US009027054B2

(12) **United States Patent**
    Ho et al.

(10) **Patent No.:**　**US 9,027,054 B2**
(45) **Date of Patent:**　**May 5, 2015**

(54) **METHOD AND SYSTEM TO PROCESS TELEVISION PROGRAM SUMMARY**

(75) Inventors: **Chi Fai Ho**, Palo Alto, CA (US); **Shin Cheung Simon Chiu**, Palo Alto, CA (US)

(73) Assignee: **TP Lab, Inc.**, Palo Alto, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 673 days.

(21) Appl. No.: **11/880,991**

(22) Filed: **Jul. 25, 2007**

(65) **Prior Publication Data**

US 2009/0031352 A1　Jan. 29, 2009

(51) **Int. Cl.**
   H04N 5/445　(2011.01)
   H04N 21/431　(2011.01)
   H04N 21/482　(2011.01)

(52) **U.S. Cl.**
   CPC *H04N 5/44543* (2013.01); *H04N 21/4316* (2013.01); *H04N 21/482* (2013.01)

(58) **Field of Classification Search**
   USPC 725/37–45
   See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,589,892	A	*	12/1996	Knee et al.	725/43
6,002,394	A	*	12/1999	Schein et al.	725/39
6,144,376	A	*	11/2000	Connelly	725/44
6,177,931	B1	*	1/2001	Alexander et al.	725/52
6,452,609	B1	*	9/2002	Katinsky et al.	715/716
7,458,093	B2	*	11/2008	Dukes et al.	725/141
2001/0004769	A1	*	6/2001	Simon	725/108
2002/0104099	A1	*	8/2002	Novak	725/136
2002/0135698	A1	*	9/2002	Shinohara	348/473
2003/0088872	A1	*	5/2003	Maissel et al.	725/46
2003/0093807	A1	*	5/2003	Nguyen	725/109
2004/0123317	A1	*	6/2004	Ozawa	725/39
2005/0022237	A1	*	1/2005	Nomura	725/39
2006/0064721	A1	*	3/2006	Del Val et al.	725/41
2006/0174269	A1	*	8/2006	Hansen-Turton	725/39
2006/0174271	A1	*	8/2006	Chen et al.	725/39
2007/0050817	A1		3/2007	Lee	
2008/0066092	A1	*	3/2008	Laude et al.	725/20
2009/0046987	A1	*	2/2009	White et al.	386/83

OTHER PUBLICATIONS

"WADL TV Channel 38 Mt. Clemens/Detroit", Jul. 2009.
"Virtual channel", Wikipedia, Jun. 28, 2007.
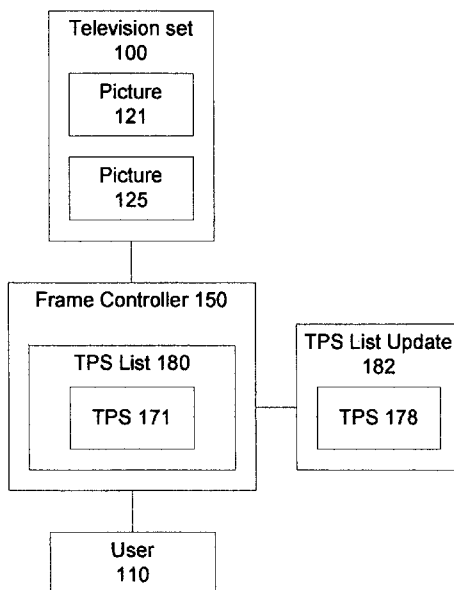
* cited by examiner

Primary Examiner — Dominic D Saltarelli
(74) *Attorney, Agent, or Firm* — North Shore Patents, P.C.; Michele Liu Baillie

