PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Reexamination Of:		)	
		)	
Patent Number	5,335,277	)	Group Art Unit: 3992
		)	
Control Number:	90/006,563 90/006,698	)	Examiner: HARVEY, David E.
		)	
Filing Date:	March 14, 2003 July 7, 2003	)	
		)	
Confirmation Number:	7085	)	

Mail Stop Appeal Brief - Patent
Central Reexamination Unit
Office of Patent Legal Administration
United States Patent & Trademark
Randolph Building
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Alexandria, VA 22314

APPEAL BRIEF

In accordance with 37 C.F.R. § 41.37, appellant submits this appeal brief in the above captioned application. Appellant appeals the final rejection of claims 2, 4, 6, 7, 10-15, 17-20, 22, 23, 27, 28, 30, 32, 33, 35, 38, 41, 42, 44-52, 55 and 56 set forth in the Office Action mailed March 16, 2006 (the "Office Action"). A Notice of Appeal was filed in accordance with 37 C.F.R. § 41.31 on June 16, 2006. Attached hereto is a check for $500.00 covering the fee set forth in 37 C.F.R. 41.20(b)(2). Any additional fees that may be due but are not attached may be charged to Deposit Account No. 50-0206.

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Real Party In Interest

The real party in interest is the Patent Owner, Personalized Media Communications, LLC ("PMC") having a place of business at 708 Third Ave., New York, New York, 10017.

Related Appeals And Interferences

U.S. Patent 5,335,277 issued from application Ser. No. 56,501, filed May 3, 1993. Application Ser. No. 56,501 is a continuation of Ser. No. 849,226, filed March 10, 1992, Pat. No. 5,233,654, which is a continuation of Ser. No. 588,126, filed September 25, 1990, Pat. No. 5,109,414, which is a continuation of Ser. No. 96,096, filed September 11, 1987, Pat. No. 4,965,825, which is a continuation-in-part of Ser. No. 829,531, filed February 14, 1986, Pat. No. 4,704,725, which is a continuation of Ser. No. 317,510, filed November 3, 1981, Pat. No. 4,694,490.

U.S. Patent No. 5,335,277 is part of a chain of patents that includes additional issued patents and various pending applications. Application Ser. No. 113,329, filed August 30, 1993, which remains pending, is a continuation of application Ser. No. 56,501. Various applications claim priority to Application Ser. No. 113,329, including application Ser. No. 470,571, filed June 6, 1995; application Ser. No. 487,526, filed June 7, 1995; and application Ser. No. 480,060, filed June 7, 1995, now Pat. No. 5,887,243.

Each of appellant's seven related patents are involved in reexamination proceedings. The reexamination proceedings pending against appellant's related issued patents are as follows:

Pat. No. 4,694,490	Control No. 90/006,800,
Pat. No. 4,704,725	Control Nos. 90/006,697 and 90/006,841
Pat. No. 4,965,825	Control No. 90/006,536,
Pat. No. 5,109,414	Control No. 90/006,838,
Pat. No. 5,233,654	Control Nos. 90/006,606, 90/006,703 and 90/006,839, and
Pat. No. 5,887,243	Control No. 90/006,688.

The above applications and patents have been involved in the following appeals and judicial proceedings.

Pat. Nos. 4,965,825; 5,109,414 and 5,335,277 were asserted in the U.S. District Court, Eastern District of Virginia in *Personalized Mass Media Corp. v. The Weather Channel, Inc. et al.*, Doc. No. 2:95cv242. The case was settled prior to any substantive decision by the Court, although one procedural decision was published at 899 F.Supp. 239 (E.D.Va. 1995).

