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02/09/00  
JC556 U.S. PTO

Practitioner's Docket No. 1289

PATENT

Preliminary Classification:  
Proposed Class:  
Subclass:

JC511 U.S. PTO  
09/501054  
02/09/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application  
Assistant Commissioner for Patents  
Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): James Schumacher; Mike O'Brien; Jay Cee Straley

For (title): REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

1. Type of Application

This transmittal is for an original (nonprovisional) application.

CERTIFICATION UNDER 37 C.F.R. SECTIONS 1.8(a) AND 1.10\*  
(When using Express Mail, the Express Mail label number is mandatory;  
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

☐ deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.  
37 C.F.R. Section 1.8(a)

37 C.F.R. Section 1.10\*

☐ with sufficient postage as first class mail.

☒ as "Express Mail Post Office to Address"  
Mailing Label No. EL398585735US  
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TRANSMISSION

☐ transmitted by facsimile to the Patent and Trademark Office (703)

Date: 2-9-00

Laura S. Mellblom  
Signature

Laura S. Mellblom  
(type or print name of person certifying)

(New Application Transmittal--page 1 of 4)

**2. Papers Enclosed**

**A. Required for filing date under 37 C.F.R. 1.53(b) (Regular) or 37 C.F.R. 1.153 (Design) Application**

15 Page(s) of Specification  
4 Page(s) of Claims  
7 Sheet(s) of Drawing(s)--Informal

**B. Other Papers Enclosed**

3 Page(s) of declaration and power of attorney  
1 Page(s) of abstract  
3 Page(s) of Assignment and Agreement in an Application for Letters Patent of the United States of America

**3. Declaration or Oath**

Enclosed

Executed by:  
\* inventors.

**4. Inventorship Statement**

The inventorship for all the claims in this application is the same.

**5. Language**

English

**6. Assignment**

An assignment of the invention to Sprint Communications Company, L. P. is attached. A separate "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" is also attached.

(New Application Transmittal--page 2 of 4)

7. Fee Calculation (37 C.F.R. Section 1.16)

Regular Application

CLAIMS AS FILED					
Claims	Number Filed	Basic Fee Allowance	Number Extra	Rate	Basic Fee 37 CFR 1.16(a) \$690.00
Total Claims (37 CFR 1.16(c))	25	- 20 =	5 x	\$18.00	\$90.00
Independent Claims (37 CFR 1.16(b))	3	- 3 =	0 x	\$78.00	\$0.00
Multiple Dependent Claim(s), if any (37 CFR 1.16(d))			+	\$260.00	\$0.00

Filing Fee Calculation \$780.00

8. Fee Payment Being Made at This Time

Enclosed

Filing Fee \$780.00

Recording assignment (\$40; 37 C.F.R. Section 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".) \$40.00

**Total Fees Enclosed** \$820.00

(New Application Transmittal--page 3 of 4)

**9. Method of Payment of Fees**

Charge Account No. 21-0765 in the amount of \$820.00.  
A duplicate of this transmittal is attached.

**10. Authorization to Charge Additional Fees**

The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 21-0765.

37 C.F.R. Section 1.16(a), (f) or (g) (filing fees)

37 C.F.R. Section 1.16(b), (c) or (d) (presentation of extra claims)

37 C.F.R. Section 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

37 C.F.R. Section 1.17(a)(1)-(5) (extension fees pursuant to SECTION 1.136(a))

37 C.F.R. Section 1.17 (application processing fees)

**11. Instructions as to Overpayment**

Credit Account No. 21-0765.

Respectfully submitted,

  
\_\_\_\_\_  
SIGNATURE OF PRACTITIONER

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Kansas City, Missouri 64114

Customer No. 021396

(New Application Transmittal--page 4 of 4)

**SPECIFICATION**

**TO ALL WHOM IT MAY CONCERN:**

Be it known that We, Jim Schumacher, Mike O'Brien, and Jay Cee Straley with  
5 residence and citizenship listed below, have invented the inventions described in the  
following specification entitled:

**REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM**

10 James Schumacher residence: 5829 Virmar Ave, Oakland, CA 94618  
citizenship: United States of America

Mike O'Brien residence: 44 Oviedo Ct, Pacifica CA 94044  
citizenship: United States of America

15 Jay Cee Straley residence: 859 Orange Ave, San Carlos CA 94070  
citizenship: United States of America

## REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

### RELATED APPLICATIONS

Not applicable

5

### FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not applicable

### MICROFICHE APPENDIX

10

Not applicable

### BACKGROUND OF THE INVENTION

#### 1. FIELD OF THE INVENTION

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The invention is related to the field of video systems, and in particular, to a video-on-demand system that provides a viewer with remote control.

#### 2. DESCRIPTION OF THE PRIOR ART

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Video-on-demand systems are currently being designed and implemented. The video-on-demand system offers an individual viewer various selections from a video content library for viewing on-demand. Some examples of video content include movies, television shows, documentaries, news, and sports. The video-on-demand system receives a request from the viewer to view a particular selection from the video content library. In response to the request, the video-on-demand system transfers the selected video content over a communication system to the viewer's display. Thus, the video-on-demand system allows a viewer to immediately view selected video content.

25

Video-on-demand systems use a television set-top box for remote control. Using the set-top box, the viewer may view a video content menu on the television and order video content for display on the television. The viewer may also view a video control menu on the television to play, stop, pause, rewind, and fast forward the video content on the television. Unfortunately, the set-top box is a special component that is closely coupled to the television. The set-top box does not have other uses.

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## SUMMARY OF THE INVENTION

The invention solves the above problems with a video-on-demand system that allows the viewer to use a portable computer connected over second communications system for remote control. The second communications system could be the web, and the portable computer could run a web browser. Advantageously, the viewer can control the video display using their portable computer. The portable computer has many other uses and eliminates the cost of a special television set-top box.

The video-on-demand system transfers video content signals to a first communication system. The video-on-demand system transfers a control screen signal to a second communication system and receives a video control signal from the second communication system. The video-on-demand system implements a viewer control selection indicated by the video control signal. The control screen could be a web page that includes a video display control menu comprising play, stop, pause, rewind, and fast forward. The control screen could include a video content selection menu. The video-on-demand system implements the control screen menu selections.

## BRIEF DESCRIPTION OF THE DRAWINGS

The same reference number represents the same element on all drawings.

FIG. 1 is a block diagram that illustrates the configuration and operating environment for a video-on-demand system in an example of the invention.

FIG. 2 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 3 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 4 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 5 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 6 is a block diagram that illustrates the configuration of a web-based system in an example of the invention.

FIG. 7 is a message sequence chart that illustrates the operation of a web-based system in an example of the invention.

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#### DETAILED DESCRIPTION

##### System Configuration -- FIG. 1

FIG. 1 is a block diagram that illustrates a video-on-demand system 100 and its operating environment in an example of the invention. The video-on-demand system 100 comprises a first communication interface 101 and a second communication interface 102 that are each coupled to a processing system 103. The first communication interface 101 is coupled to a first communication system 111. The first communication system 111 is coupled to a first display 121. The second communication interface 102 is coupled to a second communication system 112. The second communication system 112 is coupled to a second display 122. The second communication system 112 uses less bandwidth to transfer video than the first communication system 111.

Some examples of the first communication system 111 include optical fiber systems, wire cable systems, and wireless link systems. One example of the second communication system 112 is the Internet, and in particular, the World-Wide Web (web). One example of the first display 121 is a television. One example of the second display 122 is a portable personal computer with a browser.

The video-on-demand system 100 could comprise a conventional computer platform that is configured with software and conventional communication interfaces. The software directs the computer platform to operate as follows. The processing system 103 transfers a control screen signal to the second communication interface 102. The second communication interface 102 transfers the control screen signal to the second communication system 112. The second communication system 112 transfers the control screen signal to the second display 122. The second display 122 displays the control screen. In some examples of the invention, the control screen is a web page.



In response to viewer input to the control screen, the second display 122 transfers a corresponding viewer control signal to the second communication system 112. The second communication system 112 transfers the viewer control signal to the second communications interface 102. The second communication interface 102 transfers the control signal to the processing system 103.

The processing system 103 transfers video signals to either the first communication interface or the second communication interface in response to the viewer control signal. If the first communication interface 101 is used, then the first communication interface 101 transfers the video signals to the first communication system 111. The first communication system 111 transfers the video signals to the first display 121. The first display 121 displays the video. If the second communication interface 102 is used, then the second communication interface 102 transfers the video signals to the second communication system 112. The second communication system 112 transfers the video signals to the second display 122. The second display 122 displays the video.

#### The Control Screen -- FIGS. 2-5

FIGS. 2-5 depict various versions of the control screen 230 that is generated by the video-on-demand system 100. In particular, the processing system 103 generates and transfers corresponding control screen signals to the second communications interface 102, and the second communications interface 102 transfers the control screen signals over the second communications system 112 to the display 122. The display 122 displays the control screen 230 to the viewer in response to the control screen signals.

The viewer chooses menu selections using the display 122, and the display 122 transfers corresponding menu selection signals to video-on-demand system 100. In particular, the display 122 transfers the menu selection signals over the second communications system 112 to the second communications interface 102, and the second communications interface 102 transfers the menu selection signals to the processing system 103. The processing system 103 controls the video-on-demand system 100 in response to the menu selection signals.

FIG. 2 is block diagram that illustrates a control screen 230 on the display 122 in an example of the invention. The control screen 230 includes a video content menu 231 and a video display menu 232. The video content menu 231 comprises various menu selections such as movies, documentaries, sports, news, educational material, and games. These menu selection are denoted by content #1, content #2, content #3 ... content #N on FIG. 2. The video content menu 231 also comprises a preview selection and an order selection. The preview selection allows the viewer to preview the selected video content. The order selection allows the viewer to view the selected video content in its entirety. The video display menu 232 comprises various display characteristics, such as display 221 and display 222, with various bandwidths for each display. The full view selection in the menu 232 causes the display 122 to use more of the control screen to display the video.

When the viewer selects a preview of video content, the display 122 transfers a video preview selection signal to the second communications system 112 indicating the selected video preview. The second communications system 112 transfers the video preview selection signal to the second communications interface 102. The second communications interface 102 transfers the video preview selection signal to the processing system 103.

When the viewer selects video display characteristics, the display 122 transfers a video display menu selection signal to the second communications system 112 indicating the selected video display characteristics. The second communications system 112 transfers the video display menu selection signal to the second communication interface 102. The second communications interface 102 transfers the video display menu selection signal to the processing system 103. The video preview selection signal and the video display menu selection signal could be integrated together.

The processing system 103 processes the video preview selection signal to responsively transfer a preview of the selected video content as video signals. The processing system 103 processes the video display menu selection signal to responsively select either the first communications interface 101 or the second communications interface 102 to transfer the video signals. The selected communication interface then

transfers the video signals to the corresponding display over the corresponding communication system. The corresponding display displays the selected video preview in response to the video signals. For example, if the viewer selects a preview of video content #2 on the display 122, then the video-on-demand system 100 transfers the preview of the video content #2 to the display 122 over the communication system 112.

When the viewer selects an order for video content, the display 122 transfers a video content menu selection signal to the second communications system 112 indicating the selected video content. The second communications system 112 transfers the video content menu selection signal to the second communications interface 102. The second communications interface 102 transfers the video content menu selection signal to the processing system 103.

When the viewer selects video display characteristics, the display 122 transfers a video display menu selection signal to the second communications system 112 indicating the selected video display characteristics. The second communications system 112 transfers the video display menu selection signal to the second communication interface 102. The second communications interface 102 transfers the video display menu selection signal to the processing system 103. The video content menu selection signal and the video display menu selection signal could be integrated together.

The processing system 103 processes the video content menu selection signal to responsively transfer the selected video content as video signals. The processing system 103 processes the video display menu selection signal to responsively select either the first communications interface 101 or the second communications interface 102 to transfer the video signals. The selected communication interface then transfers the video signals to the corresponding display over the corresponding communication system. The corresponding display displays the selected video content in response to the video signals. For example, if the viewer selects an order for video content #2 using the display 121, then the video-on-demand system 100 transfers the video content #2 to the display 121 over the communication system 111.

FIG. 3 is block diagram that illustrates the control screen 230 on the display 122 in an example of the invention. In this example, the display 121 is currently displaying

selected video content. The control screen 230 includes the video display menu 232 and a video display control menu 340. The video display control menu 340 comprises selections for go-to-beginning, rewind, play, fast forward, go-to-end, pause, and stop.

When the viewer selects one of these video display controls, the display 122 transfers a video display control menu selection signal to the second communications system 112 indicating the selected video display control. The second communications system 112 transfers the video display control menu selection signal to the second communications interface 102. The second communications interface 102 transfers the video display control menu selection signal to the processing system 103. The processing system 103 processes the video display control menu selection signal to responsively implement the display control with respect to the video signals. For example, if the viewer selects fast forward using the display 122, then the video-on-demand system 100 fast forwards the video content being transferred to the display 121 over the communication system 111.

FIG. 4 is block diagram that illustrates the control screen 230 on the display 122 in an example of the invention. In this example, the display 122 is currently displaying a selected video preview on a viewer 450. The viewer 450 could also be used to display selected video content in addition to previews. The control screen 230 also includes the video display menu 232 and the video display control menu 340. For example, if the viewer selects fast forward using the display 121, then the video-on-demand system 100 fast forwards the video preview on the viewer 450.

FIG. 5 is block diagram that illustrates the control screen 230 on the display 122 in an example of the invention. In this example, the display 122 is currently displaying selected video content on the viewer 450, and "full screen" has been selected from video display control menu 340. In response to the full screen menu selection, a larger portion of the control screen 230 is used for the viewer 450 to display the video content. If the viewer selects "menus" on the control screen 230, then the display reverts to the control screen of FIG. 4. The full screen menu selection operates in a similar fashion for video previews.

### Web-Based System Configuration and Operation – FIGS. 6-7

FIG. 6 is a block diagram that illustrates the configuration of a web-based system in an example of the invention. The video-on-demand system 100 is coupled to a video distribution system 611 and to the web 612. The video distribution system 611 is coupled to a television 621. The web 612 is coupled to a browser 622 running on a portable computer 623. The video-on-demand system 100 communicates with the television 621 over the video distribution system 611 and with the browser 622 over the web 612. The elements 611, 612, 621, and 622/623 respectively correspond to the elements 111, 112, 121, and 122 of FIG. 1.

FIG. 7 is a message sequence chart that illustrates the operation of the web-based system in an example of the invention. For clarity, the video distribution system 611 and the web 612 are omitted from FIG. 7. The browser 622 logs-in to the system 100, and in response, the system 100 returns a web page to the browser 622. This web page is similar to FIG. 2.

The browser 622 then transfers menu selections to the system 100 for the browser 622 to display a selected video preview using MPEG I. In response, the system 100 transfers the selected MPEG I video preview to the browser 622 for display. This display is similar to either FIGS. 4 or 5 depending on the full screen selection.

After the video preview, the browser 622 transfers menu selections to the system 100 for the television 621 to display selected video content using MPEG II. In response, the system 100 transfers the selected MPEG II video content to the television 621. The system 100 also transfers a web page to the browser 622. This web page is similar to FIG. 3.

As the television 621 displays the selected video content, the browser 622 transfers a rewind instruction to the system 100. In response, the system 100 transfers rewinding video content to the television 621. The browser 622 then transfers a play instruction to the system 100. In response, the system 100 transfers the rewound video content to the television 621.

As the television 621 displays the selected video content, the browser 622 transfers menu selections to the system 100 for the browser 622 to display the selected

video content using MPEG I. In response, the system 100 transfers the selected MPEG I video content to the browser 622 for display. This display is similar to either FIGS. 4 or 5 depending on the full screen selection. It should be appreciated that the video-on-demand system 100 allows the viewer to select the desired display and bandwidth for selected video previews and content. The viewer can switch between different displays, bandwidths, and videos as desired.

There are numerous variations that are included in various examples of the invention. Both displays could be used simultaneously to view the same or different video. The display 122 could omit the viewer 450 and simply provide VCR type control over the display 121. The displays could be remote from one another or be mobile. For example, the display 122 could be a handheld computer with a browser and a wireless communication interface to the web.

The above-described processing system includes instructions that are stored on storage media. The instructions can be read and executed by a processor. Some examples of instructions are software, program code, and firmware. Some examples of storage media are memory devices, tape, disks, integrated circuits, and servers. The instructions are operational when executed by the processor to direct the processor to operate in accord with the invention. The term "processor" refers to a single processing device or a group of inter-operational processing devices. Some examples of processors are integrated circuits, computers, and logic circuitry. Those skilled in the art are familiar with instructions, processors, and storage media.

Those skilled in the art will appreciate variations of the above-described embodiments that fall within the scope of the invention. As a result, the invention is not limited to the specific examples and illustrations discussed above, but only by the following claims and their equivalents.

#### CLAIMS:

We claim:

- 5 A video-on-demand system comprising:
- a first communication interface configured to transfer video content signals to a first communication system;
  - a second communication interface configured to transfer a control screen signal to a second communication system and receive a video control signal from the second communication system; and
  - a processing system configured to transfer the video signals to the first communication interface, transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, and implement a viewer control selection indicated by the video control signal.
- 10 2. The video-on-demand system of claim 1 wherein the control screen signal includes a video display control menu comprising play and stop.
- 15 3. The video-on-demand system of claim 2 wherein the viewer control selection comprises a video display control menu selection.
4. The video-on-demand system of claim 3 wherein the video display control menu further comprises pause, rewind, and fast forward.
- 20 5. The video-on-demand system of claim 1 wherein the control screen includes a video content selection menu.
6. The video-on-demand system of claim 5 wherein second communications interface is configured to receive a video content menu selection signal from the second communications system, and the processing system is configured to process the video content selection signal to transfer selected video content in the video content signals.
- 25 7. The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with an internet.
- 30

8. The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with a world-wide web.
- 5 9. The video-on-demand system of claim 1 wherein the control screen comprises a web page.



10. A method of operating a video-on-demand system, the method comprising:  
transferring video content signals to a first communication system;  
transferring a control screen signal to a second communication system;  
receiving a video control signal from the second communication system; and  
5 implementing a viewer control selection indicated by the video control signal.
11. The method of claim 10 wherein the control screen signal includes a video display control menu comprising play and stop.
- 10 12. The method of claim 11 wherein implementing the viewer control selection comprises implementing a video display control menu selection.
13. The method of claim 12 wherein the video display control menu further comprises pause, rewind, and fast forward.
- 15 14. The method of claim 10 wherein the control screen includes a video content selection menu.
15. The method of claim 14 further comprising receiving a video content menu selection  
20 signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.
16. The method of claim 10 wherein transferring the control screen signal comprises interfacing with an internet.
- 25 17. The method of claim 10 wherein transferring the control screen signal comprises interfacing with a world-wide web.
18. The method of claim 10 wherein the control screen comprises a web page.
- 30

19. A product comprising a processor-readable storage medium storing processor-executable instructions for performing a method for operating a video-on-demand system, the method comprising:

- transferring video content signals to a first communication system;
- 5     transferring a control screen signal to a second communication system;
- receiving a video control signal from the second communication system; and
- implementing a viewer control selection indicated by the video control signal.

10     20. The product of claim 19 wherein the control screen signal includes a video display control menu comprising play and stop.

21. The product of claim 20 wherein implementing the viewer control selection comprises implementing a video display control menu selection.

15     22. The product of claim 21 wherein the video display control menu further comprises pause, rewind, and fast forward.

23. The product of claim 19 wherein the control screen includes a video content selection menu.

20     24. The product of claim 23 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

25     25. The product of claim 19 wherein the control screen comprises a web page.

J.N. 09/50/054

## ABSTRACT

A video-on-demand system transfers video content signals to a first communication system. The video-on-demand system transfers a control screen signal to a second communication system and receives a video control signal from the second

- 5 communication system. The video-on-demand system implements a viewer control selection indicated by the video control signal. The control screen could be a web page that includes a video display control menu comprising play, stop, pause, rewind, and fast forward. The control screen could include a video content selection menu. The video-on-demand system implements the control screen menu selections.

PRINT OF DRAWINGS  
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EX 1/1, N

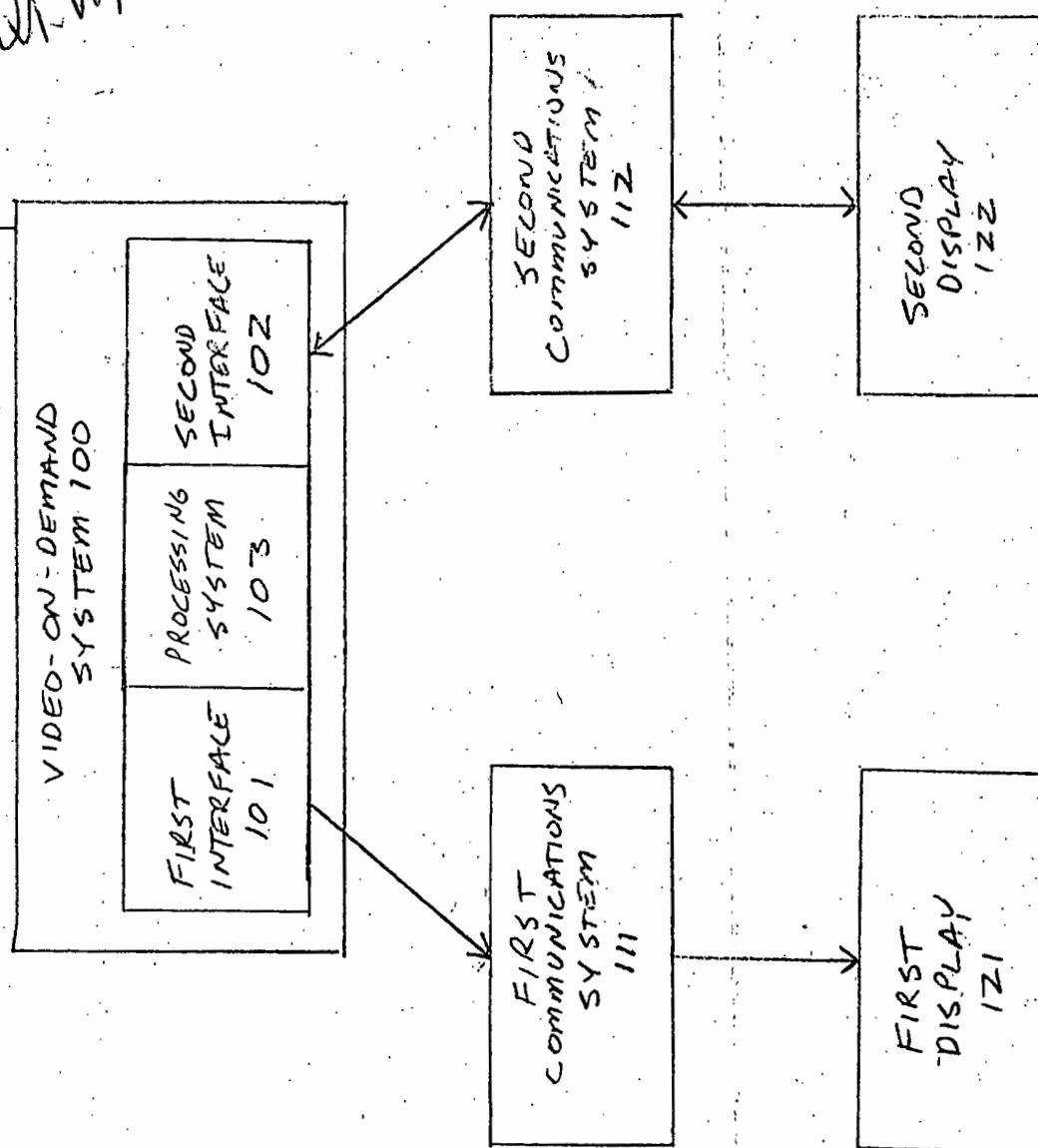


FIG. 1



22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS

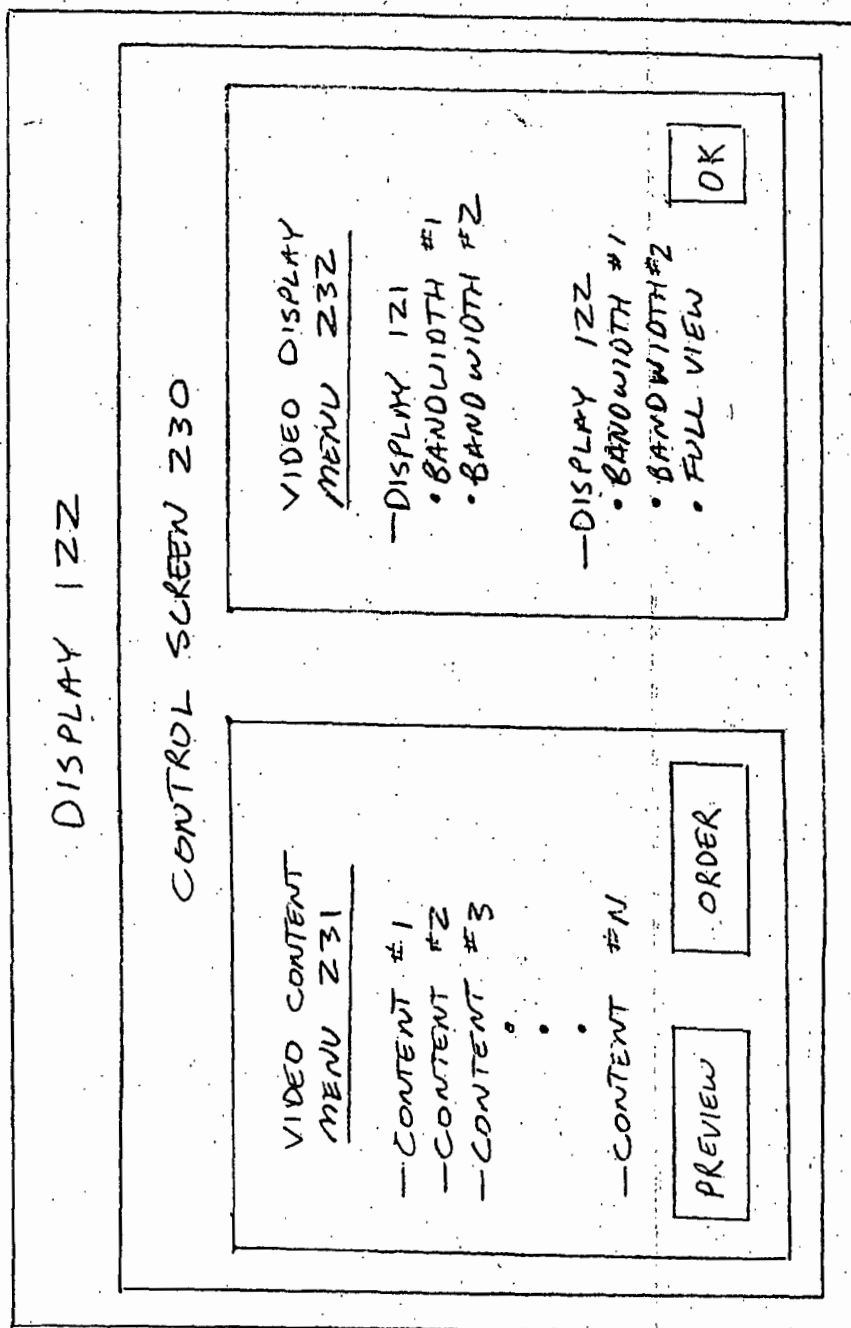


FIG. 2

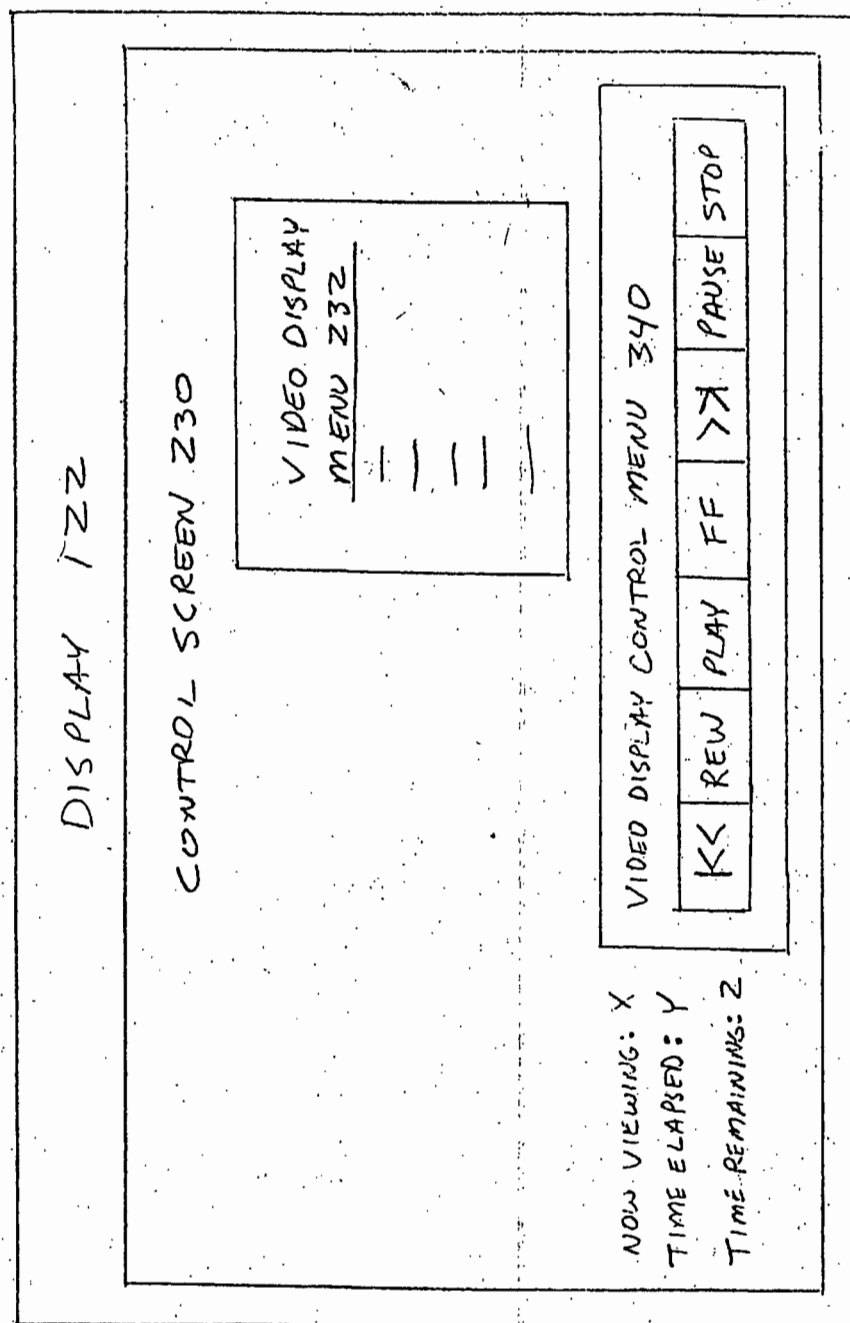


FIG. 3

005037 4607050

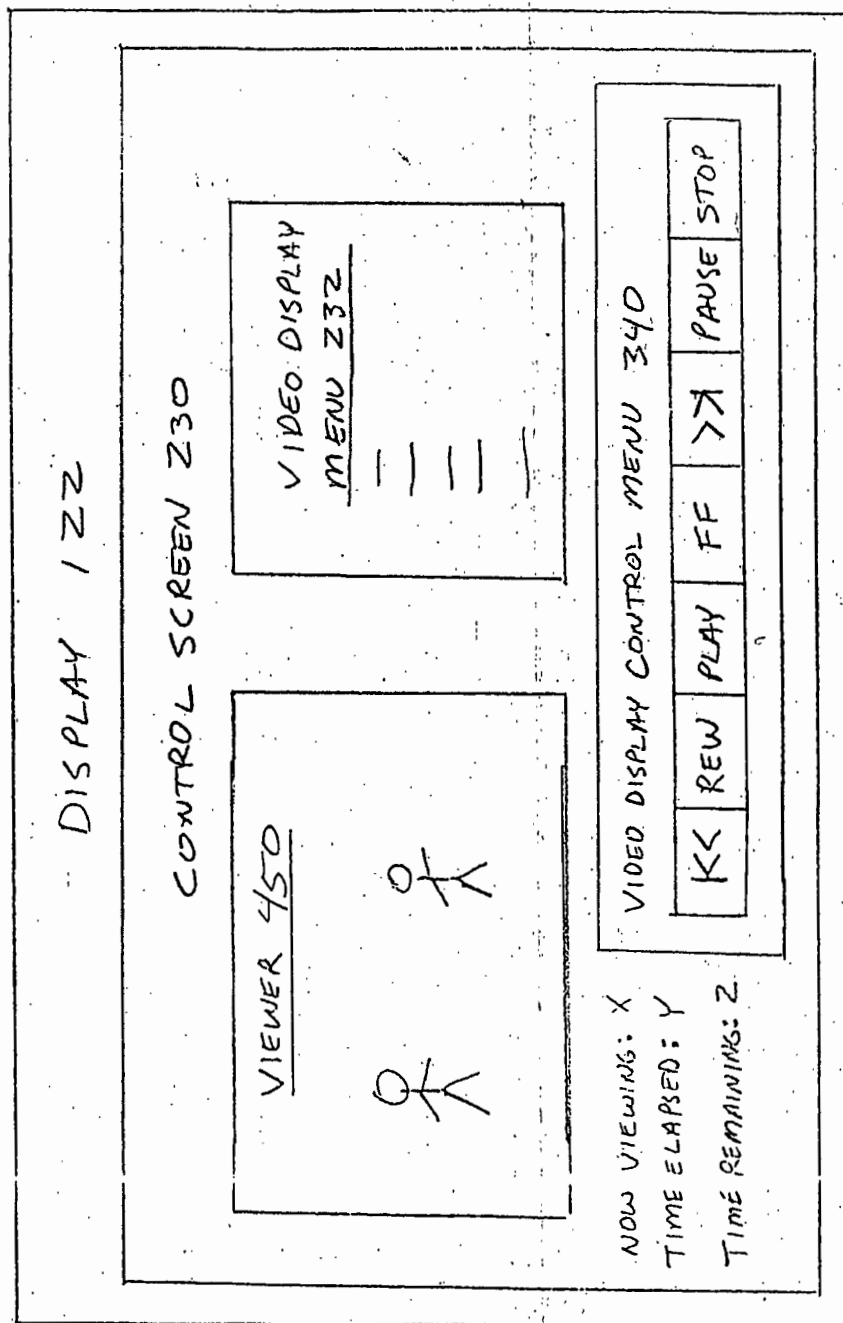


FIG. 4

PRINT OF DRAWINGS  
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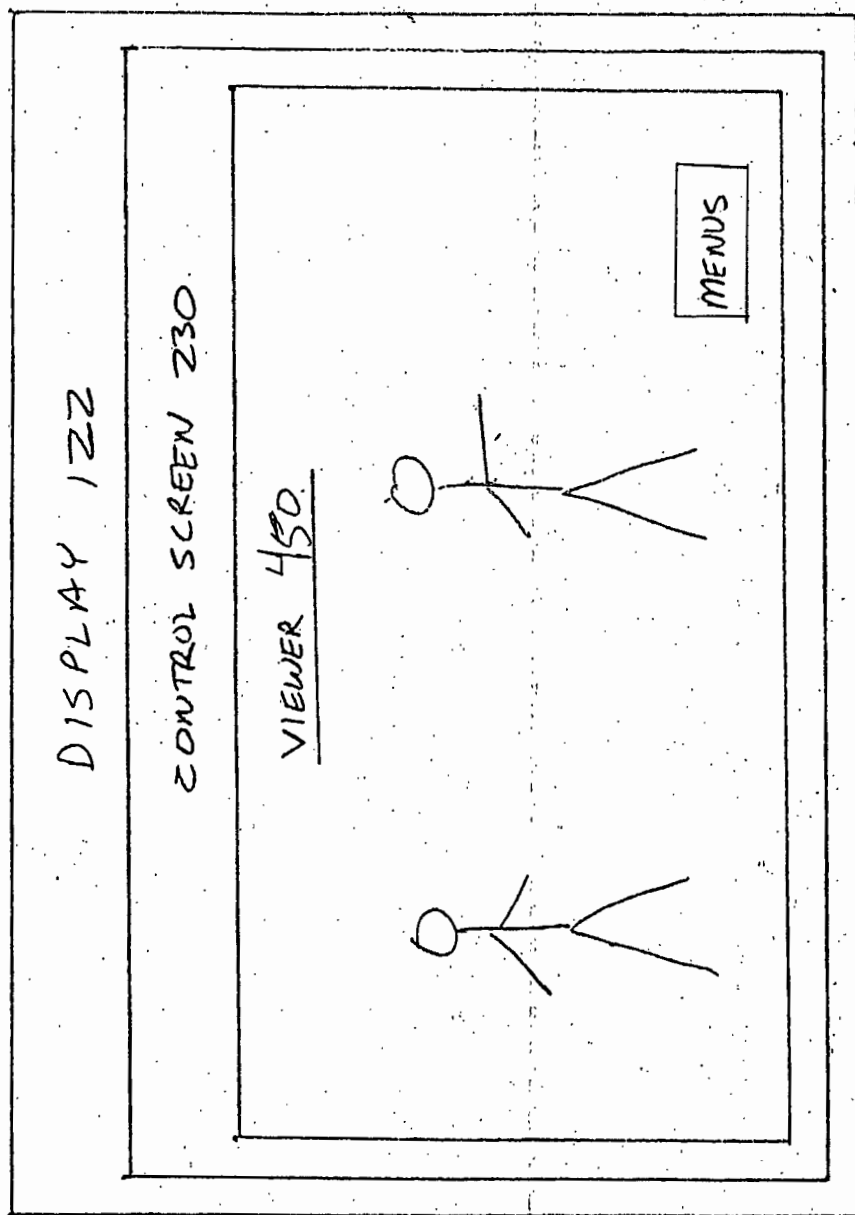


