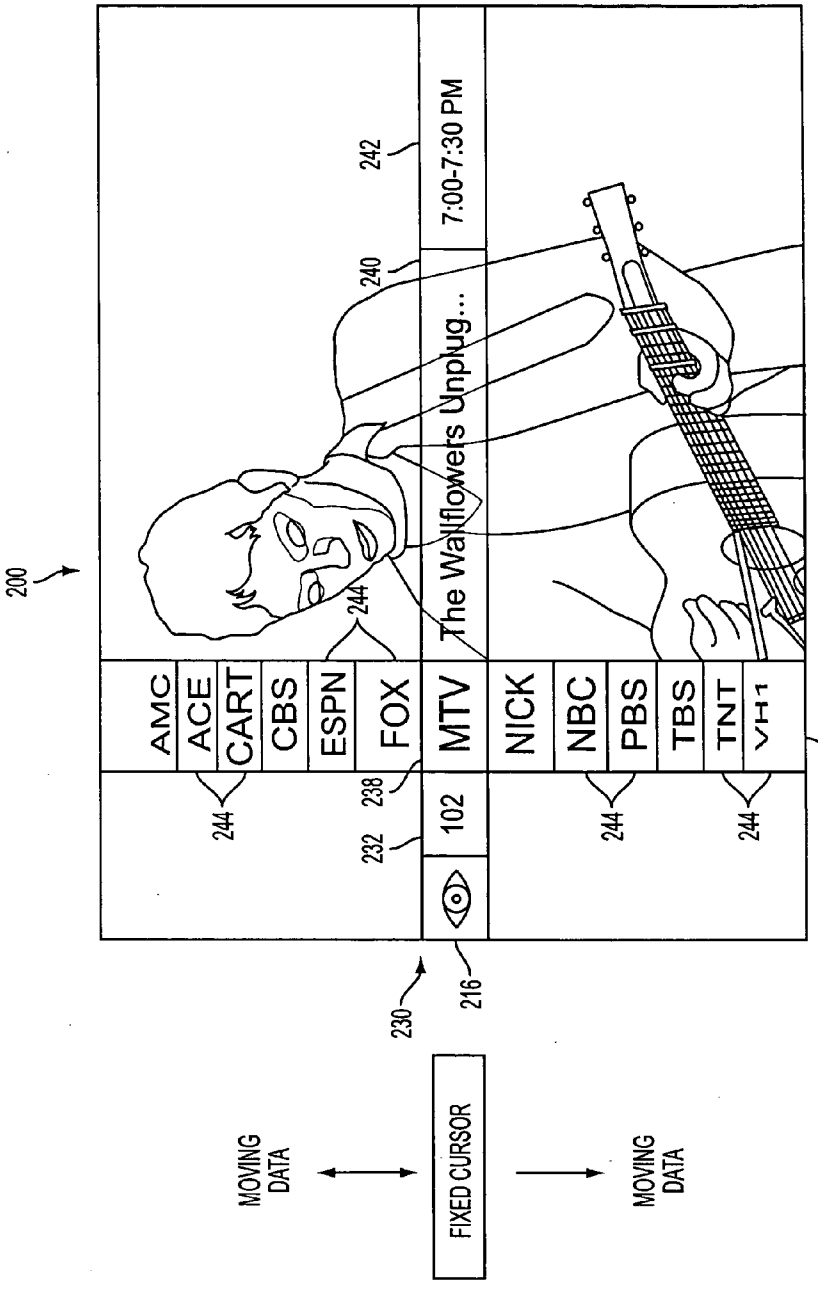

200
AMC
ACE
CART
CBS
ESPN
FOX
MTV
NICK
NBC
PBS
TBS
TNT
VH1
102
7:00-7:30 PM
The Wallflowers Unplug...
242
240
244
238
232
216
230
246
MOVING DATA
FIXED CURSOR
MOVING DATA

FIG. 11

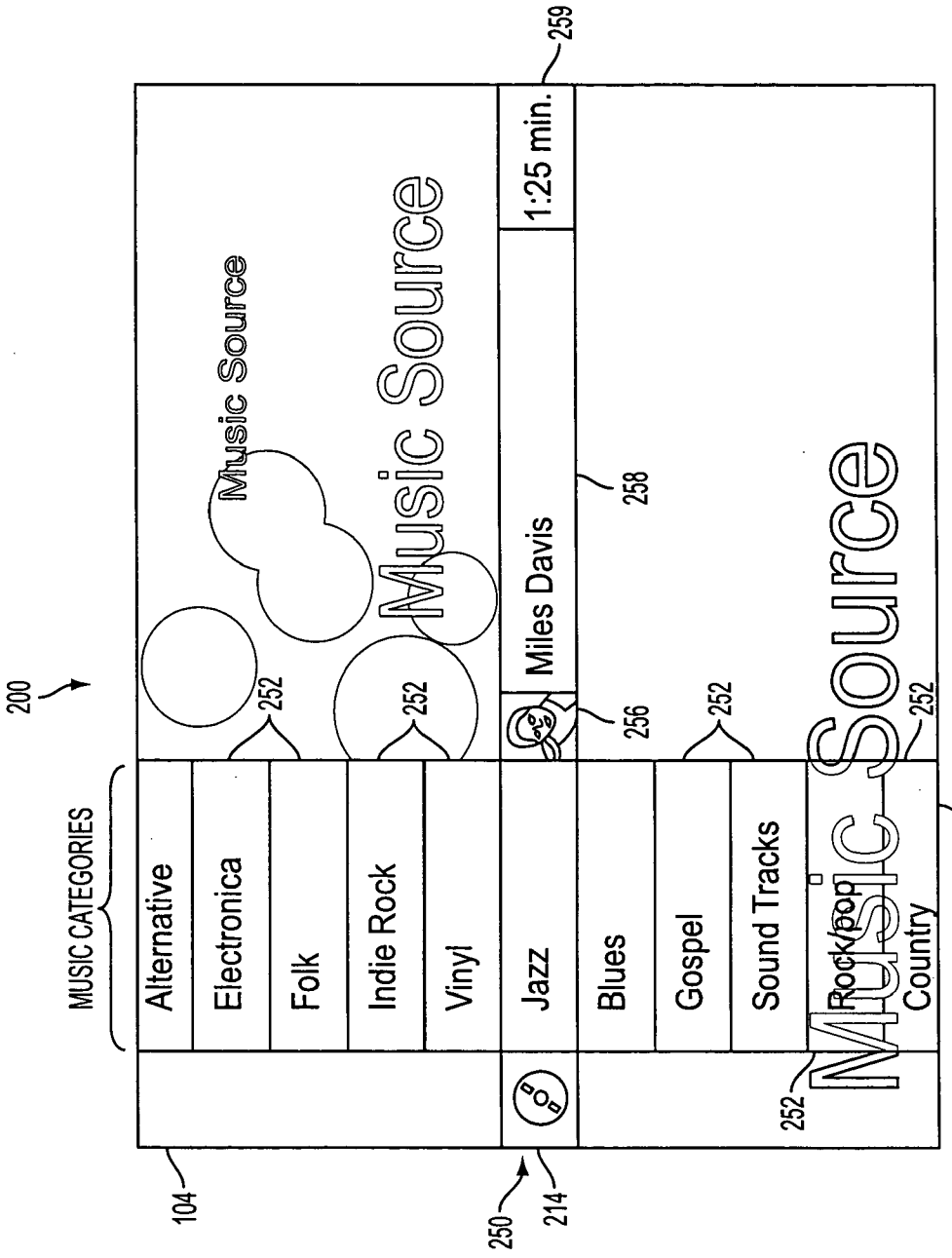

200
MUSIC CATEGORIES
Alternative
Electronica
Folk
Indie Rock
Vinyl
Jazz
Blues
Gospel
Sound Tracks
Rock/pop
Country
Music Source
Music Source
Music Source
Miles Davis
1:25 min.
252
252
252
252
252
256
258
259
254
104
250
214

FIG. 12

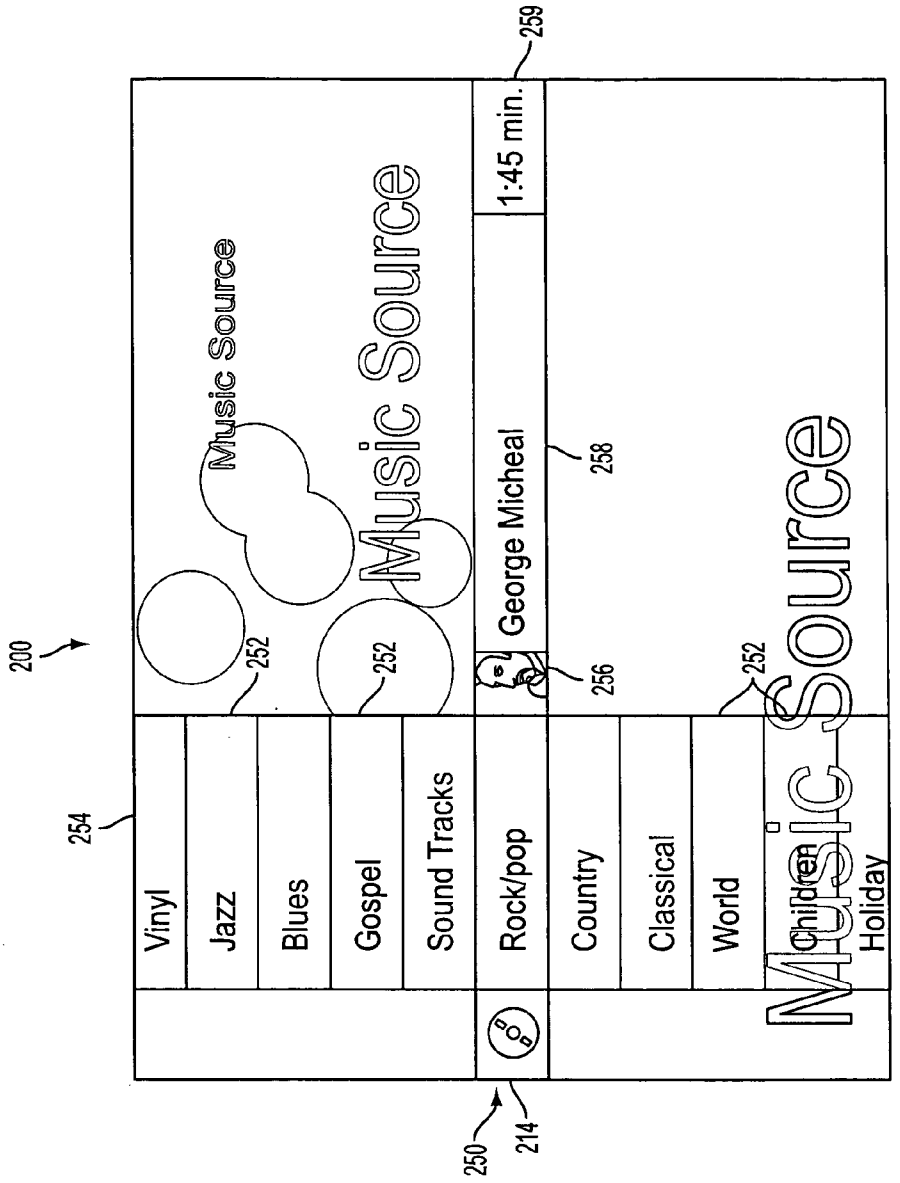

200
254
Vinyl
Jazz
Blues
Gospel
Sound Tracks
Rock/pop
Country
Classical
World
Children
Holiday
Music Source
Music Source
Music Source
252
252
252
George Micheal
256
258
1:45 min.
259
250
214