(57) **ABSTRACT**

Provided is a method and system for displaying video streams, including receiving video data from a plurality of video stream by a frame controller in communication with a television display including a first picture and a second picture, and also receiving a television program summary list. The television program summary list includes television program data corresponding to the received video streams, and displaying the television program summary list in the second picture, and allowing the selection of a program from the television program summary list by a consumer, and displaying the selected video stream in the first picture.
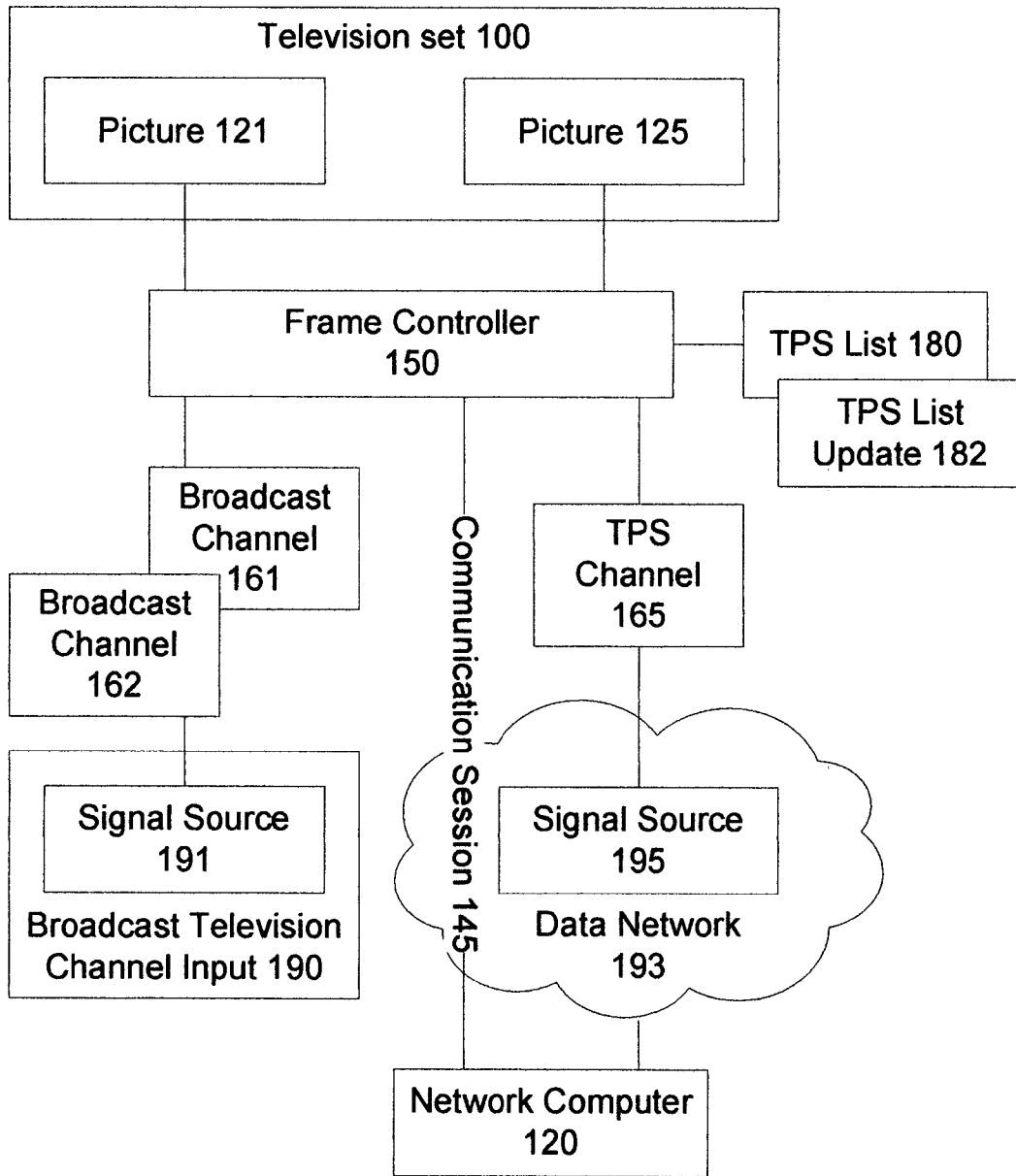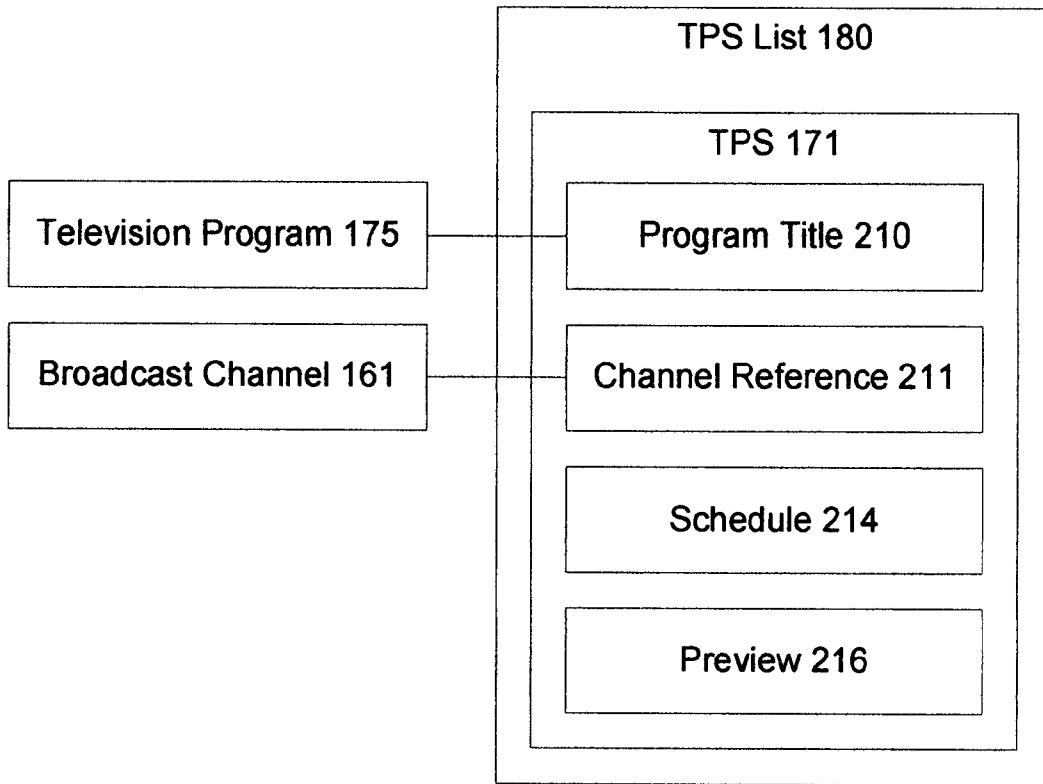
28 Claims, 4 Drawing Sheets