FIG. 5



PRINT OF DRAWINGS  
AS ORIGINALLY FILED

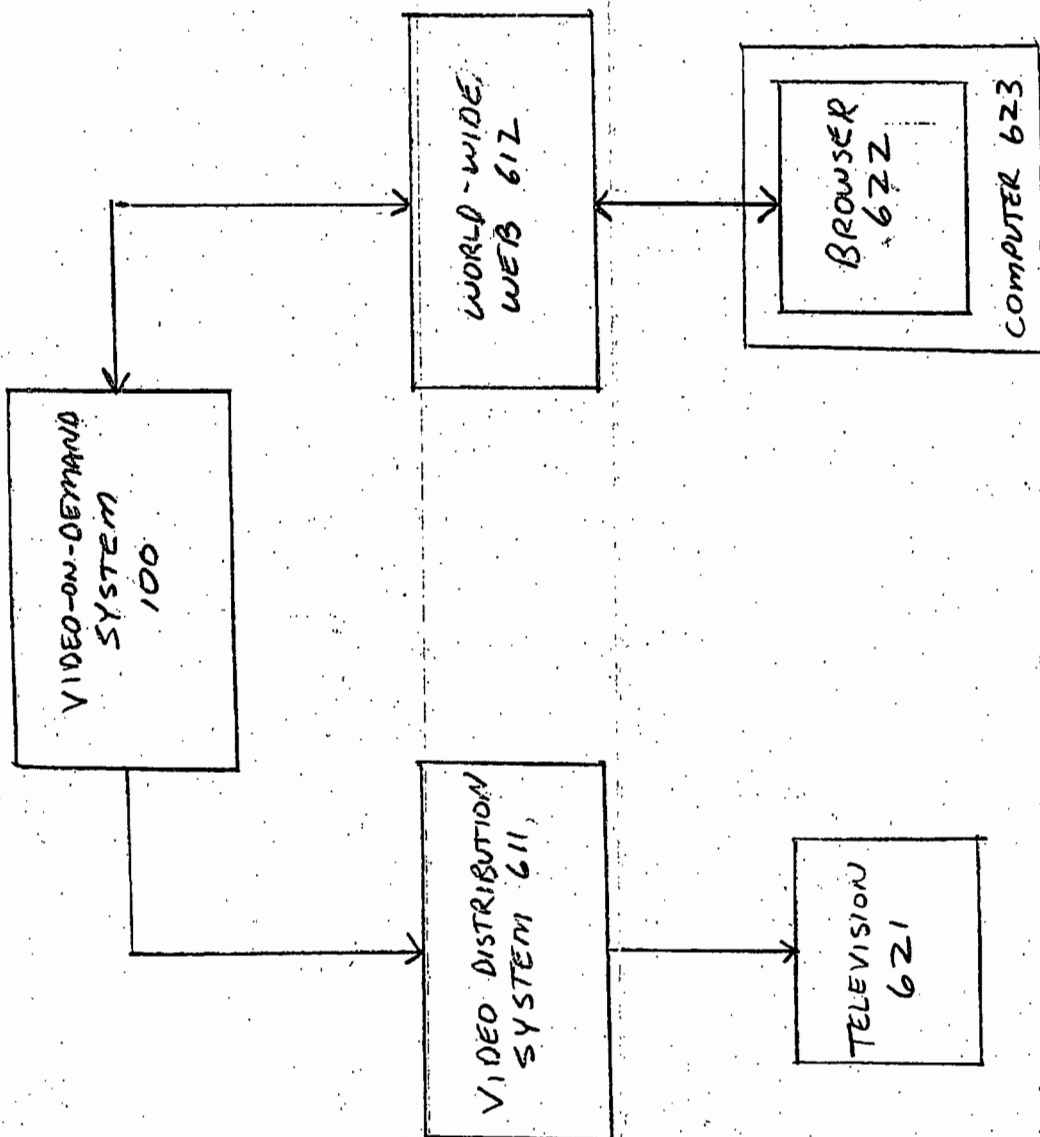


FIG. 6

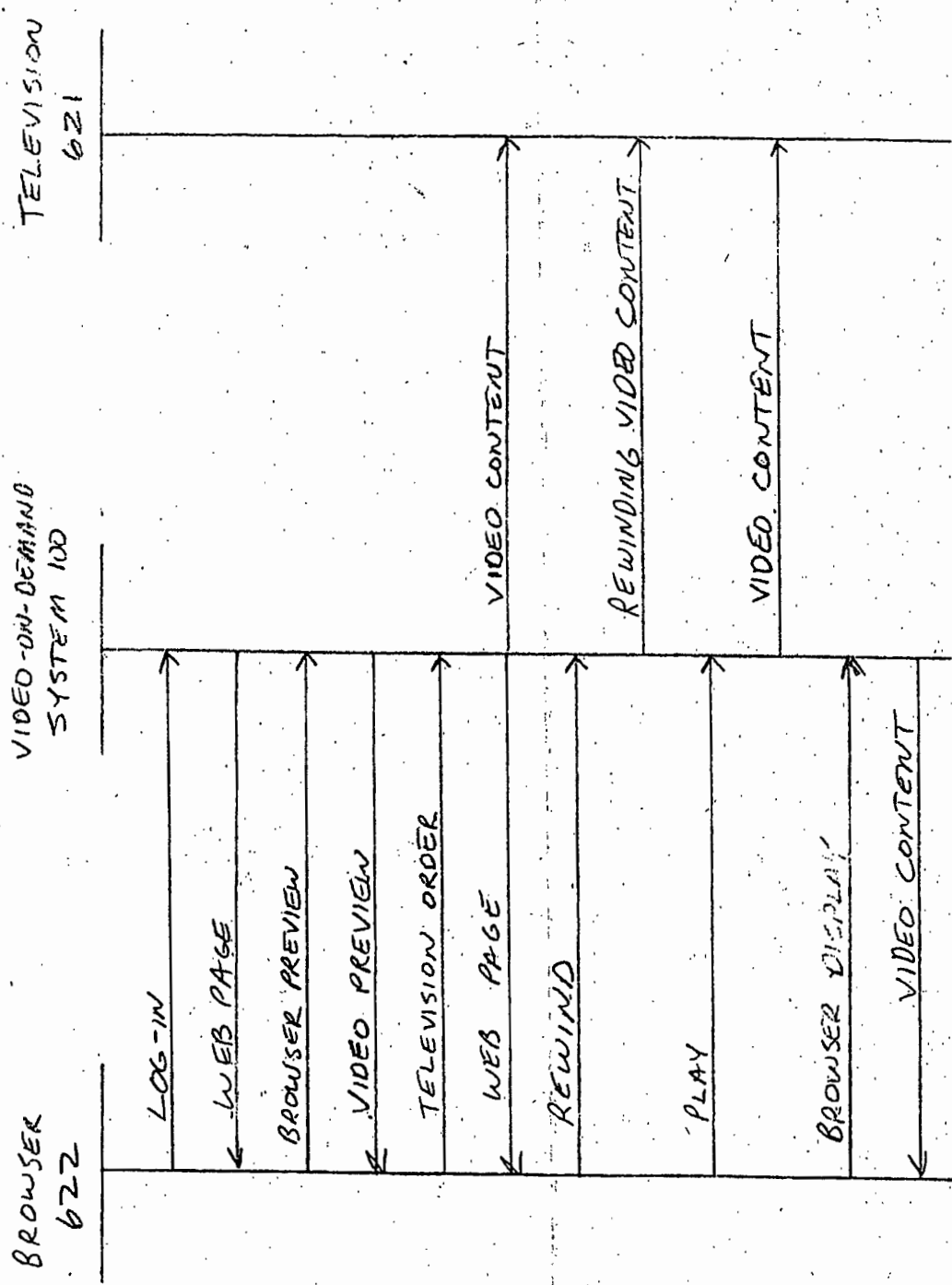


FIG. 7

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H/26/1  
Ch. V, N.

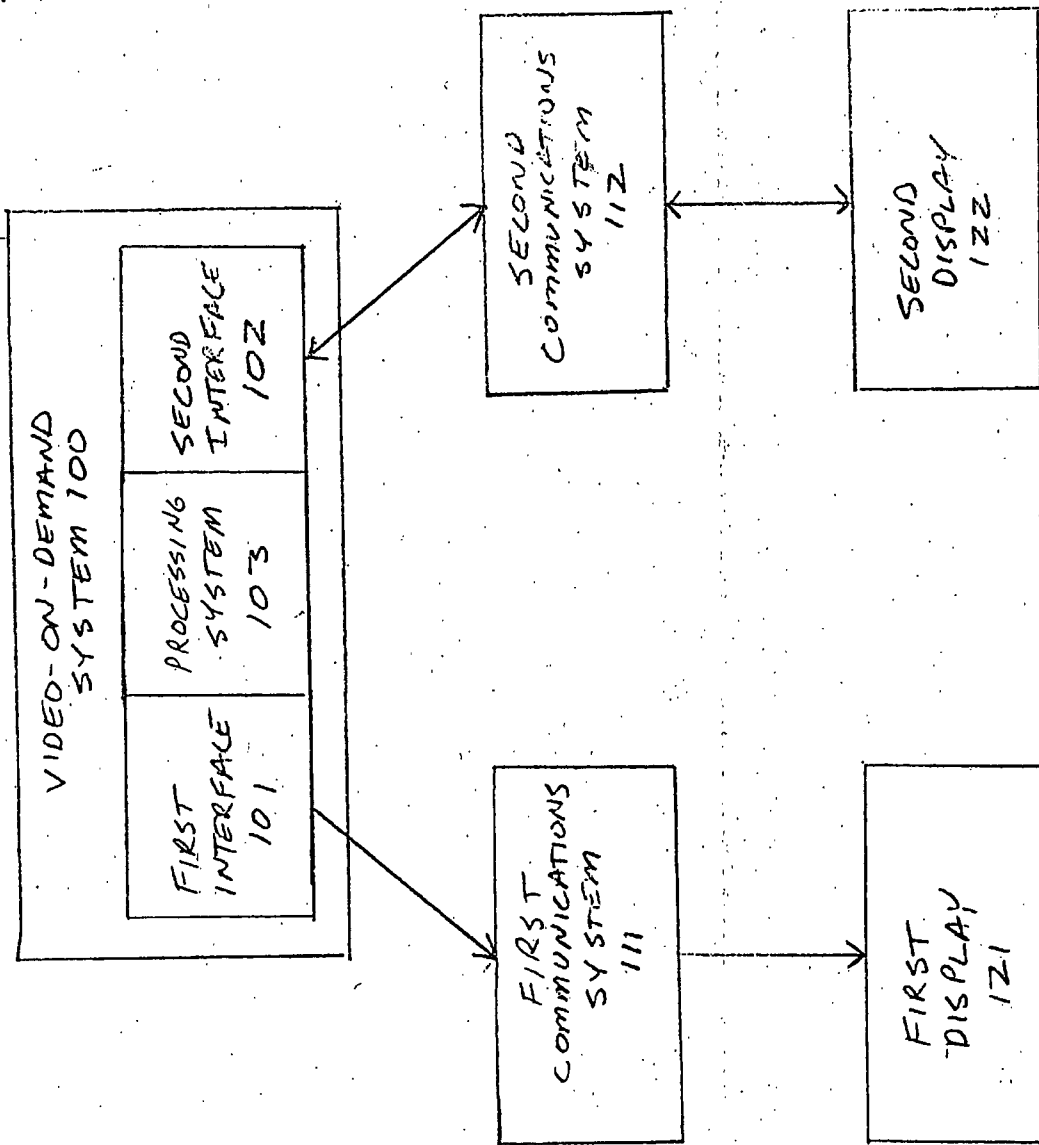


FIG. 1

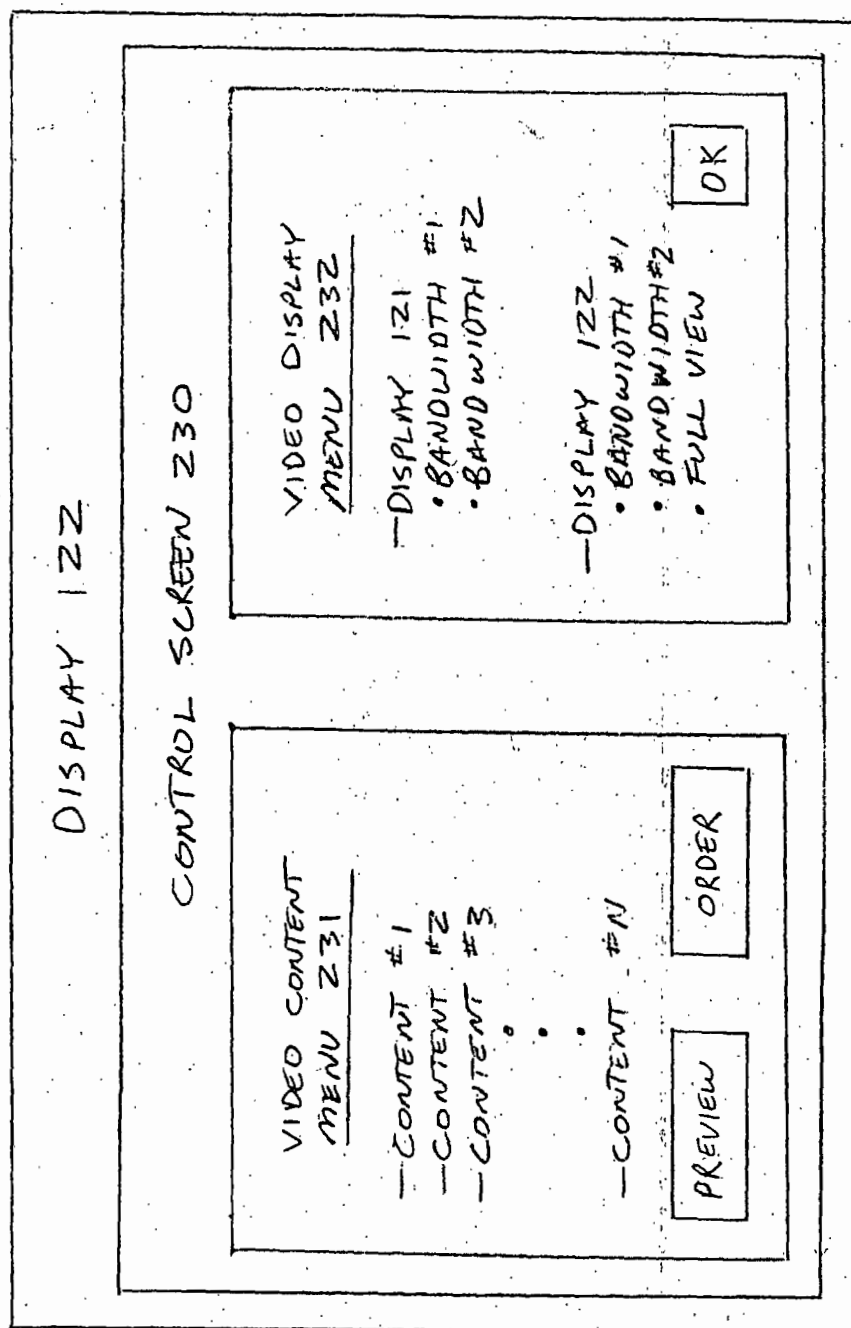


FIG. 2



22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS

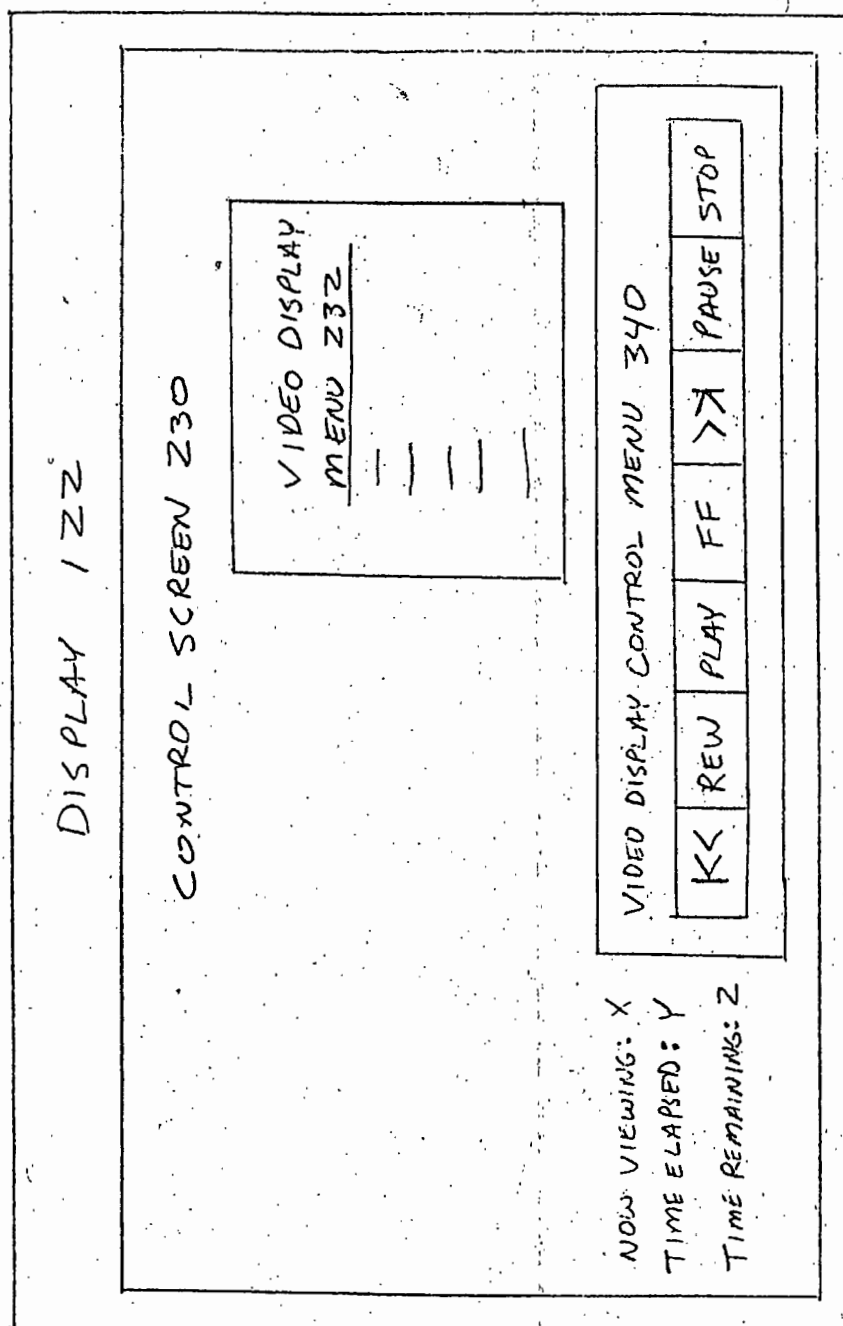


FIG. 3

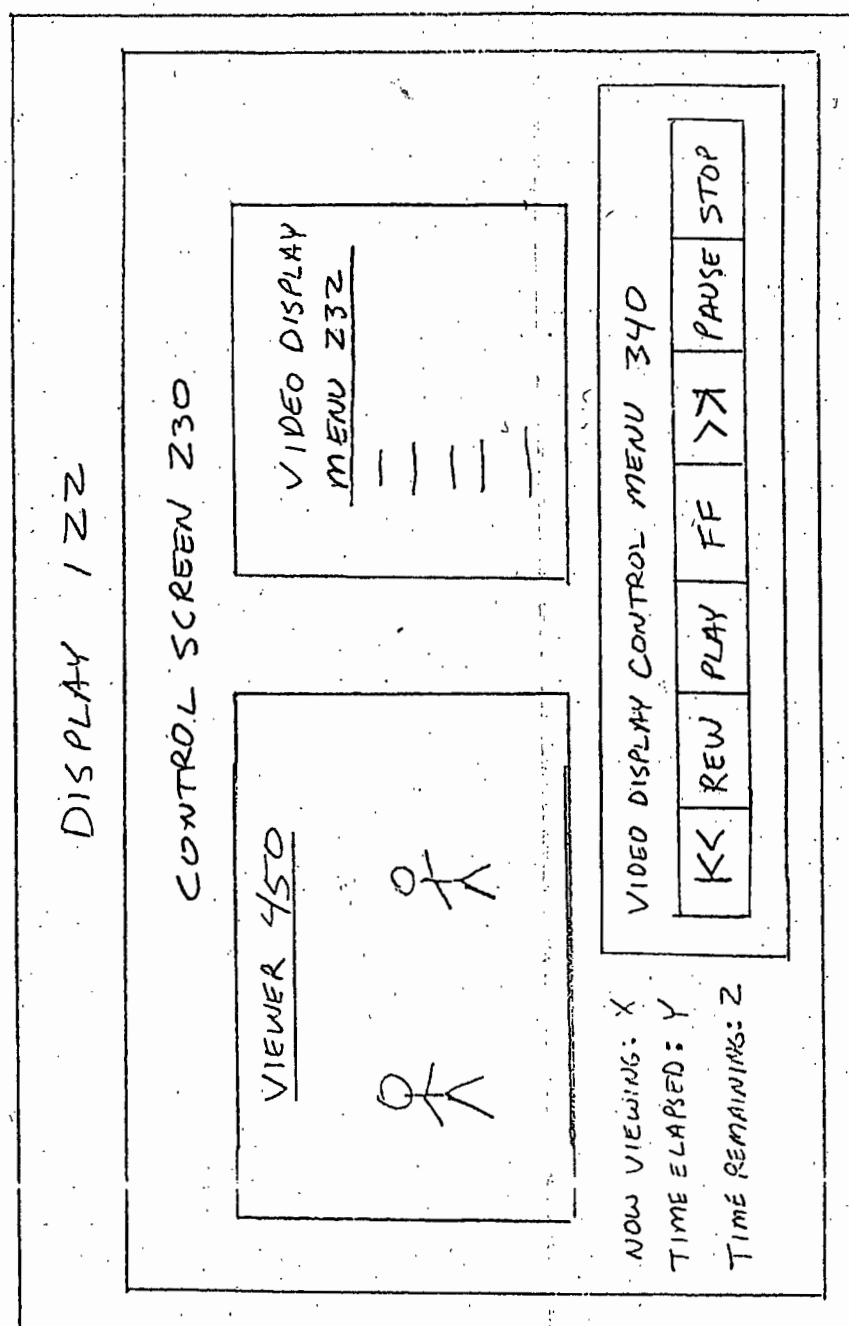


FIG. 4

PRINT OF DRAWINGS  
AS ORIGINALLY FILED

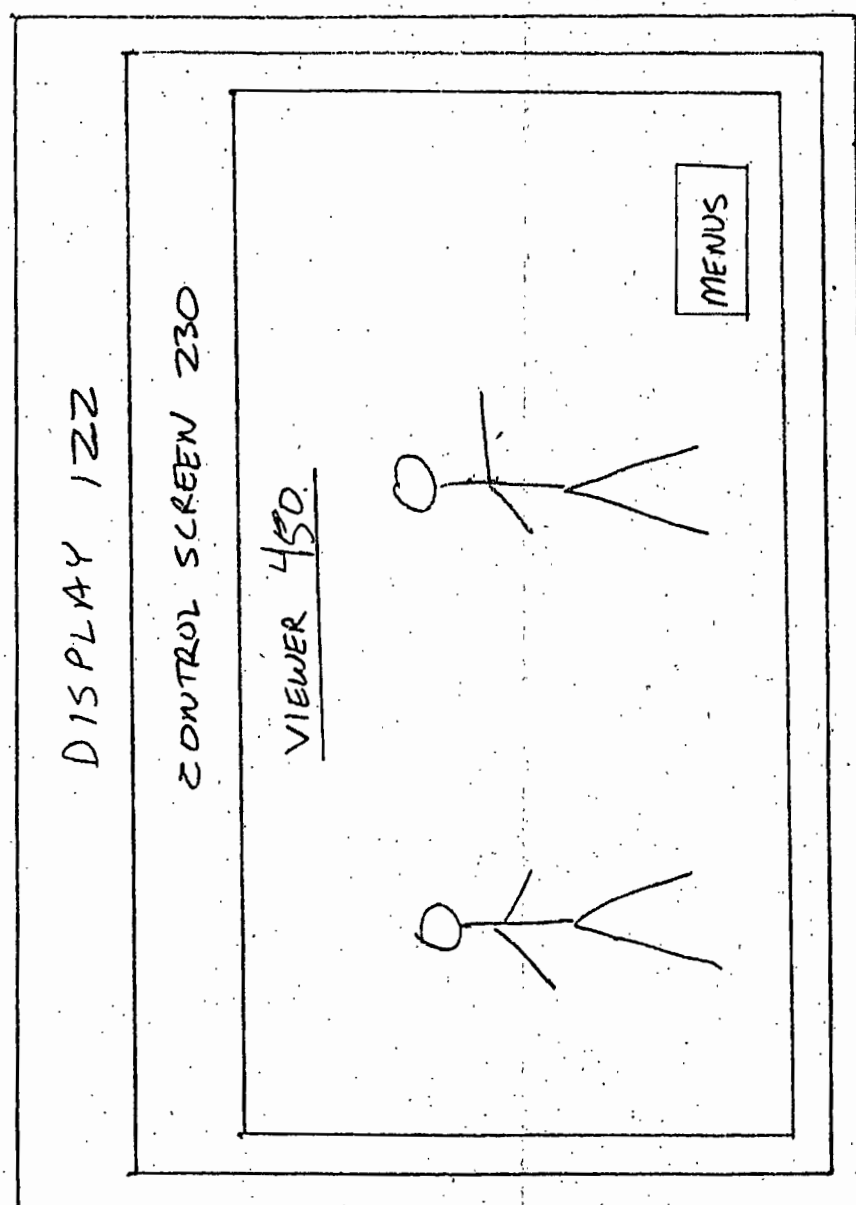


FIG. 5

PRINT OF DRAWINGS  
AS ORIGINALLY FILED

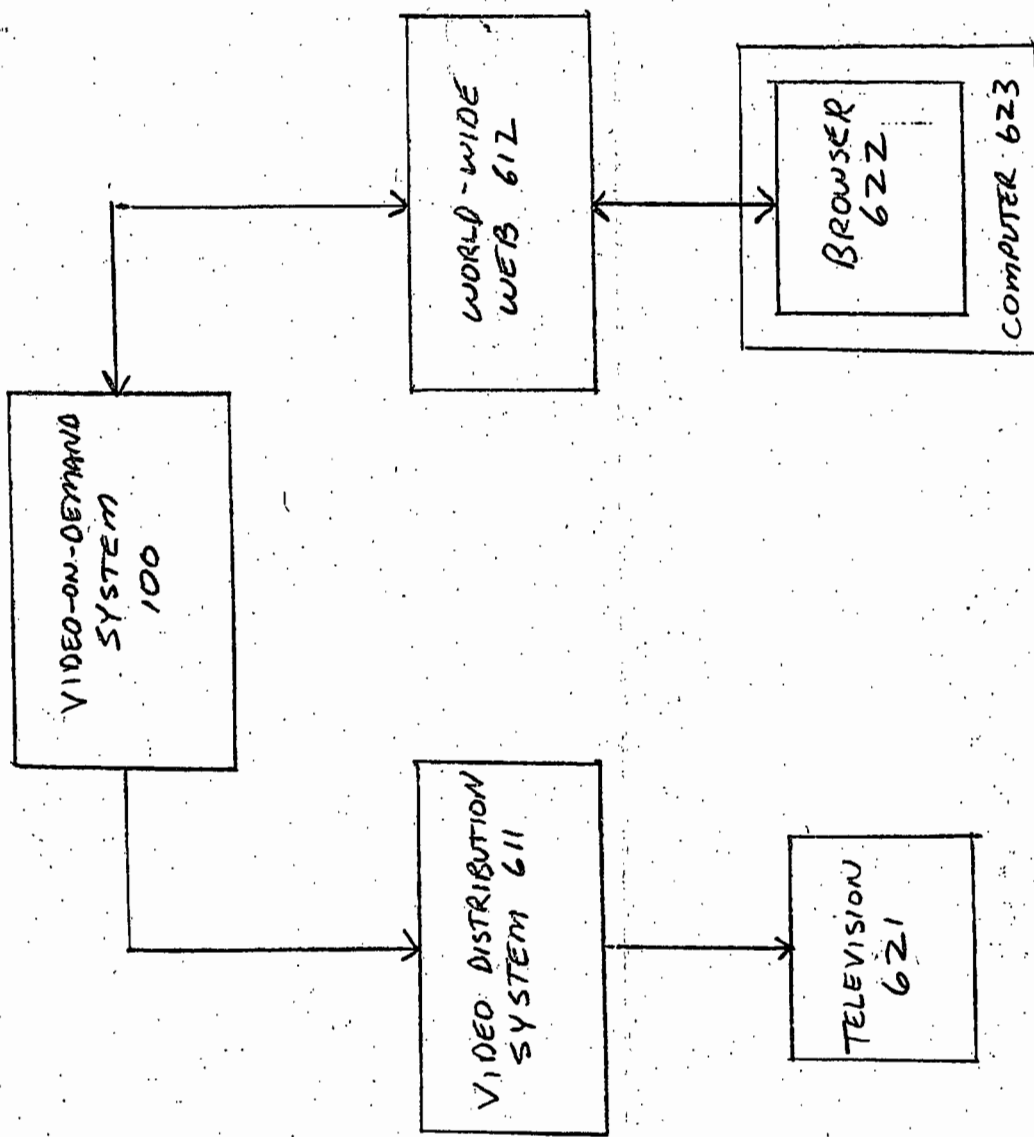


FIG. 6





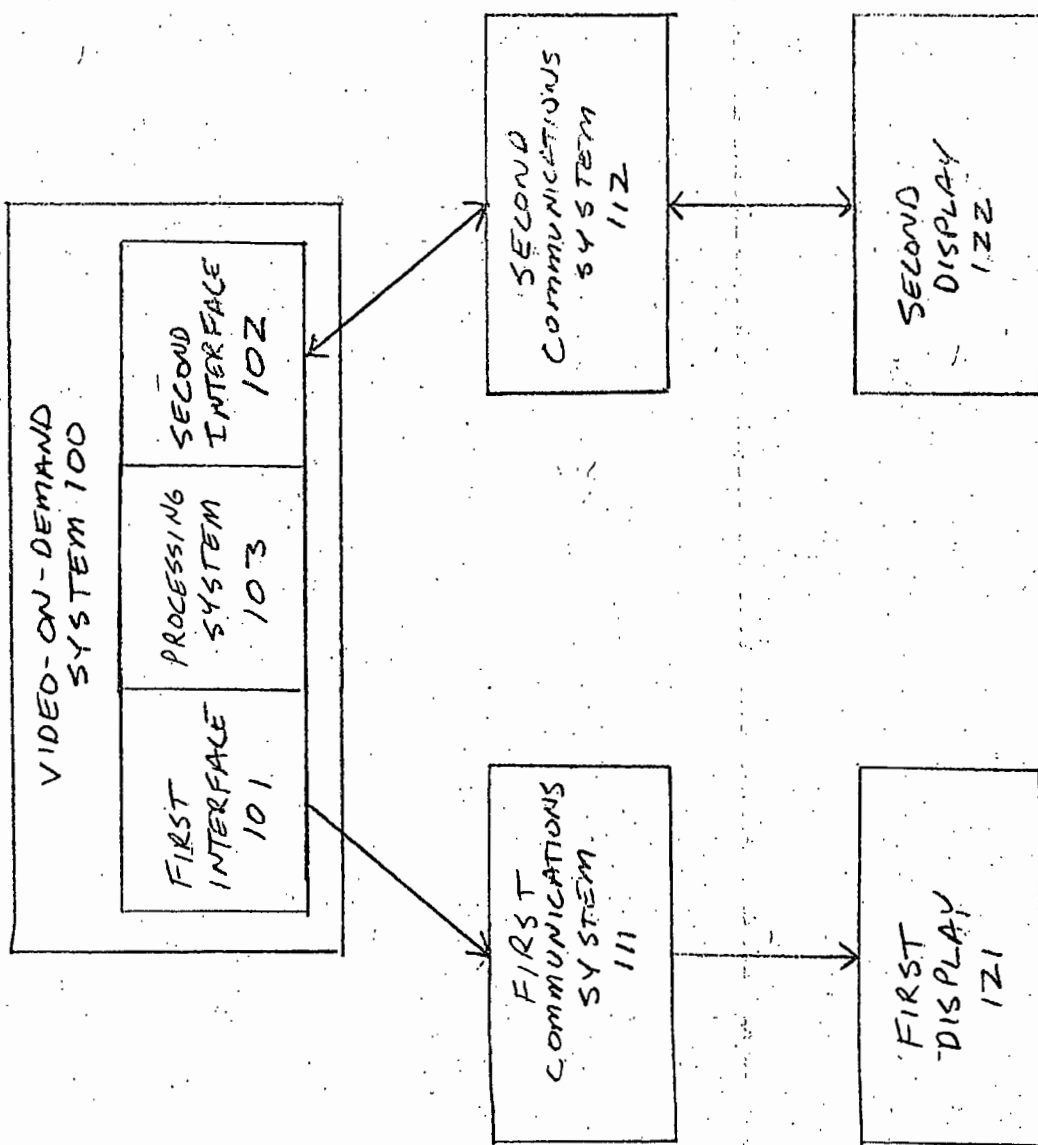


FIG. 1

The diagram illustrates a video control system with two main menu screens and their associated actions:

- VIDEO CONTENT MENU Z31**
  - CONTENT #1
  - CONTENT #2
  - CONTENT #3
  - 
  - 
  - 
  - CONTENT #N
- VIDEO DISPLAY MENU Z32**
  - DISPLAY 1Z1
  - BANDWIDTH #1
  - BANDWIDTH #2

At the bottom of the diagram, there are two buttons: **PREVIEW** and **ORDER**. Arrows indicate the flow of control:

- An arrow points from the **PREVIEW** button to the **VIDEO CONTENT MENU Z31**.
- An arrow points from the **ORDER** button to the **VIDEO DISPLAY MENU Z32**.
- An arrow points from the **VIDEO CONTENT MENU Z31** to the **VIDEO DISPLAY MENU Z32**.
- An arrow points from the **VIDEO DISPLAY MENU Z32** to the **OK** button.