FIG. 13

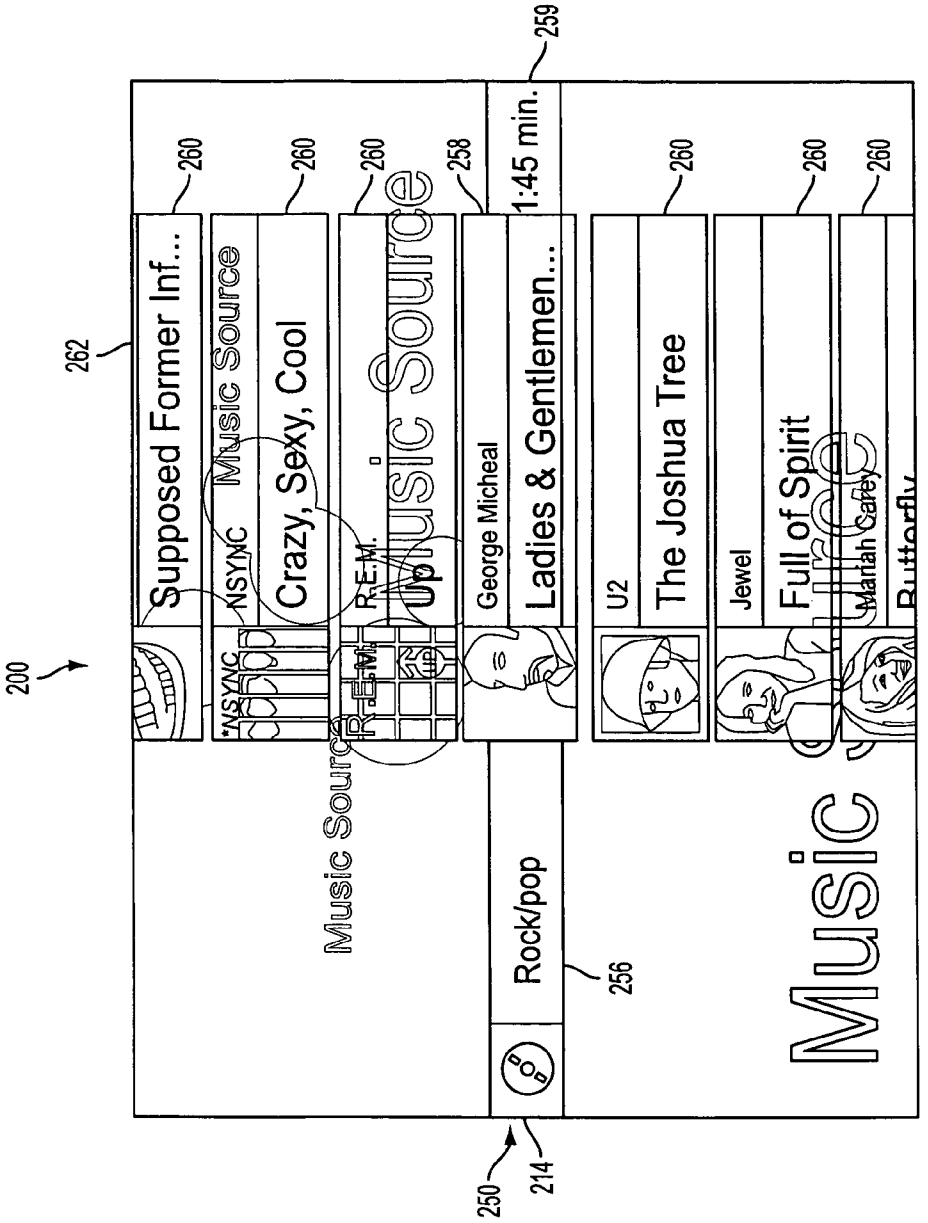

200
262
259
260
260
260
258
260
260
260
Supposed Former Inf...
NSYNC
Music Source
Crazy, Sexy, Cool
R.E.M.
Up
Music Source
George Micheal
Ladies & Gentlemen...
1:45 min.
U2
The Joshua Tree
Jewel
Full of Spirit
Mariah Carey
Music Source
Rock/pop
256
Music
250
214