Television set 100
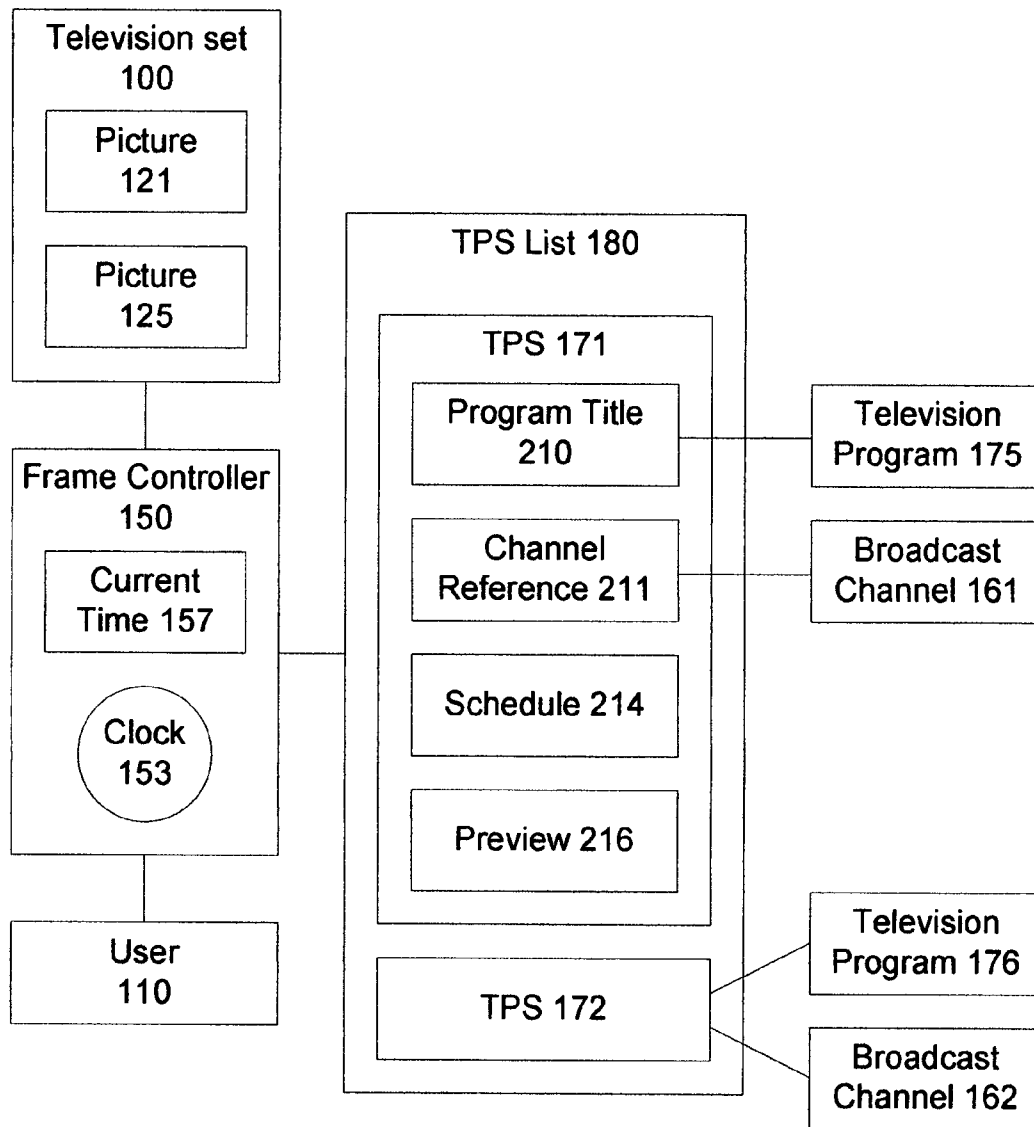
| Picture 121 | Picture 125 |