Pat. No. 5,335,277 was involved in the matter of *Certain Digital Satellite System (DDS) Receivers and Components Thereof* before the United States International Trade Commission ("Commission"), Investigation No. 337-TA-392. The Administrative Law Judge ("ALJ") issued an "Initial Determination Granting Motion for Summary Determination of Invalidity of Claim 35 of the '277 Patent" on May 16, 1997. This determination was appealed to the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit"), which affirmed the Commission decision in a decision decided January 7, 1999. The ALJ issued "Initial and Recommended Determinations" on October 31, 1997. The Commission adopted certain of the ALJ's findings and took no position on certain other issues in a "Notice Of Final Commission Determination Of No Violation Of Section 337 Of The Tariff Act Of 1930," dated December 4, 1997. This determination was appealed to the Federal Circuit, which affirmed-in-part, reversed-in-part, vacated-in-part, and remanded in a decision decided November 24, 1998, and published at 161 F.3d 696, 48 U.S.P.Q.2d 1880. On remand, the complainant moved to terminate the investigation. The Commission issued a "Notice Of Commission Decision To Terminate The Investigation And To Vacate Portions Of The Initial Determination" on May 13, 1999.

Pat. Nos. 4,965,825; 5,109,414 and 5,335,277 were asserted in the U.S. District Court, Northern District of California in *Personalized Media Communications, LLC v. Thomson Consumer Electronics et al.*, Doc. No. C-96 20957 SW (EAI). The case was stayed during the Commission proceedings and was thereafter voluntarily dismissed by the plaintiffs. The Court issued no substantive decisions.

Each of the related issued patents with the exception of Pat. No. 4,704,725 is also asserted in the U.S. District Court, District of Delaware in *Pegasus Development Corp. v. DIRECTV Inc.*, Doc. No. CA 00-1020 ("Delaware Action"). Special Master Robert L. Harmon has issued a "Report And Recommendation Of Special Master Regarding Claim Construction." On March 29, 2003, Special Master Harmon issued at letter clarifying his report. The Court has taken no further action in this case as it has been stayed pending the resolution of the reexamination proceedings.

Each of the issued patents has also been asserted in a suit pending in the U.S. District Court, Northern District of Georgia in the case styled *Personalized Media Communications, LLC v. Scientific-Atlanta, Inc. et al.*, Doc. No. 1:02-CV-824 (CAP) ("Atlanta Action"). The Court has issued an order construing the claims at issue that adopts with minor modifications the Special

Master's Report and Recommendation construing the claim term disputed in that litigation. The Court has taken no further action in this case as it has been stayed pending the resolution of the reexamination proceedings.

In pending Application Ser. No. 113,329, an appeal was noticed on August 20, 1996, and briefed September 13, 1996. Prosecution was reopened without consideration and the disputed rejection withdrawn in an Office action mailed October 10, 1997.

An appeal was noticed on September 20, 2004, in Application Ser. No. 470,571. An Appeal Brief was submitted on February 8, 2005. An Examiner's Answer was mailed on October 6, 2005. A Reply Brief was filed on December 6, 2005. On April 11, 2006, the Board issued an Order Returning Undocketed Appeal to Examiner. A Substitute Appeal Brief was filed April 26, 2006. A new Examiner's Answer was mailed on June 27, 2006. A new Reply Brief was filed on July 3, 2006. This appeal is awaiting docketing at the Board.

An appeal was noticed on October 7, 2004, in Application Ser. No. 487,526. An Appeal Brief was filed on March 7, 2005. An Examiner's Answer was mailed on January 31, 2006. A Reply Brief was filed on March 27, 2006. The Reply Brief was noted on June 23, 2006.

An appeal was noticed on October 18, 2005, and briefed December 19, 2005, in reexamination Control No. 90/006,800, regarding U.S. Patent 4,694,490. The Examiner's Answer was mailed July 21, 2006.

An appeal was noticed on October 24, 2005, and briefed December 27, 2005, in merged reexamination Control Nos. 90/006,697 and 90/006,841, regarding U.S. Patent 4,704,725. The Examiner's Answer was mailed April 21, 2006. A Reply Brief was filed June 21, 2006.