FIG. 14

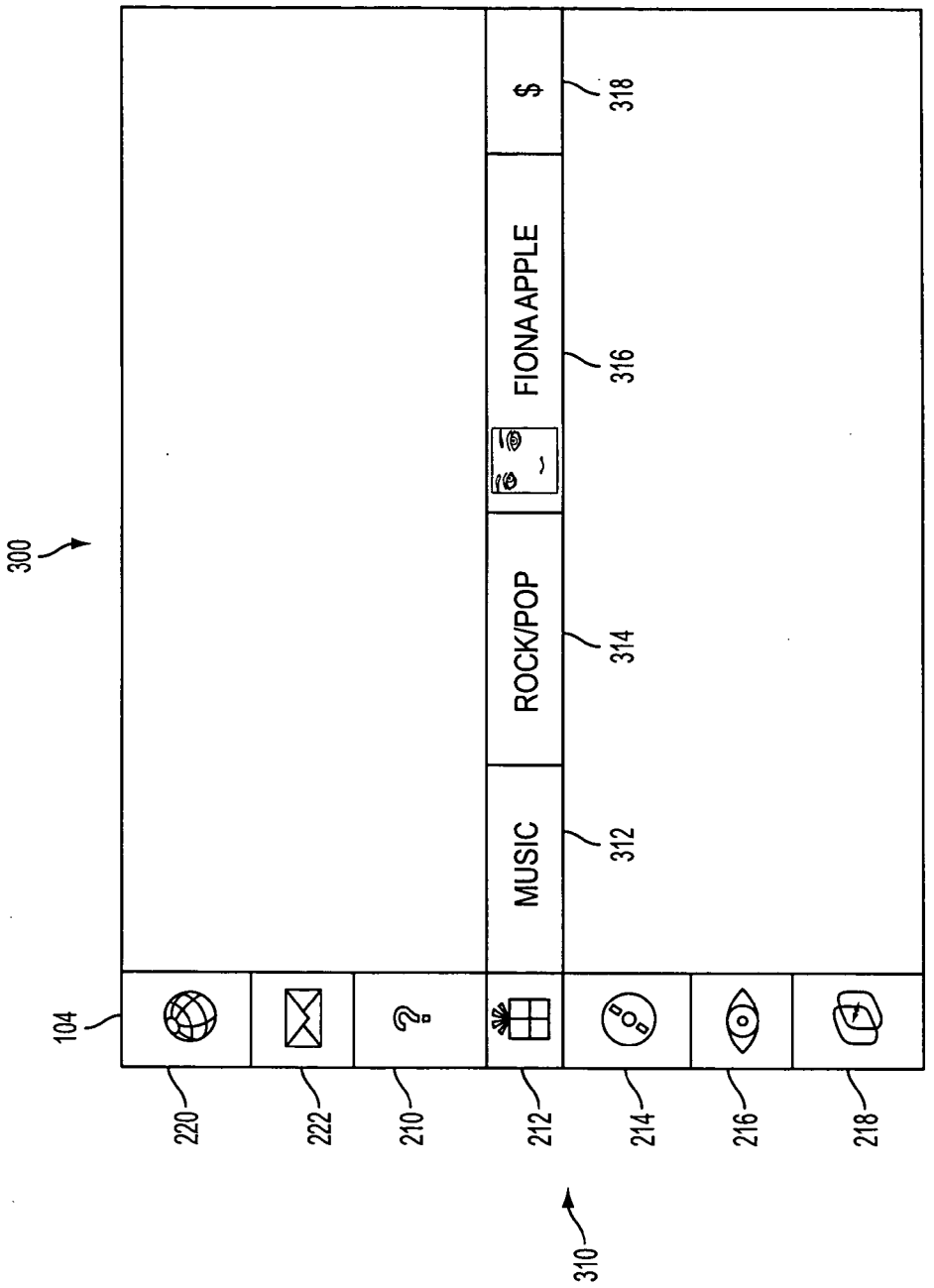

300
104
MUSIC
ROCK/POP
FIONA APPLE
$
312
314
316
318
220
222
210
212
214
216
218
310

FIG. 15

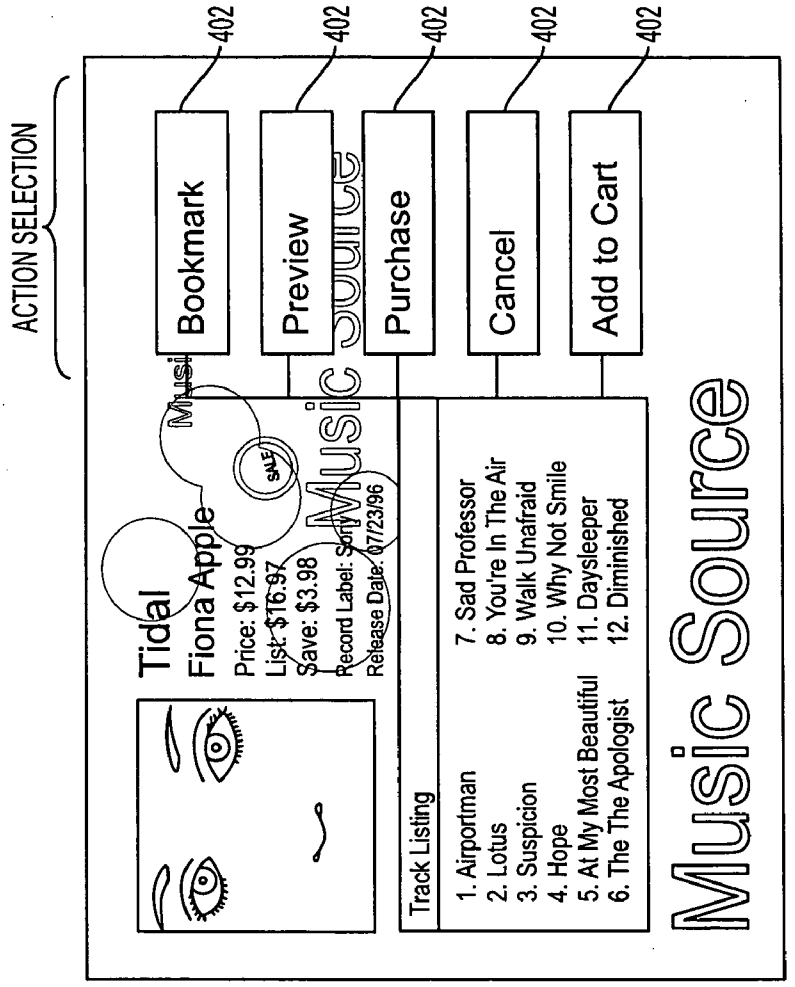

ACTION SELECTION
Bookmark
Preview
Purchase
Cancel
Add to Cart
402
Music Source
Tidal
Fiona Apple
Price: $12.99
List: $16.97
Save: $3.98
Record Label: Sony
Release Date: 07/23/96
Track Listing
1. Airportman
2. Lotus
3. Suspicion
4. Hope
5. At My Most Beautiful
6. The The Apologist
7. Sad Professor
8. You're In The Air
9. Walk Unafraid
10. Why Not Smile
11. Daysleeper
12. Diminished