Frame Controller 150

TPS List 180

TPS List Update 182

Broadcast Channel 161

Broadcast Channel 162

Communication Session 145

TPS Channel 165

Signal Source 191

Broadcast Television Channel Input 190

Signal Source 195

Data Network 193

Network Computer 120

Figure 1

TPS List 180

TPS 171

Television Program 175 ——— Program Title 210

Broadcast Channel 161 ——— Channel Reference 211

Schedule 214

Preview 216

Figure 2

Figure 3

Television set
100

Picture
121

Picture
125

Frame Controller 150

TPS List 180

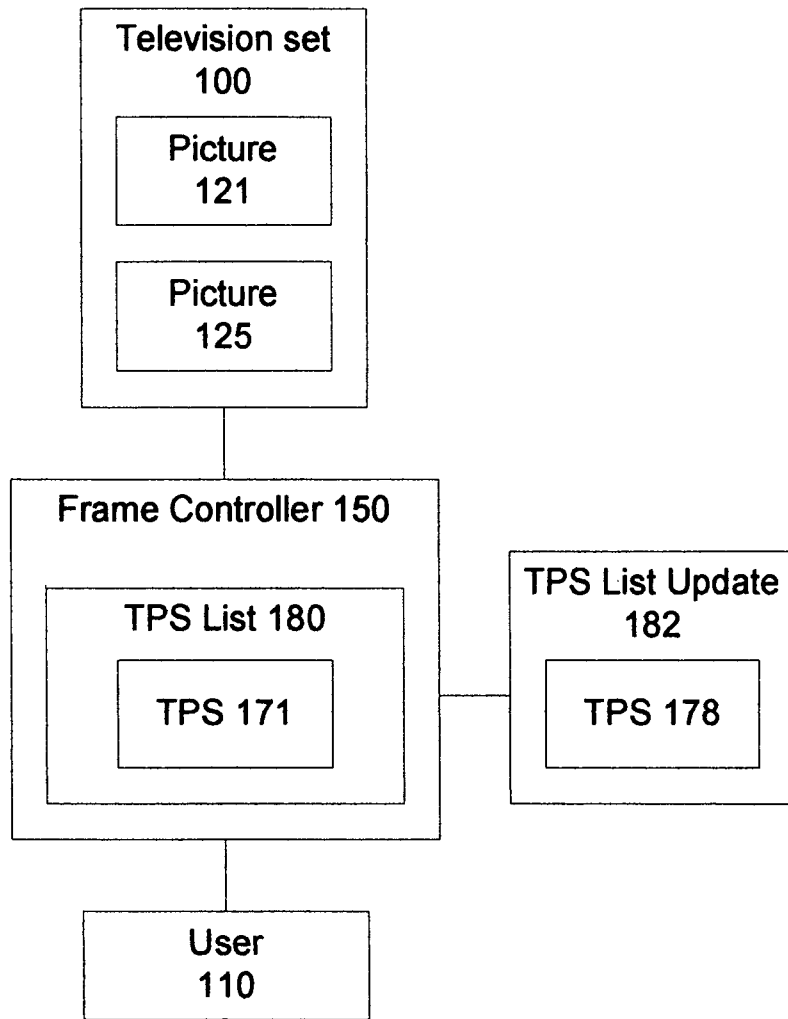TPS 171

TPS List Update
182

TPS 178

User
110

Figure 4

METHOD AND SYSTEM TO PROCESS TELEVISION PROGRAM SUMMARY

FIELD OF THE INVENTION

This invention generally relates to media, and more particularly, to a method and system to tailor displaying on a television set based on a television program summary.

BACKGROUND OF THE INVENTION

It is commonplace today for cable television and satellite television networks to carry several hundred channels. Typically, even a subscriber to basic services gets over 50 channels. It is not uncommon for a subscriber to have over 100 channels available with a subscription. Advances in Internet video and television make available thousands more channels and videos for consumer entertainment. When a consumer wants to spend an hour watching television, they may have, at their choice, thousands and thousands of television programs available during the hour. Choosing a television program or channel to watch may then become a non-trivial and painful task, defeating the purpose of watching television as an entertaining event.

Many Internet videos and television channels are closely related to television programs shown on regular television channels, yet consumers cannot view a television program and switch to related Internet videos easily on their television set.

For example, in one scenario, Lucy has a television set connected to a cable television network, and an Internet television set-top box allowing her to watch televised video on the Internet. Lucy wants to watch cooking programs, hoping to find a special dish to make for a weekend party. Lucy scans all the cable channels plus at least a hundred Internet television channels before she finds a channel she likes.

In another exemplary scenario, Jack is watching live televised Olympics events on television. Jack learns that there are at least 100 broadcast and Internet television channels showing Olympic events. These hundred channels publish program schedules of several possible events. Due to the unpredictable timing of an event, the channels do not publish a firm program schedule. The program schedules suggest consumers to check the channels for the actual events covered. After watching a 100 m freestyle swimming heat, Jack wants to watch a bicycle racing event. Jack flips through the hundred channels to find an Internet television channel televising a bicycle race.

Thus, there is a need to tailor display of a television set based on a television program summary and updates.

SUMMARY OF THE INVENTION

An aspect of the present invention provides a television system and method including a frame controller for receiving video data from a video stream. The frame controller is further in communication with a television display. The television display includes a first picture and a second picture, and the video stream is displayed in the first picture. The frame controller further receives a television program summary list and displays it in the second picture. The television program summary list includes television program data for at least one television program.

In one aspect of the invention, the television program data includes a program title, a channel reference, a schedule, and a preview.

In another aspect of the invention, the frame controller allows a consumer to select a television program from the television program summary list.

In one aspect of the invention, the frame controller selects a television program from the television program summary list and displays the selected television program in the first picture.

In one aspect of the invention, the video stream relates to an image and sound signal from a multi-channel operator.

In another aspect of the invention, the video stream relates to an image and sound signal from a multi-service operator.

In another aspect of the invention, the video stream relates to one of an online Internet television portal, a satellite television network, a cable television network, or a broadcast television network.

In another aspect of the invention, the television program data further comprises consumer comments regarding at least one television program.

In another aspect of the invention, the television program summary list includes television program data for a plurality of television programs having a common theme.

In another aspect of the invention, the frame controller further receives a television program summary list update including updated television program data.