An appeal was noticed on May 30, 2006, and briefed June 30, 2006, in merged reexamination Control Nos. 90/006,606, 90/006,703, and 90/006,839, regarding U.S. Patent 5,233,654.

Status Of Claims

U.S. Patent 5,335,277 issued with claims 1-56. These claims are subject to reexamination. The Examiner confirmed claims 1, 5, 8, 9, 16, 21, 24-26, 29, 31, 34, 36, 37, 39, 40, 43, 53 and 54 in the final Office action mailed March 16, 2006 (Office Action). The Examiner rejected claims 2-4, 6, 7, 10-15, 17-20, 22, 23, 27, 28, 30, 32, 33, 35, 38, 41, 42, 44-52, 55 and 56 in the Final Office Action. In the Advisory Action mailed July 21, 2006 (Advisory Action), the Examiner withdrew the rejection of and confirmed claim 3. Appellant appeals the final rejections of claims 2, 4, 6, 7, 10-15, 17-20, 22, 23, 27, 28, 30, 32, 33, 35, 38, 41, 42, 44-52, 55 and 56.

Status Of Amendments

Appellant proposed an amendment to claim 56 in the Amendment and Response filed May 16, 2006. The proposed amendment corrects a clear typographical error in the issued claim. The Examiner has not entered the proposed amendment. The Examiner provides no reasons for refusing to enter the proposed amendment. No other amendments to the claims have been filed subsequent to the final rejection.

Summary Of Claimed Subject Matter

The appealed claims are generally directed to processing signals in a communications system such a television distribution system. A concise explanation of the subject matter defined in each of the independent claims involved in the appeal is set forth below.

1. **Claim 2**

Claim 2 defines a method of processing control signals and controlling equipment at a remote site based on a broadcast transmission. The method includes a step of receiving at a remote site a broadcast carrier transmission. The broadcast carrier transmission is demodulated to detect an information transmission therein. Control signals associated with the information transmission are detected and identified at the remote site. A portion of the control signals is passed to a computer control means at the remote site. A selected portion of the control signals is compared with a code inputted into said computer control means on the basis of information contained in the information transmission. A printing means is activated when the comparison step provides a match between the inputted code and the selected portion of the control signals.[1]

The '277 patent discloses numerous examples of processing control signals and controlling equipment at remote receiver stations based on broadcast transmissions. The disclosure is based on the signal processor, shown in Figure 2, which receives broadcast transmissions. (Col. 18, ll. 17-42.) The signal processor includes decoders that detect signal information embedded in the received transmission. (Col. 18, ll. 43-55.) The decoders include demodulators for defining the television signal. (Col. 21, ll. 27-35.) The signal processor includes a computer control means or controller device. (Col. 20, ll. 34-53; col. 22, ll. 26 - col. 23, l. 52.) In one example related to a television program on cooking techniques, the receiver station prints a recipe and shopping list based on the request of the user. (Col. 261, *et seq.*) The

[1] Appellant notes that the claims as issued include several typographical errors. Appellant submits that these typographical errors would be readily apparent to one of ordinary skill in the art and do change the meaning of the claim. The claim summaries set forth how one of ordinary skill would interpret the claim language. For example, claim 2 includes a "step of comparing a selected position of said control signals with a code imputted into said computer control means." Claim 2 subsequently refers to "the selected portion of the control signals." One of ordinary skill would readily recognize that "imputted" is "inputted" misspelled and that "a selected portion of said control signals" is compared with the inputted code.

cooking show transmission is received at a remote subscriber station. (Col. 262, ll. 4-32.) The system detects an information message addressed to the signal processor in the transmission. (Col. 263, ll. 1-9.) The message includes an information segment of instructions or control signals. (*Id.*) The instructions are passed to a controller. (Col. 263, ll. 10-23.) A code inputted to the controller (Col. 262, ll. 48-64) is compared with the instructions on the basis of the embedded message. (Col. 263, ll. 24-45.) When the comparison provides a match, a printer is activated to print the recipe and shopping list. (Col. 264, ll. 9-55.)