F16.2

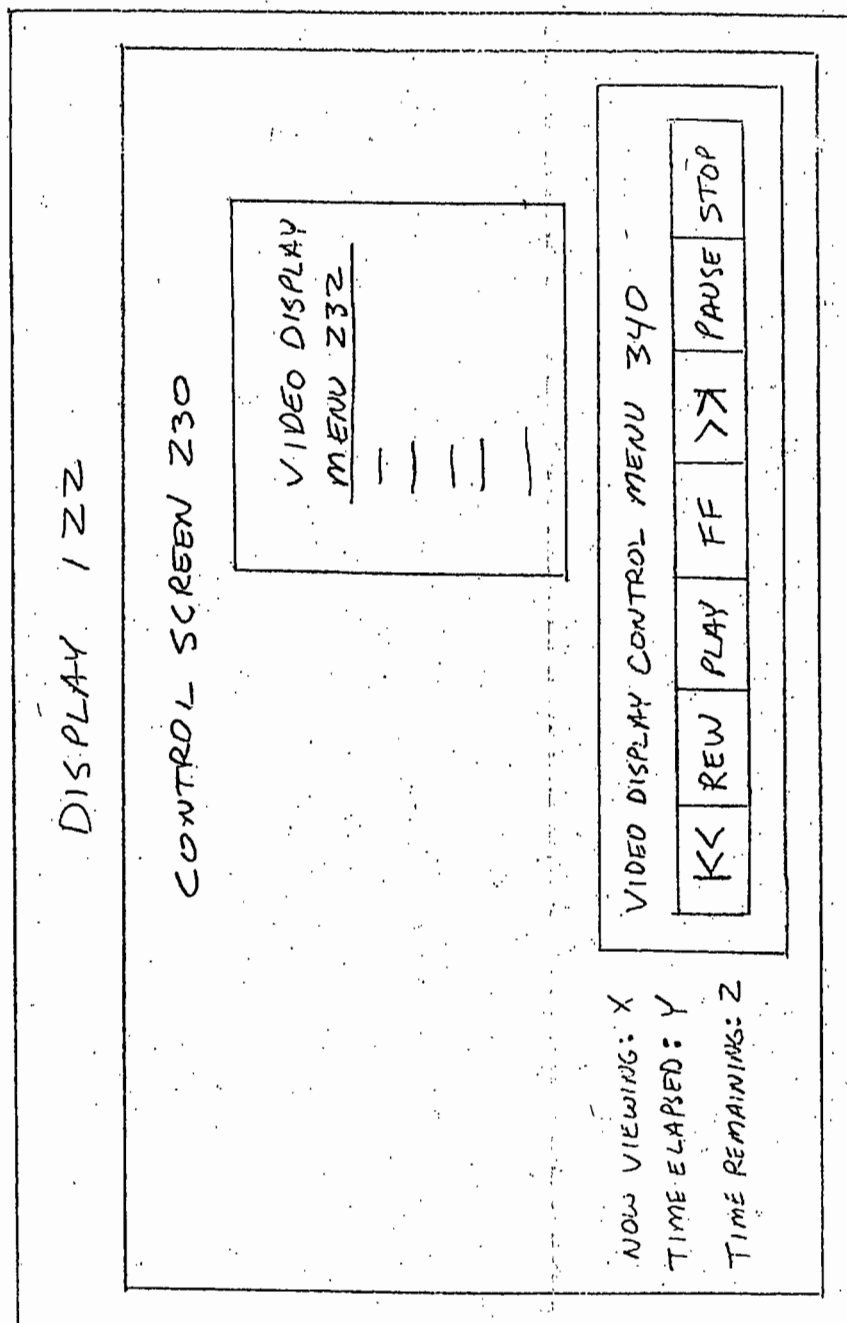


FIG. 3

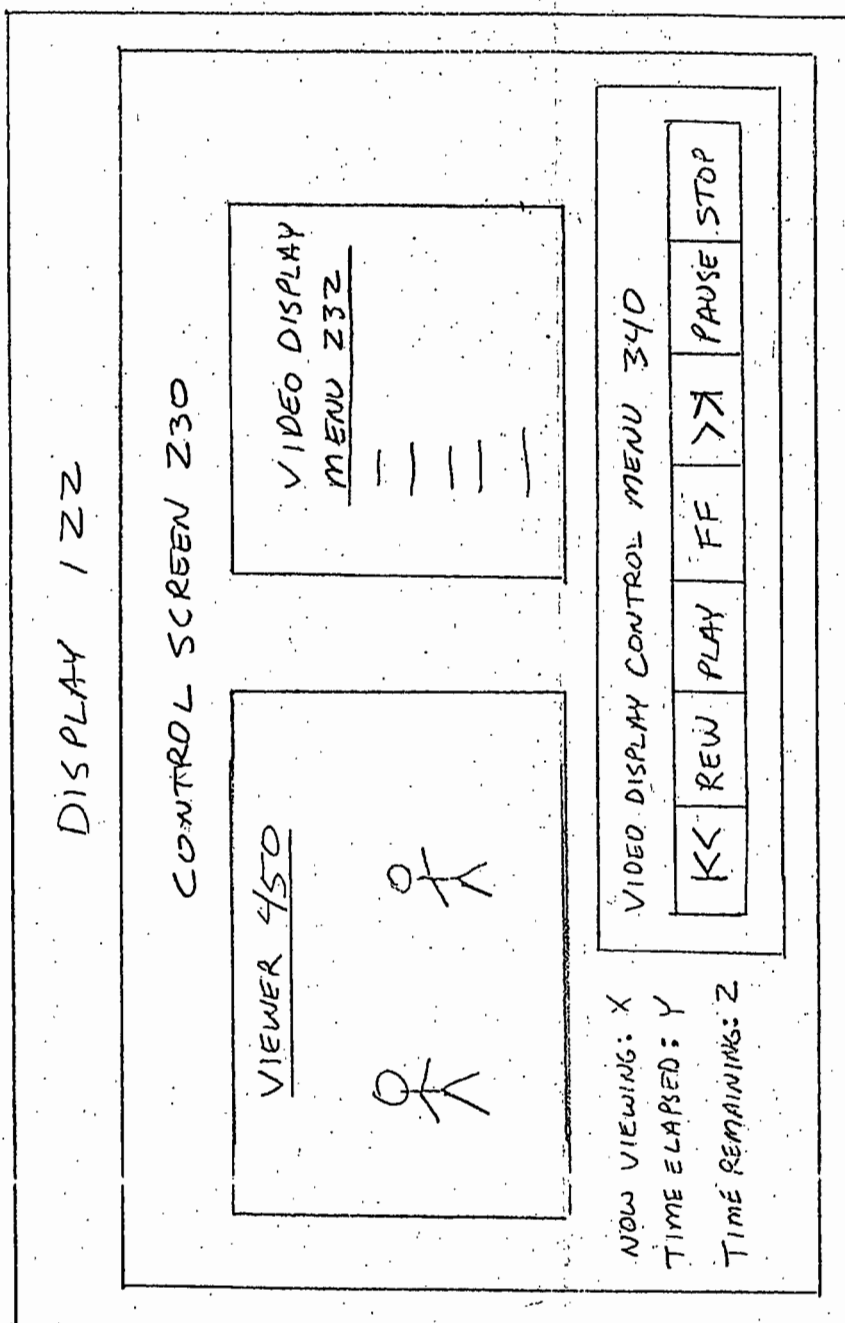


FIG. 4

THESE ARE THE ONLY TWO PLACES WHERE THE USER CAN ACCESS THE MENU

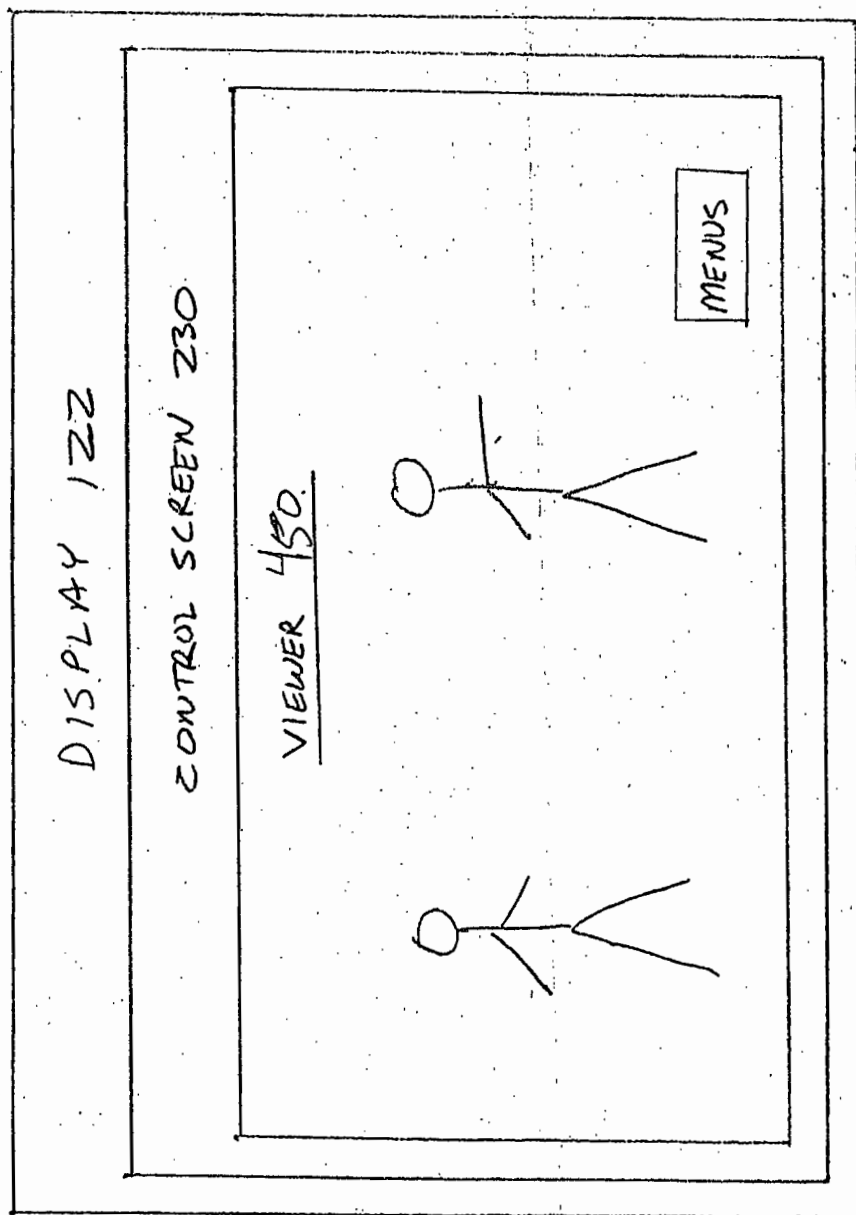


FIG. 5

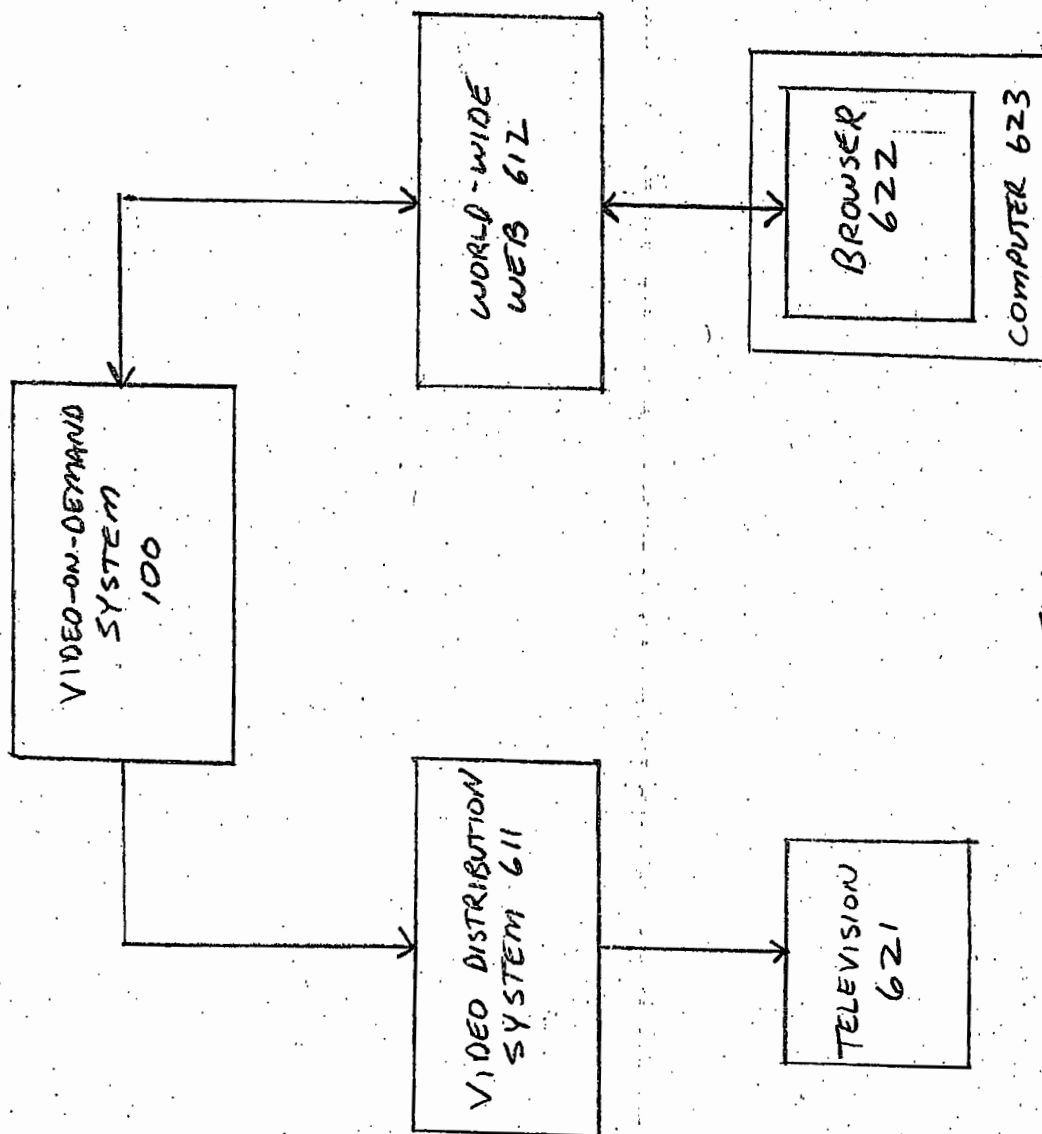


FIG. 6

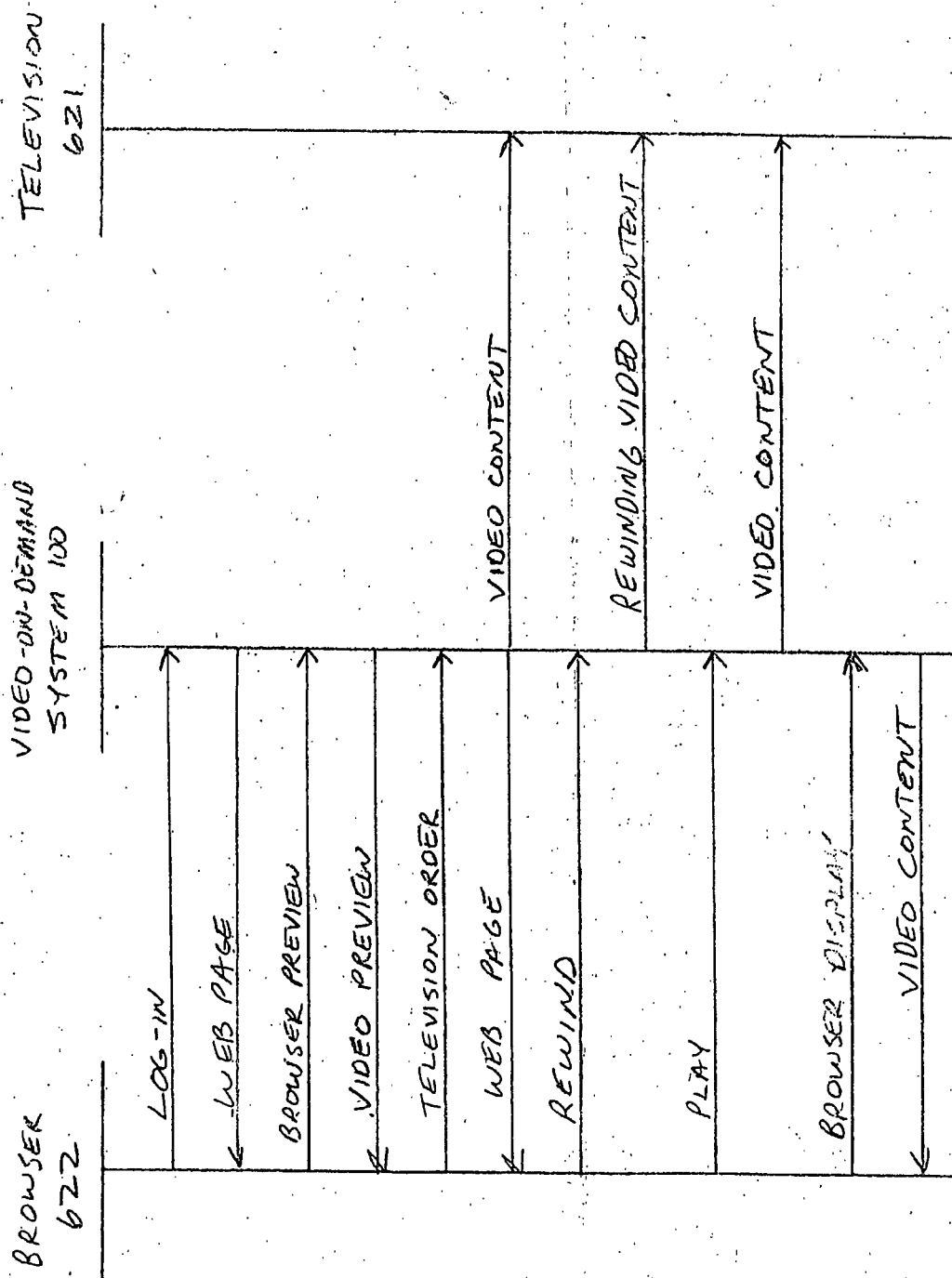


FIG. 7



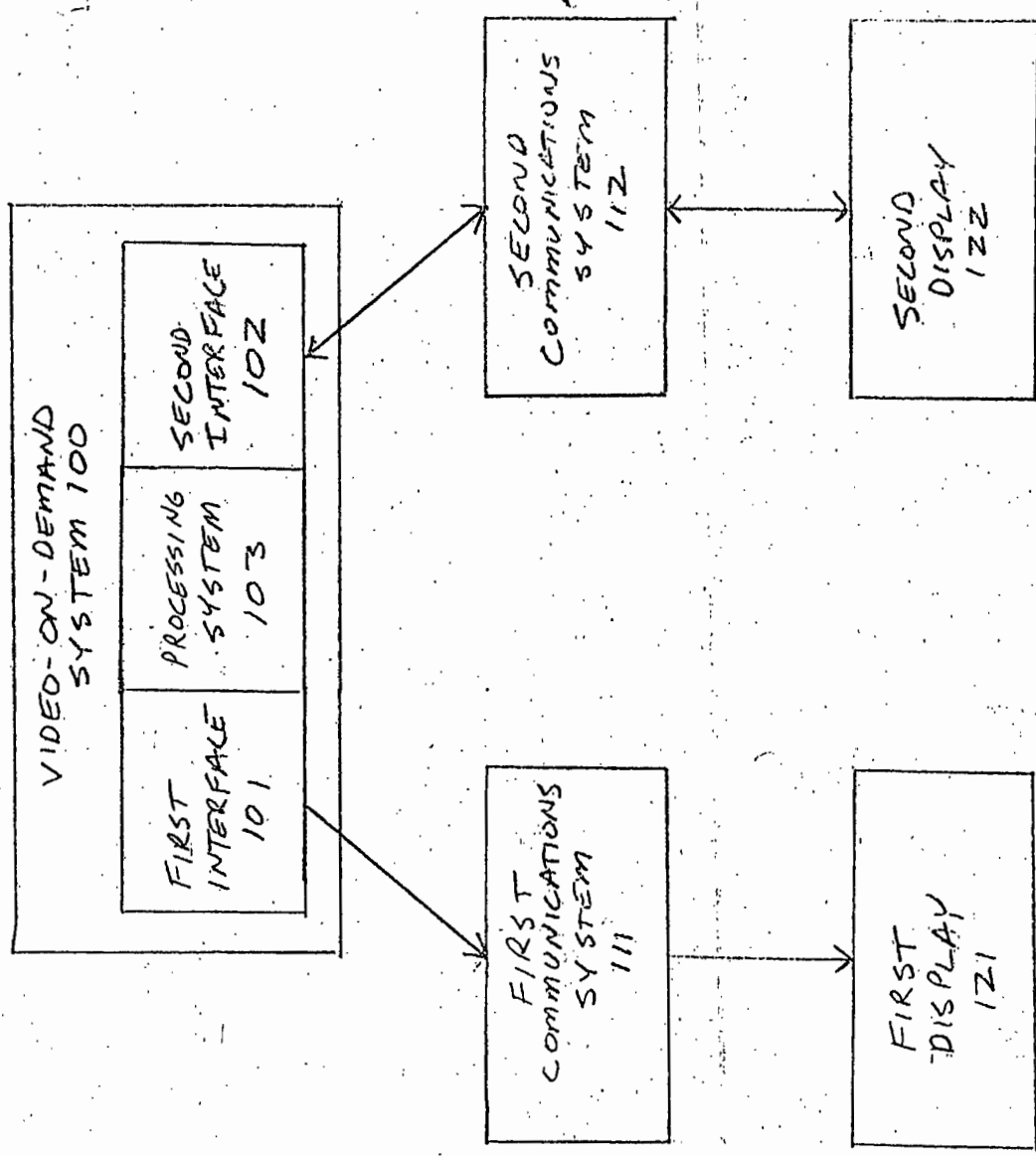
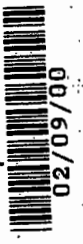