FIG. 16

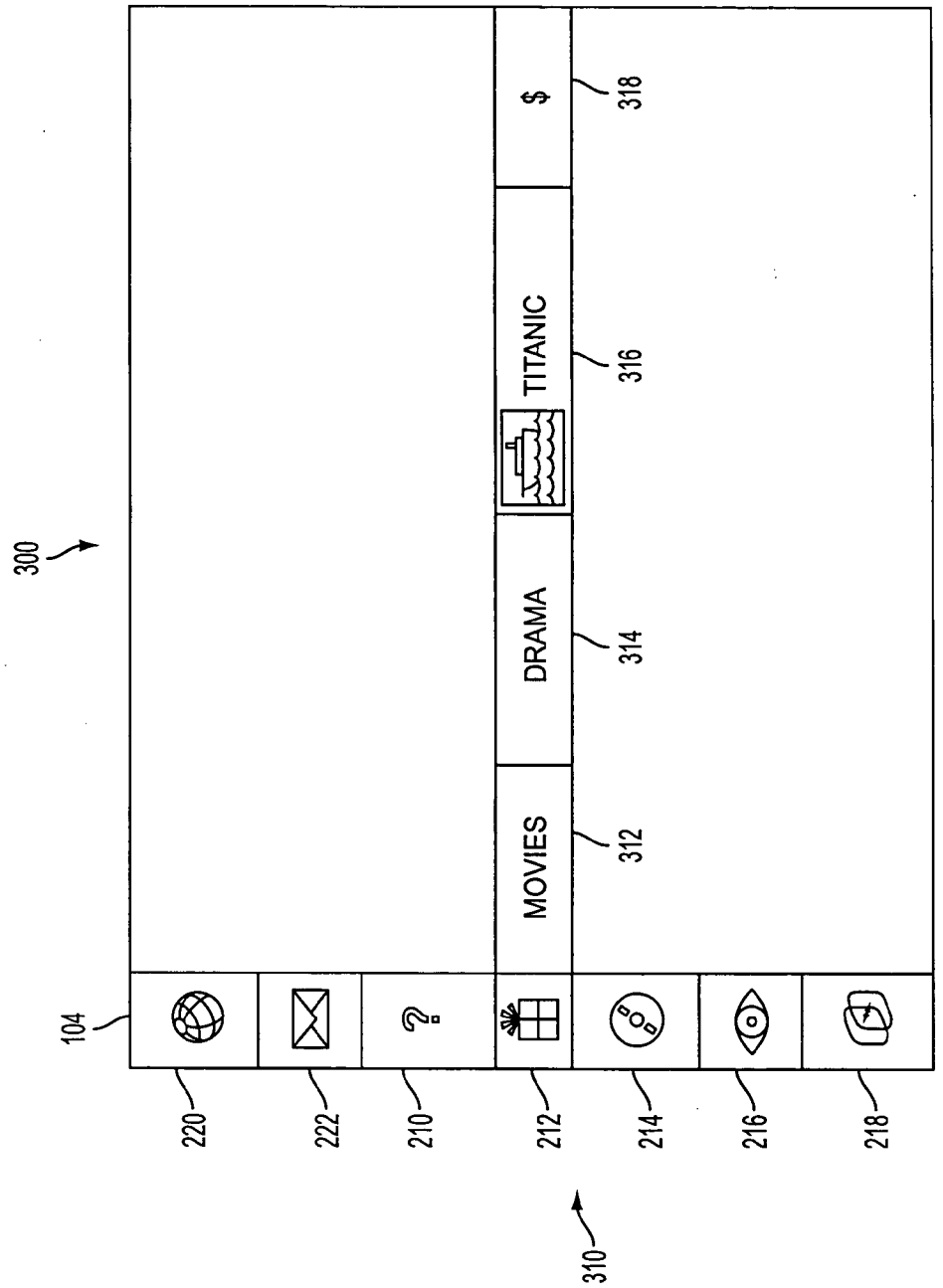

300
104
MOVIES
DRAMA
TITANIC
$
312
314
316
318
220
222
210
212
214
216
218
310

FIG. 17

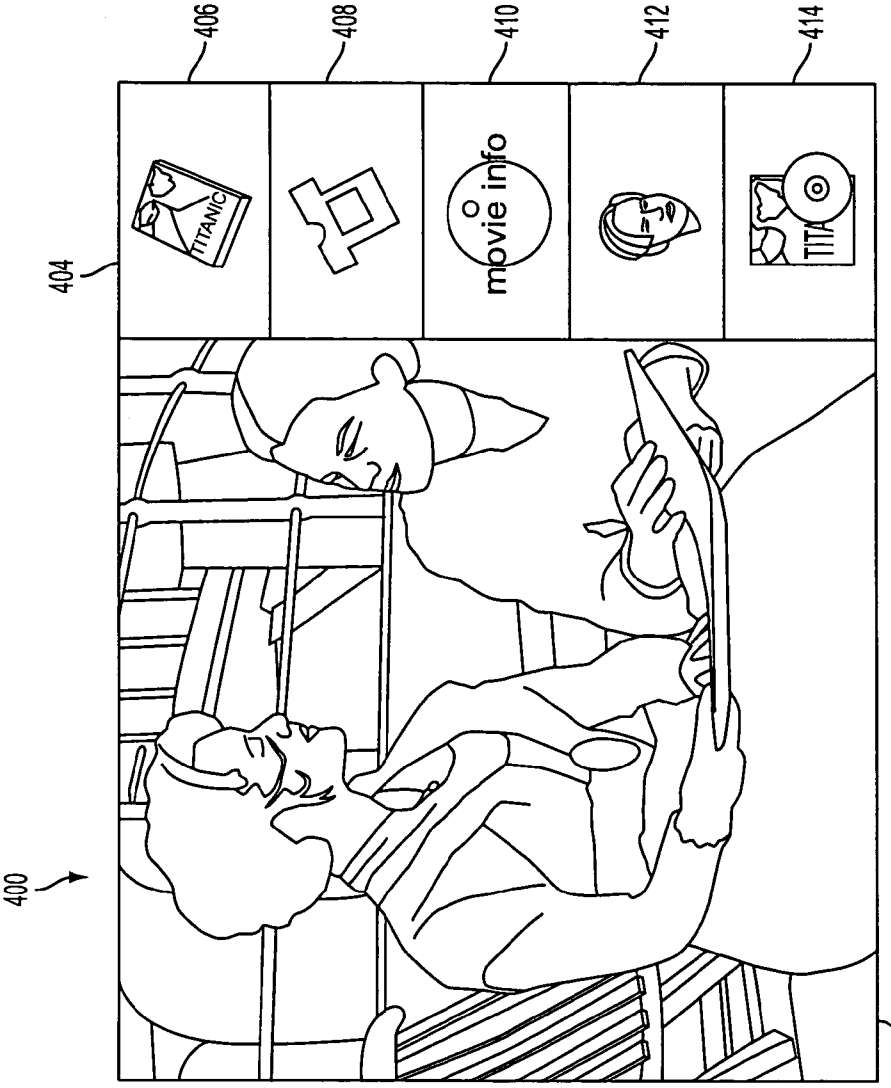


FIG. 18

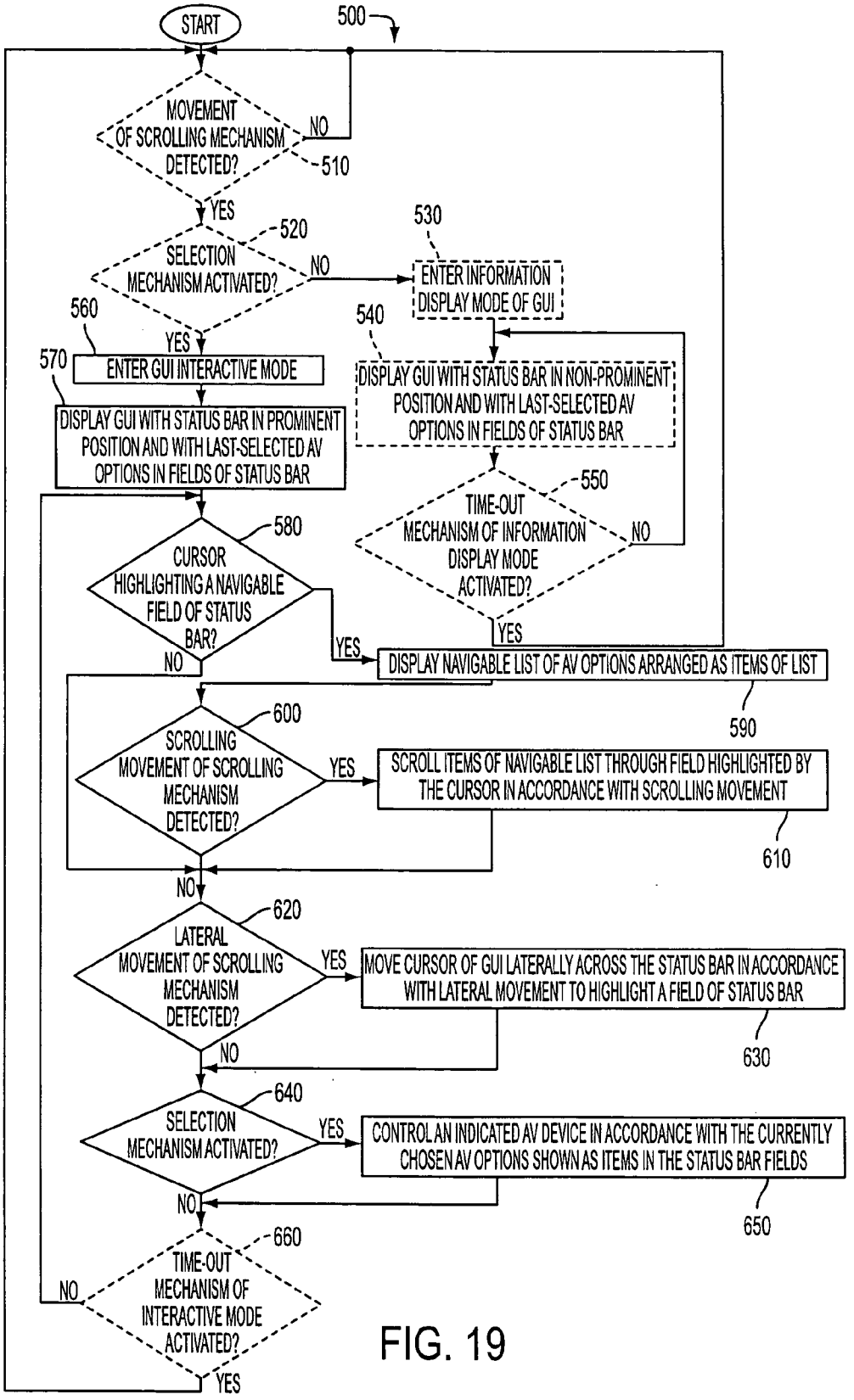

START
500
MOVEMENT OF SCROLLING MECHANISM DETECTED?
NO
510
YES
520
SELECTION MECHANISM ACTIVATED?
NO
530
ENTER INFORMATION DISPLAY MODE OF GUI
560
YES
570
ENTER GUI INTERACTIVE MODE
DISPLAY GUI WITH STATUS BAR IN PROMINENT POSITION AND WITH LAST-SELECTED AV OPTIONS IN FIELDS OF STATUS BAR
540
DISPLAY GUI WITH STATUS BAR IN NON-PROMINENT POSITION AND WITH LAST-SELECTED AV OPTIONS IN FIELDS OF STATUS BAR
550
TIME-OUT MECHANISM OF INFORMATION DISPLAY MODE ACTIVATED?
NO
YES
580
CURSOR HIGHLIGHTING A NAVIGABLE FIELD OF STATUS BAR?
YES
NO
DISPLAY NAVIGABLE LIST OF AV OPTIONS ARRANGED AS ITEMS OF LIST
590
600
SCROLLING MOVEMENT OF SCROLLING MECHANISM DETECTED?
YES
SCROLL ITEMS OF NAVIGABLE LIST THROUGH FIELD HIGHLIGHTED BY THE CURSOR IN ACCORDANCE WITH SCROLLING MOVEMENT
610
NO
620
LATERAL MOVEMENT OF SCROLLING MECHANISM DETECTED?
YES
MOVE CURSOR OF GUI LATERALLY ACROSS THE STATUS BAR IN ACCORDANCE WITH LATERAL MOVEMENT TO HIGHLIGHT A FIELD OF STATUS BAR
630
NO
640
SELECTION MECHANISM ACTIVATED?
YES
CONTROL AN INDICATED AV DEVICE IN ACCORDANCE WITH THE CURRENTLY CHOSEN AV OPTIONS SHOWN AS ITEMS IN THE STATUS BAR FIELDS
650
NO
660
TIME-OUT MECHANISM OF INTERACTIVE MODE ACTIVATED?
NO
YES

FIG. 19

MODAL DISPLAY, SMOOTH SCROLL GRAPHIC USER INTERFACE AND REMOTE COMMAND DEVICE SUITABLE FOR EFFICIENT NAVIGATION AND SELECTION OF DYNAMIC DATA/OPTIONS PRESENTED WITHIN AN AUDIO/VISUAL SYSTEM

CROSS REFERENCE TO RELATED DOCUMENTS

[0001] This application is a continuation of pending U.S. patent application Ser. No. 09/615,871, filed Jul. 13, 2000 to Proehl, et al, which is hereby incorporated by reference.

FIELD OF THE INVENTION

[0002] This invention relates generally to the use of audio/visual (AV) information on display apparatus of AV systems, and more particularly to the efficient and intuitive presentation, navigation, and selection of available AV information in a graphical user interface (GUI) that is displayed on a display apparatus of an AV system and controlled through judicious manipulation of a scrolling mechanism and selection mechanism of a navigation and selection device of the AV system.

BACKGROUND OF THE INVENTION

[0003] The continued growth of the numerous AV options available for viewing and/or listening by users of AV systems, has made it necessary and desirable for the users of such AV systems to be able to efficiently and intuitively navigate through the available AV options in order to select desired programming. The explosion in the number of cable, satellite and digital television viewing choices, as well as the emergence of Internet websites dedicated to programming and music that are now available for viewing on television and computer screens via the airwaves, cable, and satellite, has made it necessary and desirable for the user to be able to easily navigate through more and more AV options. It is noted that the term "AV" as used herein may encompass solely audio, solely visual, or a combination of audio/visual.

[0004] Consider, for instance, that as the number and availability of broadcast channels for viewing on multiple channel television broadcast systems has continued to proliferate at an astonishing rate, the problem of navigating through the morass of available viewing selections has correspondingly become of more and more concern to the viewers of such systems. The sources of such programming can today provide hundreds of stations to viewers who must navigate through myriad broadcasting choices, a prospect that is both time-consuming and frustrating.

[0005] Many on-screen guides, such as electronic program guides (EPGs), allow the user presented with AV programming options to navigate options through the use of four-way directional buttons and a selection button. This is a cumbersome and unsatisfactory solution, however, in that it requires the user to use these buttons many times to reach a desired on-screen option in the guide. There currently exists a need in the art, therefore, to be able to quickly view available AV options and information of an AV system. There additionally is a need in the art to be able to quickly and intuitively navigate the AV options and information of the AV system.

SUMMARY OF THE INVENTION

[0006] It is accordingly an object of the invention to be able to quickly and intuitively view, navigate, and select available AV options and information of an AV system.

[0007] Therefore, according to the present invention, an improved method, navigation and selection device, GUI and system are presented. In an AV system having one or more AV devices, a display apparatus capable of displaying interactive AV information, a navigation and selection device having an integral scrolling mechanism, and a GUI displayed on the display apparatus, a user of the system is able to quickly, intuitively, and efficiently navigate available AV options displayed during an interactive mode of the GUI through appropriate manipulation of the scrolling mechanism. Related AV options are organized by management software of the navigation and selection device as items within lists that, in turn, correspond to navigable fields of a status bar of the GUI during the GUI interactive mode. The AV options of a list are related in the sense that they will generally share one or more identifiable characteristics. A field of the status bar that is highlighted by a cursor of the GUI will display its list of related AV information options arranged as items within the list, assuming the highlighted field is navigable. Items within the list may be navigated by the user simply engaging the scrolling mechanism of the navigation and selection device to scroll the items through the highlighted field of the GUI status bar. A different field of the status bar may be selected by the user moving the scrolling mechanism in a lateral movement. Activation of the selection mechanism of the navigation and selection device will cause an AV device of the system to be controlled in accordance with the AV options displayed within the status bar fields at the time the selection mechanism is activated.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The novel features believed characteristic of the invention are set forth in the claims. The invention itself, however, as well as the preferred mode of use, and further objects and advantages thereof, will best be understood by reference to the following detailed description of an illustrative embodiment when read in conjunction with the accompanying drawing(s), wherein:

[0009] **FIGS. 1A and 2B** are front and side views, respectively, of a navigation and selection device in accordance with a first navigation and selection device embodiment of the present invention.

[0010] **FIGS. 2A and 2B** are front and side views, respectively, of a navigation and selection device in accordance with a second navigation and selection device embodiment of the present invention.

[0011] **FIG. 3** is an AV system diagram in accordance with an embodiment of the present invention.

[0012] **FIG. 4** is a screen shot of a GUI in an information display mode in accordance with the present invention.

[0013] FIGS. **4** to **18** are screen shots of various GUIs in an interactive mode in accordance with the present invention.

[0014] **FIG. 19** is a flow diagram of the methodology of the present invention.

DESCRIPTION OF THE INVENTION

[0015] The present invention presents an improved approach, including an improved system, method, navigation and selection device, and GUI, for a user of an AV system to quickly and efficiently navigate through available AV options or choices of the AV system displayed via the GUI on the display apparatus through appropriate manipulation of the scrolling mechanism. The AV system has one or more AV devices, such as televisions, CD players, VCRs, computers, set top boxes, internet applications, etc., a display apparatus capable of displaying interactive menus, guides, and devices controls, a navigation and selection device (remote commander) having an integral scrolling mechanism, and a graphical user interface (GUI) displayed on the display apparatus. The GUI/navigation and selection device combination allows the user to easily navigate AV options that may be presented in a variety of formats, including an electronic program guide (EPG), websites, and AV device menus, on a television screen, monitor, screen or other display apparatus. The scrolling mechanism of the navigation and selection device, together with the organization of related AV information within the GUI, allows the user to quickly and easily navigate the AV information and make desired selections.

[0016] Related AV options are organized by software as items within lists that, in turn, correspond to fields of a status bar of the GUI during an interactive mode of the GUI. The software may be implemented as executable computer program instructions of a computer readable medium that, when executed by a processing system, cause the processing system to provide for efficient navigation of available AV options in an AV system. The AV options of a list are related in the sense that they will generally share one or more identifiable characteristics. The AV options displayed as items of a navigable list of a particular field of the status bar may all be types of movies available for viewing, television channels available for viewing, CDs available for listening, AV device controls such as play, stop, fast forward, etc. The available AV viewing and/or listening options that are presented as items within vertical lists are easily scanned and navigated using the scrolling mechanism of the navigation and selection device.

