

[0034] In addition to the aforementioned functionality, software interconnections are provided between the PIM software 104 and the EPG software 106 running on the PDA 102. Using an input device in conjunction with the EPG software 106, a user selects program listings identified as being broadcast at a future time. Each selected program generates, among several possible options, a reminder that alerts the user when the selected program is about to commence. A message is passed from the EPG software 106 to the PIM software 104 indicating that a program reminder has been set in addition to parameters regarding the specific program. Exemplary parameters passed to the PIM software 104 include, but are not limited to, the start and end time of the program, the title of the program, the channel on which the program will be broadcast, and any other miscellaneous program information. The PIM software 104 receives the program information and places the information in the user's calendar at the indicated date and time. In this manner, the user may be alerted via the PDA 102 when a marked program is about to begin, in addition to being able to view the playtimes of marked programs directly in the calendar provided by the PIM software 104 along side other scheduled appointments.

[0035] Turning now to FIG. 2, a high level method of operating the system illustrated is presented. A personal digital assistant running electronic program guide software and in communication with a program listing server via a network is operative to receive data regarding programming broadcast on a distribution network, step 202. The programming data may be in any form useable by the electronic program guide software including, but not limited to, HTML data pages, XML data pages, tab delimited data pages, etc. According one embodiment, the EPG uses the data to construct pages of programming for navigation by the user. Alternatively, the device serving the programming data to the EPG running on the PDA creates the pages of programming, which are displayed on the PDA's display device for navigation by the user.

[0036] The personal digital assistant receives and displays the data for navigation by the user, step 204. Regardless of the method of transmission and generation, the user may navigate the programming content through the normal use of the PDA input method, e.g., tapping selections and navigation controls with a stylus. One embodiment of the programming content comprises an irregular grid of cells displayed as a matrix of channels versus time whereby each cell represents the programming on a given channel at a given time. According to other embodiments of the invention, the programming content is presented as shown in the related applications that have previously been incorporated by reference. The user browses programming content, step 204, by manipulating the pages of programming content, e.g., displacing the matrix of cells to browse programming available on the channel lineup at a given time or programming available on a channel at a given time. When a desired program is arrived at, it is selected, step 206.

[0037] The selection by the user of a desired program is used to tune a television or similar tunable display device, step 208. The step of tuning the television may encompass one or more of several tuning actions. For example, the user may select a program that is currently playing on an available channel, step 206. According to this scenario, a signal is sent from the PDA to either the television or set top

terminal, depending on the particular configuration of the user's video equipment and device used, to tune the selected program being distributed over the distribution network. Alternatively, a user may also select to watch programming that is being aired at a later time, step 206. The programming data selected by the user is transmitted from the PDA to the television or set top terminal, where a reminder is set in the EPG software that the program has been selected for viewing at its air time. The reminder may likewise be recorded in the EPG running on the PDA and synchronized with the EPG running on the set top terminal or television when communication between the two is established.

[0038] Another method of operating the hardware and software components illustrated in FIG. 1 is presented in FIG. 3. Programming data is downloaded to and received by a personal digital assistant, step 302. The data transmission may be performed using wireless or other data transmission techniques well known to those skilled in the art. Alternatively, the PDA may be provided with a wired interface to the programming data, e.g., a modem communicating over the public switched telephone network. Regardless of the method of transmission, the programming data is received by the personal digital assistant made available to the user through local EPG software, step 302.

[0039] The received programming data is browsed by the user through the use of the EPG software, step 304, which presents the programming data in an organized and coherent fashion that is easily navigated by the user. According to one embodiment, the EPG software presents the programming data as a matrix of cells that may be browsed by displacing the matrix along its horizontal or vertical axis. The matrix is preferably organized as channel versus time, with each cell representing a program offered on a particular channel at a particular time. Using an input device, the user browses the programming data presented through the EPG to select a program for current or future viewing, step 304. A check is performed to determine the user has selected a program airing at a later time and therefore requires a program reminder to be set, step 306. Where the user has selected a program currently being aired, the television or display device is tuned to the desired channel, step 307, and control returns to step 304 where the user is free to browse additional programming data.

[0040] Where the check resolves to true, e.g., the user has selected a program airing in the future, step 306, the local EPG software checks to determine if the user has selected to record the future airing program, step 308. Where the check resolves to true, step 308, the program is marked in the local EPG running on the PDA for recording. For example, a flag may be set that comprises parameters such as the time and date to begin recording, as well as the channel to record.

[0041] Regardless of whether the user selects to record the future airing program, step 308, the local EPG software checks to determine if the user has selected to schedule a reminder in the calendar provided via the PIM software, step 312. Where the check resolves to true, program data for the selected program is passed to the PIM software or other calendar application, step 314. According to one embodiment of the invention, the local EPG software collects the title, program start and end times, program air date, and any other descriptive data included in the set of program data for the selected program. This PIM software receives this data,