FIG. 1

JCS11 U.S. PTO

09/501054



22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS



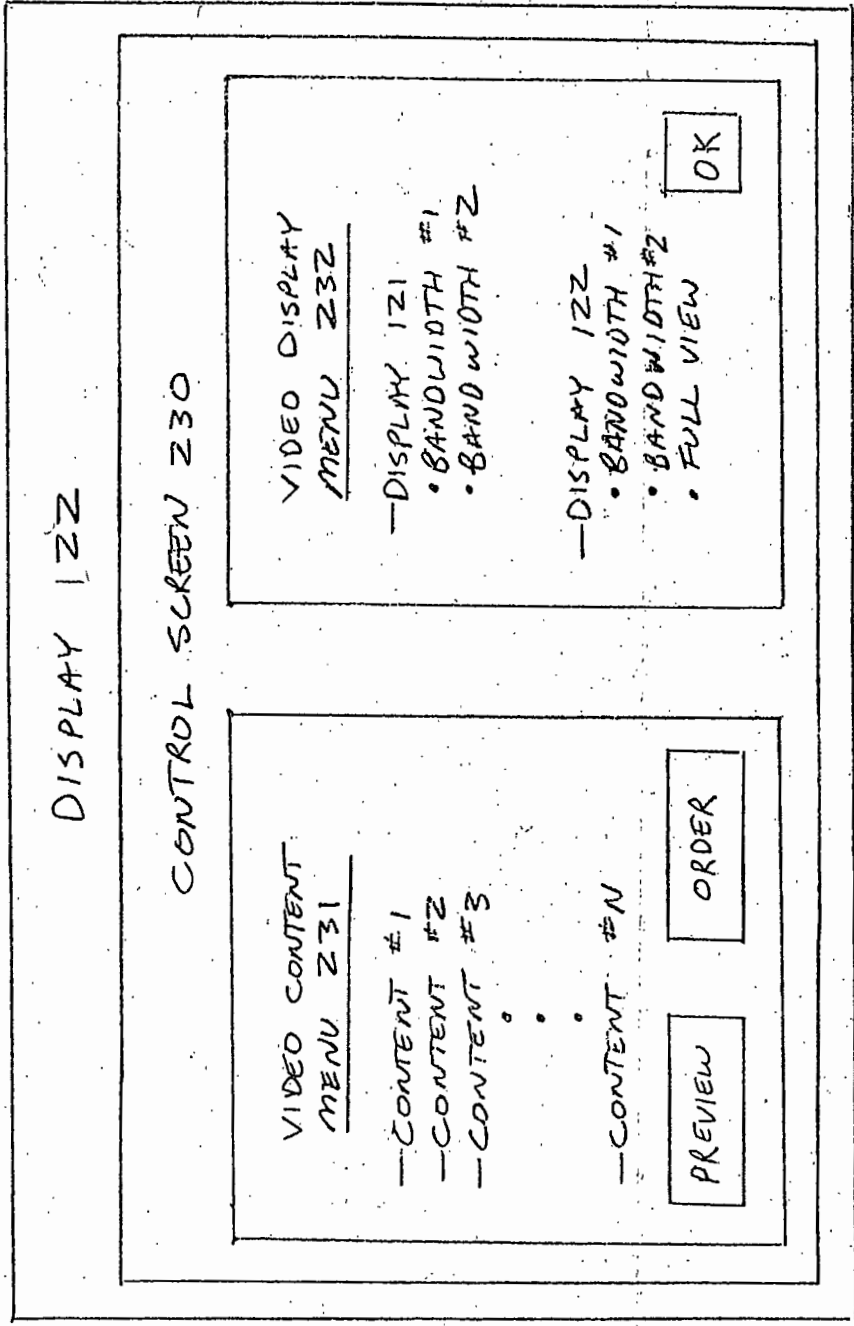


FIG. 2



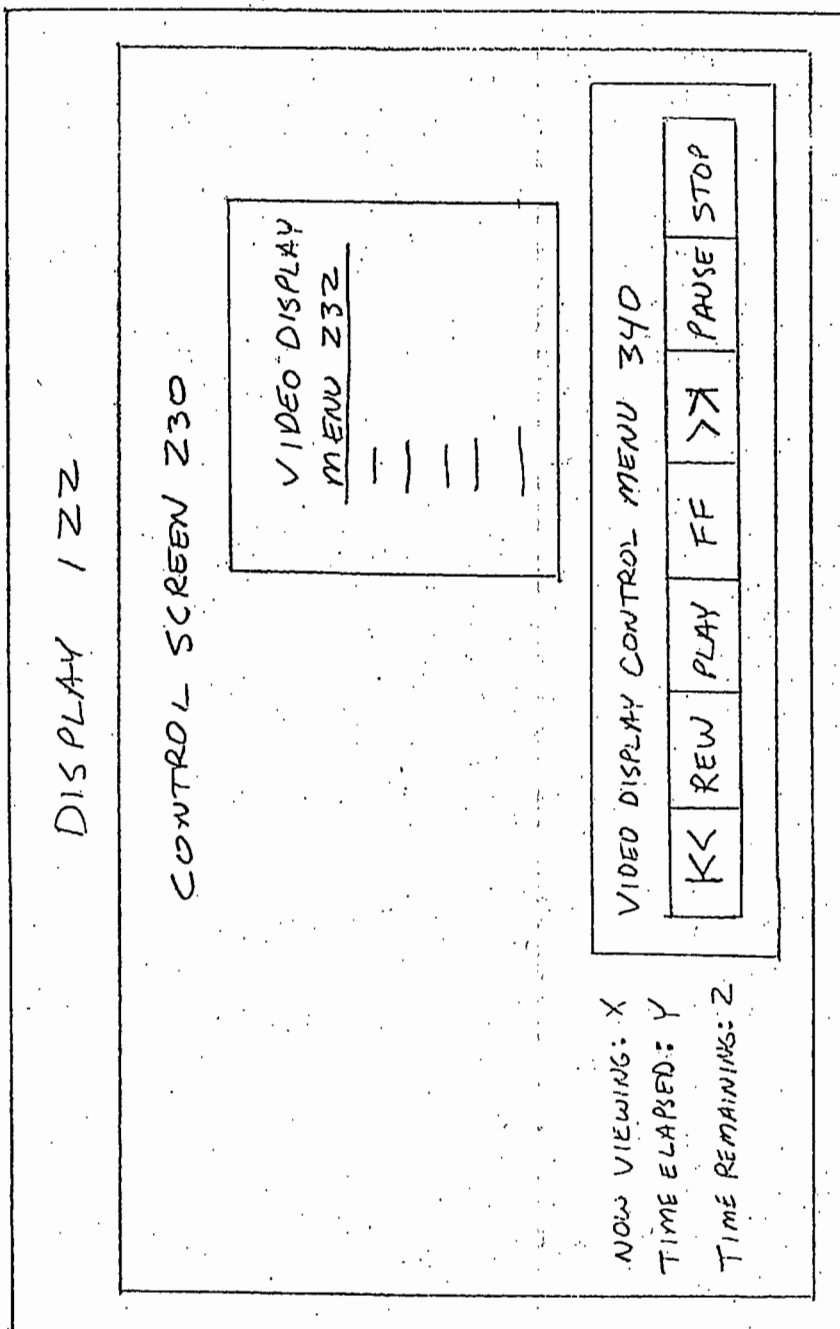


FIG. 3

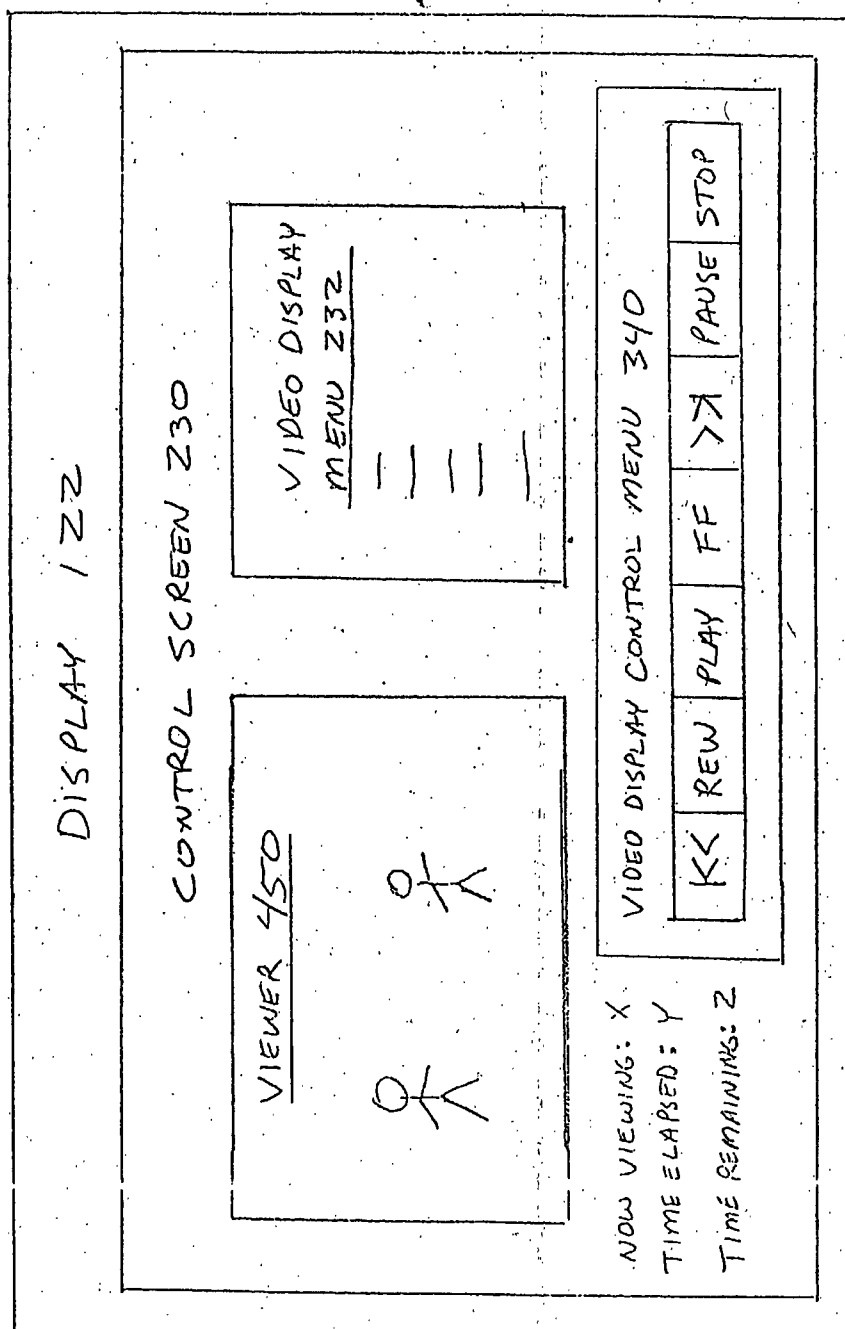


FIG. 4

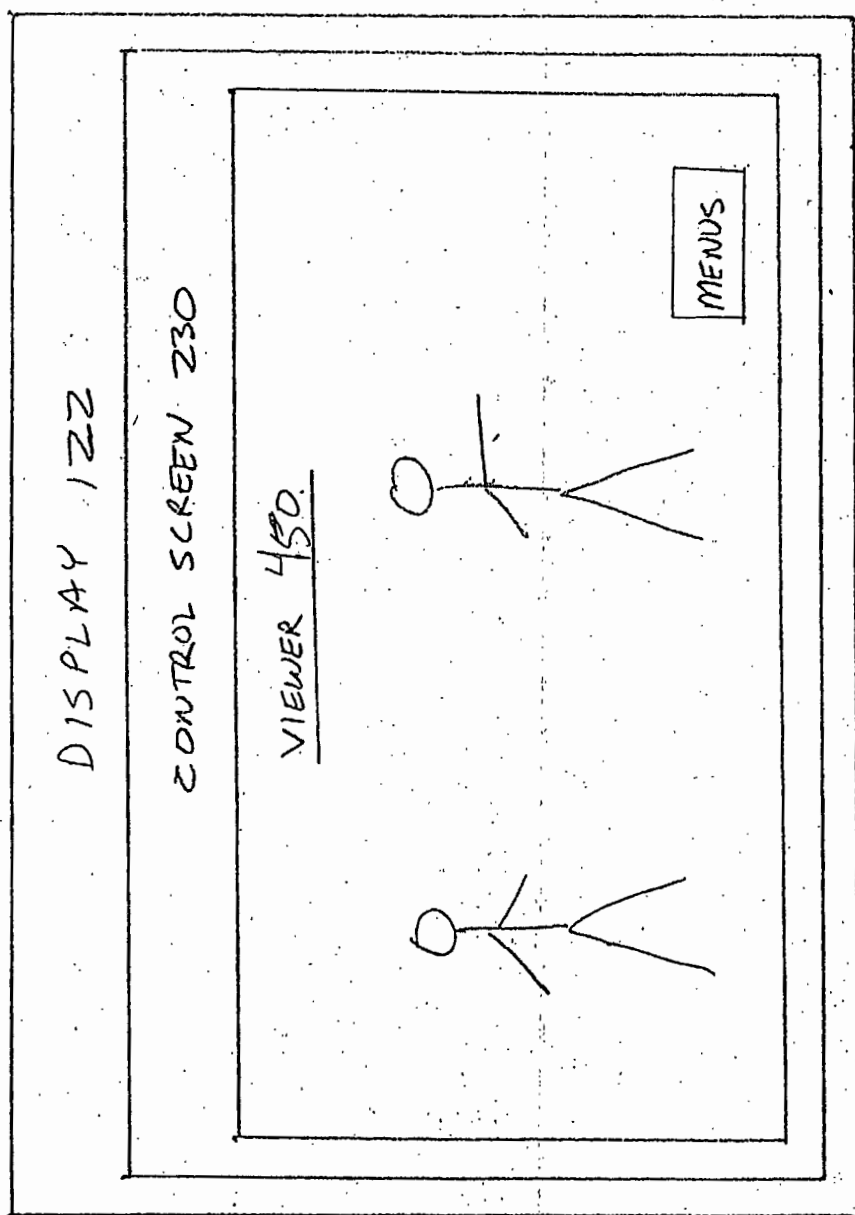


FIG. 5

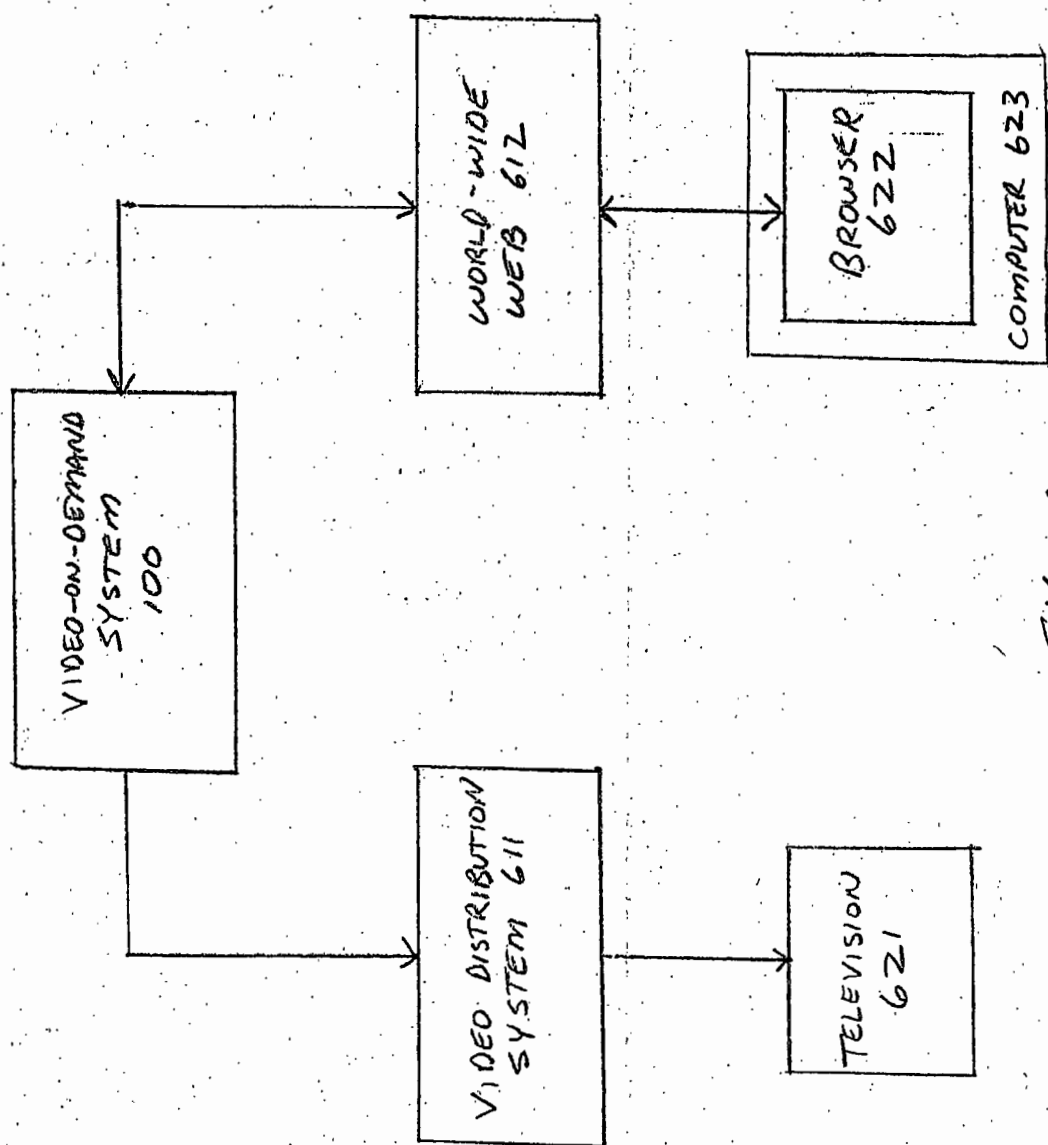


FIG. 6

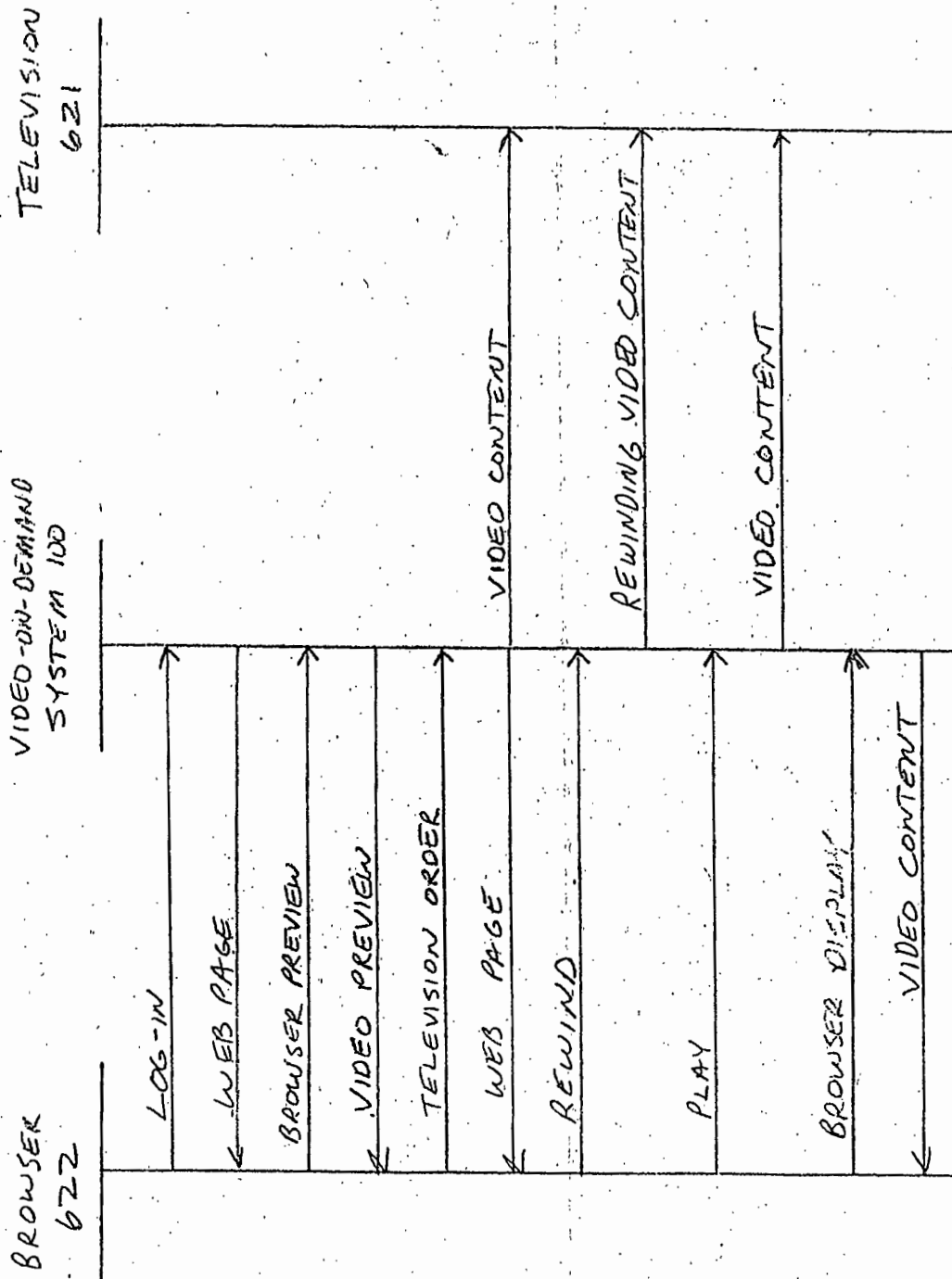


FIG. 7

### DECLARATION AND POWERS OF ATTORNEY

As a below named inventor, I hereby declare that my residence, post office address and citizenship is as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM" the specification of which was filed on \_\_\_\_\_, as Application No. \_\_\_\_\_ and was amended herewith or, if not identified here by filing date and application number, is attached hereto. I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 CFR 1.56(a). I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate by me or my representatives or assigns for this invention having a filing date before that of the application on which priority is claimed:

Application No. \_\_\_\_\_ in \_\_\_\_\_ on \_\_\_\_\_ priority claimed ( ) Yes ( ) No  
Application No. \_\_\_\_\_ in \_\_\_\_\_ on \_\_\_\_\_ priority claimed ( ) Yes ( ) No  
Application No. \_\_\_\_\_ in \_\_\_\_\_ on \_\_\_\_\_ priority claimed ( ) Yes ( ) No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Number)	(Filing Date)	(Status-patented, pending, abandoned)
(Application Number)	(Filing Date)	(Status-patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 USC 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. I hereby appoint, individually and collectively, the following as my/our attorney or agent with full power of substitution and revocation, to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith:



Harley R. Ball Registration No. 31,733;  
Steven J. Funk Registration No. 35,875;  
Michael J. Setter Registration No. 37,936;  
Dan Cleveland, Jr. Registration No. 36,106;  
Carl A. Forest; Registration No. 28,494;  
James M. Graziano Registration No. 28,300;  
Curtis A. Vock Registration No. 38,356;  
Thomas Swenson Registration No. 36,696;  
William P. Wilbar Registration No. 43,265;  
Travis C. Stephenson Registration No. 45, 132; and  
Eugene G. Kim Registration No. P46,267

PLEASE ADDRESS ALL  
COMMUNICATIONS TO:

Attn: Harley R. Ball  
Sprint Law Department  
8140 Ward Parkway  
Mailstop: MOKCMP0506  
Kansas City, Missouri 64114

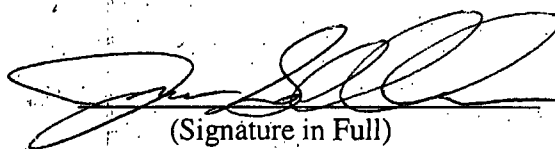
ATTORNEY CONTACT:

Michael J. Setter  
Phone: (303) 449-9497  
Fax: (303) 449-0814

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(Signature in Full)

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SOLE OR JOINT INVENTOR

Inventor (2)

(Mike O'Brien)



(Signature in Full)

Citizenship: United States of America

Date: 1 Feb 2000

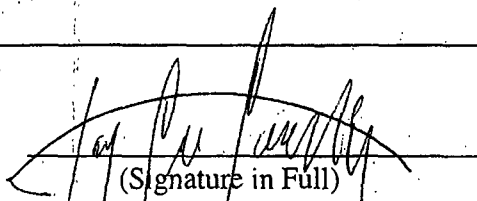
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SOLE OR JOINT INVENTOR

Inventor (3)

(Jay Cee Straley)



(Signature in Full)

Citizenship: United States of America

Date: 1 Feb 2000

Post Office Address:

Residence: 859 Orange Ave., San Carlos CA 94070

## Application Assignment Record

According to the application transmittal letter, an assignment recording ownership was filed with this application; however, a copy of this record was not located in the original file history record obtained from the United States Patent and Trademark Office. Upon your request, we will attempt to obtain the assignment documents from the Assignment Recordation Branch of the United States Patent and Trademark Office or from a related application case (if applicable). Please note that additional charges will apply for this service.

This page is not part of the official USPTO record. It has been determined that content identified on this document is missing from the original file history record.

L Number	Hits	Search Text	DB	Time stamp
1	5	((("6,191,806") or ("5,928,327") or ("6,480,753") or ("6,392,664") or ("5,488,412"))).PN.	USPAT	2003/01/15 17:15
-	2	725/\$7.ccls. and ((VOD or (video adj1 on adj1 demand)) and ((portable adj1 computer) or laptop))	USPAT	2002/12/12 18:05
-	90	((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)	USPAT	2002/12/13 15:40
-	39	(725/\$7.ccls. and VOD and interfaces) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))	USPAT	2002/12/13 14:14
-	85	(725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))	USPAT	2002/12/13 14:14
-	41	((725/86).CCLS.) not ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.))))	USPAT	2002/12/13 18:56
-	277	(725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.))))	USPAT	2002/12/13 18:19
-	96	((725/110).CCLS.) not ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.))))	USPAT	2002/12/13 18:57
-	51	((725/91).CCLS.) not ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))) or ((725/110).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)	USPAT	2002/12/13 18:22

	94	((725/110).CCLS.) not (((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))) or ((725/86).CCLS.))	USPAT	2002/12/13 18:58
	0	("12 not (7 or 9 or 10)".PN.	USPAT	2002/12/13 19:21
	269	((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) not (((725/86).CCLS.) or ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))) or ((725/110).CCLS.))	USPAT	2002/12/13 19:25
	50	((725/91).CCLS.) not (((725/86).CCLS.) or ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))) or ((725/110).CCLS.))	USPAT	2002/12/13 19:23
	7	((725/91).CCLS.) not (((725/86).CCLS.) or ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))) or ((725/110).CCLS.)) and VOD	USPAT	2002/12/13 19:23
	8	((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) not (((725/86).CCLS.) or ((725/\$7.ccls. and VOD and interfaces) or ((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)) or ((725/\$7.ccls. and VOD and interface\$1) not (((725/141,153).CCLS.) or (((725/87,88,93).CCLS.) and VOD) not ((725/141,153).CCLS.)))) or ((725/110).CCLS.)) and VOD	USPAT	2002/12/13 19:23

-	39	Acosta.xa.	USPAT	2002/12/13 19:29
-	14	((("5,512,935") or ("5,442,390") or ("5,416,508") or ("5,359,367") or ("5,541,662") or ("5,523,781") or ("5,621,482") or ("5,592,234") or ("5,594,492") or ("5,594,507") or ("5,594,491") or ("5,461,667") or ("4,949,187") or ("4,381,522"))).PN.	USPAT	2002/12/13 19:40
-	11	(US-6046760-\$ or US-5928327-\$ or US-5172413-\$ or US-6081533-\$ or US-6392664-\$ or US-6055560-\$ or US-5850218-\$ or US-6449767-\$ or US-5982363-\$ or US-5905522-\$ or US-5359367-\$).did.	USPAT	2002/12/16 17:21
-	134	(725/104).CCLS.	USPAT	2002/12/18 14:52
-	314	(725/87,88,93).CCLS.	USPAT	2002/12/18 14:55
-	103	(725/141,153).CCLS.	USPAT	2002/12/18 14:56
-	124	(725/122).CCLS.	USPAT	2002/12/18 14:56
-	137	(725/109,121).CCLS.	USPAT	2002/12/18 14:57
-	108	((725/104).CCLS.) not (((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.))	USPAT	2002/12/18 18:58
-	43	(725/\$7.ccls. or 705/\$7.ccls.) and ((VOD or PPV) and ((order or purchase or select or buy) with video) and (PC or laptop))	USPAT	2002/12/18 18:47
-	14	((725/\$7.ccls. or 705/\$7.ccls.) and ((VOD or PPV) and ((order or purchase or select or buy) with video) and (PC or laptop))) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.))	USPAT	2002/12/18 19:38
-	24	(PPV or VOD) and ((order or select or buy or purchase) with video) and (web.adj1 (page or site))	USPAT	2002/12/18 19:40
-	918	((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) or ((725/\$7.ccls. or 705/\$7.ccls.) and ((VOD or PPV) and ((order or purchase or select or buy) with video) and (PC or laptop)))	USPAT	2002/12/18 19:41

18	((PPV or VOD) and ((order or select or buy or purchase) with video) and (web adj1 (page or site))) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) or ((725/\$7.ccls. or 705/\$7.ccls.) and ((VOD or PPV) and ((order or purchase or select or buy) with video) and (PC or laptop))))	USPAT	2002/12/18 19:41
45	(VOD or PPV) and (web adj1 (page or site)) and ((order or select or purchase or buy) with video)	US-PGPUB; EPO; JPO; DERWENT	2002/12/20 17:27
8	(US-6357042-\$ or US-4763191-\$ or US-6476825-\$ or US-6396531-\$ or US-6385693-\$.did. or (US-20020044225-\$ or US-20020031120-\$ or US-20010003846-\$.did.	USPAT; US-PGPUB	2002/12/20 18:54
40	(725/81).CCLS.	USPAT	2002/12/20 19:47
22	((725/81).CCLS.) and (remote with (display or screen or LCD))	USPAT	2002/12/20 20:07
18	((725/81).CCLS.) not (((725/81).CCLS.) and (remote with (display or screen or LCD)))	USPAT	2002/12/20 20:07
610	(348/734).CCLS.	USPAT	2002/12/20 20:19
303	((348/734).CCLS.) and (remote with (screen or display or LCD))	USPAT	2002/12/23 14:39
13	((348/734).CCLS.) and (remote with (screen or display or LCD)) and gateway	USPAT	2002/12/23 16:36
126	725/87-100.ccls. and (web or internet)	USPAT	2002/12/23 17:36
4	725/\$7 and majeti.in.	USPAT	2002/12/23 17:32
117	725/87-100.ccls. and (internet or (web adj1 (page or site)))	USPAT	2002/12/23 17:16
90	((725/87,88,93).CCLS.) and VOD	USPAT	2002/12/23 17:19
70	725/\$7.ccls. and VOD and interfaces	USPAT	2002/12/23 17:20
103	(725/110).CCLS.	USPAT	2002/12/23 17:20
72	(725/91).CCLS.	USPAT	2002/12/23 17:20
50	(725/86).CCLS.	USPAT	2002/12/23 17:20
904	((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)	USPAT	2003/01/09 15:39
117	725/87-100.ccls. and (internet or web adj1 (page or site))	USPAT	2002/12/23 18:31
4	725/\$7.ccls. and majeti.in.	USPAT	2002/12/23 17:32

-	38	725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)))	USPAT	2002/12/23 17:37
-	16	725/1-8.ccls. and (internet or web adj1 (page or site)) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.))))	USPAT	2002/12/23 19:03
-	3084	((internet or (web adj1 (page or site))) with (order or select or purchase or buy))	USPAT	2002/12/23 19:06
-	1572	((internet or (web adj1 (page or site))) with (order or select or purchase or buy)) and video	USPAT	2002/12/23 19:07
-	1512	((((internet or (web adj1 (page or site))) with (order or select or purchase or buy)) and video) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.))) or (725/1-8.ccls. and (internet or web adj1 (page or site)) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.))))))	USPAT	2002/12/23 19:07



	722	((internet or (web adj1 (page or site))) with ((order or select or purchase or buy) and interface) and video) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/1-8.ccls. and (internet or web adj1 (page or site)) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)))))	USPAT	2002/12/23 19:11
	331	(((internet or (web adj1 (page or site))) with ((order or select or purchase or buy) and interface) and video) and cable) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/1-8.ccls. and (internet or web adj1 (page or site)) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)))))	USPAT	2002/12/23 19:19

-	6	(((internet or (web adj1 (page or site))) with ((order or select or purchase or buy) and interface) and video) and cable) and VOD) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.))) or (725/1-8.ccls. and (internet or web adj1 (page or site)) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)) or (725/87-100.ccls. and (web or internet) not (((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.)))))	USPAT	2002/12/23 19:19
-	806	((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) and (VOD same rewind)	USPAT	2003/01/09 15:43
-	806	((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) and (VOD same rewind) and "web page"	USPAT	2003/01/09 15:43
-	806	((725/104).CCLS.) or ((725/87,88,93).CCLS.) or ((725/141,153).CCLS.) or ((725/86).CCLS.) or ((725/110).CCLS.) or ((725/91).CCLS.) or ((725/122).CCLS.) or ((725/109,121).CCLS.) and (VOD same (rewind and "web page"))	USPAT	2003/01/09 15:51
-	49	(725/88).CCLS.	USPAT	2003/01/09 18:38
-	0	((725/88).CCLS.) and ("web page" with (VOD and control\$1))	USPAT	2003/01/09 18:38
-	0	((725/88).CCLS.) and ("web page" with control\$1)	USPAT	2003/01/09 18:39
-	21	725/\$7.ccls. and ("web page" with control\$1)	USPAT	2003/01/09 18:39
-	49	(725/88).CCLS.	USPAT	2003/01/13 13:20
-	26	((725/88).CCLS.) and rewind	USPAT	2003/01/13 13:20

L Number	Hits	Search Text	DB	Time stamp
27	7760	(child or adult or parent or master or slave) same ((channel or program\$1) near2 (block\$3 or access\$3 or control\$3 or lock\$3 or unlock\$3))	USPAT; US-PGPUB; DERWENT; IBM_TDB	2003/08/12 20:14
28	734	348/734.ccls.	USPAT; US-PGPUB; DERWENT; IBM_TDB	2003/08/12 19:56
29	51	((child or adult or parent or master or slave) same ((channel or program\$1) near2 (block\$3 or access\$3 or control\$3 or lock\$3 or unlock\$3)) ) and 348/734.ccls.	USPAT; US-PGPUB; DERWENT; IBM_TDB	2003/08/12 19:57
30	184	348/734.ccls. and (child or adult or parent or master or slave)	USPAT; US-PGPUB; DERWENT; IBM_TDB	2003/08/12 21:13

ISSUE SLIP STAPLE AREA (for additional cross references)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	<i>AS</i>	<i>22492</i>	<i>2/12/00</i>
O.I.P.E. CLASSIFIER			<i>3-18-00</i>
FORMALITY REVIEW		<i>008048</i>	<i>4/90</i>
RESPONSE FORMALITY REVIEW			

INDEX OF CLAIMS

✓ ..... Rejected      N ..... Non-elected  
 = ..... Allowed      I ..... Interference  
 - (Through numeral) ... Canceled      A ..... Appeal  
 ÷ ..... Restricted      O ..... Objected

*NR*

Claim	Final	Original	Date
1	1	✓	1/15/03
2	2	✓	08/13/03
3	3	✓	11/07/04
4	4	✓	
5	5	✓	
6	6	✓	
7	7	✓	
8	8	✓	
9	9	✓	
10	10	✓	
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Claim	Final	Original	Date
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If more than 150 claims or 10 actions  
 staple additional sheet here

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10511 U.S. PTO  
09/501054  
02/09/00

125	87
Class	Subclass
ISSUE CLASSIFICATION	

PATENT NUMBER
6754907
6754907

## U.S. UTILITY Patent Application

O.I.P.E. SCANNED <i>(CHU)</i> Q.A. <i>ne</i>	PATENT DATE JUN 22 2004
---	----------------------------

APPLICATION NO. 09/501054	CONT/PRIOR	CLASS 725	SUBCLASS 87	ART UNIT 2614 14	EXAMINER SHANG
------------------------------	------------	--------------	----------------	---------------------	-------------------

APPLICANTS  
TITLE

James Schumacher  
Mike O'Brien  
Jay Straley

Remote control of video-on-demand system

PTO-2040  
12/99

## ISSUING CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)						
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
725	87	725	91	93	109	110	116	118
INTERNATIONAL CLASSIFICATION		348	460	552	734			
A 04 N	7/173							
A 04 N	8/16							

☐ Continued on Issue Slip Inside File Jacket

<input checked="" type="checkbox"/> <b>TERMINAL DISCLAIMER</b>	DRAWINGS			CLAIMS ALLOWED	
	Sheets Drwg.	Figs. Drwg.	Print Fig.	Total Claims	Print Claim for O.G.
	7	7	1 & 2	25	1
<input type="checkbox"/> The term of this patent subsequent to _____ (date) has been disclaimed.	ANNAN Q. SHANG, <i>(Signature)</i> 02/07/04 (Assistant Examiner) (Date)			NOTICE OF ALLOWANCE MAILED 2-10-04	
<input checked="" type="checkbox"/> The term of this patent shall not extend beyond the expiration date of U.S. Patent No. <i>(Signature)</i>	JOHN MILLER SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2000 <i>(Signature)</i> 2/9/04 (Primary Examiner) (Date)			ISSUE FEE <i>MA</i> Amount Due \$ 1330 Date Paid 2/12/04	
<input type="checkbox"/> The terminal _____ months of this patent have been disclaimed.	ISSUE FEE IN FILE (Legal Instruments Examiner) (Date)			ISSUE BATCH NUMBER	
<b>WARNING:</b> The information disclosed herein may be restricted. Unauthorized disclosure may be prohibited by the United States Code Title 35, Sections 122, 181 and 368. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and contractors only.					