In another aspect of the invention, the television program summary list is updated with the updated television program data.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic diagram illustrating a television set tuned to a television programming summary channel, in accordance with an embodiment of the present invention;

FIG. 2 is a schematic diagram illustrating a television program summary, in accordance with an embodiment of the present invention;

FIG. 3 is a schematic diagram illustrating television program summary processing, in accordance with an embodiment of the present invention; and

FIG. 4 is a schematic diagram illustrating a process for receiving a television programming summary update, in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION

In the following description, for purposes of explanation, specific numbers, materials and configurations are set forth in order to provide a thorough understanding of the invention. It will be apparent, however, to one having ordinary skill in the art, that the invention may be practiced without these specific details. In some instances, well-known features may be omitted or simplified so as not to obscure the present invention. Furthermore, reference in the specification to "one embodiment" or "an embodiment" means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of the phrase "in an embodiment" in various places in the specification are not necessarily all referring to the same embodiment.

The term "video data" referred to in the descriptions of various embodiments of the invention herein described is intended to generally describe electronic audio and video signals containing or incorporating video for display on a television or other video display device. This term is used in the broadest sense as known in the electronic arts, and may include analog and/or digital signals. Likewise, the term "video stream" is used in a non-limiting fashion and generally

refers to the collection of video data, together with any carrier signals, data headers or other electronic information, which singularly or taken together allow the described embodiments to operate. For example, a digital video stream from a given video source might include multiple packets of compressed video data, each packet or group thereof having one or more packet headers. Typically, one or more of the headers includes information relating to the video data, such as the compression algorithm used, the aspect ratio, etc.

FIG. 1 illustrates an exemplary television set **100** tuned to a television programming summary channel. In an embodiment of the invention, television set **100** is an electronic device that receives image and sound signals from a plurality of television channels, including a broadcast channel **161** and a television program summary ("TPS") channel **165**. Broadcast channel **161** relates to image and sound signal source **191**. In one embodiment, signal source **191** is from a broadcast television network, a cable television network, a satellite television network, an online Internet television portal, or any other multi-service or multi-channel operator, while TPS channel **165** relates to image and sound signal source **195**, which may be from a web portal or a web site. In various embodiments signal source **195** may be from the Internet, a home network, an enterprise network, or a public network, such as a community network, a WiFi hotspot, a service network of a merchant such as a coffee shop or a restaurant, or other signal source, without limitation.

Also in an embodiment, television set **100** includes picture **121** and picture **125**, which are controlled by a frame controller **150**, which displays broadcast channel **161** onto picture **121**, and Internet channel **165** onto picture **125**. The frame controller **150** displays picture **121** and picture **125** simultaneously.

In one embodiment, the frame controller **150** is included in television set **100**. In another embodiment, the frame controller **150** connects to television set **100** through an interface. The interface may be an RF interface, a HDMI interface, an S-video interface, a component interface, a composite interface, a network interface, or a wireless network interface such as Wireless Local Area Network (WLAN), Worldwide Interoperability for Microwave Access (WiMax), an Ultra-Wideband (UWB) network, or other suitable interface, without limitation.

In various embodiments of the invention, the frame controller **150** connects to a broadcast television channel input **190**, such as an antenna, cable television network, satellite television network, IPTV. The broadcast television channel input **190** includes a signal source **191**. The frame controller **150** also connects to a data network **193**, which may include a home network, an Ethernet network, a WiFi network, a DSL network, an Intranet network, a hotspot network, a public data network, a cellular data network, or a private data network. Data network **193** includes signal source **195**.

In exemplary operation, the frame controller **150** receives a television program summary ("TPS") list **180** from TPS channel **165**. The TPS list includes television program data, i.e., information about or concerning the listed television programs. TPS channel **165** may be served by a network computer **120**. Frame controller **150** connects to the network computer **120** through a data network **193**. In various embodiments, the network computer **120** is a media server, a media center, a web server, a content delivery platform server, or a video server, without limitation.

In an embodiment, frame controller **150** connects to the network computer **120** over a communication session **145**, which may be included in TPS channel **165**. Communication session **145** may be based on IP or Web technologies. In one

scenario wherein communication session **145** is a HTTP session, frame controller **150** sends a HTTP request to the network computer **120**, and receives a Web page including TPS list **180**, such as an HTML page.

In one embodiment, the frame controller **150** displays TPS list **180** onto picture **125** and further selects broadcast channel **161** based on TPS list **180**, and displays broadcast channel **161** onto picture **121**.

At a later time, frame controller **150** may receive a TPS list update **182** from TPS channel **165**. For example, frame controller **150** sends a HTTP request to network computer **120** and receives a HTML web page including TPS list update **182**. TPS list update **182** is an update of TPS list **180**, and the frame controller **150** modifies TPS list **180** based on TPS list update **182**. Frame controller **150** then displays the modified TPS list **180** onto picture **125**. In a further example, frame controller **150** might select broadcast channel **162**, different from broadcast channel **161**, based on modified TPS list **180**. Frame controller **150** then displays broadcast channel **162** onto picture **121**.