[0017] Generally speaking, the fields of the status bar are displayed in the GUI in hierarchical fashion from left to right, with the left-most field representing the broadest category of navigation and selection available to the user and the right-most field representing the narrowest category. Fields to the right of a particular field, then, may generally be considered to be sub-categories or subsets of that particular field, although such is not always the case. When inactive (not highlighted), these fields of a status bar are presented by displaying only the current or last-selected item within a field. When activated (the field is highlighted and the OK/select button is pressed), the field, if navigable, vertically expands to display not only the current or last-selected item but also the entire list of items associated with the field; the navigable list may then be navigated and any item of the list placed within the field of the status bar by the user controlling the scroll wheel to highlight the desired item. A field of the status bar is highlighted by using the lateral movement of the scrolling mechanism to place the GUI cursor over the desired field.

[0018] Referring now to **FIGS. 1A and 1B**, front and side views, respectively, of a first preferred embodiment of navigation and selection device **10**, commonly referred to as a remote commander or remote control, which is capable of providing the means by which a user can communicate with a dynamic GUI to control an AV device, are shown. The navigation and selection device **10** may be any remote hardware controller for AV devices, including audio playback devices, such as Sony's Discman or Walkman, television, cable set-top boxes, VCRs, etc. The navigation and selection device **10** may additionally be a liquid crystal display (LCD)-based remote commander used to control multiple AV devices.

[0019] Navigation and selection device **10** features an integral scrolling mechanism, shown here as a scroll wheel or cylinder **12**. The user is able to engage in interactive communication with a dynamic GUI by appropriate operation of the navigation and selection device **10**. The integrated scroll cylinder is capable of scrolling movement up and down, allowing the user to scroll up and down through vertical fields of related information by simply scrolling the scroll cylinder up or down as will be described. The integrated scroll cylinder additionally is capable of lateral, side-to-side movement, thereby allowing the user to highlight an item of a toolbar of the dynamic GUI as will be described; the side-to-side lateral movement of scroll cylinder **12** is indicated by the presence of arrows pointing to the left and to the right on the remote commander housing. Once the user has manipulated the scroll cylinder to highlight a desired option of the GUI, that option is selected by the user engaging the selection mechanism of the navigation and selection device; in this example, engaging the selection mechanism is accomplished by manually depressing the scroll cylinder in a perpendicular direction with respect to the axis running through the scroll cylinder. In other words, in this embodiment selection operation of the navigation and selection device is accomplished by the user pressing down on scroll cylinder **12** in a direction along the z-axis (into the paper for purposes of illustration) and perpendicular to the x-axis.

[0020] Scroll cylinder **12** thus provides smooth scrolling navigation through the available AV options, such as those displayed in an electronic programming guide (EPG), that are presented to the user via the GUI. It is noted, however, that it is not a requirement of the present invention that the scrolling and selection mechanisms of the navigation and selection device be one and the same. Thus, the scroll cylinder **12** could be used solely for navigation while another feature of the navigation and selection device, such as a button, could perform the selection operation. It should be noted that the scroll wheel itself could be rotary encoded, meaning that it rotates with discreet positions, or free rotating.

[0021] In addition to a scroll wheel or cylinder, the scrolling mechanism of the remote commander **10** may be provided by alternate scrolling devices offering differing scrolling speeds. Scrolling at variable speeds provides the user with dynamic control of navigation, so that the user may navigate quickly to far away AV choices but more slowly to closer AV options, for instance. Variable speed control movement may be accomplished with a spring-loaded jog shuttle, for example. A rocker switch, of the type commonly used on camcorder zoom buttons, for instance, is typically

capable of variable action speeds to scroll much faster than is a scroll wheel and thus may be more suitable for navigating through navigable lists containing a large number of items.

[0022] In addition to scroll cylinder **12**, navigation and selection device **10** has power button **14**, guide button **16**, favorite (FAV) button **18**, menu button **20**, exit button **22**, volume control buttons **24**, and channel control button **26**. Guide button **16** may be manually depressed to cause a EPG to be displayed on a display apparatus, such as a monitor, a television screen, or a screen of an AV device. Favorite button **18** is manually operated to display one or more favorite AV options, such as television channels or audio CD tracks, for instance. Menu button **20** is manually operated to cause a predetermined menu screen to be displayed on the display apparatus. Exit button **22** is manually operated to restore ordinary screen display. Volume control buttons **24** are manually operated to increase or decrease the volume of sound produced by the AV device being controlled by the navigation and selection device **10**. Channel control buttons **26** are used to manually control which broadcasting channel is to be received by the AV device.

[0023] A second preferred embodiment of a navigation and selection device **20** suitable for controlling an AV device in accordance with the present invention is illustrated in the front and side views, respectively, of **FIGS. 2A and 2B**. Navigation and selection device **20**, which may also be referred to as a remote commander or control, also has an integral scroll cylinder, or wheel, **38**, although cylinder **38** is smaller than scroll cylinder **12** of **FIGS. 1A and 1B**. Also present in this particular embodiment is 4-way joy pad **34**, making navigation and selection device **20** very well suited for use with game applications. Navigation and selection device **20** additionally has mute button **32** and option button **36**.

[0024] In addition to the scroll cylinders shown in **FIGS. 1A-1B** and 2A-2B, the scrolling mechanism may be fulfilled by other suitable choices, including rocker switches and spring-loaded jog shuttles, for example.

[0025] **FIG. 3** illustrates an example of the AV system, according to an embodiment of the present invention. The AV system **40** has several components used in the invention. AV options available to a user of the system for viewing and/or listening may be remotely or locally available; there are thus two computer servers shown—remote server **44** and home (local) server **48**. The related AV options, also referred to as grid information, that will be shown in vertically navigable lists of the GUI **62** are stored in one or more databases on a server, either local or remote, and downloaded as needed. Locally available AV information, shown as local databases **49***a*-**49***i*, includes, for purposes of illustration, CD Track lists **49***a*, local system information **49***b*, and electronic music files **49***i*, such as those in MP3 or Atrac formats, and is made available on the system to home server **48**. Other AV options available for viewing and/or listening may be obtained from a remote server **44** over the world wide web or Internet; remote databases music download databases **42***a* and television program database **42***m* (EPG) are examples of AV information that can be downloaded from the remote databases **42** to a remote server **44** before being sent over the Internet **46** to the local server **48** in response to a request. AV options or information include hyperlinks that permit navigation to remote sites on the Internet using the smooth scroll GUI and remote commander of the invention.

[0026] AV options, whether obtained locally or over the web, can be played for viewing or listening by the user on the appropriate AV device. This is a good example of how the GUI can be dynamically generated based on receiving structured information from any source. Several types of AV devices capable of displaying interactive menus, guides, and/or device controls are shown here, for purposes of illustration, and include digital cable set top box (STB) **52***a*, compact disc (CD) player **52***b*, digital video disc (DVD) player **52***c*, and DV camcorder device **52***n*. Other types of AV devices include digital television products, VCRs, etc. The music or AV data sought to be presented to the user of the system may be viewed on a display apparatus of the appropriate AV device **52** (such as a CD played by CD player **52***b*) or it may be viewed on a display apparatus **60**, such as a satellite program viewed on a television screen, a monitor, etc.

[0027] The dynamic GUI displayed on display apparatus **60**, in conjunction with the smooth scroll navigation and selection device **54**, allow the user of the AV system to quickly and easily navigate through the available AV options and select a desired AV option in the manner that will be described. Management software or program **50** manages AV devices **52***a* . . . **52***n* as well as the smooth scroll dynamic GUI **62** and preferably resides within navigation and selection device **54**. Software **50** ensures that the available AV information options provided to server **48** from source **41** or **49** are available for the dynamic GUI **62** when needed. As previously described, the methodology of software **50** may be implemented as executable computer program instructions of a computer readable medium that, when executed by a processing system, such as might reside within navigation and selection device **54**, cause the processing system to provide efficient navigation of available AV options in the AV system.

[0028] The user manipulates the integral scrolling mechanism **56** of navigation and selection device **54** to navigate through AV options presented in fields **65** of a status bar **64** that are capable of expanding when highlighted to reveal AV options arranged as items **66** within a vertically navigable list **68**. As previously mentioned, scrolling mechanism **56** is capable of lateral movement and scrolling movement, and additionally has a selection mechanism by which desired AV information contained within the status bar **64** may be selected.

[0029] There are two modes of the dynamic GUI, each of which present different types of information to the user. The user controls the mode of the dynamic GUI through appropriate manipulation of the remote commander navigation and selection device. The information display mode of the GUI, activated by the user depressing an appropriate information button of the remote commander, or by moving the scroll wheel or cylinder **12**, **38** in any direction without activating its selection mechanism, causes certain information to be displayed on the display apparatus. The user is not interactive with the GUI in the information display mode; rather, certain predetermined information, such as information about the current or last-selected AV option, is simply displayed to the user. The second mode of the dynamic GUI

is the interactive mode, during which the user is able to communicate with the GUI. The interactive mode is entered by the user activating the selection mechanism of the navigation and selection device, in this embodiment by depressing the scroll cylinder of the remote commander in a downward direction. It is noted that the interactive mode may be launched from the information display mode or it may be entered directly by activation of the selection mechanism.

[0030] **FIG. 4** is a representation of the information display mode of the dynamic GUI **100** presented to the user on a display apparatus, according to an embodiment of the present invention. The information display mode is activated by the user moving the scroll cylinder of the remote commander without depressing it or by the user depressing an appropriate information button of the remote commander to enter the mode. Activation of the GUI information display mode causes the dynamic GUI **100** to display a status bar **102** that provides the user with information specifically about the AV option currently or last selected by the user, whether it be a television channel, DVD movie, CD audio track, etc.; in this example, the selected AV option is a track of a particular music CD, so the information displayed in the status bar **102** concerns selected music CD. Again, because the user has not caused the GUI to enter the interactive mode, the only information available to the user in the information display mode concerns the status of the current or last-selected AV option. It should be noted that if the user does not enter the interactive mode of the GUI after a certain period of time, such as 4 seconds, a time-out feature of the GUI will cause the GUI to no longer be displayed on the display apparatus.

[0031] The status bar in this particular implementation has a number of non-navigable fields **104**, **106**, **108**, **110**, and **112** (as opposed to the navigable fields provided in the interactive mode) displayed at the top of the GUI window **100**; the term non-navigable fields refers to the fact that, since the fields **104-112** only convey information about the currently selected AV option, there is only one item displayed per field, rendering them non-navigable. As will be described, the user can choose to learn more about any field by highlighting a desired field in the status bar with the scroll cylinder (using the lateral movement of the scrolling mechanism to move the cursor of the GUI over the field to be highlighted) and then depressing the scroll cylinder downward to select the highlighted field, thereby entering the GUI interactive mode; the non-navigable field currently highlighted in this GUI screen shot is the CD Track Field **110**, as indicated by the thicker white line that surrounds this field. The highlighting and subsequent selection of any particular non-navigable field within the status bar causes the GUI to enter the interactive mode in which the highlighted field transitions from a non-navigable field to a vertically navigable field having one or more related navigation and selection AV options arranged as items within a list of the vertically navigable field, assuming that the particular field does indeed have multiple, related AV options that can be navigated and selected if desired.