Form PTO-436A  
(Rev. 6/99)

FILED WITH: ☐ DISK (CRF) ☐ FICHE ☐ CD-ROM  
(Attached in pocket on right inside flap)

(FACE)

SEARCHED			
Class	Sub.	Date	Exmr.
725	86-88 91, 93 141, 153	11/12/02	NR
UPDATED SEARCH	734 460, 552	08/11/03	AS
SEARCH NOTES ENCLOSED	725 104, 110 121, 122 106, 108 133, 141 58, 80-104 1-8	↓	AS
UPDATED SEARCH	112 113 94 95 96 114 116 117 118	08/12/03 08/05/04	AS

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
725	86, 88 91-96 80, 81 109, 104 110, 121 122, 106 108, 112 113, 116-118 122, 133 141, 58 86-104 1-8	02/16/04	AS

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	Date	Exmr.
John Miller (725)	11/14/02	
Chris Grant (725)	11/13/02	
Andrew Faile (725)	11/13/02	NR
EAST (text search attached)		
725/110, 104, 122, 109, 121, 89, 40, 92, 94-100, 1-8, 121, 122	1/8/03	
348/434 (Victor 1105TH)	8/11/03	AS
UPDATED SEARCH	08/11/03	AS
SEARCH NOTES ENCLOSED	↓	AS
UPDATED SEARCH	01/05/04	AS
JOHN MILLER	01/02/04	AS
HAI TRAN	01/07/04	AS
R. BROWN	01/08/04	AS
CARU GRANT	01/08/04	AS
JOHN MILLER	02/06/04	AS

(RIGHT OUTSIDE)

REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

Transaction History

Date	Transaction Description
02-15-2000	Preexamination Location Change
02-15-2000	Initial Exam Team nn
03-14-2000	IFW Scan & PACR Auto Security Review
04-19-2000	Correspondence Address Change
04-21-2000	Application Dispatched from OIPE
01-28-2001	Case Docketed to Examiner in GAU
06-29-2001	Correspondence Address Change
01-23-2002	Case Docketed to Examiner in GAU
10-28-2002	Case Docketed to Examiner in GAU
01-27-2003	Non-Final Rejection
01-29-2003	Mail Non-Final Rejection
06-02-2003	Response after Non-Final Action
06-02-2003	Request for Extension of Time - Granted
06-21-2003	Case Docketed to Examiner in GAU
06-23-2003	Date Forwarded to Examiner
08-25-2003	Final Rejection
09-03-2003	Mail Final Rejection (PTOL - 326)
10-24-2003	Terminal Disclaimer Filed
10-24-2003	Response after Final Action
10-31-2003	Date Forwarded to Examiner
11-10-2003	Notification of Terminal Disclaimer - Accepted
11-17-2003	Advisory Action (PTOL-303)
11-19-2003	Mail Notification of Terminal Disclaimer - Accepted
11-19-2003	Mail Advisory Action (PTOL - 303)
12-01-2003	Request for Continued Examination (RCE)
12-01-2003	Workflow - Request for RCE - Begin
12-12-2003	Date Forwarded to Examiner
12-12-2003	Disposal for a RCE / CPA / R129
02-09-2004	Oath or Declaration Required
02-09-2004	Formal Drawings Required
02-09-2004	Notice of Allowance Data Verification Completed
02-10-2004	Correction - Oath or Declaration NOT Required
02-10-2004	Mail Notice of Allowance
02-10-2004	Mail Formal Drawings Required
02-10-2004	Mail Oath of Declaration Required
02-11-2004	Receipt into Pubs
02-12-2004	Receipt into Pubs
02-12-2004	Workflow - File Sent to Contractor
03-10-2004	Receipt into Pubs
03-12-2004	Workflow - Drawings Finished
03-12-2004	Workflow - Drawings Matched with File at Contractor
05-12-2004	Issue Fee Payment Verified
05-12-2004	Issue Fee Payment Received
05-20-2004	Application Is Considered Ready for Issue
05-21-2004	Receipt into Pubs
06-03-2004	Issue Notification Mailed
06-22-2004	Patent Issue Date Used in PTA Calculation
07-12-2004	Recordation of Patent Grant Mailed

# PATENT APPLICATION



09501054

Jc511 U.S. PTO

09/501054



02/09/00

INITIALS

1050 080035

## CONTENTS

Date Received  
(Incl. C. of M.)  
or  
Date Mailed

Date Received  
(Incl. C. of M.)  
or  
Date Mailed

1. Application <i>pts. papers.</i>		42.	
2. <i>Change of Add.</i>	12/27/00	43.	
3. <i>Change of Add.</i>	6/28/01	44.	
4. <i>Req. 3mo</i>	1/29/02	45.	
5. <i>EOI (1)</i>	6/2/03	46.	
6. <i>Amend A</i>	6/2/03	47.	
7. <i>Final Ref. (3)</i>	9/03/03	48.	
8. <i>Amend B one</i>	10/24/03	49.	
9. <i>Terminal Disclm</i>	10/24/03	50.	
10. <i>Advisory Action</i>	11/19/03	51.	
11. <i>Req. for Rce</i>	12/1/03	52.	
12. <i>Notice of Allow</i>	2-10-04	53.	
13. <i>Formal Drawings (1 ?) (1) (1)</i>	3/12/04	54.	
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## FILE HISTORY

US 6,754,907

PATENT: 6,754,907

INVENTORS: Schumacher, James

O'Brien, Mike

Straley, Jay Cee

TITLE: Remote control of video-on-demand system

APPLICATION  
NO: US2000501054A

FILED: 09 FEB 2000

ISSUED: 22 JUN 2004

COMPILED: 22 MAY 2018

# File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 2000-04-19

Document Title - USPTO Communication Re: Change of Address



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

#12/Change of  
add  
2/2/01  
K. Powell

CHANGE OF ADDRESS/POWER OF ATTORNEY

RECEIVED

DEC 27 2000

Technology Center 2600

FILE LOCATION 26X1 SERIAL NUMBER 09501054 PATENT NUMBER

THE CORRESPONDENCE ADDRESS HAS BEEN CHANGED TO CUSTOMER # 21396

THE PRACTITIONERS OF RECORD HAVE BEEN CHANGED TO CUSTOMER # 21396

THE FEE ADDRESS HAS BEEN CHANGED TO CUSTOMER # 21396

ON 11/27/00 THE ADDRESS OF RECORD FOR CUSTOMER NUMBER 21396 IS:

SPRINT COMMUNICATIONS COMPANY  
HARLEY R BALL  
8140 WARD PARKWAY 5W  
KANSAS CITY MO 64114

AND THE PRACTITIONERS OF RECORD FOR CUSTOMER NUMBER 21396 ARE:

31733 35875 36106 37936 38356 39388 42229 43265

PTO INSTRUCTIONS: PLEASE TAKE THE FOLLOWING ACTION WHEN THE  
CORRESPONDENCE ADDRESS HAS BEEN CHANGED TO CUSTOMER NUMBER:  
RECORD; ON THE NEXT AVAILABLE CONTENTS LINE OF THE FILE JACKET,  
'ADDRESS CHANGE TO CUSTOMER NUMBER'. LINE THROUGH THE OLD  
ADDRESS ON THE FILE JACKET LABEL AND ENTER ONLY THE 'CUSTOMER  
NUMBER' AS THE NEW ADDRESS. FILE THIS LETTER IN THE FILE JACKET.  
WHEN ABOVE CHANGES ARE ONLY TO FEE ADDRESS AND/OR PRACTITIONERS  
OF RECORD, FILE LETTER IN THE FILE JACKET.  
THIS FILE IS ASSIGNED TO GAU 2713.



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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Washington, D.C. 20231

#3 BA 6/29/01  
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CHANGE OF ADDRESS/POWER OF ATTORNEY

RECEIVED  
JUN 28 2001  
Technology Center 2600

FILE LOCATION 26C1 SERIAL NUMBER 09501054 PATENT NUMBER

THE PRACTITIONERS OF RECORD HAVE BEEN CHANGED TO CUSTOMER # 28004

ON 05/23/01 THE ADDRESS OF RECORD FOR CUSTOMER NUMBER 28004 IS:

SPRINT COMMUNICATIONS COMPANY L.P.  
8140 WARD PARKWAY, MAIL STOP MOKCMP0506  
KANSAS CITY MO 64114

AND THE PRACTITIONERS OF RECORD FOR CUSTOMER NUMBER 28004 ARE:

31733 35875 37936 45132 46267 46566

PTO INSTRUCTIONS: PLEASE TAKE THE FOLLOWING ACTION WHEN THE  
CORRESPONDENCE ADDRESS HAS BEEN CHANGED TO CUSTOMER NUMBER:  
RECORD, ON THE NEXT AVAILABLE CONTENTS LINE OF THE FILE JACKET,  
'ADDRESS CHANGE TO CUSTOMER NUMBER'. LINE THROUGH THE OLD  
ADDRESS ON THE FILE JACKET LABEL AND ENTER ONLY THE 'CUSTOMER  
NUMBER' AS THE NEW ADDRESS. FILE THIS LETTER IN THE FILE JACKET.  
WHEN ABOVE CHANGES ARE ONLY TO FEE ADDRESS AND/OR PRACTITIONERS  
OF RECORD, FILE LETTER IN THE FILE JACKET.  
THIS FILE IS ASSIGNED TO GAU 2611.

# File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 2001-06-29

Document Title - USPTO Communication Re: Change of Address



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347

28004 7590 01/29/2003  
SPRINT  
6391 SPRINT PARKWAY  
KSOPHT0101-Z2100  
OVERLAND PARK, KS 66251-2100

EXAMINER

ROUVAS, NIKOLAOS

ART UNIT PAPER NUMBER

2614

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/501,054		<b>Applicant(s)</b> SCHUMACHER ET AL. <span style="float: right;">②</span>	
	<b>Examiner</b> Nikolaos Rouvas		<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-25 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All   b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "221 and display 222" (page 6, line 10). It appears that the element numbers should be 121 and 122. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-10, 15-19, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,191,806 to Mayer.

In regards to claims 1, 6, and 9, Mayer discloses a system for use with on-demand cable programming, where "video requests may also be made... on-line from a computer via the Internet" (column 3, lines 40-42). The two interfaces can clearly be shown in Figure 1, where the system (16) receives requests placed through the phone line (at a corresponding "second interface"), which clearly reads on receiving "a video control signal", and outputs the requested video to the TV (through a corresponding "first interface"), which clearly reads on transferring "video content signals". The claimed "processing system" is met by the controller (23) of Figure



21. Mayer does not explicitly disclose using a GUI, such as a web page, to place the video requests, which would read on "a control screen signal" being transferred from the second interface to the viewer. The examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to use GUI interfaces as means of inputting control signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a GUI interface (i.e., a web page, since the requests are place from a computer via the Internet) to facilitate a user-friendly manner of entering commands.

In regards to claims 7 and 8, Mayer clearly discloses that "video requests may also be made... on-line from a computer via the Internet" (column 3, lines 40-42) over his second interface. The examiner submits that the World Wide Web is a service provided to any computer linked to the Internet, so interfacing with a world wide web is inherent to Mayer's invention.

In regards to claim 10, the method described is composed of the same structural elements the system of rejected claim 1 is composed of. Therefore, the same reasons for rejection apply.

In regards to claims 15-18, the method described is composed of the same structural elements the system of rejected claims 6-9 is composed of. Therefore, the same reasons for rejection apply.

In regards to claim 19, the product described is composed of the same structural elements the system of rejected claim 1 is composed of. Therefore, the same reasons for rejection apply.

In regards to claims 24 and 25, Mayer discloses a "controller" (column 3, line 47), also shown in Figure 1, which controls the operation of the video-on-demand system, acting as a processor. The examiner submits that it is inherent to Mayer's invention to have a storage medium with executable instructions in order for the controller to operate. Since the product

Art Unit: 2614

described is composed of the same structural elements the system of rejected claims 6 and 9 is composed of, the same reasons for rejection apply.

Claims 2- 5, 11-14, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer in view of U.S. Patent No. 5,928,327 to Wang et al.

In regards to claims 2, 4, and 5, Mayer does not disclose a video control menu comprising play, stop, pause, rewind, fast-forward, and video content selection menu. Wang discloses a "video on demand (VOD) system" (column 5, lines 44-45), where "each video client is a computer which generates video control signals", which "select and control the playback of a video from the videos provided by VOD system" (column 6, lines 1-5). "Video clients are preferably linked to video server using an Ethernet network... or any other communication means" (column 6, lines 13). "Video control commands include for example, PLAY... PAUSE, FAST FORWARD, REWIND, SELECT A VIDEO" (column 8, lines 17-20). The examiner notes that all these functions are just different types of control signals, much like the ones disclosed in Mayer's system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mayer with Wang so that all the aforementioned control signals were available in the GUI interface in order to increase the user's control over the video displayed.

In regards to claims 11, 13, and 14, the method described is composed of the same structural elements the system of rejected claims 2, 4, and 5 is composed of. Therefore, the same reasons for rejection apply.

In regards to claims 20, 22, and 23, the product described is composed of the same structural elements the system of rejected claims 2, 4, and 5 is composed of. Therefore, the same reasons for rejection apply.

In regards to claim 3, Mayer in view of Wang does not disclose a video display control menu selection per se. The examiner submits that such a function would just be a different type of a control signal provided through a GUI, much like the ones discussed in the rejection of claims 2, 4, and 5. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mayer in view of Wang to include the video display control menu selection in the GUI interface in order to increase the user's control over the video displayed.

In regards to claim 12, the method described is composed of the same structural elements the system of rejected claim 3 is composed of. Therefore, the same reasons for rejection apply.

In regards to claim 21, the product described is composed of the same structural elements the system of rejected claim 3 is composed of. Therefore, the same reasons for rejection apply.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Calder et al. (6,480,753) discloses a system where control of appliances can effected through a web page.

White et al. (6,392,664) discloses a method and system where VCR-like functions on a video-on-demand service can be actuated through a GUI.

Application/Control Number: 09/501,054

Page 6

Art Unit: 2614

Majeti et al. (5,488,412) discloses a system where, in one embodiment, the user can request for information from a service provider over a PSTN network and receive through the cable network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Nikolaos Rouvas** whose telephone number is **(703) 305-6955**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John Miller**, can be reached at **(703) 305-4795**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

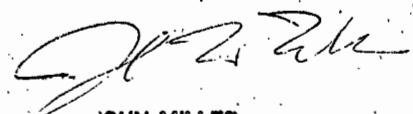
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



**JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**

<b>Notice of References Cited</b>	Application/Control No. 09/501,054	Applicant(s)/Patent Under Reexamination SCHUMACHER ET AL.	
	Examiner Nikolaos Rouvas	Art Unit 2614	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,191,806	02-2001	Mayer, Daniel J.	725/1
	B	US-5,928,327	07-1999	Wang et al.	725/88
	C	US-6,480,753	11-2002	Calder et al.	700/83
	D	US-6,392,664	05-2002	White et al.	345/717
	E	US-5,488,412	01-1996	Majeti et al.	725/111
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

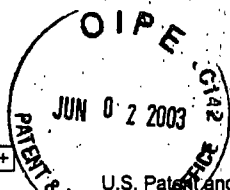
FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



GP 2614

Please type a plus sign (+) inside this box → ☐

PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	09/501,054
	Confirmation Number	3347
	Filing Date	02/09/2000
	First Named Inventor	James Schumacher
	Group Art Unit	2614
Examiner Name	Nikolaos Rouvas	

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JUN 06 2003

Technology Center 2600

Total Number of Pages in This Submission | 11 | Attorney Docket Number | 1289

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input checked="" type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Return postcard
Remarks		If it is determined that there are any additional fees due in this matter, the Commissioner is hereby authorized to debit Deposit Account No. 21-0765 for the required fees.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Gregg L. Jansen, Reg. No. 46,799
Signature	
Date	May 29, 2003

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Fee Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on this date:			
			May 29, 2003
Typed or printed name	Julie M. Zoller		
Signature		Date	May 29, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Practitioner's Docket No. 1289

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

6/A  
BAO/11/03

In re application of: Schumacher et al.

Application No.: 09/501,054

Group No.: 2614

Filed: February 9, 2000

Examiner: Rouvas, N.

For: REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

**Mail Stop Fee Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

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Technology Center 2600

Response to Office Action

Introductory Comments

In response to the Office Action dated January 29, 2003, please enter this amendment and consider the following remarks. A one-month extension of time is requested and authorized in the transmittal. The entire claim set of the application is included, according to the revised amendment format.

Amendments to the Claims

1. **[Currently Amended]** A video-on-demand system comprising:

SEP  
a first communication interface configured to transfer video content signals to a first communication system;  
a second communication interface configured to transfer the video content signals to a second communication system, transfer a control screen signal to the a second communication system, and receive a video control signal from the second communication system; and  
a processing system configured to ~~transfer the video signals to the first communication interface~~, transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, and implement a viewer control selection indicated by the video control signal, and transfer the video content signals to either the first communication interface or to the second communication interface, based on the video control signal received from the second communication interface.

AI  
CMB

2. [Original] The video-on-demand system of claim 1 wherein the control screen signal includes a video display control menu comprising play and stop.

3. [Original] The video-on-demand system of claim 2 wherein the viewer control selection comprises a video display control menu selection.

4. [Original] The video-on-demand system of claim 3 wherein the video display control menu further comprises pause, rewind, and fast forward.

5. [Original] The video-on-demand system of claim 1 wherein the control screen includes a video content selection menu.

6. [Original] The video-on-demand system of claim 5 wherein second communications interface is configured to receive a video content menu selection signal from the second



communications system, and the processing system is configured to process the video content selection signal to transfer selected video content in the video content signals.

7. [Original] The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with an internet.

8. [Original] The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with a world-wide web.

9. [Original] The video-on-demand system of claim 1 wherein the control screen comprises a web page.

10. [Currently Amended] A method of operating a video-on-demand system, the method comprising:

~~transferring video content signals to a first communication system;~~  
transferring a control screen signal to a second communication system;  
receiving a video control signal from the second communication system; and  
implementing a viewer control selection indicated by the video control signal; and  
transferring video content signals to either a first communication interface or to  
the second communication interface, based on the video control signal received from the  
second communication interface.

11. [Original] The method of claim 10 wherein the control screen signal includes a video display control menu comprising play and stop.

12. [Original] The method of claim 11 wherein implementing the viewer control selection comprises implementing a video display control menu selection.

13. [Original] The method of claim 12 wherein the video display control menu further comprises pause, rewind, and fast forward.

14. [Original] The method of claim 10 wherein the control screen includes a video content selection menu.

15. [Original] The method of claim 14 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

16. [Original] The method of claim 10 wherein transferring the control screen signal comprises interfacing with an internet.

17. [Original] The method of claim 10 wherein transferring the control screen signal comprises interfacing with a world-wide web.

18. [Original] The method of claim 10 wherein the control screen comprises a web page.

19. [Currently Amended] A product comprising a processor-readable storage medium storing processor-executable instructions for performing a method for operating a video-on-demand system, the method comprising:

~~transferring video content signals to a first communication system;~~  
transferring a control screen signal to a second communication system;  
receiving a video control signal from the second communication system; and  
implementing a viewer control selection indicated by the video control signal; and  
transferring video content signals to either a first communication interface or to  
the second communication interface, based on the video control signal received from the  
second communication interface.

20. [Original] The product of claim 19 wherein the control screen signal includes a video display control menu comprising play and stop.

21. [Original] The product of claim 20 wherein implementing the viewer control selection comprises implementing a video display control menu selection.

22. [Original] The product of claim 21 wherein the video display control menu further comprises pause, rewind, and fast forward.

23. [Original] The product of claim 19 wherein the control screen includes a video content selection menu.

*Amended*  
24. [Original] The product of claim 23 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

25. [Original] The product of claim 19 wherein the control screen comprises a web page.

---

Amendments to the Drawings

FIG. 2 is amended herein to correct the two reference numerals cited in the Office Action, wherein “-display 121” is replaced with “-display 221” and “-display 122” is replaced with “-display 222” (in the box labeled “video display menu 232”).

### Remarks

Claims 1-25 are pending. Claims 1-25 stand rejected. Claims 1, 10, and 19 are amended herein. Support for the amendments is found at page 5, lines 6-15, for example. Applicants respectfully traverse the rejection and request allowance of claims 1-25.

FIG. 2 was objected to for inconsistencies between the figure and the reference numerals included in the written specification. FIG. 2 is amended herein to correct the two reference numerals cited in the Office Action, wherein "-display 121" is replaced with "-display 221" and "-display 122" is replaced with "-display 222" (in the box labeled "video display menu 232").

Claims 1, 6-10, 15-19, 24, and 25 stand rejected under 35 U.S.C. §103(a) over U.S. Patent 6,191,806 (Mayer).

Claims 1, 10, and 19, as amended, require transferring video content signals to either a first communication interface or to a second communication interface, based on a video control signal received from the second communication interface. Thus, the viewer can control which communication interface is used to deliver the video content signals.

In contrast, Mayer discloses a video-on-demand system wherein a customer dials up to a cable supplier 16 over a telephone network to select a video. The selected video is delivered through the cable system to the customer's television 12 in a conventional manner. Thus, the viewer in Mayer cannot control which communication interface is used to deliver the video content signals. For example, the viewer cannot select between a telephone network and a cable network for video delivery.

Independent claims 1, 10, and 19 therefore include features that are neither taught nor suggested by Mayer. Claims 6-9, 15-18, 24, and 25 are allowable for the same reasons as claims 1, 10, and 19.

Claims 2-5, 11-14, and 20-23 stand rejected under 35 USC § 103(a) as being obvious over Mayer and further in view of U.S. Patent 5,928,327 (Wang et al.). Claims 2-5, 11-14, and 20-23 depend from independent claims 1, 10, and 19, and therefore are patentable for the reasons previously discussed.

Applicants submit that there are numerous additional reasons in support of patentability, but that such reasons are moot in light of the above remarks and are omitted in the interests of brevity. Applicants respectfully request allowance of claims 1-25.

Please feel free to call me to discuss the patentability of claims 1-25.

Date:

5/29/03

  
SIGNATURE OF PRACTITIONER

Gregg Jansen, Reg. No. 46,799  
Duft Setter Ollila & Bornsen LLC  
Telephone: (303) 938-9999 ext. 14  
Facsimile: (303) 938-9995

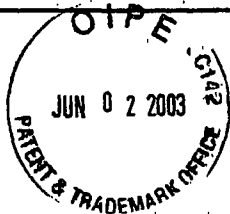
Correspondence address:

CUSTOMER NO. 028004

Harley R. Ball  
Sprint Law Department  
6391 Sprint Parkway  
Mailstop: KSOPHT0101-Z2100  
Overland Park, KS 66251-2100

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Docket Number (Optional)  
1289



In re Application of Schumacher et al.

Application Number 09/501,054

Filed 02/09/2000

For REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

Group Art Unit  
2614

Examiner  
Nikolaos Rouvas

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Technology Center 2600

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response in the above identified application.

The requested extension and appropriate non-small-entity fee are as follows (check time period desired):

- ☒ One month (37 CFR 1.17(a)(1)) \$110.00  
☐ Two months (37 CFR 1.17(a)(2)) \$  
☐ Three months (37 CFR 1.17(a)(3)) \$  
☐ Four months (37 CFR 1.17(a)(4)) \$  
☐ Five months (37 CFR 1.17(a)(5)) \$

- ☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$  
☐ A check in the amount of the fee is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Commissioner has already been authorized to charge fees in this application to a Deposit Account.  
☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 21-0765.  
I have enclosed a duplicate copy of this sheet.

I am the ☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

☒ attorney or agent of record.

☐ attorney or agent under 37 CFR 1.34(a).

Registration number if acting under 37 CFR 1.34(a):

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

May 29, 2003

Date

*Gregg Jansen*  
Signature

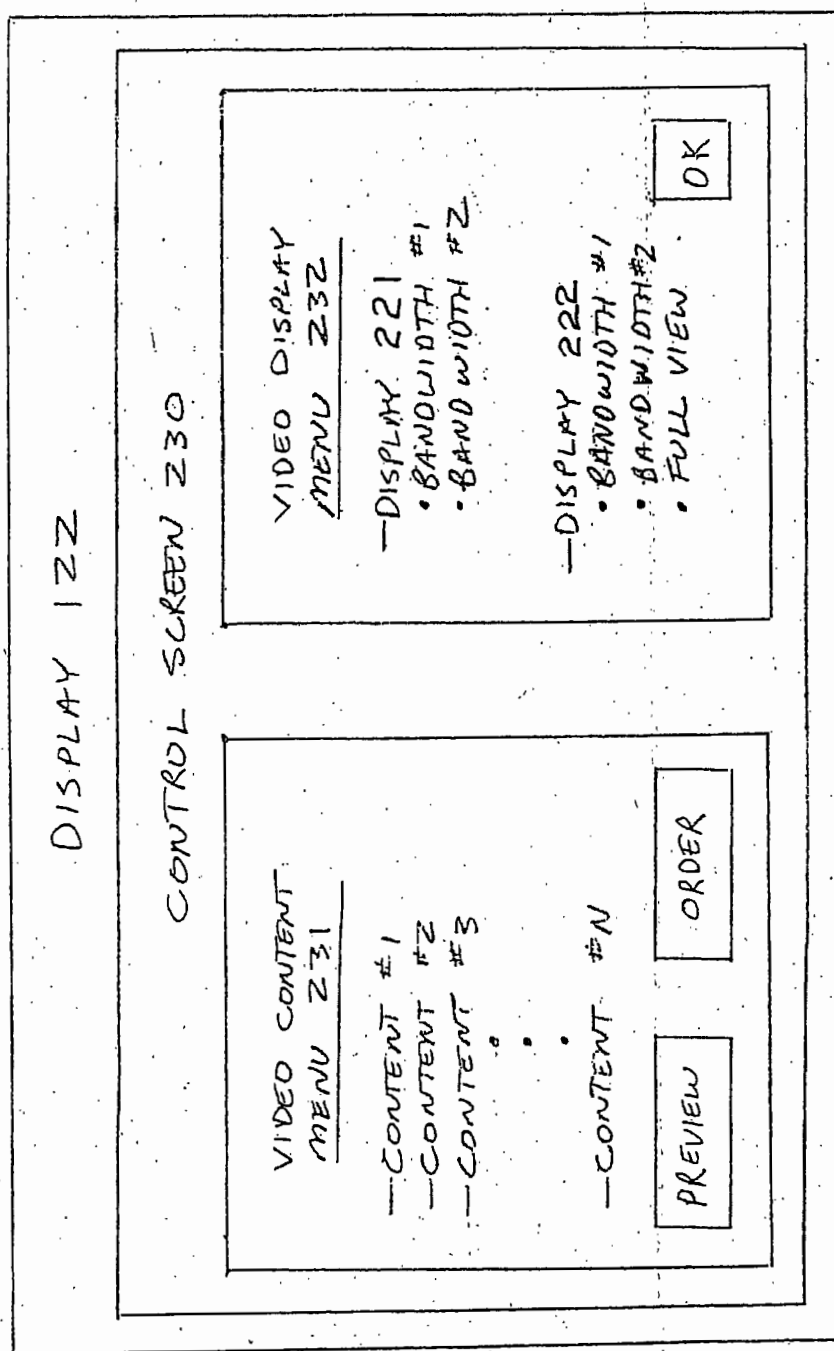
Gregg L. Jansen

Typed or printed name

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☐ \*Total of forms are submitted.

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



8/13/03  
OK drawings  
AS

FIG. 2

22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS



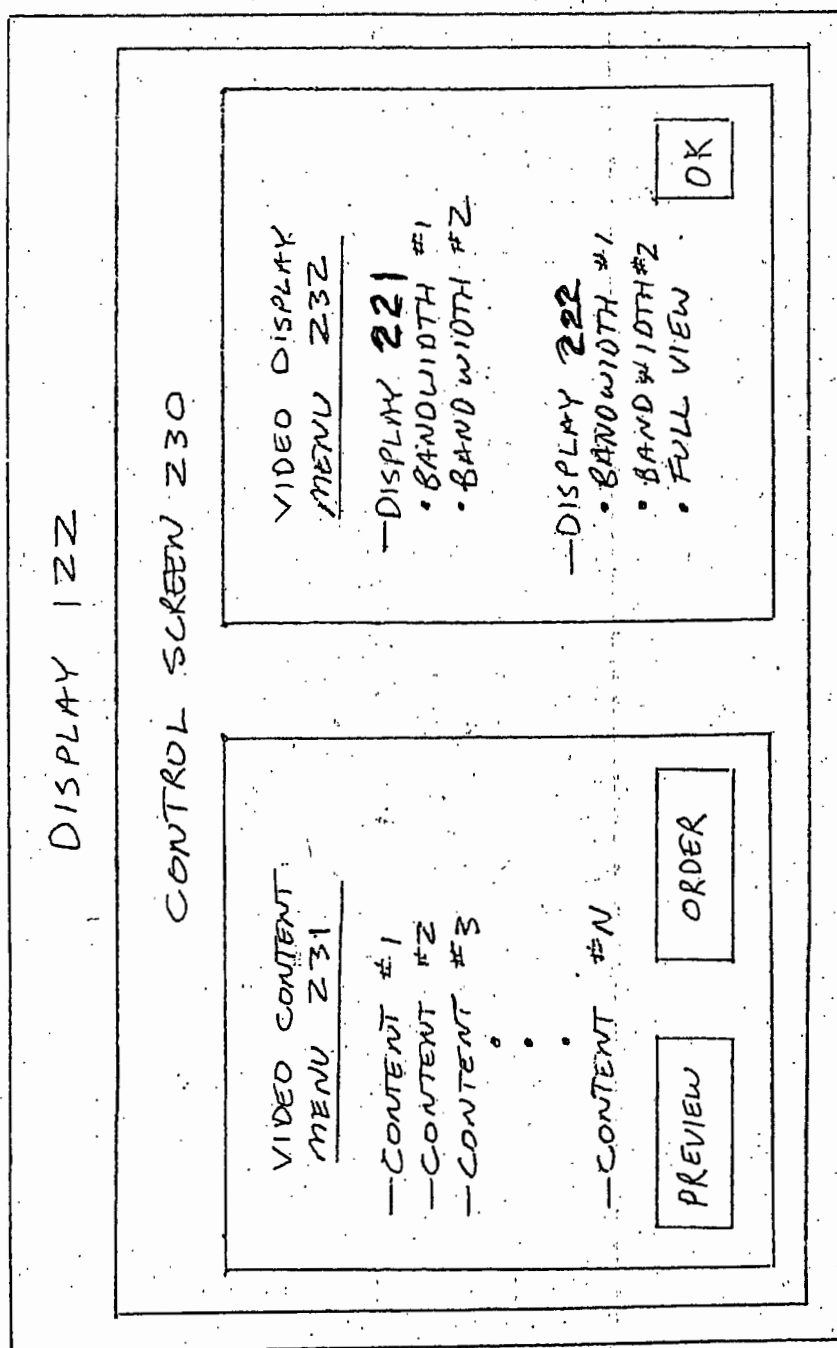


FIG. 2

8/13/03  
OK drawings  
AS



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347
28004	7590	09/03/2003		
SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100				

EXAMINER
SHANG, ANNAN Q

ART UNIT.	PAPER NUMBER
2614	

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/501,054		<b>Applicant(s)</b> SCHUMACHER ET AL.	
	<b>Examiner</b> Annan Q Shang		<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 02 June 2003.

2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-25 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☒ The proposed drawing correction filed on 02 June 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other:

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-53 of copending Application No. 09/501,055 (correspondence is indicated below). Although the conflicting claims are not identical, they are not patentably distinct from each other.

As to claims 1, 10 and 19, the claimed "video content signals..." corresponds to "first video signals" of claims 1, 21 and 41 of co-pending application (Co-P) '055 (claim 1, line 2);

the claimed "a first communication interface...and first communication system" corresponds to "a first communication interface...and first communication system" of Co-P '055 (claim 1, line 2-3);

the claimed "a second communication interface," "control screen signal" and "a second communication system" corresponds to "a second communication interface," "control screen signal" and "a second communication system" of Co-P '055 (claim 1, line 4-6);

the claimed "receive a video control signal from..." corresponds to "receiver a viewer control signal from..." of Co-P '055 (claim 1, line 9)

the claimed "a processing system.." corresponds to "a processing system..." of Co-P '055 (claim 1, lines 8-12)

As to claims 2, 4, 11, 13, 20 and 22, the claimed "video display control menu..." corresponds to "video display control menu..." of Co-P '055 (claim 12, lines 1-3);

As to claims 3, 12 and 21, the claimed "viewer control selection comprises..." corresponds to "video display menu..." of Co-P '055 (claim 4, lines 1-2);

As to claims 5, 14 and 23, the claimed "video content selection menu" corresponds to "video content menu" of Co-P '055 (claim 6, lines 1-2);

As to claims 6, 15 and 24, the claimed "wherein second communications interface..." corresponds to "wherein second communications interface..." of Co-P '055 (claim 3, lines 1-5);

As to claim 7, the claimed "an internet" corresponds to "an internet" of Co-P '055 (claim 18, line 2);

As to claim 8, the claimed "a wide-wide web" corresponds to "a wide-wide web" of Co-P '055 (claim 19, line 2);

As to claim 9, the claimed "a web page" corresponds to "a web page" of Co-P '055 (claim 20, line 2)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not yet been patented.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6-10, 15-19, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mayer (6,191,806)**.

As to claims 1, 6, and 9, **Mayer** discloses a system and method for use with on-demand cable programming where each of plurality of video sources is capable of playing the requested video program. The claimed is met as follows: The two interfaces can clearly be shown in Figure 1, the "first interface..." is met by LOCAL CABLE HEAD END (LC-HE), note col. 3, lines 26-33, note that LC-HE transfers "video content signal" to Television Set 12, "a first communication system," the claimed "second communication interface..." is met by TELEPHONE SWITCHING SYSTEM (TSS) 18, note col. 3, lines 33-46, note that TSS 18 "the second communication interface" also transfers "the video content signals" to Computer 11, "second communication system," note that "video requests may also be made... on-line from a computer via the Internet" (column 3, lines 40-42); the claimed "a processing system..." is met by Cable Supplier

(CATV-S) 16, note that CATV-S receives requests, on-line from Computer 11, which clearly contains "a video control signal", and outputs or transfers the requested video to the Computer 11, note that the received "video content signals" is based on the "video control signal" that was sent on-line from Computer 11.

However, Mayer does not explicitly disclose using a GUI, to place the video requests, which would read on "a control screen signal" being transferred from the second interface to the viewer. The examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to use GUI interfaces as means of inputting control signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a GUI interface (i.e., a web page, since the requests are place from a computer via the Internet) to facilitate a user-friendly manner of entering commands.

As to claims 7 and 8, Mayer clearly discloses that "video requests may also be made... on-line from a computer via the Internet" (column 3, lines 40-42) over TSS 18. The examiner submits that the World Wide Web is a service provided to any computer linked to the Internet, so interfacing with a world-wide web is inherent to Mayer's invention.

As to claim 10, the method described is composed of the same structural elements the system of rejected claim 1 is composed of. Hence, the same reasons for rejection apply.

As to claims 15-18, the method described is composed of the same structural elements the system of rejected claims 6-9 is composed of. Hence, the same reasons for rejection apply.

As to claim 19, the product described is composed of the same structural elements the system of rejected claim 1 is composed of. Therefore, the same reasons for rejection apply.

As to claims 24 and 25, Mayer discloses a CATV-S "processing system" (col. 3, lines 33- 46 and line 60+), also shown in Figure 1, which controls the operation of the video-on-demand system. The examiner submits that it is inherent to Mayer's invention to have a storage medium with executable instructions in order for the CATV-S to operate. Since the product described is composed of the same structural elements the system of rejected claims 6 and 9 is composed of, the same reasons for rejection apply.

5. Claims 2- 5, 11-14, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mayer (6,191,806)** in view of **Wang et al (5,928,327)**.