FIG. 2 illustrates an exemplary TPS. TPS list **180** includes TPS **171**, which further includes information related to a television program **175** from broadcast channel **161**, program title **210**, channel reference **211**, schedule **214**, and, optionally, a preview **216**. Program title **210** is a title of television program **175**. Examples of program titles **210** includes a name, such as "CSI: Miami", "NFL Super Bowl XLII", "ER", or "Batman Returns".

Channel reference **211** references to broadcast channel **161**. for example, channel reference **211** may include a URL format such as tv://OTA/channel/34 indicating broadcast channel **161** being off-the-air channel number **34**, or tv://cable/channel/7 indicating cable channel number **7**. Other examples include sub-channels, such as tv://channel/7.4 indicating sub-channel **4** of channel **7**. In another example, channel reference **211** may include a name such as "espn" indicating broadcast channel **161** having a channel name "espn", or a number such as "38" indicating broadcast channel **161** having a channel number "38".

Schedule **214** references a time/date when television program **175** is to be shown on broadcast channel **161**. For example, schedule **214** includes a date and starting time. In another example, schedule **214** includes an ending time, or duration of television program **175**. In another example, television program **175** is a television series, and schedule **214** includes a plurality of times. In yet another example, schedule **214** includes a daily, weekly or monthly schedule for television program **175**.

Preview **216** includes image and sound signals. For example, preview **216** may include a video file such as a Moving Pictures Expert Group v4.0 (MPEG-4) file, an Audio Video Interleave (AVI) file, a Flash Video (FLV) file, or a Quicktime MOV file. In one embodiment, preview **216** includes a video stream such as an MPEG-2 stream, MPEG-1 stream, or H.264/MPEG-4 AVC stream. In another embodiment, preview **216** includes an Advanced Stream Redirector (ASX) metafile.

In various embodiments, TPS **171** may include additional information, such as television program rating, user review, content classification, casts, or a score of a sport event, individually or in combination. Additional information may also include a monetary amount or token amount for viewing the television program.

FIG. 3 illustrates exemplary processing of a TPS. In operation, frame controller **150** receives TPS **171** from TPS channel **165**, and displays TPS **171** onto picture **125**. For example, frame controller **150** receives image and sound signals of

preview **216** and displays the signals onto picture **125**. In another example, frame controller **150** displays schedule **214** onto picture **125**. Additionally, frame controller **150** may display program title **210** and channel reference **211** onto picture **125**, and perhaps the additional information of TPS **171** as well.

In an embodiment of the invention, TPS list **180** includes a second TPS **172**, which may also be displayed by the frame controller **150**.

In an embodiment of the invention, frame controller **150** determines broadcast channel **161** for picture **121**, based on TSP list **180**. For example, frame controller **150** selects TPS **171**, and processes channel reference **211** to determine displaying broadcast channel **161**.

Alternatively, frame controller **150** connects to user **110**, using an input interface module such as a pointing device, a remote control, an electronic programming guide, or a button. Frame controller **150** then displays TPS **171** as a user selectable object in picture **125**, and user **110** selects TPS **171** from picture **125**. Frame controller **150** selects TPS **171**, based on selection of user **110**, to determine displaying broadcast channel **161**.

In one embodiment, frame controller **150** includes a clock **153**. Frame controller **150** obtains current time **157** from clock **153**. Frame controller **150** compares current time **157** with schedule **214** of TPS **171** and determines current time **157** is within schedule **214**. Frame controller **150** selects TPS **171**.

In an embodiment of the invention, TPS list **180** includes TPS **172**. TPS **171** follows TPS **172** in TPS list **180**. TPS **172** relates to television program **176** from broadcast channel **162**. Frame controller **150** displays television program **176** from broadcast channel **162**. In one embodiment, frame controller **150** tracks broadcast channel **162** and determines when television program **176** ends. Frame controller **150** selects TPS **171** to determine broadcast channel **161** for picture **121**. In operation, frame controller **150** determines that current time **157** exceeds or equals to the end time of the schedule of TPS **172**, and then selects TPS **171** for display.

FIG. **4** illustrates an exemplary process to receive a television programming summary update. In operation, after frame controller **150** receives TPS **180** from TPS channel **165**, frame controller **150** further receives TPS list update **182** from TPS channel **165**. Frame controller **150** may receive a TPS list update **182** regularly after a pre-determined period of time, or periodically. In one example, frame controller **150** receives a TPS list update **182** when TPS list update **182** is made available on TPS channel **165**. In another, frame controller **150** sends an update request to network computer **120**, and receives TPS list update **182** based on the update request.

Once the TPS list update **182** is received, the frame controller **150** modifies TPS list **180** with the TPS list update **182**. In one embodiment, frame controller **150** replaces TPS list **180** with TPS list update **182**. In another embodiment, TPS list update **182** includes TPS **178**, and the frame controller **150** adds TPS **178** into TPS list **180**. In one embodiment, TPS **178** has the same program title **210** as TPS **171**, and frame controller **150** replaces TPS **171** by TPS **178**. In another embodiment, TPS list update **182** includes a removal instruction in TPS **178**, and frame controller **150** removes TPS **171** from TPS list **180**. In one embodiment, TPS **178** includes additional information relating television program **175**, and frame controller **150** combines the additional information in TPS **178** into TPS **171**.