[0032] The fields **104-112** of status bar **102** are arranged in an easily readable fashion, such as along the top of the GUI screen from left to right in horizontal formation, preferably in a non-prominent position of the GUI. In this particular embodiment, it can be seen that the status bar is displayed at the very top of the GUI in what may be considered to be a non-prominent position of the screen so as to minimize any distraction caused by the status bar; if the GUI subsequently is caused to go from the information display mode to the interactive mode, the status bar will assume a more prominent position in the GUI screen.

[0033] Generally speaking, in both the information display mode and the interactive modes of operation of the GUI, the fields of a status bar displayed in the GUI are displayed in hierarchical fashion from left to right, with the left-most field representing the broadest category of navigation and selection available to the user and the right-most field representing the narrowest category. Fields to the right of a particular field, then, may generally be considered to be sub-categories or subsets of that particular field, although not every move to the right in the status bar indicates a further subdivision in the hierarchy. Thus, in the illustration of **FIG. 4**, Title Field **106** is a sub-category or subset of Application Field **104**, Track Field **110** is a subset of Title Field **106**, and Time Field **112** is a subset of Track Field **110**. AV Device Control Field **108**, while a sub-category of Application Field **104**, however, is not hierarchically smaller than Title Field **106**.

[0034] The symbol within Application Field **104** of the status bar **102** indicates that the application of the currently selected AV option is a CD. The name of the current CD is indicated in Title Field **106** as the Mariah Carey "Butterfly" album; there also is artwork associated with the album displayed in Field **106**. AV Device Control Field **108** indicates that the control status of the AV device being controlled by the navigation and selection remote commander device, a CD player in this example, is that the CD player is currently playing the Mariah Carey "Butterfly" CD. Track Field **110** indicates that track number **7**, entitled "Breakdown," is currently playing. Time Field **112** indicates that 43 seconds of the song "Breakdown" have been played by the AV device, the CD player.

[0035] **FIG. 5** illustrates the dynamic GUI in the interactive mode. As previously described, the GUI was initially launched by the user moving the scroll cylinder **12**, **38** or depressing an information button of the remote commander navigation and selection device **10**, **30**. Entry into the GUI interactive mode preferably causes the status bar to move from the top, non-prominent position of the GUI (shown in **FIG. 4**) to a more prominent position within the GUI, such as the center of the GUI window as shown here. Movement of the status bar to a more prominent position as interactive mode status bar **102** allows it to become the primary point of visual focus when viewed on the display apparatus, even when the display apparatus is viewed from across a room, for instance. The status bar field highlighted during the information display mode was the Track Field **110**, indicated by the broader white line around that field. Selection of Track Field **110**, and thus subsequent entry into the interactive mode shown in **FIG. 5**, causes the previously non-navigable Track Field **110** to transition into a vertically navigable field having one or more navigation and selection options arranged as items **202** within a list **201** of the vertically navigable field **110**. Of course, if Track Field **110** only had one navigation and selection option, it would not truly be a navigable field. Additionally, only one navigable field of the fields **104-112** of status bar **102** may have its vertically navigable field displayed at any given time and

that is the field that is currently highlighted by causing the cursor of the GUI to be placed over the field through lateral movement of the scroll cylinder. It is noted that all fields of status bar **102** that have one or more navigation and selection options are potentially navigable fields while in the GUI interactive mode.

[**0036**] The navigation and selection options of Track Field **110** include the tracks available for listening. In this example, the "Butterfly" CD has 13 tracks as AV options available to the user of the system by simply selecting the correct one. While all 13 CD tracks are displayed to the user via the GUI, the list of available navigation and selection options (items) within any particular navigable field may be more number and thus may not all be viewable to the user without appropriate manipulation of the scroll cylinder to scroll through the available choices. For instance, if the user had selected to see all available cable television channels, the navigable field for cable television channels could be 200, 500, or more channel options available for navigating and selecting by the user. The remote commander scroll cylinder of the present invention allows the user to quickly and easily navigate and select, if desired, a great number of choices listed as items in any particular navigable field. Manipulating the scroll cylinder of the remote commander to scroll up or down through the list causes the data to move through the stationery cursor located over the highlighted Track Field **110** of status bar **12**. The speed with which scrolling through a navigable vertical list may be accomplished depends upon the type of scrolling mechanism integrated into the remote commander navigation and selection device. A rocker switch will allow a user to scroll much more quickly than a scroll wheel or cylinder and is thus particularly well suited for lists having a large number of items. Thus, for instance, a rocker switch may be the preferred scrolling mechanism for a remote commander of a television application while a scroll wheel scrolling mechanism may be suitable for the remote commander of a CD player/changer.

[**0037**] Referring now to **FIG. 6**, it can be seen that the user has scrolled down to place track item number **10**, entitled "Whenever You Call," within the status bar field, causing this track to be highlighted. This track number **10** has subsequently been selected by the user pressing down on the scroll cylinder; the track is now displayed via the GUI as the current CD track being played from the "Butterfly" album. The user has moved beyond Track Field **110** and has now highlighted the AV Device Control Field **108**. Because the GUI is in the interactive mode, the available navigation and selection options, arranged as items **204**, **206**, **208** within navigable field **108**, are automatically shown when navigable field **108** is highlighted with the scroll cylinder. Again, as in **FIG. 5**, only the vertically navigable list of the highlighted field is illustrated at any given time. Item **204** is the Eject CD option, item **106** is the Play option, and item **108** is the Stop option within AV Device Control Field **108**. The user may decide to eject the "Butterfly" CD, play selected track **10** called "Whenever You Call", or stop the track simply by using the scroll cylinder to cause the desired AV control action to be highlighted within the status bar and then selecting that control action by pressing down on the scroll cylinder.

[**0038**] **FIG. 7** provides another example of a navigable field expanding to show all the available navigation and selection options arranged as items within a vertically navigable field when the field in the status bar **12** is highlighted. The user has used the scroll cylinder to move the cursor within the GUI **200** from the Device Control Field **108** to Application Field **104**, so that Application Field **104** is highlighted (as indicated by the broader white line that surrounds Application Field **104** in Status Bar **102**. The application options arranged as items within the list of vertically navigable field **104** include Help Option **210**, Shopping Option **212**, CD Player Option **214**, Television Option **216**, VCR Option **218**, and World Wide Web (WWW) Option **220**. By moving the scroll cylinder up and down within the items **210-220** of the list of vertically navigable field **104**, the user can cause the desired Application Option to be moved into Status Bar **102** where it can be selected by depressing scroll cylinder **12**, **38**. For example, the user has manipulated the scroll cylinder to place Television Option **216** within the Application Field **104** of Status Bar **102** as shown in **FIG. 8**. Placement of the Television Option **216** within the Application Field **104** of Status Bar **102** causes Television Information Field **225** to display "Watch TV." It is noted that the act of the user scrolling down through items in the navigable Application Field **104** caused an additional option, the Mail Option **222**, to appear in the list.

[**0039**] Selection of the Television Option **216** causes the GUI screen of **FIG. 9** to be displayed and further causes the AV device being controlled by the remote commander to change from a CD player or changer to a television. The GUI screen has a Television Option status bar **230** with several vertically navigable fields, including Television Option field **216**, Channel Number Field **232**, Channel Name Field **238**, Television Program Title Field **240**, and Program Time Field **242**. Moving the scroll cylinder horizontally from left-to-right or vice versa will cause the vertically navigable field, with its navigation and selection options arranged in a list, to be displayed when highlighted within the Television Option status bar **230**. For example, in this GUI shot, the user has laterally manipulated the scroll cylinder to place the cursor over Channel Number Field **232**, thereby highlighting it and causing Channel Number Items **236** to be displayed within list **234** as shown. The viewer can then manipulate the scroll cylinder of the remote commander to scroll up and down the Channel Number list, thereby causing the items **236** in list **234** to move through the stationery cursor located at Channel Number Field **232** in Television Option status bar **230**. Moreover, once the user has selected the Television Option **216** in **FIG. 8**, the television program currently being received by the television AV device is displayed as a "live", moving AV program that is viewable in the background of the GUI **200**.

[**0040**] **FIG. 10** shows a GUI **200** that results from the viewer using the scroll cylinder remote commander to scroll to and then highlight a new television program for viewing. In this instance, the user has highlighted channel **102** within Channel Screen Field **232**. Channel **102** is MTV and the program is "The Wallflowers Unplugged," as indicated in Channel Name Field **238**, Program Title Field **240**, and Program Time Field **242**, respectively. The viewer has laterally manipulated the scroll cylinder of the remote commander from right to left to move the cursor from the Channel Number Field **232** in **FIG. 9** to the left-most Application Field **104**, which is highlighted in this figure.

Now the user can move the scroll cylinder up or down to scroll through the list of items **210-222** of navigable Application Field **102**.

[**0041**] The GUI screen shot illustrated in **FIG. 11** was generated by the viewer moving the scroll cylinder **12, 38** from Application Field **104** to Channel Name Field **238**. It can be seen that the Channel Name options of Channel Name Field **238** are arranged as items **244** within a vertically arranged list **246** of the field that is navigable and selectable via the scroll cylinder. Again, the user can scroll up or down through the Channel Names. The cursor over Channel Name Field **238** stays stationery while the data of the Channel Names moves through the stationery cursor. When the desired Channel Name is displayed within the stationery cursor over Channel Name Field **238**, it may be selected by the user depressing the scroll cylinder.

[**0042**] As indicated previously, the user can navigate from one application to another. In **FIG. 12**, the user has navigated to the CD Player Option **214** from Television Option **216** by moving the scroll cylinder to the left-most field of status bar **230** to highlight Application Field **104** and then scrolling through the choices of Application Field to highlight and select CD Player Option **216**. Selection of CD Player Option **216** causes CD Player status bar **250** to be shown in GUI **200**. CD Player status bar **250** has a number of navigable fields, including Application Field **216**, Music Category Field **256** having a number of music choices (Alternative, Electronica, Folk, Indie Rock, Vinyl, Jazz, Blues, Gospel, Sound Tracks, Rock/pop, Country, etc.) arranged as items **252** in a vertically navigable list **254**, Music Title Field **258** which has the artwork associated with the Miles Davis album, and Music Title Length Field **259**. Again, these fields, with the exception of the Music Title Length Field **259**, are shown as a navigable vertical list of related choices when highlighted by the GUI cursor. If one were to use the scroll mechanism to highlight Music Title Field **258**, for instance, a vertically arranged list of available Jazz Music Title Options would be illustrated in that field; the vertically navigable list of the Music Category Field **254** would disappear when the user has navigated from the Music Category Field **254** to the Music Title Field **258**.