As to claims 2, 4, and 5, Mayer does not disclose a video control menu comprising play, stop, pause, rewind, fast-forward, and video content selection menu. Wang discloses a "video on demand (VOD) system" (column 5, lines 44-45), where "each video client is a computer which generates video control signals", which "select and control the playback of a video from the videos provided by VOD system" (column 6, lines 1-5). "Video clients are preferably linked to video server using an Ethernet network... or any other communication means" (column 6, lines 13). "Video control commands include for example, PLAY... PAUSE, FAST FORWARD, REWIND,



SELECT A VIDEO" (column 8, lines 17-20). The examiner notes that all these functions are just different types of control signals, much like the ones disclosed in Mayer's system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mayer with Wang so that all the aforementioned control signals were available in the GUI interface in order to increase the user's control over the video displayed.

As to claims 11, 13, and 14, the method described is composed of the same structural elements the system of rejected claims 2, 4, and 5 is composed of. Hence, the same reasons for rejection apply.

As to claims 20, 22, and 23, the product described is composed of the same structural elements the system of rejected claims 2, 4, and 5 is composed of. Hence, the same reasons for rejection apply.

As to claim 3, Mayer in view of Wang does not disclose a video display control menu selection per se. The examiner submits that such a function would just be a different type of a control signal provided through a GUI, much like the ones discussed in the rejection of claims 2, 4, and 5. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mayer in view of Wang to include the video display control menu selection in the GUI interface in order to increase the user's control over the video displayed.

As to claim 12, the method described is composed of the same structural elements the system of rejected claim 3 is composed of. Therefore, the same reasons for rejection apply.

As to claim 21, the product described is composed of the same structural elements the system of rejected claim 3 is composed of. Therefore, the same reasons for rejection apply.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection discussed above. Applicant argues that, "the viewer in Mayer cannot control which interface is used to deliver the video content signals." However, the claims requires "transferring video content signals to either a first communication interface or to the second communication interface..." Mayer clearly teaches transferring video content signal to Computer 11, based on the on-line request from Computer 11 via the Internet, which meets the claim limitation. The amendment to all the independent claims necessitated the new grounds of rejections, hence this is a Final Office Action.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gordon et al (6,314,573) disclose method and apparatus for providing subscription-on-demand services for an interactive information distribution system.

Kikinis (6,205,485) discloses simulcast web page delivery using a 3D user interface system.

Brodigan (6,219,355) discloses video and data communication system.

Rothblatt (6,105,060) discloses system for providing global portable internet access using low earth orbit satellite and satellite direct radio broadcast system.

Olds et al (6,078,810) disclose multiple-tier satellite communication system and method of operation.

Dawson et al (5,594,490) disclose system for distributing video/audio files from central location to a plurality of cable headends.

Wager et al (5,761,602) disclose hybrid multichannel data transmission system utilizing a broadcast medium.

Butcher (5,969,714) disclose interactive video system with frame reference number.

Klok et al (5,930,250) disclose "communication system..."

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Application/Control Number: 09/501,054

Page 10

Art Unit: 2614

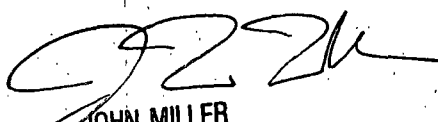
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Customer Service** whose telephone number is **703-306-0377**.



**Annan Q. Shang**



**JOHN MILLER**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

<b>Notice of References Cited</b>	Application/Control No. 09/501,054	Applicant(s)/Patent Under Reexamination SCHUMACHER ET AL.	
	Examiner Annan Q Shang	Art Unit 2614	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,314,573	11-2001	Gordon et al.	725/61
	B	US-6,205,485	03-2001	Kikinis, Dan	709/231
	C	US-6,219,355	04-2001	Brodigan, Donald L.	370/486
	D	US-6,105,060	08-2000	Rothblatt, Martine A.	709/219
	E	US-6,078,810	06-2000	Olds et al.	455/428
	F	US-5,594,490	01-1997	Dawson et al.	725/67
	G	US-5,761,602	06-1998	Wagner et al.	725/34
	H	US-5,969,714	10-1999	Butcher, John Anthony Weeks	345/719
	I	US-5,930,250	07-1999	Klok et al.	370/352
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

SET

### AFTER FINAL TRACKING REPORT

UAL NUMBER:

09501054

ART UNIT:

2614

MAILROOM STAMP DATE

10/24/03

FAX DATE

NOTE: ACTION MUST BE MAILED NO LATER THAN THIRTY (30) DAYS  
AFTER THE MAILROOM STAMP DATE.

BOX AE? (Y/N):

DATE

INITIAL

RCVD ETC  
(Entered by LIE)

CASE RECEIVED BY LIE  
(Entered by LIE)

FORWARD TO EXM'R (FWDX)  
(Entered by LIE)

SUBMITTED TO AE FOR COUNT  
(Entered by SPE or Primary)

AMENDMENT ENTERED  
(Entered by Lie)

INTERVIEW DATE  
(Entered by SPE or Primary)

ACTION COUNTED (Check One)  
(Entered by LIE)

Allowance

Advisory

Non Final

New Final

MAILED

Mailed

Mailed

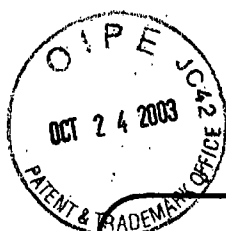
Mailed

SPECIAL NOTE:



ADDITIONAL FEES

NOTE: Sheet to be removed by person mailing action. Sheet needs to be placed in the drop  
Off box in TSS room CPK2 - 4W30.



PTO/SB/21 (08-03)  
Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
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AF  
2700

<b>TRANSMITTAL FORM</b> <small>(to be used for all correspondence after initial filing)</small>	Application Number	09/501,054
	Confirmation Number	3347
	Filing Date	02/09/2000
	First Named Inventor	James Schumacher, et al.
	Art Unit	2614
Examiner Name		Annan Q. Shang
Total Number of Pages in This Submission		12
Attorney Docket Number		1289

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ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Reply <input checked="" type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input checked="" type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) <small>(please identify below):</small> <b>Return postcard</b>
Remarks		If it is determined that additional fees are due, the Commissioner is authorized to debit Deposit Account No. 21-0765 for the required fees.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Gregg L. Jansen, Reg. No. 46,799
Signature	
Date	October 20, 2003

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Julie M. Zoller		
Signature		Date	October 20, 2003

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (10-03)  
d for use through 07/31/2006. OMB 0651-0032  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

## FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 110

### Complete if Known

Application Number 09/501,054  
Filing Date 02/09/2000  
First Named Inventor James Schumacher, et al.  
Examiner Name Annan Q. Shang  
Art Unit 2614  
Attorney Docket No. 1289

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### METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money ☐ Other ☐ None  
Order

☒ Deposit Account:

Deposit  
Account  
Number

21-0765

Deposit  
Account  
Name

Sprint Communications Company, L.P.

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge any additional fee(s) during the pendency of this application  
☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.

### FEE CALCULATION

#### 1. BASIC FILING FEE

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1)

(\$ ) 0

#### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims  -20 \*\* =  0 X  =  0  
Independent Claims  -3 \*\* =  0 X  =  0  
Multiple Dependent  X  =  0

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$ ) 0

\*\*or number previously paid, if greater; For Reissues, see above

### FEE CALCULATION (continued)

#### 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) Statutory disclaimer fee

110.00

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$ ) 110

### SUBMITTED BY

### Complete (if applicable)

Name (Print/Type) Gregg L. Jensen Registration No. (Attorney/Agent) 46,799 Telephone 303-938-9999, ext. 14  
Signature *Gregg L. Jensen* Date October 20, 2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form, and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.





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8/15/03  
BA 10/31/03  
REPLY UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
TECHNOLOGY CENTER 2600  
PATENT  
BA 10/17/03

Practitioner's Docket No. 1289

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Schumacher et al.

Application No.: 09/501,054

Group No.: 2614

Filed: February 9, 2000

Examiner: Annan Q. Shang

For: REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

**Mail Stop AF**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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OCT 28 2003

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**Response to FINAL Office Action**

**Introductory Comments**

In response to the **final** Office Action dated September 3, 2003, please enter the following amendments and consider the following remarks. This response is filed under expedited procedure. The entire claim set of the application is included, according to the revised amendment format.

Do not enter 11/17/03  
AS

### Amendments to the Claims

1. [Currently Amended] A video-on-demand system comprising:

a first communication interface configured to transfer video content signals to a first communication system;

a second communication interface configured to transfer the video content signals to a second communication system, transfer a control screen signal to the second communication system, and receive a video control signal from the second communication system; and

a processing system configured to transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, implement a viewer control selection indicated by the video control signal, and transfer the video content signals to ~~either~~ the first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transfer the video content signals to the second communication interface if the second communication interface is indicated by the video control signal, ~~based on the video control signal received from the second communication interface.~~

2. [Original] The video-on-demand system of claim 1 wherein the control screen signal includes a video display control menu comprising play and stop.

3. [Original] The video-on-demand system of claim 2 wherein the viewer control selection comprises a video display control menu selection.

4. [Original] The video-on-demand system of claim 3 wherein the video display control menu further comprises pause, rewind, and fast forward.

5. [Original] The video-on-demand system of claim 1 wherein the control screen includes a video content selection menu.

6. [Original] The video-on-demand system of claim 5 wherein second communications interface is configured to receive a video content menu selection signal from the second communications system, and the processing system is configured to process the video content selection signal to transfer selected video content in the video content signals.

7. [Original] The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with an internet.

8. [Original] The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with a world-wide web.

9. [Original] The video-on-demand system of claim 1 wherein the control screen comprises a web page.

10. [Currently Amended] A method of operating a video-on-demand system, the method comprising:

- transferring a control screen signal to a second communication system;
- receiving a video control signal from the second communication system;
- implementing a viewer control selection indicated by the video control signal; and
- transferring video content signals to either a first communication interface if the

first communication interface is indicated by the video control signal received from a second communication interface or transferring the video content signals to the second communication interface if the second communication interface is indicated by the video control signal, ~~based on the video control signal received from the second communication interface.~~

11. [Original] The method of claim 10 wherein the control screen signal includes a video display control menu comprising play and stop.

12. [Original] The method of claim 11 wherein implementing the viewer control selection comprises implementing a video display control menu selection.

13. [Original] The method of claim 12 wherein the video display control menu further comprises pause, rewind, and fast forward.

14. [Original] The method of claim 10 wherein the control screen includes a video content selection menu.

15. [Original] The method of claim 14 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

16. [Original] The method of claim 10 wherein transferring the control screen signal comprises interfacing with an internet.

21 and

17. [Original] The method of claim 10 wherein transferring the control screen signal comprises interfacing with a world-wide web.

18. [Original] The method of claim 10 wherein the control screen comprises a web page.

19. [Currently Amended] A product comprising a processor-readable storage medium storing processor-executable instructions for performing a method for operating a video-on-demand system, the method comprising:

transferring a control screen signal to a second communication system;  
receiving a video control signal from the second communication system;  
implementing a viewer control selection indicated by the video control signal; and  
transferring video content signals to either a first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transferring the video content signals to the second communication interface if the second communication interface is indicated by the video control signal, ~~based on the video control signal received from the second communication interface.~~

20. [Original] The product of claim 19 wherein the control screen signal includes a video display control menu comprising play and stop.

21. [Original] The product of claim 20 wherein implementing the viewer control selection comprises implementing a video display control menu selection.

22. [Original] The product of claim 21 wherein the video display control menu further comprises pause, rewind, and fast forward.

23. [Original] The product of claim 19 wherein the control screen includes a video content selection menu.

24. [Original] The product of claim 23 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

25. [Original] The product of claim 19 wherein the control screen comprises a web page.

Remarks

Claims 1-25 are pending. Claims 1-25 stand rejected. Claims 1, 10, and 19 are amended herein. Applicants respectfully traverse the rejection and request allowance of claims 1-25.

The outstanding Office Action states that the previously filed drawing correction was approved by the Examiner. The Office Action further states that corrected drawings are required in reply. Applicants request that the informal drawings be used for examination, and that formal drawings will be supplied upon notice of allowance. Applicants point out that formal drawings are not required during prosecution (see MPEP 608.02(b), "informal drawings will be accepted as satisfying the requirements of 37 CFR 1.51", and see 37 CFR 1.85(c), "applicant must file a corrected or formal drawing . . ."). Applicants contacted Supervisor John Miller, who stated that no further drawings are required in this matter until allowance, when formal drawings will be required.

Claims 1-25 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-53 of co-pending Application No. 09/501,055. The Office Action maintains that the claims of the present application are not patentably distinct from the above-referenced patent application. A terminal disclaimer is therefore submitted by Applicants to overcome the double patenting rejection.

Claims 1, 6-10, 15-19, 24, and 25 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent 6,191,806 (Mayer).

Claims 1, 10, and 19, as amended, require transferring video content signals to a first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transferring the video content signals to a second communication interface if the second communication interface is indicated by the video control signal. Thus, the viewer can control which communication interface is used to deliver the video content signals.

Mayer does not teach or suggest transferring video content signals to either a first communication interface or to a second communication interface, based on a video control signal received from the second communication interface. Instead, Mayer discloses a video-on-demand system wherein a customer can connect to a cable supplier 16 over a telephone network 18 (and over the Internet) to select a video. The selected video is delivered through the cable system to the customer's television 12 in a conventional manner. The video in Mayer is not delivered over the second communication system, such as the computer 11 or the cable interface 13 shown in FIG. 1. Mayer does not teach or suggest that the computer 11 receives video content signals. Mayer does not control which communication interface is used to deliver the video content signals. The viewer therefore cannot select between a telephone network and a cable network for video delivery.

The Office Action asserts that the telephone switching system (TSS) 18 "transfers 'the video content signals' to Computer 11, [the] 'second communication system'". The Office Action further asserts that the cable TV system (CATV-S) of Mayer "receives requests, on-line from Computer 11, which clearly contains a 'video control signal', and outputs or transfers the requested video to the Computer 11." The Office Action appears to be focusing on the phrase "video requests may also be made via alternate mediums, for example, on-line from a computer 11 via the Internet" (see col. 3, lines 40-42). The Office Action is interpreting this phrase as meaning that the video content is requested by and then delivered to the computer 11.

However, these assertions are incorrect and are not supported in Mayer. Mayer does not state that a *selected* video signal is provided to the computer 11. In Mayer, the interactive voice response system 20 is connected to the video source 22 in order to direct the video source 22 to play a customer's selection (see col. 3, lines 58-60). However, there is no video feed from the video source 22 to the computer 11. FIG. 1 shows the video source 22 connected only to customer television sets 12, and the text only discusses transmission to television sets 12 (see col. 3, line 58 to col. 4, line 3). A close scrutiny of Mayer does not reveal any teaching or suggestion of providing a video content signal to the computer 11. The computer 11 is used merely to select (*i.e.*, request) the video content signal (see col. 3, lines 31-33, 40-42, and 58-60).



Independent claims 1, 10, and 19 therefore include features that are neither taught nor suggested by Mayer. Claims 6-9, 15-18, 24, and 25 are allowable for the same reasons as claims 1, 10, and 19.

Claims 2-5, 11-14, and 20-23 stand rejected under 35 USC § 103(a) as being obvious over Mayer and further in view of U.S. Patent 5,928,327 (Wang et al.). Claims 2-5, 11-14, and 20-23 depend from independent claims 1, 10, and 19, and therefore are patentable for the reasons previously discussed.

Applicants submit that there are numerous additional reasons in support of patentability, but that such reasons are moot in light of the above remarks and are omitted in the interests of brevity. Applicants respectfully request allowance of claims 1-25.

Please feel free to call me to discuss the patentability of the claims.

Date: 10/20/03

  
SIGNATURE OF PRACTITIONER

Gregg Jansen, Reg. No. 46,799  
Duft Setter Ollila & Bornsen LLC  
Telephone: (303) 938-9999 ext. 14  
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Correspondence address:

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Sprint Law Department  
6391 Sprint Parkway  
Mailstop: KSOPHT0101-Z2100  
Overland Park, KS 66251-2100

Enclosure: Terminal Disclaimer



PTO/SB/25 (08-03)  
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**TERMINAL DISCLAIMER TO OBIATE A PROVISIONAL DOUBLE  
PATENTING REJECTION OVER A PENDING SECOND APPLICATION**

Docket Number (Optional)  
1289

**RECEIVED**

OCT 28 2003

Technology Center 2600

In re Application of: James Schumacher, et al.

Application No. 09/561,054

Filed: 02/09/2000

For: REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

The owner, Sprint Communications Company, L.P. of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 and 173 as shortened by any terminal disclaimer filed prior to the grant of any patent granted on pending second Application Number 09/501,055, filed on 02/09/2000, of any patent on the second application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the second application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of any patent granted on the second application, as shortened by any terminal disclaimer filed prior to the patent grant, in the event that any such granted patent expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims cancelled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of an organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☒ The undersigned is an attorney of record.

Gregg Jansen  
Signature

10/20/2003  
Date

Gregg L. Jansen, Reg. No. 46,799

Typed or printed name

303-938-9999, ext. 14

Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

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\*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).  
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347
28004	7590	11/19/2003	EXAMINER	
SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100			SHANG, ANNAN Q	
			ART UNIT	PAPER NUMBER
			2614	10

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	Application No. 09/501,054	Applicant(s) SCHUMACHER ET AL.	
	Examiner Annan Q. Shang	Art Unit 2614	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 October 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-25.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO 1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_.

Continuation Sheet (PTOL-303)  
09/501,054

Application No.

Continuation of 2. NOTE: Amendments to all the independent the claims (1, 10 and 19), such as "if the communication interface is indicated by the video signal..." changes the scope of the claims and would require further search and consideration.



**VIVEK SRIVASTAVA**  
**PRIMARY EXAMINER**

OTPE JC95  
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PTO/SB/30 (08-03)  
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Request  
For  
Continued Examination (RCE)  
Transmittal

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Alexandria, VA 22313-1450

Application Number	09/501,054
Confirmation Number	3347
Filing Date	02/09/2000
First Named Inventor	James Schumacher
Art Unit	2614
Examiner Name	Annan Q. Shang
Attorney Docket Number	1289

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. ☐ Submission required under 37 C.F.R. 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_  
ii. ☐ Other \_\_\_\_\_

b. ☐ Enclosed

i. ☐ Amendment/Reply  
ii. ☐ Affidavit(s)/Declaration(s)  
iii. ☐ Information Disclosure Statement (IDS)  
iv. ☐ Other \_\_\_\_\_

2. ☐ Miscellaneous

a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. 1.103(c) for a period of \_\_\_\_\_ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. 1.17(i) required)  
b. ☐ Other \_\_\_\_\_

3. ☐ Fees The RCE fee under 37 C.F.R. 1.17(e) is required by 37 C.F.R. 1.114 when the RCE is filed.

a. ☒ The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. 21-0765

i. ☒ RCE fee required under 37 C.F.R. 1.17(e)  
ii. ☐ Extension of time fee (37 C.F.R. 1.136 and 1.17)  
iii. ☒ Other Any additional fee which may be due in connection with this submission

b. ☐ Check in the amount of \$ \_\_\_\_\_ enclosed

c. ☐ Payment by credit card (Form PTO-2038 enclosed)

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print /Type)	Gregg L. Jansen	Registration No. (Attorney/Agent)	46,799
Signature	<i>Gregg L. Jansen</i>	Date	November 25, 2003

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below:

Name (Print /Type)	Julie M. Zoller	Date	November 25, 2003
Signature	<i>Julie M. Zoller</i>		

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Notice of Allowability	Application No.	Applicant(s)	
	09/501,054	SCHUMACHER ET AL.	
	Examiner	Art Unit	
	Annah Q Shang	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 12-01-03.

2. ☒ The allowed claim(s) is/are 1-25.

3. ☒ The drawings filed on 04/06/02/03 are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some\* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 1-25 allowed.
2. The following is an examiner's statement of reasons for allowance: with respect to claims 1, 10 and 19, the instant invention is directed to a video-on-demand system with two communication interfaces and a processor, the first communication interface is configured to transfer video content signals to a first communication system and the second communication configured to transfer the video content signals to a second communication system, transfer a control screen signal to the second communication system and receive a video control signal from the second communication system. The relevant prior art of record such as **Gerszberg et al (6,542,500)** disclose network server platform (NSP) for a hybrid coaxial/twisted pair local loop network service architecture that provides pay-per-view services to a Videophone and a set top box, where the NSP further provides graphical icons, services directory icons, etc., and stores, applets, information of each subscriber premises equipment and provides services based on customer preference data. **Meyer (6,191,806)** discloses demand-adaptive system and method for telephone requested on-demand cable programming, where a customer telephones a cable supplier and requests that a particular video program be played. **Kambayashi (6,157,809)** discloses a broadcasting system for distributing information to an audience about the contents of a broadcast at audience's request, lessening an amount of access to broadcasting station from the audience and controlling the distribution of information from the broadcasting station to the audience in accordance



with an amount of the information. **Mohammed et al (6,421,728)** disclose architecture for communicating with and controlling separate upstream and downstream devices, where a headend server and a client includes an analog modem and cable modem and communications with the client and a control and parse engine receives control and polling messages from headend, sets up a remote access connections (RAS), to establish a multi-homed client to permit upstream data to be sent using upstream device and downstream data to be received as before on the cable modem. However neither **Gerszberg, Mayer, Kambayashi or Mohammed** and any of the cited references teach or suggest, alone or in combination the feature of a processing system configured to transfer the control screen signal to the second communication interface, receive a video control signal from the second communication interface, implement a viewer control selection indicated by the video control signal, transfer the video content signals to the first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transfer the video content signals to the second communication interface if the second communication interface is indicated by the video control signal, which novel features are recited in the instant invention, in combination with other features with respect to the above independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shioda et al (6,484,318) disclose CATV communication system and method for the Internet connection.

Feldman et al (6,577,414) disclose subscriber modulation fiber-to-the-home/curb access providing broadband communications.

Ronen (6,285,660) discloses user network control.

Mohammed (6,041,356) discloses method and apparatus for detecting network traffic and initiating a dial-up connection using separate upstream and downstream devices.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

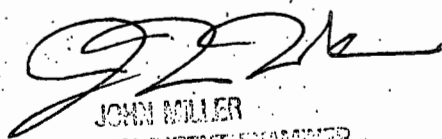
Application/Control Number: 09/501,054  
Art Unit: 2614

Page 5

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Annan Q. Shang.



JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

<b>Notice of References Cited</b>	Application/Control No. 09/501,054	Applicant(s)/Patent Under Reexamination SCHUMACHER ET AL.	
	Examiner Annan Q Shang	Art Unit 2614	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,542,500	04-2003	Gerszberg et al.	370/354
*	B	US-6,421,728	07-2002	Mohammed et al.	709/227
*	C	US-6,285,660	09-2001	Ronen, Yzhak	370/259
*	D	US-6,430,603	08-2002	Hunter, Charles Eric	709/207
*	E	US-6,484,318	11-2002	Shioda et al.	725/110
*	F	US-6,577,414	06-2003	Feldman et al.	725/129
*	G	US-6,041,356	03-2000	Mohammed, Mannan	709/227
*	H	US-5,574,779	11-1996	Ely et al.	379/221.09
*	I	US-6,157,809	12-2000	Kambayashi, Toru	725/91
*	J	US-6,191,806	02-2001	Mayer, Daniel J.	725/1
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EXAMINER

SHANG, ANNAN Q

ART UNIT PAPER NUMBER

2614

DATE MAILED: 02/10/2004

12

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347

TITLE OF INVENTION: REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	05/10/2004

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347

TITLE OF INVENTION: REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
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EXAMINER	ART UNIT	CLASS-SUBCLASS
SHANG, ANNAN Q	2614	725-087000

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347
28004	7590	02/10/2004		
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			EXAMINER SHANG, ANNAN Q	
			ART UNIT 2614	PAPER NUMBER

DATE MAILED: 02/10/2004

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**Determination of Patent Term Extension under 35 U.S.C. 154 (b)**  
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<b>TRANSMITTAL FORM</b> <small>(to be used for all correspondence after initial filing)</small>	Application Number	09/501,054
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	Filing Date	02/09/2000
	First Named Inventor	James Schumacher
	Art Unit	2614
Examiner Name		Shang, Annan Q.
Total Number of Pages in This Submission		8
Attorney Docket Number		1289

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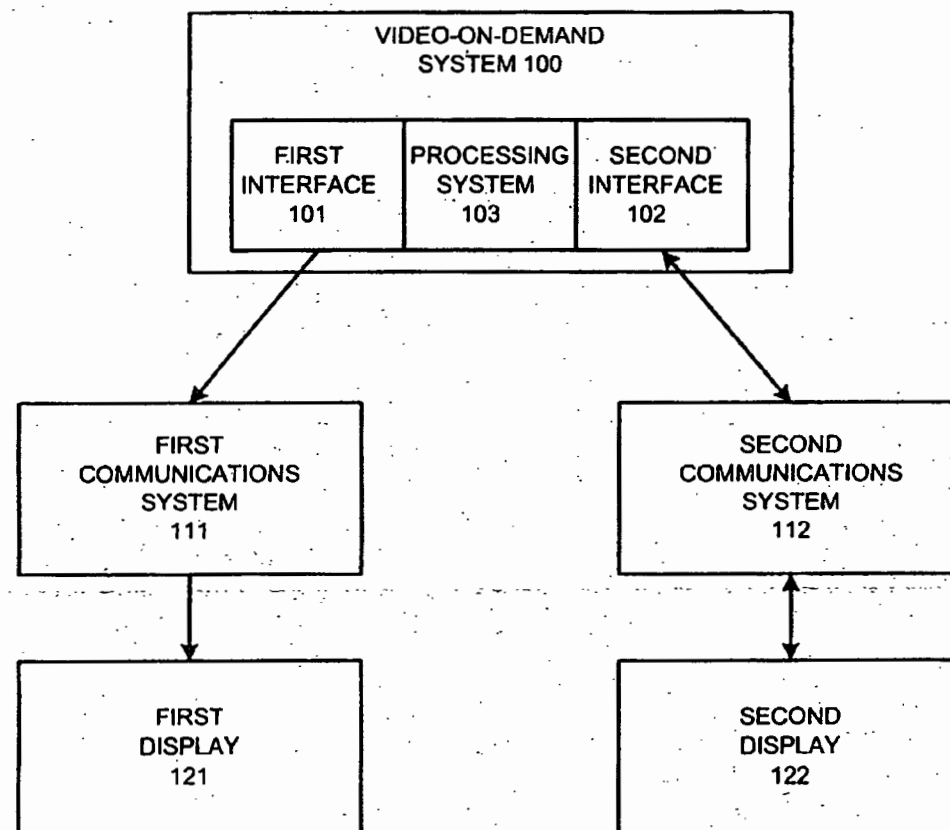
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FIG. 1

09501054

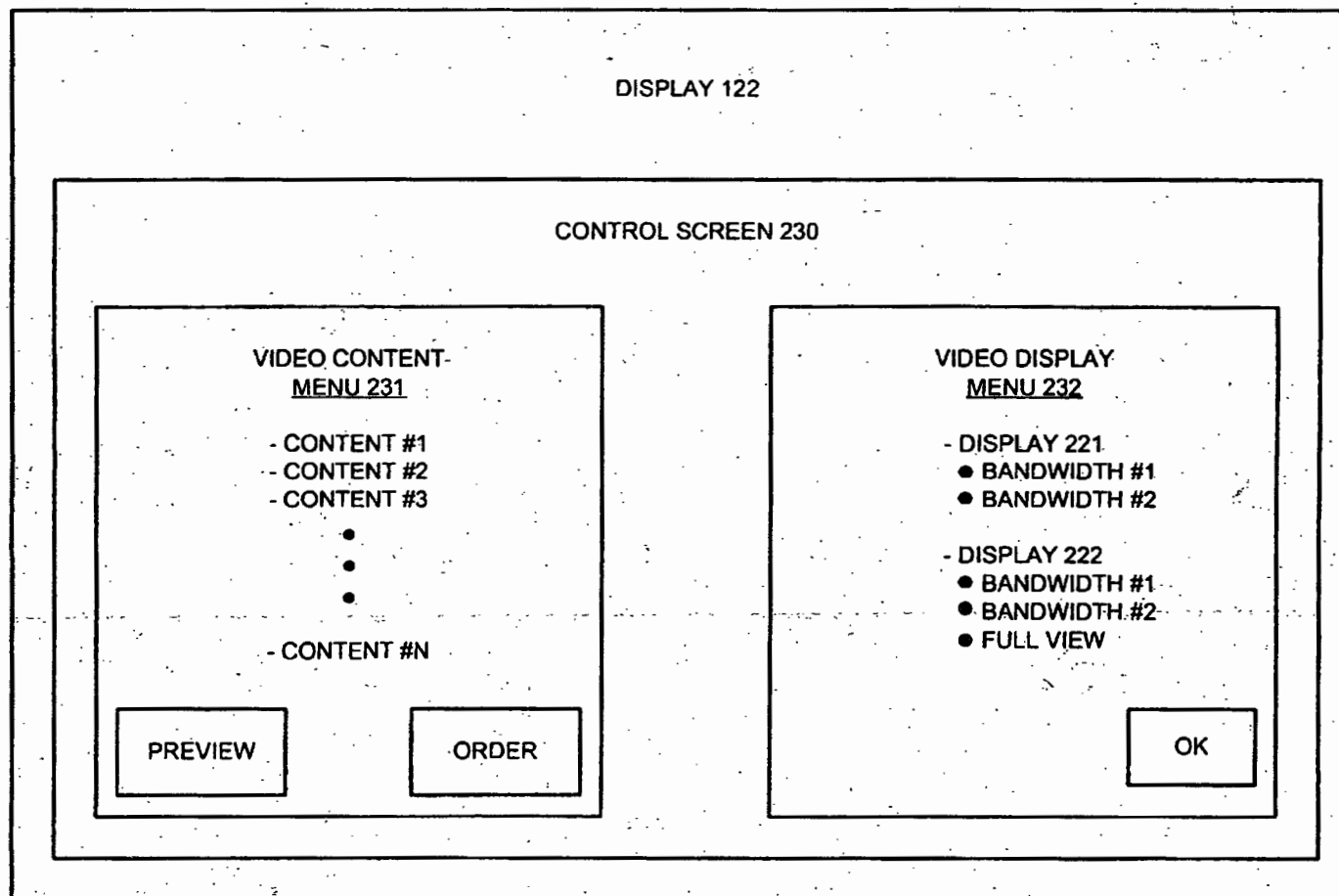


FIG. 2

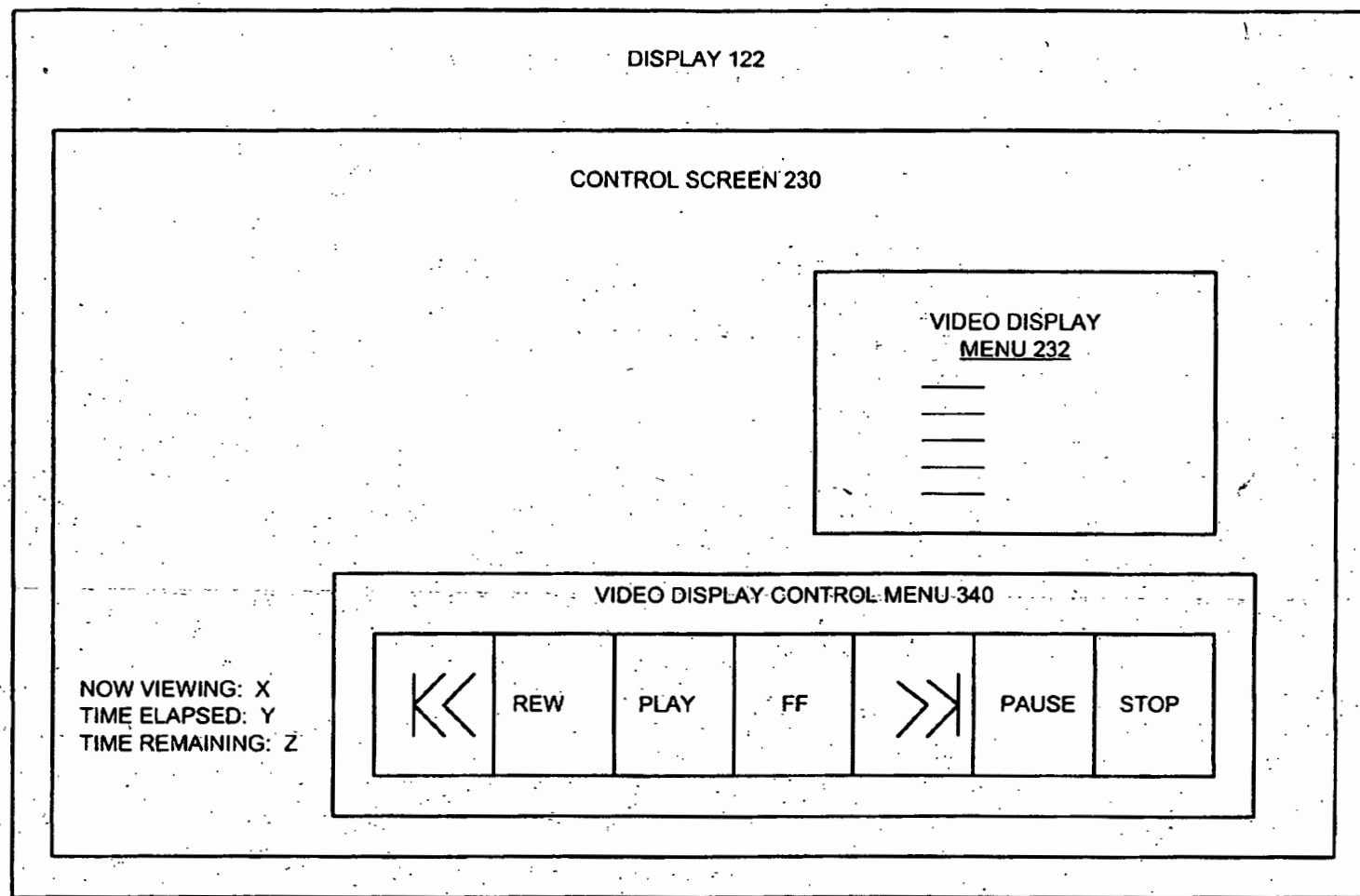
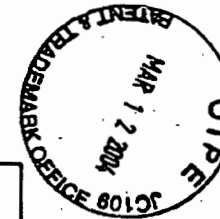
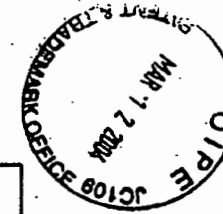
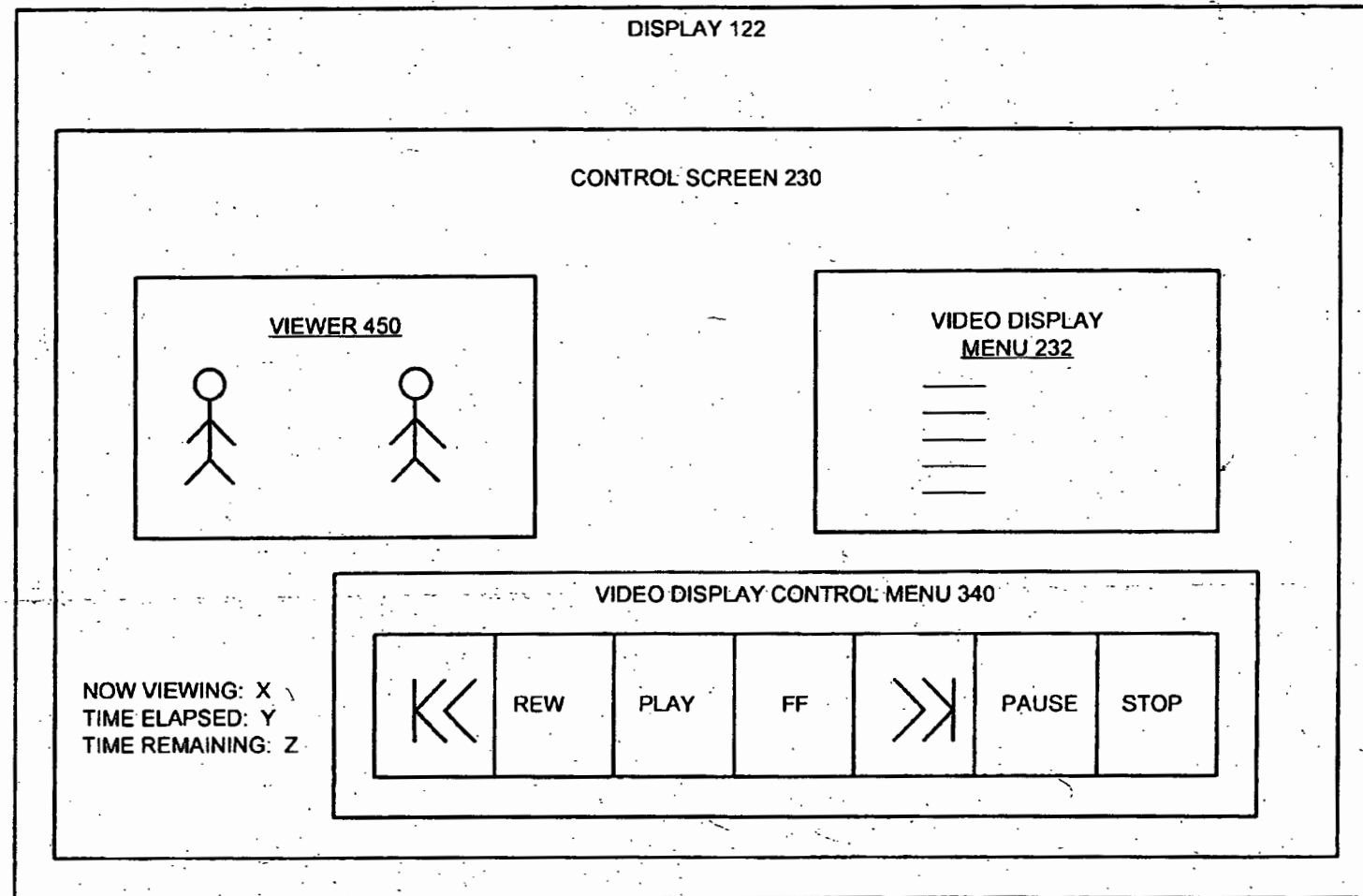