2. Claim 4

Claim 4 is directed to a data receiver system. The system includes a switch. The switch is for selecting either a first input or a second input. The first input is of a broadcast transmission. The second input is of a cablecast transmission. The switch transfers the selected transmission to a digital detector. The system includes a controller for causing the switch to select either the first input or the second input. The system further includes a digital detector for detecting digital data in the selected transmission and relaying the data to a data processor.

The '277 patent includes a data receiver system, which includes a signal processor, which in turn includes a switch. (Col. 18, ll. 21-24.) The switch is used to select either a broadcast transmission or a cablecast transmission. (Col. 18, ll. 35-36.) A local oscillator and switch control causes the switch to select either the broadcast input or the cablecast input. (Col. 18, ll. 30-39.) The output of the switch passed to a TV signal decoder (col. 18, ll. 35-39), which includes digital detectors that detect digital data in the selected transmission (col. 21, l. 19 - col. 22, l. 2). The digital data is relayed to recited signal processors. (Col. 18, l. 43 - col. 19, l. 13.)

3. Claim 6

Claim 6 is directed to a system for locating or identifying a predetermined signal in a television program transmission in which various signal types are transmitted. The signal is transmitted in a varying location or a varying timing pattern. The transmission is one being separately defined from standard analog video and audio television. The system includes a digital detector for receiving at least some information of the transmission and detecting the predetermined signal at a specific location or a specific time. A controller, programmed with

either the varying locations or the varying timing pattern of the signal, causes the detector to detect the signal.

The '277 patent discloses embedded signals that are used to inform and control television receiver stations at which they are received. (Col. 9, ll. 56-60.) The specification discloses the use of television program transmissions that are separately defined from standard analog video and audio television. (Col. 21, l. 62 - col. 22, l. 2; col. 255, ll. 42-56; col. 258, ll. 22-42) (disclosing digital television transmissions). *See also* Figure 2A "Path C," described as a separately defined transmission, entering digital detector 38. Signal processors at the receiver stations receive the signals in television program transmissions. The specification discloses the use of a digital detector to receive information in a transmission. (Col. 21, l. 33 - col. 22, l. 2; col. 22, ll. 21-35; col. 22, l. 63 - col. 23, l. 4; col. 52, ll. 1-11; col. 53, ll. 19-27; col. 13, l. 68 - col. 14, l. 7; Figs. 2A-C and 3A.) Controllers are programmed with information of the composition of a specific signal or the varying location or the varying timing pattern of the signal. (Col. 9, ll. 42-47; col. 139, l. 54 - col. 140, l. 10; col. 255, l. 42 - col. 256, l. 19.) *See also* Figures 2E-2K (exemplary signal composition formats used to detect particular signals). The controllers cause the detectors to detect the specific signal. (Col. 21, l. 67 - col. 22, l. 2; col. 22, ll. 36 - 62; col. 23, l. 49 - col. 24, l. 2; col. 255, l. 47 - col. 256, l. 23; col. 20, ll. 34-53; col. 18, ll. 29-34.)

4. Claim 7

Claim 7 is directed to a system for locating or identifying a specific signal in a television program transmission and assembling information contained in the specific signal. The transmission is one being separately defined from standard analog video and audio television. The system includes a digital detector for receiving at least some information of the transmission and detecting the specific signal at a specific location or time. A storage device is used for receiving detected digital information of the specific signal and assembling some of the digital information into information or instruction message units. A controller, programmed with information of the composition the signal or with a varying location or varying timing pattern of the signal, causes the detector to locate, detect or output the signal. The controller controls a technique used by the storage device to assemble message units.