After modifying the TPS list **180**, the frame controller **150** displays the modified TPS list **180** onto picture **125**. In one embodiment, frame controller **150** updates picture **121** by

selecting broadcast channel **162** based on the modified TPS list **180**, according to the process in FIG. **3**. In another embodiment, broadcast channel **162** is different from broadcast channel **161**, and frame controller **150** displays broadcast channel **162** onto picture **121**.

In an embodiment of the invention, TPS channel **165** provides a television program guide for broadcast channel **161**, wherein TPS list **180** is a daily, weekly or monthly program guide. TPS list **180** includes information relating to a plurality of television programs to be shown on broadcast channel **161**. TPS channel **165** updates TPS list **180** regularly, for example hourly, daily, weekly or monthly. In one embodiment, TPS channel **165** updates TPS list **180** whenever there is a change in television program scheduling.

In one embodiment, TPS channel **165** provides a program guide for a televised event, such as the Olympics, an NFL sport program for 2008, or televised movies for the coming week.

In an embodiment of the invention, TPS list **180** comprises a plurality of programs TPS related to a common theme. For example, the theme may be related to an ethnic group, such as Japanese, French, or Spanish. In another example, the theme may be related to an age group, such as kids, teens, or adults. In another example, the theme may be related to a gender, like female or male. In another example, the theme may be related to an activity, such as cooking or home repair. In yet another example, the theme may be related to current events, such as the weather or news. In a last example, preview **216** of TPS **171** may include a summary of weather conditions, and broadcast channel **161** may be a weather channel.

In an embodiment of the invention, additional information of TPS **171** includes user comment or criticism of television program **175**, and frame controller **150** displays the user comment/criticism on picture **125**. In a further embodiment, after viewing television program **175**, the consumer **110** may provide comment/criticism about television program **175** to frame controller **150**, which then sends the consumer comment/criticism to network computer **120**.

Additional information of TPS **171** may also include demographic and/or popularity information for television program **175**. Frame controller **150** displays the demographic information/popularity information on picture **125**, and consumer **110** selects TPS **171** based on the displayed information. In an embodiment, after consumer **110** selects TPS **171**, frame controller **150** sends the selection of TPS **171** to network computer **120**.

Although the invention herein has been described with reference to particular embodiments, it is to be understood that these embodiments are merely illustrative of the principles and applications of the present invention. It is therefore to be understood that numerous modifications may be made to the illustrative embodiments and that other arrangements may be devised without departing from the spirit and scope of the present invention as defined by the appended claims.

The invention claimed is:

1. A television system comprising:
  a frame controller configured to:
    receive a video stream of a first television program comprising video data from a broadcast signal source;
    receive a television program summary list comprising television program data from an Internet signal source, the television program data comprising a first schedule for the first television program from a first channel and a second schedule for a second television program from a second channel, the first schedule comprising an end time for the first television program; and

communicate with a television display comprising a first picture and a second picture;

display the first television program in the first picture, wherein said video data comprises broadcast video data that is presented at a date and a time determined by a provider;

display the television program summary list in the second picture, wherein said television program data comprises Internet video data that is presented at a date and a time determined by a user and the first schedule for the first television program, wherein said first and second pictures are displayed concurrently;

while displaying the television program and the television program summary in the first and second pictures, send an update request to the Internet signal source over a data network connection;

receive from the Internet signal source a television program summary list update based on the update request, the television program summary list update comprising an updated first schedule for the first television program, the updated first schedule comprising an updated end time being before the end time for the first television program;

modify the television program summary list with the updated first schedule for the first television program; and

track the first television program displayed in the first picture, comprising:

determine that the current time is not before the updated end time for the first television program; and

receive and display video data of the second television program from the second channel in the first picture concurrently with the modified television program summary list displayed in the second picture.

2. The television system according to claim 1, wherein the television program data comprises: a first program title, a first channel reference, and the first schedule of the first television program; and a second program title, a second channel reference, and the second schedule of the second television program.

3. The television system according to claim 2, wherein the first channel reference or the second channel reference comprises a URL.

4. The television system according to claim 1, wherein the video stream relates to an image and sound signal from a multi-channel operator.

5. The television system according to claim 1, wherein the video stream relates to an image and sound signal from a multi-service operator.

6. The television system according to claim 1, wherein the video stream relates to one of an online Internet television portal, a satellite television network, a cable television network, or a broadcast television network.

7. The television system according to claim 1, wherein the television program summary list comprises television program data for a plurality of television programs having a common theme.

8. The television system according to claim 1, wherein the frame controller further receives a comment from a consumer related to the first television program.

9. The television system according to claim 8, wherein the television program data further comprises consumer comments regarding the first television program.

10. The television system according to claim 1, wherein the television program summary list update further comprises an updated second schedule comprising an updated starting time

for the second television program, wherein in tracking the first television program displayed in the first picture, the frame controller is further configured to:

determine that the current time matches the updated starting time of the second television program;

receive broadcast video data from the broadcast signal source, based on a channel reference for the second television program; and

display the received broadcast video data in the first picture concurrently with the display of the modified television program summary list in the second picture.

11. The television system according to claim 1, wherein the video stream relates to an online Internet television portal.