FIG. 3





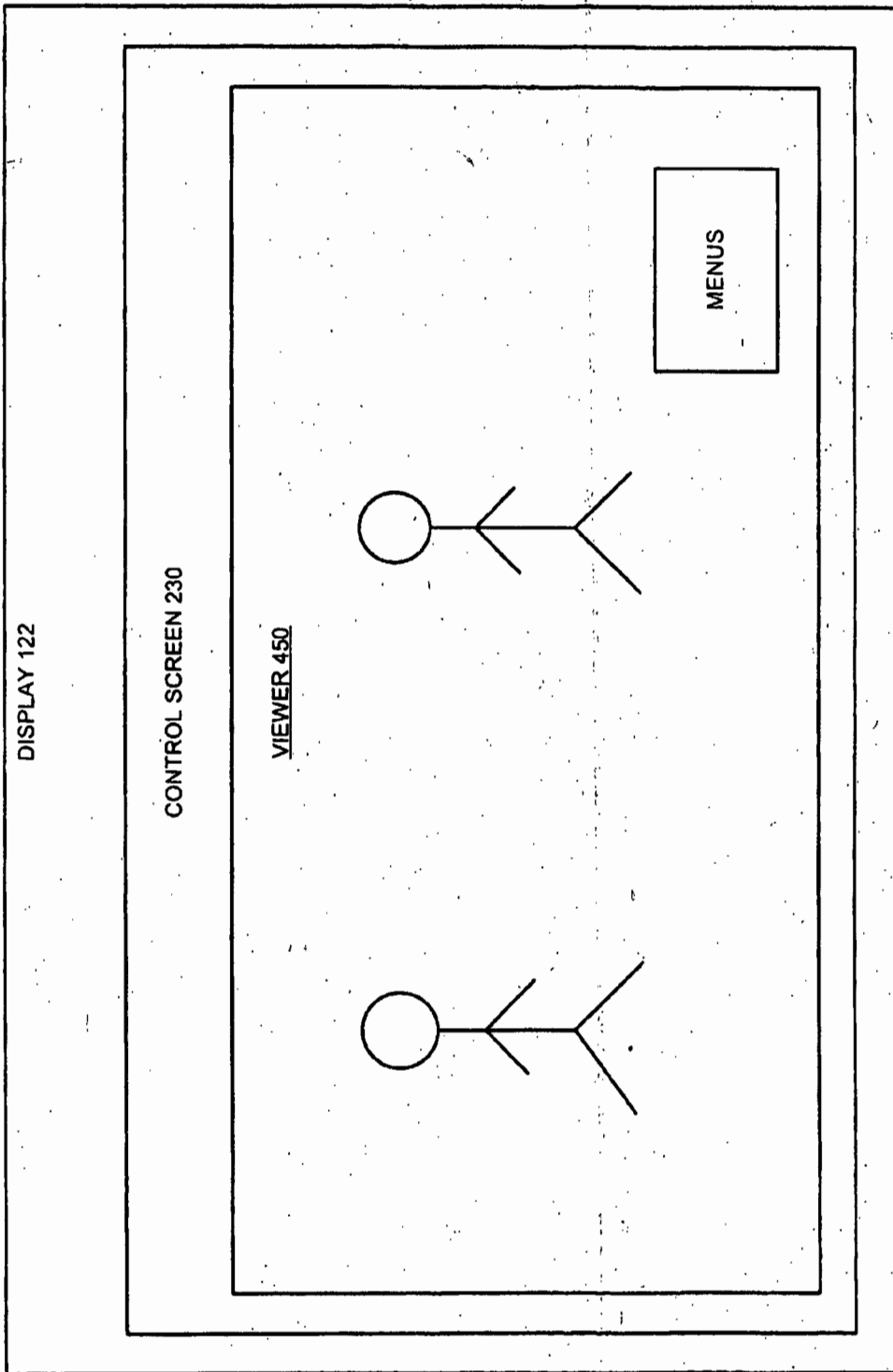


FIG. 5

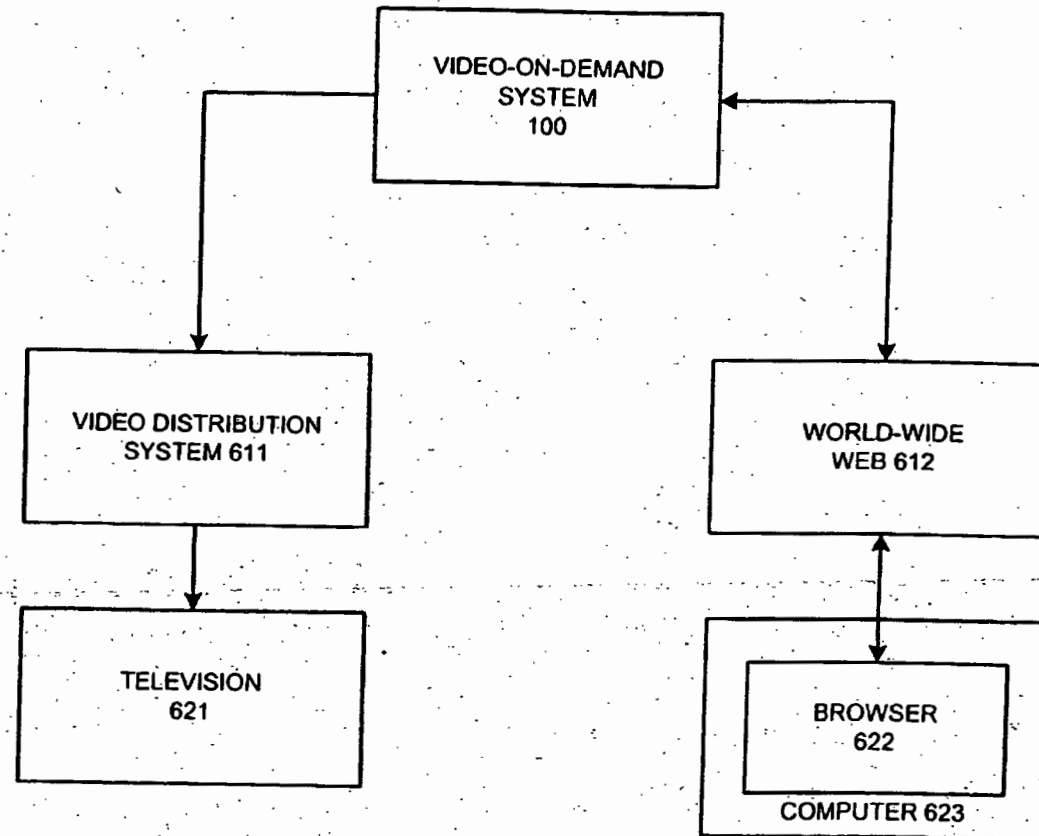


FIG. 6

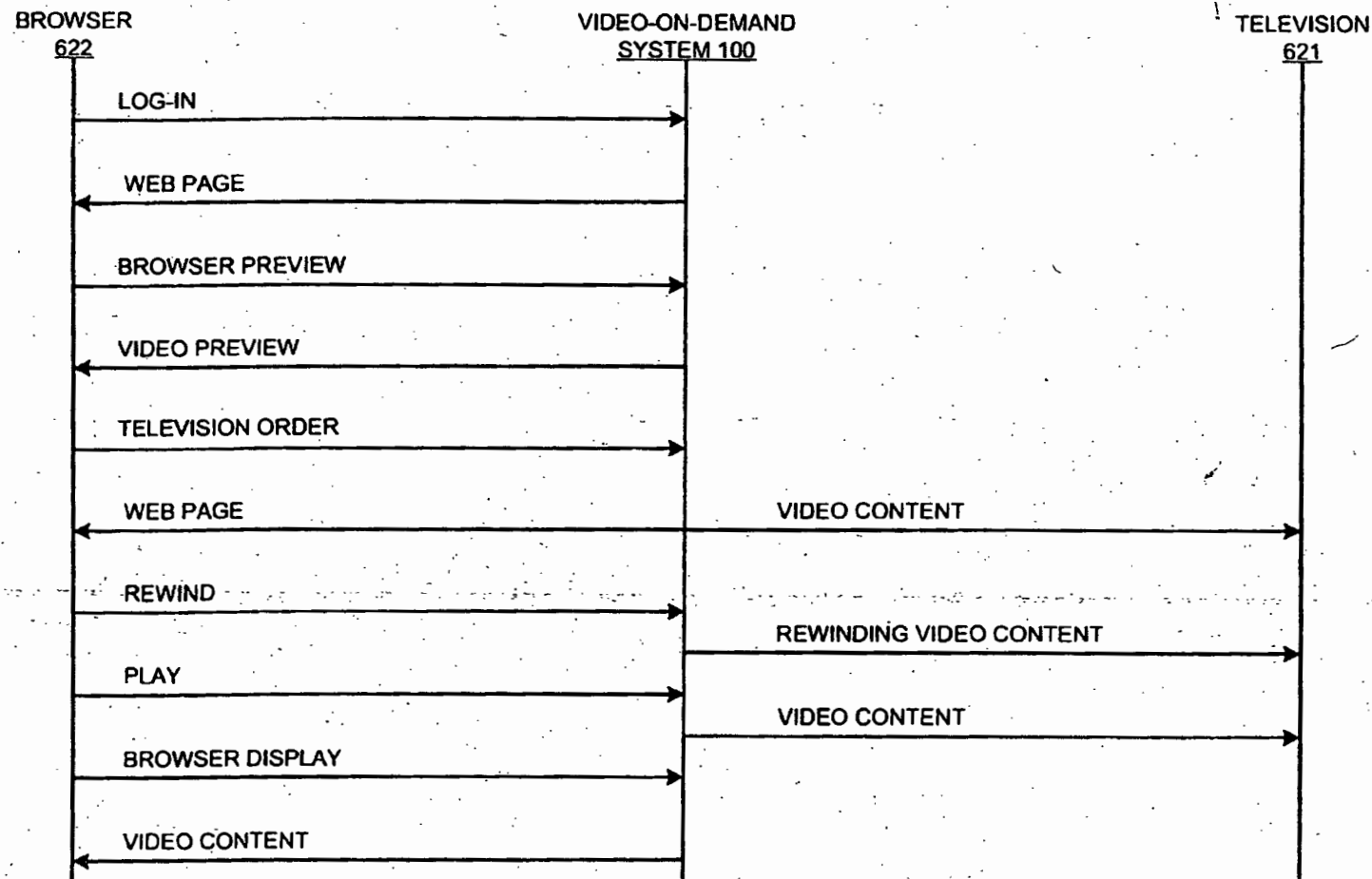
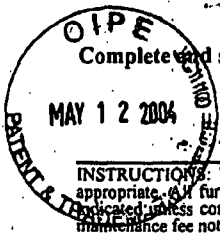


FIG. 7





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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,054	02/09/2000	James Schumacher	1289	3347

TITLE OF INVENTION: REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	05/10/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
SHANG, ANNAN Q	2614	725-087000

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Overland Park, KS 66251

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US006754907B1

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

(10) **Patent No.:** **US 6,754,907 B1**  
(45) **Date of Patent:** **\*Jun. 22, 2004**

(54) **REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM**

(75) **Inventors:** **James Schumacher**, Oakland, CA (US); **Mike O'Brien**, Pacifica, CA (US); **Jay Cee Straley**, San Carlos, CA (US)

(73) **Assignee:** **Sprint Communications Company, L.P.**, Overland Park, KS (US)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(21) **Appl. No.:** **09/501,054**

(22) **Filed:** **Feb. 9, 2000**

(51) **Int. Cl.<sup>7</sup>** ..... **H04N 7/173; H04N 8/16**

(52) **U.S. Cl.** ..... **725/87; 725/91; 725/93; 725/109; 725/110; 725/116; 725/118; 348/460; 348/552; 348/734**

(58) **Field of Search** ..... **725/141, 153, 725/110, 121, 122, 106, 108, 133, 58, 86-104, 1-8, 112, 113, 114, 116, 117, 118; 348/734, 460, 552**

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6,577,414 B1 \* 6/2003 Feldman et al. .... 725/129

\* cited by examiner

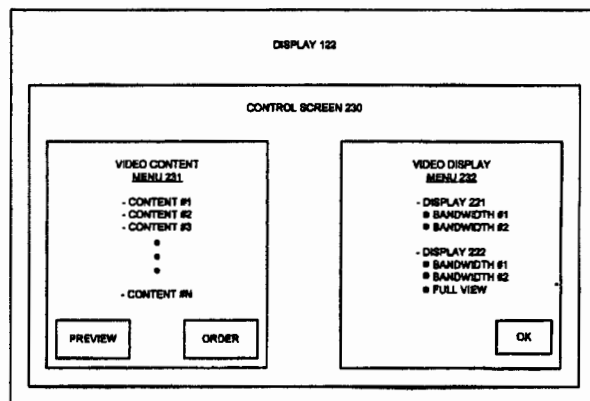
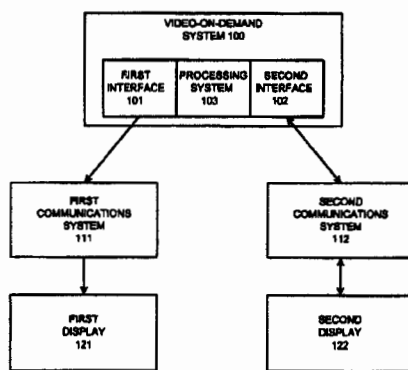
*Primary Examiner*—John Miller

*Assistant Examiner*—Annan Q. Shang

(57) **ABSTRACT**

A video-on-demand system transfers video content signals to a first communication system. The video-on-demand system transfers a control screen signal to a second communication system and receives a video control signal from the second communication system. The video-on-demand system implements a viewer control selection indicated by the video control signal. The control screen could be a web page that includes a video display control menu comprising play stop, pause, rewind, and fast forward. The control screen could include a video content selection menu. The video-on-demand system implements the control screen menu selections.