[**0043**] In **FIG. 13**, the user has used the scroll mechanism **12, 38** to scroll through the list **254** of items **252** of the Music Category Field **256** until the "Rock/pop" choice is highlighted within the Music Category Field **256** of CD Player status bar **250**. The album by "George Michael," including the artwork of the album, appears within Music Title Field **258**, although additional Rock/pop choices would be displayed in a vertically navigable list of item choices if one were to highlight the Music Title Field **258**, as illustrated in **FIG. 14**. The "George Michael" album has a length of one hour and 45 minutes, as shown in Music Title Length Field **259**.

[**0044**] Referring now to **FIG. 14**, the user has used the scrolling mechanism of the remote commander navigation and selection device to highlight the Music Title Field **258**, thereby causing a vertically navigable list **262** of Rock/Pop item choices **260** to be displayed. Among the Rock/pop album items **260** available for navigation and selected in vertically navigable list **262** are the following: "Crazy, Sexy, Cool" by NSYNC, "Up" by R.E.M., "Ladies and Gentlemen . . . " by George Michael, "The Joshua Tree" by U2, "Full of Spirit" by Jewel, and "Butterfly" by Mariah Carey. Music Title Length Field **259** indicates that the George Michael album is one hour and 45 minutes in length. It is noted that note every field of a status bar, such as CD Player status bar **250**, is a vertically navigable field. Music Title Length Field **259**, for instance, is not a vertically navigable field and simply displays the total length of the album currently highlighted within Music Title Field **258**.

[**0045**] The choices (items) of a vertically navigable list of the present invention may also be hypertext links suitable for navigating or "surfing" to a desired location on the Internet; this is particularly suitable for on-line shopping. The user has caused the new status bar **310** of GUI **300** of **FIG. 15** to appear by moving the cursor from Music Title Field **258** of status bar **250** to Application Field **104** and manipulating the scrolling mechanism of the remote commander to highlight the Shopping Option **212**. Highlighting the Shopping Option causes a status bar **310**, specific to Shopping Option **212** to appear in the GUI **300**. In addition to Application Field **104**, there is Shopping Category Field **312**, Shopping Subcategory Field **314** (a subcategory of Shopping Category Field **312**), Shopping Item Field **316**, and Shopping Item Price Field **318**. Shopping Category Field **312**, if highlighted, would be a vertically navigable field having a list of shopping category items that may be browsed while in the Shopping Option **212**. In addition to the Music item shown in Shopping Category Field **312**, other Shopping Category items might include, for example, Movies, Tickets, Clothing, Games, etc. Shopping Subcategory Field **314** is a subcategory of Shopping Category Field **312** in that when highlighted a list of items related to the Shopping Category shown in Field **312** is displayed. For instance, if one were to move the scrolling mechanism of the remote commander to highlight Shopping Subcategory Field **314**, a vertically navigable list of item (choices) related to the "Music" Shopping Category **312** would be displayed. Thus, in addition to "Rock/pop," other subcategories of Music might include Jazz, Blues, Gospel, Country, Classical, Children, etc., similar to the items **252** shown in list **254** of **FIGS. 12 and 13**, for example. Or, if the option highlighted within Shopping Category Field **312** was "Movies" rather than "Music," the Shopping Subcategory Field **314**, when highlighted, might consist of a vertically navigable list containing Action, Science Fiction, Black and White, Kung Fu, Drama, etc., as items within the list. Shopping Item Field **316** is a field that, when highlighted, will display items available for purchase within the Subcategory Field **314**. Thus for the "Rock/pop" subcategory **314**, a navigable list similar to the items **260** of list **262** of Music Title Field **258** in **FIG. 14**, including the Fiona Apple album currently shown, could be displayed when Shopping Field **316** is highlighted. Finally, Shopping Item Price Field **318** displays the price of the item highlighted within Shopping Field **316** that is for sale; Price Field **318** may be a non-navigable field if there is only one price associated with the item displayed in Shopping Field **316** or Price Field **318** may be a navigable list if there are multiple prices associated with the item displayed in Shopping Field **316** (such as different prices for CD and cassette tape, for instance). It is noted that the fields of Shopping Option status bar **310** are relevant to the item highlighted within Shopping Category Field **312** but would of course change if the item within Shopping Category Field **312** were changed.

[0046] The GUI user can decide to select the items displayed within Shopping Option status bar **310** by pressing down on the scrolling mechanism of the remote commander; the GUI **400** of **FIG. 16** will be displayed. The GUI **400** is interesting because the items displayed in a vertically navigable list, namely, "Bookmark," Preview,""Purchase,""Cancel," and "Add to Cart," are hyperlinks **402** that, when selected, automatically navigate to a location on the WWW that allow the function indicated by the hyperlink to be carried out. For example, by the user selecting the "Purchase" hyperlink the user can automatically navigate to a website corresponding to the hyperlink, that allows purchase of Fiona Apple's "Tidal" album.

[0047] **FIGS. 17-18** present a further example of the use of hypertext links as items within a vertically navigable field. In **FIGS. 15-16**, the Music category **312** of Shopping Option **212** was selected. In **FIGS. 17-18**, another category of Shopping, "Movies," is selected to generate the status bar **310** of **FIG. 17**. Status bar **310** has the following fields: Application Field **104**, Shopping Category Field **312** (in which the item "Movies" is highlighted), Shopping Subcategory Field **314**, Shopping Item Field **316**, and Shopping Item Price Field **318**. As in **FIG. 15**, Subcategory Field **314** is a subset of the item displayed in Shopping Category **312**, Shopping Item Field **316** is a subset of Subcategory Field **314**, and Price Field **318** is a subset of Shopping Item Field **316**. In other words, "Movies" is the category, "Drama" is the subcategory, the move "Titanic" is the shopping item, and the price displayed in Field **318** is the price of the movie "Titanic." Again, by using the scrolling mechanism to highlight a field of the status bar **310**, the options arranged as items within a vertical list of the field are displayed. In this example, the various types of movies, in addition to "Drama" could be displayed by highlighting Field **314** and all the available Drama movies could be displayed by highlighting Field **316**.

[0048] Now, when the user selects the choices highlighted within Fields **212**, **312**, **314**, **316**, and **318** of status bar **310**, the GUI **400** of **FIG. 18** is displayed. GUI **400** includes the active video of the movie "Titanic"**402** and additionally includes hyperlinks **406-414** arranged in a vertical list **404** to sites on the Internet at which the functionality indicated by the hyperlinks may be carried out. Hyperlink **406**, with a picture of a Titanic VCR tape, can be chosen to navigate to an Internet site at which the movie may be purchased. Hyperlink **408**, which displays a T-shirt with a scene from the movie, can be selected to navigate to an Internet site at which movie-related merchandising, such as clothing, posters, etc., may be purchased. Hyperlink **410** displays a globe with the text "movie info" and can be selected to navigate to an Internet site where the user can find out more about the movie "Titanic." Hyperlink **412** displays a picture of actor Leonardo DiCaprio and this hyperlink can be selected to navigate to a website that will tell the user more about the actor and where actor-related products may be purchased, such as a fan club site on the Internet. Hyperlink **414** displays a CD and CD cover artwork, and may be selected to navigate to a site where the score the movie may be purchased. It is interesting to note that in this example, only one navigable list **404** of AV options is available and is thus always displayed when the user navigates to this site. Hyperlinks **406**, **408**, **412**, and **414** provide an example in which the hyperlink items of vertically navigable list **404** are solely visual in nature and, indeed, illustrate that they need not be text-based at all.

[0049] **FIG. 19** is a flow diagram **500** that illustrates the methodology of the present invention. This methodology may be implemented as executable computer program instructions of a computer readable medium that when executed by a processing system, such as might reside within navigation and selection device **54**, for instance, cause the processing system to provide efficient navigation of AV options in an AV system. At Decision Block **510**, the inquiry is whether movement of the scrolling mechanism has been detected by the management software **50** since movement of the scrolling mechanism is needed to enter either the information display mode or the interactive mode of the GUI. If no movement has been detected, then the inquiry of Decision Block **510** is repeated in order that any subsequent movement may be detected. If movement of the scrolling mechanism is detected, then the inquiry at Decision Block **520** is whether the selection mechanism of the navigation and detection device has been activated. As previously described, the selection mechanism and scrolling may be the same (although this is note required), as in the case of the above-described scroll cylinder which provides lateral movement, scrolling movement, and a selection means. The selection mechanism could be a button of the navigation and selection device, for instance, and would thus be distinct from the scrolling mechanism. If activation of the selection mechanism has not occurred but movement of the scrolling mechanism has been detected, then the management software **50** causes the information display mode of the GUI to be entered at Block **530**. At Block **540**, in the information display mode the GUI is displayed on the display apparatus **60** with the status bar located in a non-prominent position of the GUI screen and the last-selected AV options are displayed in the fields of the status bar. At Decision Block **550**, an inquiry into whether the time-out mechanism of the information display mode has been activated ensures that after a predetermined period of time, such as four seconds, the GUI will no longer be displayed. It is noted that Blocks **510-550** of flow **500** are optional, as indicated by the dashed lines. The GUI interactive mode may be directly entered without first entering the GUI information display mode by the user activating the selection mechanism without first moving the scrolling mechanism of the navigation and selection device. The interactive mode may be directly entered by depressing the scroll cylinder shown in **FIGS. 1-2**, for instance.

[0050] Referring back to Decision Block **520**, if the selection mechanism has been activated the GUI interactive mode is entered at Block **560**. The GUI with status bar is prominently displayed within the GUI and the last-selected AV options are displayed in the fields of the status bar, as shown in Block **570**. At Decision Block **580**, the inquiry is whether the field of the status bar that is highlighted by the GUI cursor is a navigable field. If so, then at Block **590** management software **50** causes the AV options arranged as items **66** of the list **68** of the navigable field to be displayed on the display apparatus **60**; the AV options arranged as items within the list are provided by the appropriate database, either local **49** or remote **42** (including over the Internet). At Decision Block **600**, whether scrolling movement of the scrolling mechanism is detected, caused by the user using the scrolling mechanism to scroll in an up and/or

down direction, is the inquiry. If scrolling movement is detected, then at Block **610** items of the navigable list are scrolled through the highlighted field in accordance with the scrolling movement. This permits a particular AV option item within a list associated with a field to be placed within the highlighted field. At Decision Block **620**, the inquiry is whether lateral movement of the scrolling mechanism is detected. If so, then at Block **630**, the management software causes GUI cursor to move laterally across the status bar in accordance with the lateral movement of the scrolling mechanism. This allows a new field within the status bar to be highlighted if desired. It is noted that the order to Decision Blocks **600** and **620** may be reversed without departing from the spirit and scope of the invention. At Decision Block **640**, management software **50** determines whether the selection mechanism of the navigation and selection device **54** has been activated. If so, indicating that the AV options currently chosen and displayed within the fields of the status bar are to be implemented, then software **50** at Block **650** controls the AV device **52** indicated by the status bar and in the manner indicated by the fields of the status bar. Finally, Decision Block **660** causes the methodology of Blocks **580-650** to be repeated unless a time-out mechanism of the interactive mode has been activated, in which case, the flow returns to the beginning.