12. The television system according to claim 1, wherein the television program summary list update comprise a removal instruction for the first television program, wherein the modifying of the television program summary list with the updated first schedule for the first television program comprises:

remove the first television program from the television program summary list in response to the removal instruction.

13. The television system according to claim 1, wherein the television program summary list includes a first television program summary for the first television program comprising a program title, wherein the television program summary list update includes a second television program summary comprising the program title, wherein the modifying of the television program summary list with the update first schedule for the first television program comprises:

determine that the program title in the second television program summary matches the program title in the first television program summary; and

replace the first television program summary with the second television program summary.

14. The television system of claim 1, wherein the frame controller is further configured to:

send a second update request to the Internet signal source over the data network connection;

receive from the Internet signal source a second television program summary list update based on the second update request, the second television program summary list update comprising a second updated first schedule for the first television program;

modify the modified television program summary list with the second updated first schedule for the first television program; and

track the first television program displayed in the first picture, comprising:

determine that the current time is within the second updated first schedule for the first television program; and

continue to display in the first picture the first television program from the first channel.

15. The television system of claim 14, wherein the modified television program list comprises user provided information, wherein the second television program summary list update further comprises modified user provided information, wherein the frame controller is further configured to:

display the modified television program summary list with the modified user provided information;

determine that the current time is within the second updated first schedule for the first television program and receive a user selection of the second television program from the modified television program summary list with the modified user provided information; and

receive and display video data of the second television program from the second channel in the first picture

concurrently with the modified television program summary list displayed in the second picture.

16. The television system of claim 15, wherein the user provided information comprises one or more of the following: a theme; ratings; user comments; an age group; content classification; and a channel reference.

17. A method for displaying Internet and broadcast video streams, the method comprising:

receiving, by a frame controller, a video stream of a first television program comprising video data from a broadcast signal source, the frame controller further in communication with a television display comprising a first picture and a second picture;

receiving, by the frame controller, a television program summary list comprising television program data from an Internet signal source, the television program data comprising a first schedule for the first television program from a first channel and a second schedule for a second television program from a second channel, the first schedule comprising an end time for the first television program,

displaying the first television program in the first picture, wherein said video data comprises broadcast video data that is presented at a date and a time determined by a provider;

displaying the television program summary list in the second picture, wherein said television program data comprises Internet video data that is presented at a date and a time determined by a user and the first schedule for the first television program, wherein the first and second pictures are displayed concurrently;

while displaying the first television program and the television program summary list in the first and second pictures, sending an update request to the Internet signal source over a data network connection;

receiving from the Internet signal source a television program summary list update based on the update request, the television program summary list update comprising an updated first schedule for the first television program, the updated first schedule comprising an updated end time being before the end time for the first television program;

modifying the television program summary list with the updated first schedule for the first television program; and

tracking the first television program displayed in the first picture, comprising:

determining that the current time is not before the updated end time for the first television program; and

receiving and displaying video data of the second television program from the second channel in the first picture concurrently with the modified television program summary list in the second picture.

18. The method according to claim 17, wherein the video stream relates to an image and sound signal from a multichannel operator.

19. The method according to claim 17, wherein the video stream relates to an image and sound signal from a multiservice operator.

20. The method according to claim 17, wherein the video stream relates to one of a satellite television network, a cable television network, or an online Internet television portal.

21. The method according to claim 17, wherein the television program data further comprises consumer comments regarding the first television program.

22. The method according to claim 17, wherein the television program summary list comprises television program data for one or more television programs having a common theme.

23. The method according to claim 17, wherein the video stream relates to an online Internet television portal.

24. The method according to claim 17, wherein the television program summary list update comprise a removal instruction for the first television program, wherein the modifying of the television program summary list with the updated first schedule for the first television program comprises:

in response to the removal instruction, removing the first television program from the television program summary list.

25. The method according to claim 17, wherein the television program summary list includes a first television program summary for the first television program comprising a program title, wherein the television program summary list update includes a second television program summary comprising the program title, wherein the modifying of the television program summary list with the update first schedule for the first television program comprises:

determining that the program title in the second television program summary matches the program title in the first television program summary; and

replacing the first television program summary with the second television program summary.

26. The method of claim 17, further comprising:

sending, by the frame controller, a second update request to the Internet signal source over the data network connection;

receiving from the Internet signal source a second television program summary list update based on the second update request, the second television program summary list update comprising a second updated first schedule for the first television program;

modifying the modified television program summary list with the second updated first schedule for the first television program; and

tracking the first television program displayed in the first picture, comprising:

determining that the current time is within the second updated first schedule for the first television program; and

continuing to display in the first picture the first television program from the first channel.

27. The method of claim 26, wherein the modified television program list comprises user provided information, wherein the second television program summary list update further comprises modified user provided information, wherein the tracking of the first television program displayed in the first picture comprises:

displaying the modified television program summary list with the modified user provided information;

determining that the current time is within the second updated first schedule for the first television program and receive a user selection of the second television program from the modified television program summary list with the modified user provided information; and

receiving and displaying video data of the second television program from the second channel in the first picture concurrently with the modified television program summary list displayed in the second picture.

28. The method of claim 27, wherein the user provided information comprises one or more of the following: a theme; ratings; user comments; an age group; content classification; and a channel reference.

* * * * *