**25 Claims, 7 Drawing Sheets**



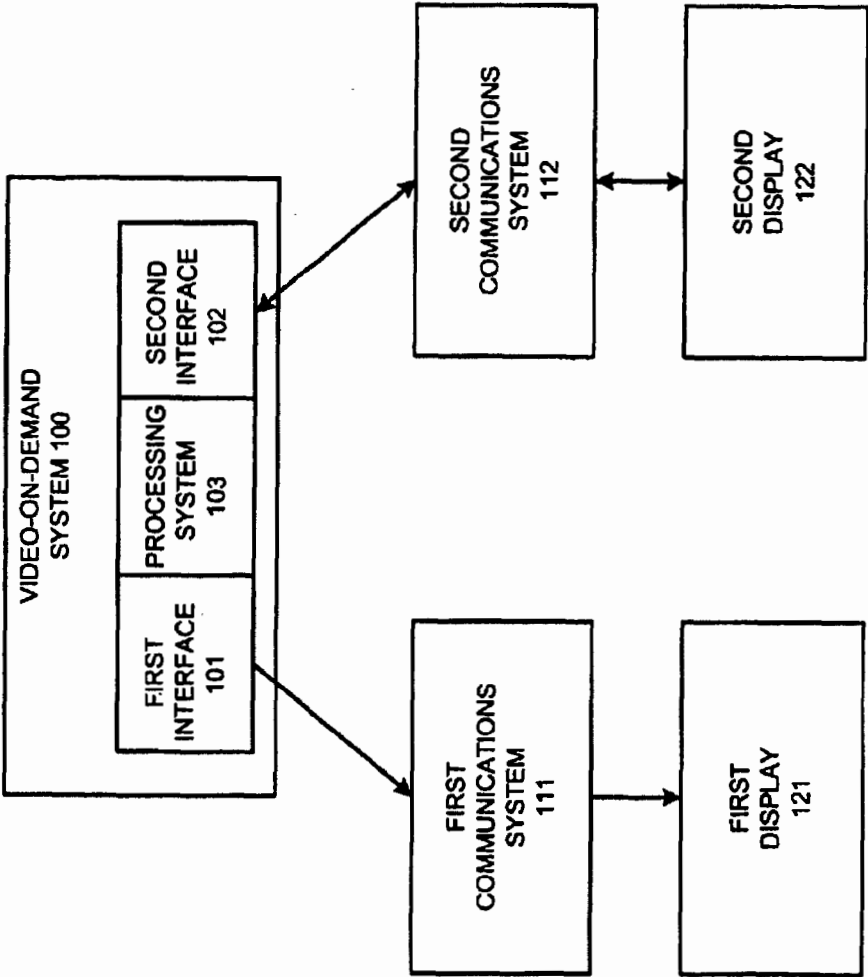


FIG. 1

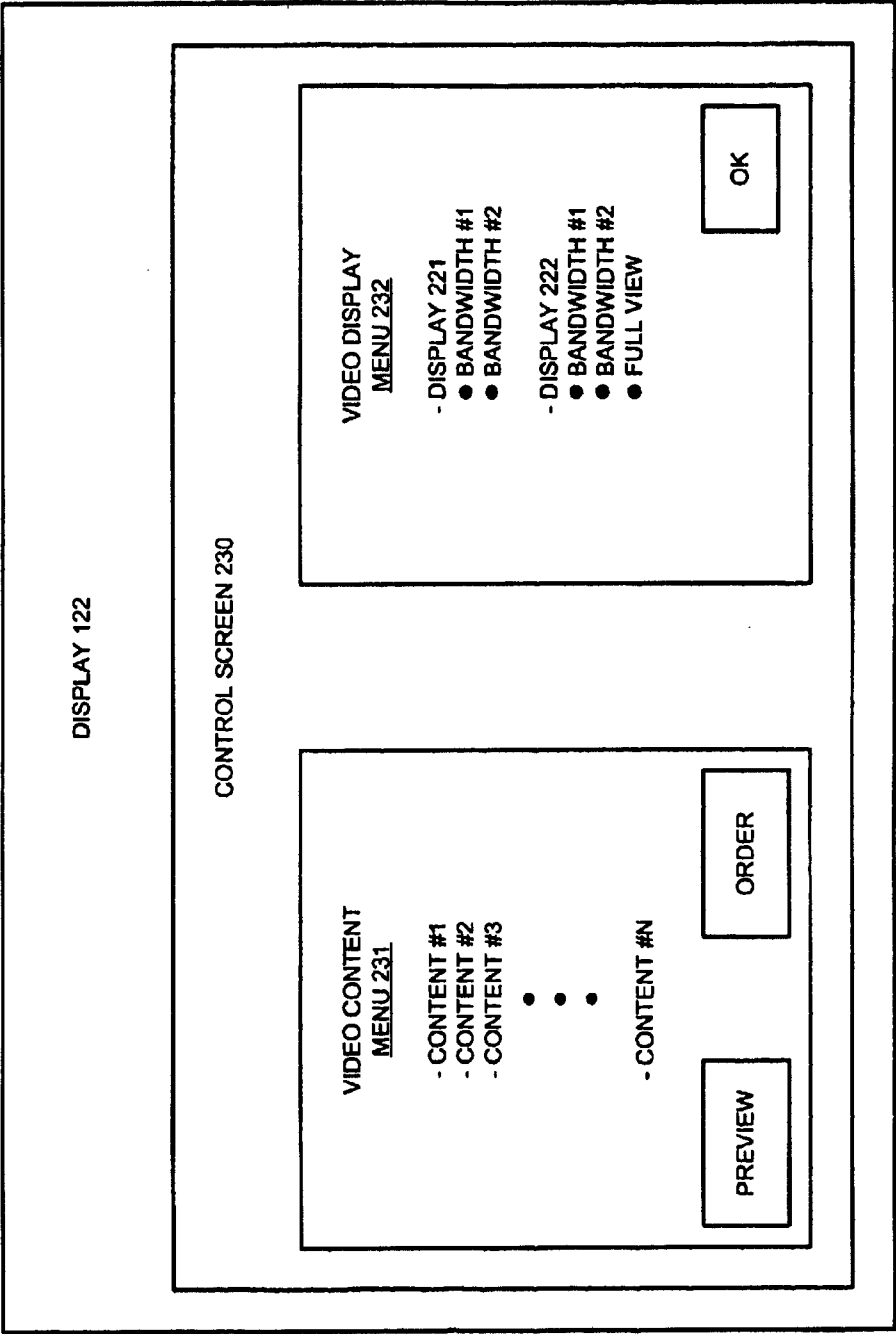


FIG. 2

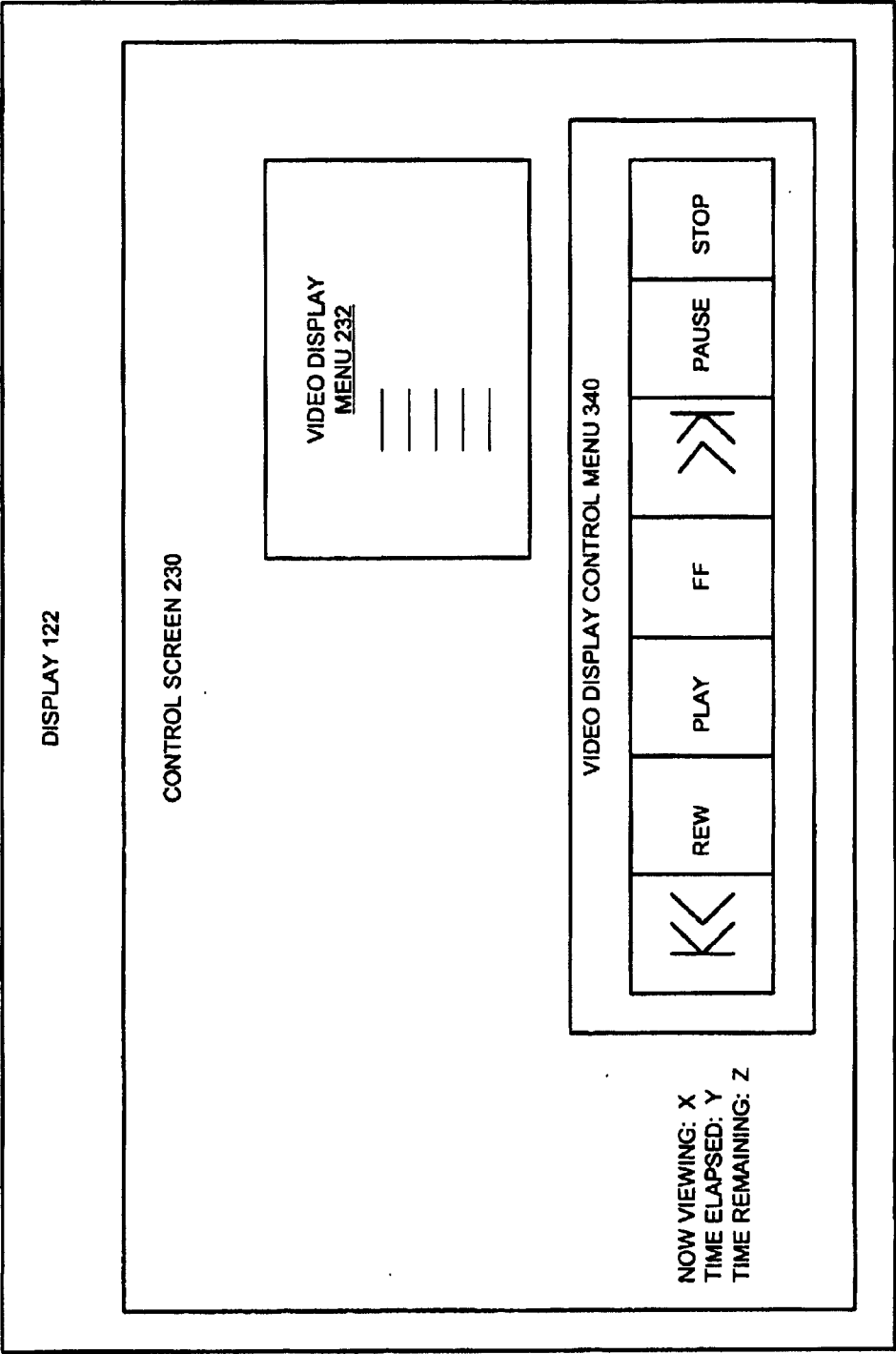


FIG. 3

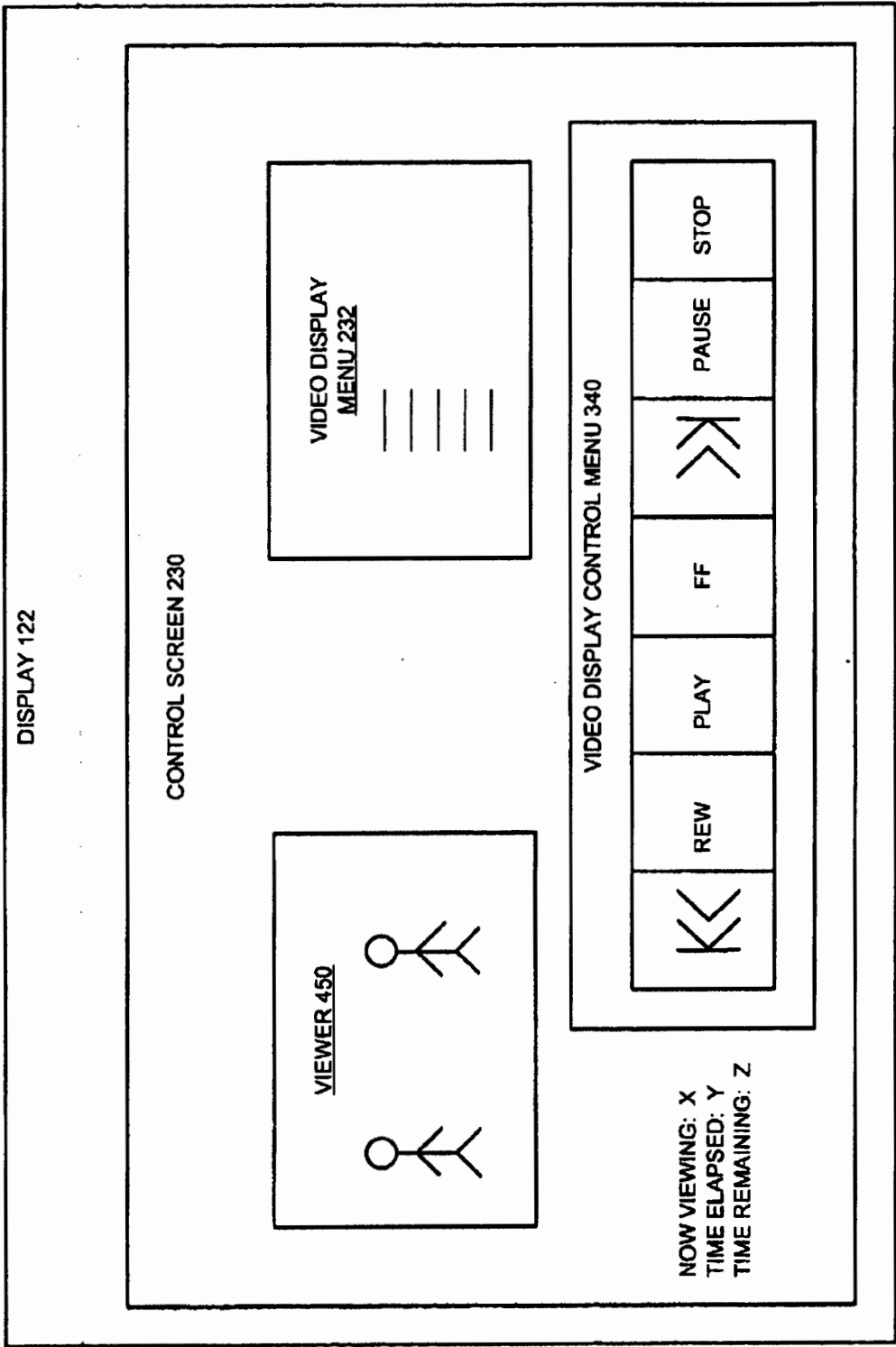


FIG. 4

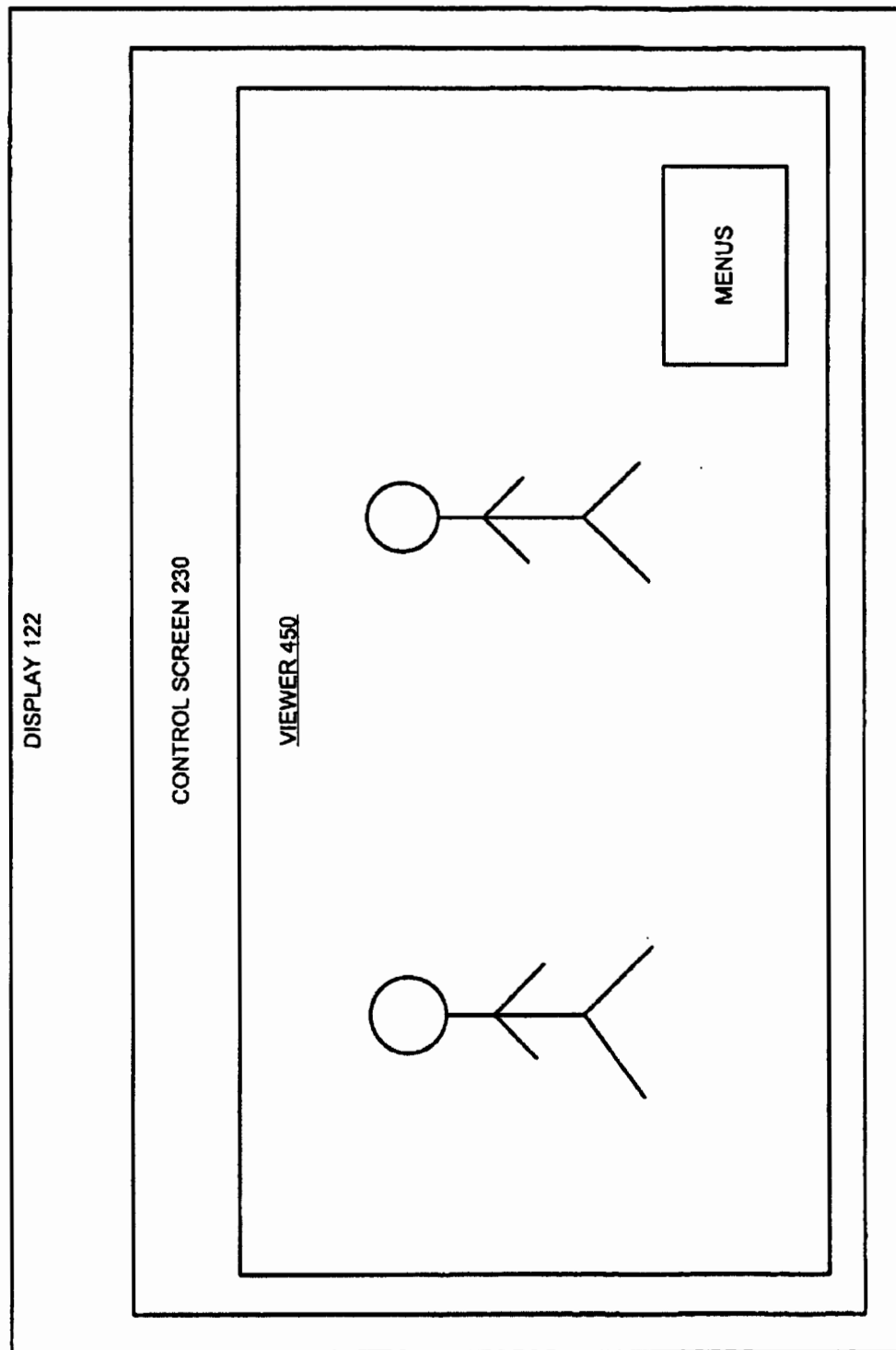


FIG. 5

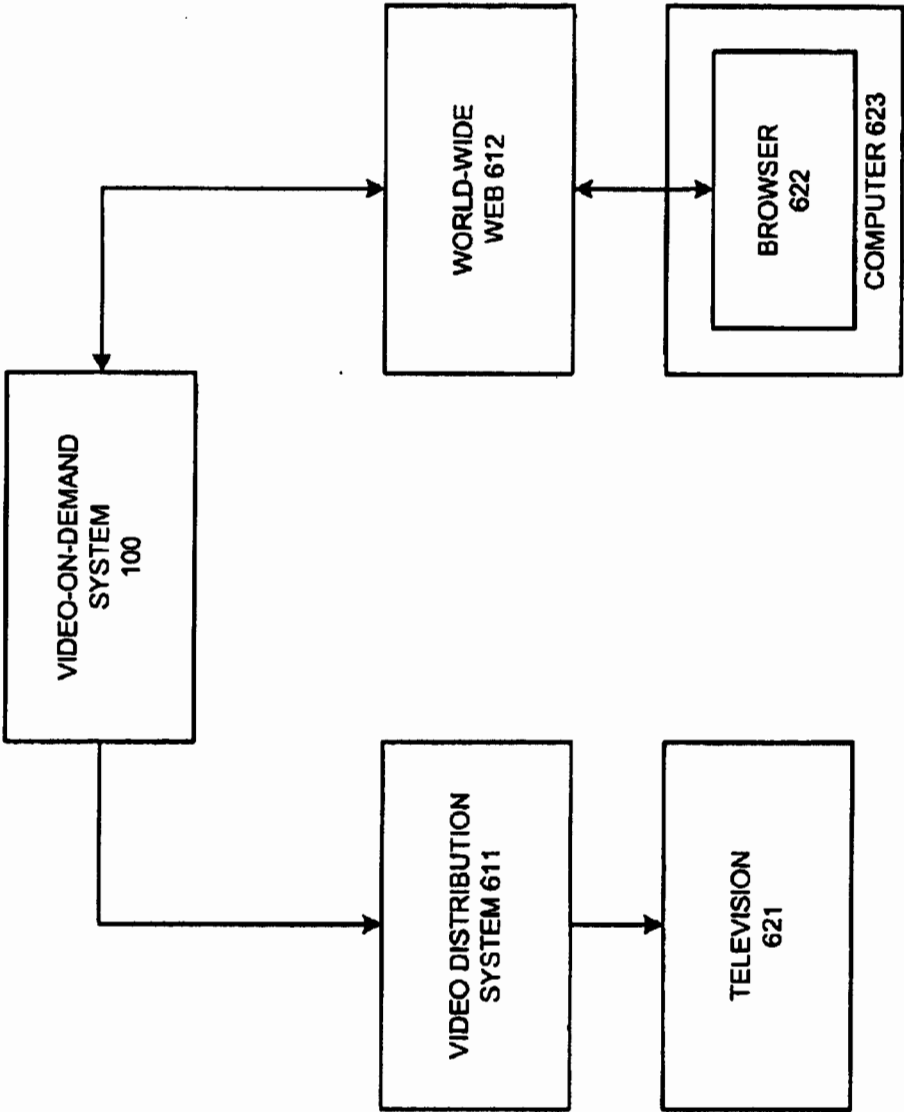


FIG. 6

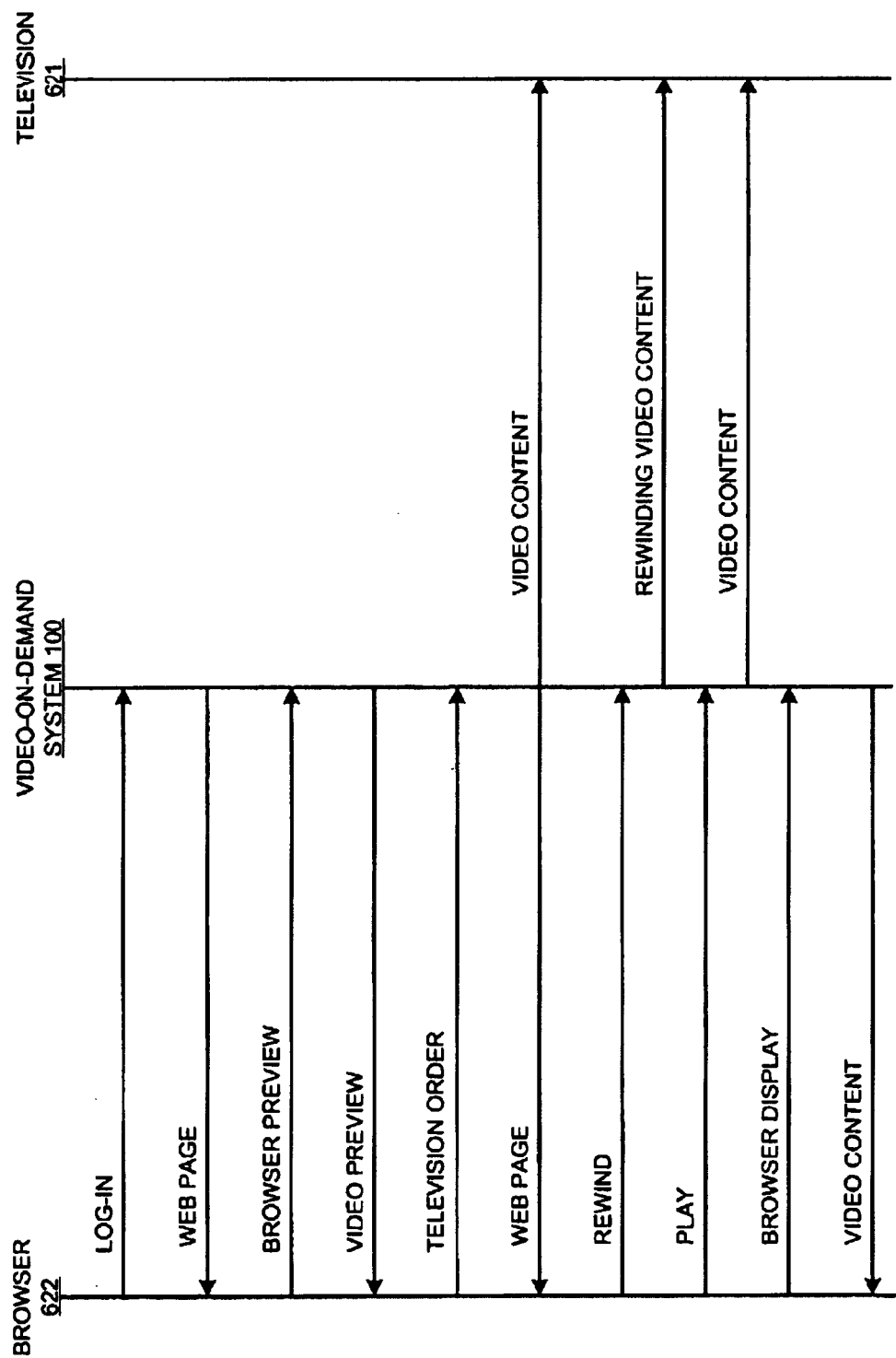


FIG. 7



# 1

## REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

The invention is related to the field of video systems, and in particular, to a video-on-demand system that provides a viewer with remote control.

#### 2. Description of the Prior Art

Video-on-demand systems are currently being designed and implemented. The video-on-demand system offers an individual viewer various selections from a video content library for viewing on-demand. Some examples of video content include movies, television shows, documentaries, news, and sports. The video-on-demand system receives a request from the viewer to view a particular selection from the video content library. In response to the request, the video-on-demand system transfers the selected video content over a communication system to the viewer's display. Thus, the video-on-demand system allows a viewer to immediately view selected video content.

Video-on-demand systems use a television set-top box for remote control. Using the set-top box, the viewer may view a video content menu on the television and order video content for display on the television. The viewer may also view a video control menu on the television to play, stop, pause, rewind, and fast forward the video content on the television. Unfortunately, the set-top box is a special component that is closely coupled to the television. The set-top box does not have other uses.

### SUMMARY OF THE INVENTION

The invention solves the above problems with a video-on-demand system that allows the viewer to use a portable computer connected over second communications system for remote control. The second communications system could be the web, and the portable computer could run a web browser. Advantageously, the viewer can control the video display using their portable computer. The portable computer has many other uses and eliminates the cost of a special television set-top box.

The video-on-demand system transfers video content signals to a first communication system. The video-on-demand system transfers a control screen signal to a second communication system and receives a video control signal from the second communication system. The video-on-demand system implements a viewer control selection indicated by the video control signal. The control screen could be a web page that includes a video display control menu comprising play, stop, pause, rewind, and fast forward. The control screen could include a video content selection menu. The video-on-demand system implements the control screen menu selections.

### BRIEF DESCRIPTION OF THE DRAWINGS

The same reference number represents the same element on all drawings.

FIG. 1 is a block diagram that illustrates the configuration and operating environment for a video-on-demand system in an example of the invention.

FIG. 2 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 3 is a block diagram that illustrates a control screen on a display in an example of the invention.

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FIG. 4 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 5 is a block diagram that illustrates a control screen on a display in an example of the invention.

FIG. 6 is a block diagram that illustrates the configuration of a web-based system in an example of the invention.

FIG. 7 is a message sequence chart that illustrates the operation of a web-based system in an example of the invention.

### DETAILED DESCRIPTION

#### System Configuration—FIG. 1

FIG. 1 is a block diagram that illustrates a video-on-demand system 100 and its operating environment in an example of the invention. The video-on-demand system 100 comprises a first communication interface 101 and a second communication interface 102 that are each coupled to a processing system 103. The first communication interface 101 is coupled to a first communication system 111. The first communication system 111 is coupled to a first display 121. The second communication interface 102 is coupled to a second communication system 112. The second communication system 112 is coupled to a second display 122. The second communication system 112 uses less bandwidth to transfer video than the first communication system 111.

Some examples of the first communication system 111 include optical fiber systems, wire cable systems, and wireless link systems. One example of the second communication system 112 is the Internet; and in particular, the World-Wide Web (web). One example of the first display 121 is a television. One example of the second display 122 is a portable personal computer with a browser.

The video-on-demand system 100 could comprise a conventional computer platform that is configured with software and conventional communication interfaces. The software directs the computer platform to operate as follows. The processing system 103 transfers a control screen signal to the second communication interface 102. The second communication interface 102 transfers the control screen signal to the second communication system 112. The second communication system 112 transfers the control screen signal to the second display 122. The second display 122 displays the control screen. In some examples of the invention, the control screen is a web page.

In response to viewer input to the control screen, the second display 122 transfers a corresponding viewer control signal to the second communication system 112. The second communication system 112 transfers the viewer control signal to the second communications interface 102. The second communication interface 102 transfers the control signal to the processing system 103.

The processing system 103 transfers video signals to either the first communication interface or the second communication interface in response to the viewer control signal. If the first communication interface 101 is used, then the first communication interface 101 transfers the video signals to the first communication system 111. The first communication system 111 transfers the video signals to the first display 121. The first display 121 displays the video. If the second communication interface 102 is used, then the second communication interface 102 transfers the video signals to the second communication system 112. The second communication system 112 transfers the video signals to the second display 122. The second display 122 displays the video.

## The Control Screen—FIGS. 2–5

FIGS. 2–5 depict various versions of the control screen 230 that is generated by the video-on-demand system 100. In particular, the processing system 103 generates and transfers corresponding control screen signals to the second communications interface 102, and the second communications interface 102 transfers the control screen signals over the second communications system 112 to the display 122. The display 122 displays the control screen 230 to the viewer in, response to the control screen signals.

The viewer chooses menu selections using the display 122, and the display 122 transfers corresponding menu selection signals to video-on-demand system 100. In particular, the display 122 transfers the menu selection signals over the second communications system 112 to the second communications interface 102, and the second communications interface 102 transfers the menu selection signals to the processing system 103. The processing system 103 controls the video-on-demand system 100 in response to the menu selection signals.

FIG. 2 is block diagram that illustrates a control screen 230 on the display 122 in an example of the invention. The control screen 230 includes a video content menu 231 and a video display menu 232. The video content menu 231 comprises various menu selections such as movies, documentaries, sports, news, educational material, and games. These menu selection are denoted by content #1, content #2, content #3 . . . content #N on FIG. 2. The video content menu 231 also comprises a preview selection and an order selection. The preview selection allows the viewer to preview the selected video content. The order selection allows the viewer to view the selected video content in its entirety. The video display menu 232 comprises various display characteristics, such as display 221 and display 222, with various bandwidths for each display. The full view selection in the menu 232 causes the display 122 to use more of the control screen to display the video.

When the viewer selects a preview of video content, the display 122 transfers a video preview selection signal to the second communications system 112 indicating the selected video preview. The second communications system 112 transfers the video preview selection signal to the second communications interface 102. The second communications interface 102 transfers the video preview selection signal to the processing system 103.

When the viewer selects video display characteristics, the display 122 transfers a video display menu selection signal to the second communications system 112 indicating the selected video display characteristics. The second communications system 112 transfers the video display menu selection signal to the second communication interface 102. The second communications interface 102 transfers the video display menu selection signal to the processing system 103. The video preview selection signal and the video display menu selection signal could be integrated together.

The processing system 103 processes the video preview selection signal to responsively transfer a preview of the selected video content as video signals. The processing system 103 processes the video display menu selection signal to responsively select either the first communications interface 101 or the second communications interface 102 to transfer the video signals. The selected communication interface then transfers the video signals to the corresponding display over the corresponding communication system. The corresponding display displays the selected video preview in response to the video signals. For example, if the

viewer selects a preview of video content #2 on the display 122, then the video-on-demand system 100 transfers the preview of the video content #2 to the display 122 over the communication system 112.

When the viewer selects an order for video content, the display 122 transfers a video content menu selection signal to the second communications system 112 indicating the selected video content. The second communications system 112 transfers the video content menu selection signal to the second communications interface 102. The second communications interface 102 transfers the video content menu selection signal to the processing system 103.

When the viewer selects video display characteristics, the display 122 transfers a video display menu selection signal to the second communications system 112 indicating the selected video display characteristics. The second communications system 112 transfers the video display menu selection signal to the second communication interface 102. The second communications interface 102 transfers the video display menu selection signal to the processing system 103. The video content menu selection signal and the video display menu selection signal could be integrated together.

The processing system 103 processes the video content menu selection signal to responsively transfer the selected video content as video signals. The processing system 103 processes the video display menu selection signal to responsively select either the first communications interface 101 or the second communications interface 102 to transfer the video signals. The selected communication interface then transfers the video signals to the corresponding display over the corresponding communication system. The corresponding display displays the selected video content in response to the video signals. For example, if the viewer selects an order for video content #2 using the display 121, then the video-on-demand system 100 transfers the video content #2 to the display 121 over the communication system 111.

FIG. 3 is block diagram that illustrates the control screen 230 on the display 122 in an example of the invention. In this example, the display 121 is currently displaying selected video content. The control screen 230 includes the video display menu 232 and a video display control menu 340. The video display control menu 340 comprises selections for go-to-beginning, rewind, play, fast forward, go-to-end, pause, and stop.

When the viewer selects one of these video display controls, the display 122 transfers a video display control menu selection signal to the second communications system 112 indicating the selected video display control. The second communications system 112 transfers the video display control menu selection signal to the second communications interface 102. The second communications interface 102 transfers the video display control menu selection signal to the processing system 103. The processing system 103 processes the video display control menu selection signal, to responsively implement the display control with respect to the video signals. For example, if the viewer selects fast forward using the display 122, then the video-on-demand system 100 fast forwards the video content-being transferred to the display 121 over the communication system 111.

FIG. 4 is block diagram that illustrates the control screen 230 on the display 122 in an example of the invention. In this example, the display 122 is currently displaying a selected video preview on a viewer 450. The viewer 450 could also be used to display selected video content in addition to previews. The control screen 230 also includes the video display menu 232 and the video display control menu 340.

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For example, if the viewer selects fast forward using the display 121, then the video-on-demand system 100 fast forwards the video preview on the viewer 450.

FIG. 5 is block diagram that illustrates the control screen 230 on the display 122 in an example of the invention. In this example, the display 122 is currently displaying selected video content on the viewer 450, and "full screen" has been selected from video display control menu 340. In response to the full screen menu selection, a larger portion of the control screen 230 is used for the viewer 450 to display the video content. If the viewer selects "menus" on the control screen 230, then the display reverts to the control screen of FIG. 4. The full screen menu selection operates in a similar fashion for video previews.

#### Web-Based System Configuration and Operation— FIGS. 6–7

FIG. 6 is a block diagram that illustrates the configuration of a web-based system in an example of the invention. The video-on-demand system 100 is coupled to a video distribution system 611 and to the web 612. The video distribution system 611 is coupled to a television 621. The web 612 is coupled to a browser 622 running on a portable computer 623. The video-on-demand system 100 communicates with the television 621 over the video distribution system 611 and with the browser 622 over the web 612. The elements 611, 612, 621, and 622/623 respectively correspond to the elements 111, 112, 121, and 122 of FIG. 1.

FIG. 7 is a message sequence chart that illustrates the operation of the web-based system in an example of the invention. For clarity, the video distribution system 611 and the web 612 are omitted from FIG. 7. The browser 622 logs-in to the system 100, and in response, the system 100 returns a web page to the browser 622. This web page is similar to FIG. 2.

The browser 622 then transfers menu selections to the system 100 for the browser 622 to display a selected video preview using MPEG I. In response, the system 100 transfers the selected MPEG I video preview to the browser 622 for display. This display is similar to either FIGS. 4 or 5 depending on the full screen selection.

After the video preview, the browser 622 transfers menu selections to the system 100 for the television 621 to display selected video content using MPEG II. In response, the system 100 transfers the selected MPEG II video content to the television 621. The system 100 also transfers a web page to the browser 622. This web page is similar to FIG. 3.

As the television 621 displays the selected video content, the browser 622 transfers a rewind instruction to the system 100. In response, the system 100 transfers rewinding video content to the television 621. The browser 622 then transfers a play instruction to the system 100. In response, the system 100 transfers the rewound video content to the television 621.

As the television 621 displays the selected video content, the browser 622 transfers menu selections to the system 100 for the browser 622 to display the selected video content using MPEG I. In response, the system 100 transfers the selected MPEG I video content to the browser 622 for display. This display is similar to either FIGS. 4 or 5 depending on the full screen selection. It should be appreciated that the video-on-demand system 100 allows the viewer to select the desired display and bandwidth for selected video previews and content. The viewer can switch between different displays, bandwidths, and videos as desired.

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There are numerous variations that are included in various examples of the invention. Both displays could be used simultaneously to view the same or different video. The display 122 could omit the viewer 450 and simply provide VCR type control over the display 121. The displays could be remote from one another or be mobile. For example, the display 122 could be a handheld computer with a browser and a wireless communication interface to the web.

The above-described processing system includes instructions that are stored on storage media. The instructions can be read and executed by a processor. Some examples of instructions are software, program code, and firmware. Some examples of storage media are memory devices, tape, disks, integrated circuits, and servers. The instructions are operational when executed by the processor to direct the processor to operate in accord with the invention. The term "processor" refers to a single processing device or a group of inter-operational processing devices. Some examples of processors are integrated circuits, computers, and logic circuitry. Those skilled in the art are familiar with instructions, processors, and storage media.

Those skilled in the art will appreciate variations of the above-described embodiments that fall within the scope of the invention. As a result, the invention is not limited to the specific examples and illustrations discussed above, but only by the following claims and their equivalents.

We claim:

1. A video-on-demand system comprising:

- a first communication interface configured to transfer video content signals to a first communication system;
- a second communication interface configured to transfer the video content signals to a second communication system, transfer a control screen signal to the second communication system, and receive a video control signal from the second communication system; and
- a processing system configured to transfer the control screen signal to the second communication interface, receive the video control signal from the second communication interface, implement a viewer-control selection indicated by the video control signal, and transfer the video content signals to the first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transfer the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

2. The video-on-demand system of claim 1 wherein the control screen signal includes a video display control menu comprising play and stop.

3. The video-on-demand system of claim 2 wherein the viewer control selection comprises a video display control menu selection.

4. The video-on-demand system of claim 3 wherein the video display control menu further comprises pause, rewind, and fast forward.

5. The video-on-demand system of claim 1 wherein the control screen includes a video content selection menu.

6. The video-on-demand system of claim 5 wherein second communications interface is configured to receive a video content menu selection signal from the second communications system, and the processing system is configured to process the video content selection signal to transfer selected video content in the video content signals.

7. The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with an internet.

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8. The video-on-demand system of claim 1 wherein the second communication interface is configured to interface with a world-wide web.

9. The video-on-demand system of claim 1 wherein the control screen comprises a web page.

10. A method of operating a video-on-demand system, the method comprising:

transferring a control screen signal to a second communication system;

receiving a video control signal from the second communication system;

implementing a viewer control selection indicated by the video control signal; and

transferring video content signals to a first communication interface if the first communication interface is indicated by the video control signal received from a second communication interface or transferring the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

11. The method of claim 10 wherein the control screen signal includes a video display control menu comprising play and stop.

12. The method of claim 11 wherein implementing the viewer control selection comprises implementing a video display control menu selection.

13. The method of claim 12 wherein the video display control menu further comprises pause, rewind, and fast forward.

14. The method of claim 10 wherein the control screen includes a video content selection menu.

15. The method of claim 14 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

16. The method of claim 10 wherein transferring the control screen signal comprises interfacing with an internet.

17. The method of claim 10 wherein transferring the control screen signal comprises interfacing with a world-wide web.

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18. The method of claim 10 wherein the control screen comprises a web page.

19. A product comprising a processor-readable storage medium storing processor-executable instructions for performing a method for operating a video-on-demand system, the method comprising:

transferring a control screen signal to a second communication system;

receiving a video control signal from the second communication system;

implementing a viewer control selection indicated by the video control signal; and

transferring video content signals to a first communication interface if the first communication interface is indicated by the video control signal received from the second communication interface or transferring the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

20. The product of claim 19 wherein the control screen signal includes a video display control menu comprising play and stop.

21. The product of claim 20 wherein implementing the viewer control selection comprises implementing a video display control-menu selection.

22. The product of claim 21 wherein the video display control menu further comprises pause, rewind, and fast forward.

23. The product of claim 19 wherein the control screen includes a video content selection menu.

24. The product of claim 23 further comprising receiving a video content menu selection signal from the second communications system and processing the video content selection signal to transfer selected video content in the video content signals.

25. The product of claim 19 wherein the control screen comprises a web page.

\* \* \* \* \*



Bib Data Sheet



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<b>SERIAL NUMBER</b> 09/501,054	<b>FILING DATE</b> 02/09/2000 <b>RULE</b> -	<b>CLASS</b> 348	<b>GROUP ART UNIT</b> 2713	<b>ATTORNEY DOCKET NO.</b> 1289	
<b>APPLICANTS</b> James Schumacher, Oakland, CA ; Mike O'Brien, Pacifica, CA ; Jay Cee Straley, San Carlos, CA ;  ** CONTINUING DATA ***** NONE MS  ** FOREIGN APPLICATIONS ***** NONE MS  IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** 04/19/2000					
Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no 35 USC 119 (a-d) conditions <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance met Verified and Acknowledged <u>[Signature]</u> Examiner's Signature Initials		<b>STATE OR COUNTRY</b> CA	<b>SHEETS DRAWING</b> 7	<b>TOTAL CLAIMS</b> 25	<b>INDEPENDENT CLAIMS</b> 3
<b>ADDRESS</b>  Harley R Ball Sprint Law Department 8140 Ward Parkway Mailstop MOKCMP0506 Kansas City ,MO 64114					
<b>TITLE</b>  Remote control of video-on-demand system					
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PATENT APPLICATION SERIAL NO. \_\_\_\_\_

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE  
FEE RECORD SHEET

*K. Ward*  
*1/28/01*

02/18/2000 AHAYES 00000003 210765 09501054

01 FC:101	690.00 CH
02 FC:103	90.00 CH

PTO-1556  
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\*U.S. GPO: 1999-459-082/19144

# File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 2004-06-22

Document Title - USPTO Grant

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Effective December 29, 1999						Application or Docket Number <div style="text-align: center; font-family: cursive;">09/30/054</div>	
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FOR		NUMBER FILED		NUMBER EXTRA			
BASIC FEE							
TOTAL CLAIMS		25 minus 20 = *		5			
INDEPENDENT CLAIMS		3 minus 3 = *		—			
MULTIPLE DEPENDENT CLAIM PRESENT							
* If the difference in column 1 is less than zero, enter "0" in column 2							
<b>CLAIMS AS AMENDED - PART II</b>							
		(Column 1)			(Column 2)	(Column 3)	
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Table of Contents

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1. US6754907B1 Remote control of video-on-demand system

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Family 1/1  
1 record(s) per family

Record 1/1 US6754907B1 Remote control of video-on-demand system

Publication Number: US6754907B1 20040622

Title: Remote control of video-on-demand system  
Title - DWPI: Video on demand system for viewing video content e.g. movie on television, has processing system to transfer and receive control screen signal to and from communication interface for implementing viewer-control selection  
Priority Number: US2000501054A  
Priority Date: 2000-02-09  
Application Number: US2000501054A  
Application Date: 2000-02-09  
Publication Date: 2004-06-22

IPC Class Table:

IPC	Section	Class	Subclass	Class Group	Subgroup
H04N0007173	H	H04	H04N	H04N0007	H04N0007173
H04N0005445	H	H04	H04N	H04N0005	H04N0005445

IPC Class Table - DWPI:

IPC - DWPI	Section - DWPI	Class - DWPI	Subclass - DWPI	Class Group - DWPI	Subgroup - DWPI
H04N0007173 (IPC 1-7)	H	H04	H04N	H04N0007	H04N0007173 (IPC 1-7)
H04N000816 (IPC 1-7)	H	H04	H04N	H04N0008	H04N000816 (IPC 1-7)
H04N0007173	H	H04	H04N	H04N0007	H04N0007173
H04N0005445	H	H04	H04N	H04N0005	H04N0005445

Assignee/Applicant: Sprint Communications Company L.P.,Overland Park,KS  
JP F Terms:  
JP FI Codes:

**Assignee - Original:** Sprint Communications Company L.P.

**Any CPC Table:**

Type	Invention	Additional	Version	Office
Current	<b>H04N 21/25825</b>	H04N 21/47	20130101	EP
Current	H04N 7/17336		20130101	EP
Current	H04N 21/41407		20130101	EP
Current	H04N 21/4438		20130101	EP
Current	H04N 21/47202		20130101	EP
Current	H04N 21/6125		20130101	EP
Current	H04N 21/6587		20130101	EP

**ECLA:** H04N0021258C2 | H04N0007173B4 | H04N0021414M | H04N0021443W |  
H04N0021472D | H04N002161D3 | H04N00216587 | T04N002147

**Abstract:**

A video-on-demand system transfers video content signals to a first communication system. The video-on-demand system transfers a control screen signal to a second communication system and receives a video control signal from the second communication system. The video-on-demand system implements a viewer control selection indicated by the video control signal. The control screen could be a web page that includes a video display control menu comprising play stop, pause, rewind, and fast forward. The control screen could include a video content selection menu. The video-on-demand system implements the control screen menu selections.

**Language of Publication:** EN

**INPADOC Legal Status Table:**

Gazette Date	Code	INPADOC Legal Status Impact
2017-03-06	AS	-
<b>Description:</b> ASSIGNMENT DEUTSCHE BANK TRUST COMPANY AMERICAS, NEW YORK GRANT OF FIRST PRIORITY AND JUNIOR PRIORITY SECURITY INTEREST IN PATENT RIGHTS; ASSIGNOR:SPRINT COMMUNICATIONS COMPANY L.P.; REEL/FRAME:041895/0210 2017-02-03		
2015-12-17	FPAY	+
<b>Description:</b> FEE PAYMENT FEE PAYMENT YEAR 12		
2011-09-23	FPAY	+
<b>Description:</b> FEE PAYMENT FEE PAYMENT YEAR 8		

2007-09-27	FPAY	+
<b>Description:</b> FEE PAYMENT FEE PAYMENT YEAR 4		
2000-02-09	AS	-
<b>Description:</b> ASSIGNMENT SPRINT COMMUNICATIONS COMPANY, L.P., MISSOURI ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: SCHUMACHER, JAMES; O'BRIEN, MIKE; STRALEY, JAY CEE; REEL/FRAME: 010596/0635 2000-02-01		

**Post-Issuance (US):**

**Reassignment (US) Table:**

Assignee	Assignor	Date Signed	Reel/Frame	Date
DEUTSCHE BANK TRUST COMPANY AMERICAS,NEW YORK,NY,US	SPRINT COMMUNICATIONS COMPANY L.P.	2017-02-03	041895/0210	2017-03-06
<b>Conveyance:</b> GRANT OF FIRST PRIORITY AND JUNIOR PRIORITY SECURITY INTEREST IN PATENT RIGHTS				
<b>Corresponent:</b> GENEVIEVE DORMENT, ESQ. SIMPSON THACHER & BARTLETT LLP 425 LEXINGTON AVENUE NEW YORK, NY 10017				
SPRINT COMMUNICATIONS COMPANY L.P.,KANSAS CITY,MO,US	SCHUMACHER, JAMES	2000-02-01	010596/0635	2000-02-09
	O'BRIEN, MIKE	2000-02-01	-	-
	STRALEY, JAY CEE	2000-02-01	-	-
<b>Conveyance:</b> ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).				
<b>Corresponent:</b> SPRINT COMMUNICATIONS COMPANY, L.P. HARLEY R. BALL 8140 WARD PARKWAY, 5TH FLOOR KANSAS CITY, MO 64114				

**Maintenance Status (US):**

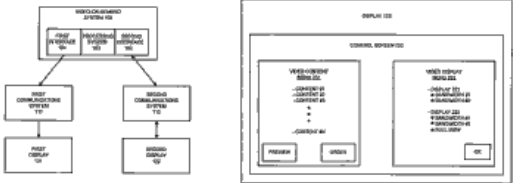
**Litigation (US):**

**Opposition (EP):**

**License (EP):**

**EPO Procedural Status:**

**Front Page Drawing:**



**Priority Number - DWPI:** US2000501054A  
**Priority Date - DWPI:** 2000-02-09  
**Assignee - Current US:** SPRINT COMMUNICATIONS COMPANY L.P.





United States Patent and Trademark Office

Office of the Commissioner for Patents

REMOTE CONTROL OF VIDEO-ON-DEMAND SYSTEM

PATENT #

6754907

APPLICATION #

09501054

FILING DATE

02/09/2000

ISSUE DATE

06/22/2004

Payment Window Status

WINDOW		STATUS		FEES	
11.5 Year		Closed		Paid	
Window	First Day to Pay	Surcharge Starts	Last Day to Pay	Status	Fees
3.5 Year	06/22/2007	12/27/2007	06/23/2008	Closed	Paid
7.5 Year	06/22/2011	12/23/2011	06/22/2012	Closed	Paid
11.5 Year	06/22/2015	12/23/2015	06/22/2016	Closed	Paid

No maintenance fees are due.

Patent Holder Information

Customer #

28004

Entity Status

UNDISCOUNTED

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