[**0051**] While the invention has been particularly shown and described with reference to a preferred embodiment, it will be understood by those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope of the invention. For instance, while vertical navigation of AV options has been described in connection with the preferred embodiment, it is recognized that the present invention also encompasses non-vertical navigation such as horizontal navigation which may be effected by utilizes an vertically arranged status bar in the GUI.

[**0052**] What is claimed is:

1.-**40**. (canceled)

41. In an audio/visual (AV) system, a method for navigation of menu options available to a user of the AV system, comprising:

entering a graphical user interface (GUI) in response to activation;

generating a signal for displaying a first navigable list of menu options on a display, the first navigable list of menu options having a plurality of fields arranged in a first linear configuration;

moving a cursor of the GUI to place the cursor over a field of the plurality of fields, and thus highlight a field;

generating a signal for displaying a second navigable list of menu options associated with the highlighted field, the second navigable list of menu options arranged in a second linearly configured set of fields which intersect the first linear configuration of fields of the first navigable list of menu options at the highlighted field;

moving a cursor of the GUI over a menu; and

selecting the menu option.

42. The method according to claim 41, wherein the first linear configuration of the first menu is oriented substantially horizontally, and the second linear configuration of the second menu is oriented substantially vertically.

43. The method according to claim 41, wherein the first linear configuration of the first menu is oriented substantially vertically, and the second linear configuration of the second menu is oriented substantially horizontally.

44. The method according to claim 41, wherein the first linear configuration of the first menu is oriented substantially at a right angle to the second linear configuration of the second menu.

45. A video display displaying first and second menus generated according to the process of claim 41.

46. A computer readable medium storing instructions that, when carried out on a programmed processor, carry out a process according to claim 41.

47. An Audio/Visual (AV) method for navigation of menu options available to a user of an AV device, comprising:

entering a graphical user interface (GUI);

generating a signal for displaying a first menu on a display, the first menu having a plurality of fields arranged in a first linear configuration;

generating a signal for displaying a cursor of the GUI over a field of the plurality of fields, thus producing a highlighted first menu field; and

generating a signal for displaying a second menu on a display, the second menu being arranged as a second linear configuration crossing the first menu, with the highlighted first menu field being a location of an intersection of the first menu and the second menu.

48. The method according to claim 47, further comprising:

generating a signal for moving the cursor of the GUI to place the cursor over a field of the set of fields of the second menu, thus highlighting a second menu field.

49. The method according to claim 47, further comprising:

selecting an action associated with the highlighted second menu field.

50. The method according to claim 47, wherein the first linear configuration of the first menu is oriented substantially horizontally, and the second linear configuration of the second menu is oriented substantially vertically.

51. The method according to claim 47, wherein the first linear configuration of the first menu is oriented substantially vertically, and the second linear configuration of the second menu is oriented substantially horizontally.

52. The method according to claim 47, wherein the first linear configuration of the first menu is oriented substantially at a right angle to the second linear configuration of the second menu.

53. The method according to claim 47, wherein the second menu comprises at least one of a menu of available media, a menu of available options, a menu of available actions, a menu of available devices associated with the highlighted first menu field.

54. A video display displaying first and second menus generated using the device according to the method of claim 47.

55. A computer readable storage medium storing instructions that, when carried out on a programmed processor, carry out a process according to claim 47.

56. A method according to claim 47, for navigation of menu options available to a user of the AV device/system.

57. In an audio/visual (AV) system, a method for navigation of menu options available to a user of the AV system, comprising:

entering a graphical user interface (GUI) in response to activation of a selection mechanism of a remote commander;

generating a signal for displaying a first menu on a display, the first menu having a plurality of fields arranged in a first linear configuration;

moving a cursor of the GUI to place the cursor over a field of the plurality of fields, and thus highlight the field;

generating a signal for displaying a navigable list of menu options associated with the highlighted field, the navigable list of menu options being arranged as in second linearly configured set of fields which cross the first linear configuration of fields of the first menu at the highlighted field;

moving a cursor of the GUI to place the cursor over a menu option on the navigable list of menu options; and

selecting the menu option in response to activation of a selection mechanism of the remote commander.

58. The method according to claim 57, wherein the first linear configuration of the first menu is oriented substantially horizontally, and the second linear configuration of the second menu is oriented substantially vertically.

59. The method according to claim 57, wherein the first linear configuration of the first menu is oriented substantially vertically, and the second linear configuration of the second menu is oriented substantially horizontally.

60. The method according to claim 57, wherein the first linear configuration of the first menu is oriented substantially at a right angle to the second linear configuration of the second menu.

61. A video display displaying first and second menus generated according to the process of claim 57.

62. A computer readable storage medium storing instructions that, when carried out on a programmed processor, carry out a process according to claim 57.

63. In an audio/visual (AV) system, a method for navigation of menu options available to a user of the AV system, comprising:

entering a graphical user interface (GUI) in response to receipt of a GUI selection signal from a remote commander;

generating a signal for displaying a first menu on a display, the first menu having a plurality of fields arranged in a first linear configuration;

generating a signal for displaying a cursor of the GUI over a field of the plurality of fields, thus producing a highlighted first menu field, in response to receipt of a navigation signal from the remote commander; and

generating a signal for displaying a second menu on the display, the second menu being arranged as linear set of fields crossing the first menu, with the highlighted first menu field being a location of intersection of the first menu and the second menu.

64. The method according to claim 63, further comprising:

generating a signal for moving the cursor of the GUI to place the cursor over a field of the set of fields of the second menu, thus highlighting a second menu field.

65. The method according to claim 63, further comprising:

selecting an action associated with the highlighted second menu field in response to receipt of a selection command from the remote commander.

66. The method according to claim 63, wherein the first linear configuration of the first menu is oriented substantially horizontally, and the second linear configuration of the second menu is oriented substantially vertically.

67. The method according to claim 63, wherein the first linear configuration of the first menu is oriented substantially vertically, and the second linear configuration of the second menu is oriented substantially horizontally.

68. The method according to claim 63, wherein the first linear configuration of the first menu is oriented substantially at a right angle to the second linear configuration of the second menu.

69. The method according to claim 63, wherein the second menu comprises a menu of functions associated with the highlighted first menu field,

70. A video display displaying first and second menus generated according to the process of claim 63.

71. A computer readable storage medium storing instructions that, when carried out on a programmed processor, carry out a process according to claim 63.

72. In an audio/visual (AV) system, a method for navigation of menu options available to a user of the AV system, comprising:

entering a graphical user interface (GUI) in response to activation of a selection mechanism of a remote commander;

generating a signal for displaying a first menu on a display, the first menu having a plurality of fields arranged in a horizontal configuration;

laterally moving a cursor of the GUI to place the cursor over a field of the plurality of fields, and thus highlight the field;

generating a signal for displaying a list of menu options associated with the highlighted field, the navigable list of menu options being arranged as a vertical set of fields crossing the horizontal configuration of fields of the first menu at the highlighted field;

vertically moving a cursor of the GUI to place the cursor over a menu option on the navigable list of menu options; and

selecting the menu option in response to activation of a selection mechanism of the remote commander.

73. The method according to claim 72, wherein the second menu comprises a menu of functions associated with the highlighted first menu field,

74. A video display displaying first and second menus generated according to the process of claim 72.

75. A computer readable storage medium storing instructions that, when carried out on a programmed processor, carry out a process according to claim 72.

76. In an audio/visual (AV) system, a method for navigation of menu options available to a user of the AV system, comprising:

entering a graphical user interface (GUI) in response to activation of a selection mechanism of a remote commander;

generating a signal for displaying a first menu on a display, the first menu having a plurality of fields arranged in a vertical configuration;

vertically moving a cursor of the GUI to place the cursor over a field of the plurality of fields, and thus highlight the field;

generating a signal for displaying a list of menu options associated with the highlighted field, the navigable list of menu options being arranged as a horizontal set of fields crossing the horizontal configuration of fields of the first menu at the highlighted field;

horizontally moving a cursor of the GUI to place the cursor over a menu option on the navigable list of menu options; and

selecting the menu option in response to activation of a selection mechanism of the remote commander.

77. The method according to claim 76, wherein the second menu comprises a menu of functions associated with the highlighted first menu field.

78. A video display displaying first and second menus generated according to the process of claim 76.

79. A computer readable storage medium storing instructions that, when carried out on a programmed processor, carry out a process according to claim 76.

80. An Audio/Visual (AV) device, having a method for navigation of menu options available to a user of the AV device, comprising:

means for entering a graphical user interface (GUI);

means for generating a signal for displaying a first menu on a display, the first menu having a plurality of fields arranged in a first linear configuration;

means for generating a signal for displaying a cursor of the GUI over a field of the plurality of fields, thus producing a highlighted first menu field; and

means for generating a signal for displaying a second menu on a display, the second menu being arranged as a second linear configuration crossing the first menu, with the highlighted first menu field being a location of an intersection of the first menu and the second menu.

81. The device according to claim 80, wherein the means for generating a signal displaying a cursor further comprises:

generating a signal for moving the cursor of the GUI to place the cursor over a field of the set of fields of the second menu, thus highlighting a second menu field.

82. The device according to claim 80, further comprising:

means for selecting an action associated with the highlighted second menu field.

83. The device according to claim 80, wherein the first linear configuration of the first menu is oriented substantially horizontally, and the second linear configuration of the second menu is oriented substantially vertically.

84. The device according to claim 80, wherein the first linear configuration of the first menu is oriented substantially vertically, and the second linear configuration of the second menu is oriented substantially horizontally.

85. The device according to claim 80, wherein the first linear configuration of the first menu is oriented substantially at a right angle to the second linear configuration of the second menu.

86. The device according to claim 80, wherein the second menu comprises at least one of a menu of available media, a menu of available options, a menu of available actions, a menu of available devices associated with the highlighted first menu field.

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