

listing server **110** for distribution to the requesting EPG **106** and **114** over a network **108**. Alternatively, the program listing server **110** queries the television program listing database **112** to retrieve formatted program listing content for distribution to the requesting EPG **106** and **114** over a network, e.g., the distribution network **108**. In yet another embodiment, the program listing server **110** distributes raw program listing content to the requesting EPG **106** and **114**, where it is formatted for presentation to the user.

[0027] A personal digital assistant **102** is provided with access to the distribution network **108**. Access may be provided over a wired or wireless connection to the Internet whereby the personal digital assistant communicates with the program listing server **110** to retrieve program guide data. Alternatively, communication may be initiated with the program listing server over the distribution network **108** via a gateway (not pictured), e.g., through the use of a cable modem. The personal digital assistant may be in two-way communication with the program listing server **110** whereby selections made at the remote EPG software **116** are propagated over the distribution network **108** to the program listing server **110** and back to the personal digital assistant **102**. In this manner, the personal digital assistant may receive data from the set top terminal **114** and vice versa. The distribution network may distribute program content and guide data directly to the set top terminal where guide data is separated from program content and utilized by the remote EPG software **116** for presentation on a display device, e.g., television **120**. Likewise, a similar distribution scheme may be used to distribute data directly to a video recorder **118** or television **120**, provided the appropriate software is present, e.g., a cable ready television accompanied by EPG software **116**.

[0028] The personal digital assistant **102** may be a Palm OS® or Microsoft PocketPC® digital assistant. For example, the personal digital assistant may be an iPaq® 3860 produced by Compaq Computer Corp. In accordance with embodiments of the invention, the personal digital assistant **102** may comprise any type of portable or mobile computing device. The personal digital assistant **102** comprises local persistent storage (not pictured) that is operative to store applications and data, including personal information management (PIM) software **104** and electronic program guide (EPG) software **106**.

[0029] The PIM software **104**, typically stored and executed on the personal digital assistant, is used to maintain and track a user's personal information. Application programs usually falling within the scope of PIM software **104** include, but are not limited to, calendars, address books, to-do lists, and similar applications that may be used to maintain personal data. Many modem personal digital assistants provide a graphical interface to the applications and data stored therein. Using a stylus or other input device, the user is able to graphically interact with the PIM software **104** in order to add, delete and update their personal data.

[0030] In addition to PIM software **104**, the personal digital assistant is **102** is also provided with electronic program guide (EPG) software **106**. The EPG software **106** is used to present program listings received from the program listing server **110** to the user. According to one embodiment, the user is provided with controls to instruct the EPG software **106** to present a programming lineup from

to one of several distribution networks. Using controls presented by both the personal digital assistant **102** and EPG software **106**, the user is capable of browsing program listings from the present time through the near future. The amount of program data made available may be a function of the available memory on the personal digital assistant **102**, may be set to a limit defined by the user, or may be set to a limit defined by developer of the EPG software **106**.

[0031] In addition to browsing program listings, the EPG software **106** may be used to program and control a variety of audio/video components **114**, **118**, and **120**. Using the EPG software **106** to browse available program listings, an input device may be used to select one or more specific programs for future viewing, thereby instructing the EPG software **106** to mark the program as such. The future viewing reminder may be set so as to generate an alert on the personal digital assistant **102** at the program's air time, which may be an audio or visual alert. Alternatively, as is explained in greater detail herein, the reminder that is set by the user may be used to program a video recording device **118** to record the selected program.

[0032] The user may use the PDA's electronic program guide software **106** to directly tune a television **120**, typically through the use of coded infrared signals. A plurality of encoding schemes are preferably maintained at the PDA **102** in order to ensure the proper encoding scheme is used, with additional codes retrievable from a server over a network. According to one embodiment, a lookup table is employed that correlates each encoding scheme with an identifier. By inputting an identifier for the encoding scheme that matches the equipment to be controlled, the PDA may transmit coded infrared signals to wirelessly transmit commands to an audio/video device. Once configured, if required, instructions are transmitted from the PDA to either the set top terminal **114** or the television **120**, depending on the specific configuration, to tune to a desired channel of programming. The tuning is preferably conducted through the use of encoded infrared signals transmitted from the PDA **102** for receipt over an infrared interface (not pictured) on the television **120** or set top terminal **114**, although other communication schemes are contemplated by the invention.

[0033] The local electronic program guide software **106** running on the PDA **102** is capable of synchronizing data with the remote electronic program guide **116** executing on the set top terminal **114**. Communication is initiated between the PDA **102** and the set top terminal **114** whereby markers set by the user in the PDA's electronic program guide software **106** to remind the user about future programs are transmitted to the set top terminal's electronic program guide software **116**. Likewise, recording and future program markers set by the user at the set top terminal may be transmitted by any of the communication schemes described herein so as to synchronize markers on both devices. According to one embodiment, the future program reminders are transmitted between the two devices **102** and **114** over an infrared link (not pictured). Alternatively, the PDA **102** may be interfaced to a common network **108**, such as the Internet, over which the programming reminders are synchronized between the software **106** and **116** running on the two devices **102** and **114** respectively. The EPG software **102** may also synchronize programs marked for recording with a video recorder **118** so that these marked programs are automatically recorded.