The '277 patent discloses embedded signals that are used to inform and control television receiver stations at which they are received. (Col. 9, ll. 56-60.) The specification discloses the use of television program transmissions that are separately defined from standard analog video and audio television. (Col. 21, 62 - col. 22, l. 2; col. 258, ll. 22-42) (disclosing digital television transmissions). *See also* Figure 2A "Path C," described as a separately defined transmission, entering digital detector 38. Signal processors at the receiver stations receive the signals in television program transmissions. The specification discloses the use of a digital detector to receive information in a transmission. (Col. 21, l. 33 - col. 22, l. 2; col. 22, ll. 21-35; col. 22, l. 63 - col. 23, l. 4; col. 52, ll. 1-11; col. 53, ll. 19-27; col. 13, l. 68 - col. 14, l. 7; Figs. 2A-C and 3A.) A buffer/comparator is disclosed that receives detected digital information and assembles the digital information into information or message units. (Col. 18, l. 56 - col. 19, l. 13; col. 19, l. 52 - col. 20, l. 25.) The signal processor assembles information into information or instruction message units. (Col. 10, ll. 17-33; col. 15, ll. 30-33 and 48-50.) Controllers are programmed with information of the composition of a specific signal or the varying location or the varying timing pattern of the signal. (Col. 9, ll. 42-47; col. 139, l. 54 - col. 140, l. 10; col. 255, l. 47 - col. 256, l. 19.) *See also* Figures 2E-2K (exemplary signal composition formats used to detect particular signals). The controllers cause the detectors to locate, detect or output the specific signal. (Col. 21, l. 67 - col. 22, l. 2; col. 22, ll. 36 - 62; col. 23, l. 49 - col. 24, l. 2; col. 255, l. 47 - col. 256, l. 23; col. 20, ll. 34-53; col. 18, ll. 29-34.) The controllers further control how the storage devices assemble message units. (Col. 22, l. 63 - col. 23, l. 42; col. 20, ll. 34-53.)

5. <u>Claim 10</u>

Claim 10 is directed to a television receiver system. The system includes a receiver that receives a selected portion of a television program transmission that is not a standard television signal. A digital detector receives the selected portion and detects a digital signal. A storage device is used to receive detected digital information and assemble the detected information into message units. A controller controls the receiver to pass selected information to the detector, controls the detector to pass detected information to the storage device and controls the storage device to assemble the detected information into message units.

The '277 patent discloses receiver stations that receives a selected portion of a digital television program transmission, thus receiving a transmission that is not a standard analog television signal. (Col. 162, ll. 16-33; Col. 255, ll. 45-47.) *See also* Figure 2A "Path C," described as a separately defined, i.e., non-standard, transmission, entering digital detector 38. Digital detectors receive selected portions of the transmission and detect a digital signal. (Col. 163, ll. 1-36 and 50-63.) Message units are assembled from the received detected information in memory. (Col. 163, l. 64 - col. 164, l. 29.) Controllers control the passage of digital information through the receiver, digital detector and memory. (Col. 20, ll. 34-53; col. 8, ll. 25-44, col. 11, ll. 2-9; col. 162, ll. 44-49.)

6. Claim 11

Claim 11 is directed to a television receiver system. The system includes a first processor for receiving information of a selected television programming transmission and detecting a specific signal in the transmission based upon a location or timing pattern of the specific signal in the transmission. The first processor is programmed with information of a varying location or timing pattern. A second processor receives and processes information of the specific signal and identifies when and where to pass the information based on the information and passes the information.

The '277 patent discloses a television receiver systems with first processors programmed with information of varying location or varying timing patter of a specific signal. (Col. 9, ll. 37-47; col. 9, l. 61 - col. 10, l. 16 ; col. 17, l. 48 - col. 18, l. 16; col. 48, l. 35 - col. 49, l. 46.) A second processor receives signals (instructions) from the first processor and passes information upon identifying when and where to pass information. (Col. 27, l. 64 - col. 28, l. 9; col. 49, l. 64 - col. 50, l. 15.)

7. Claim 12

Claim 12 is directed to reprogrammable system. The system includes a digital detector that receives information of a transmission and detects digital signals in the transmission. The digital signals include new operating instructions. A processor receives and processes information of some of the digital signals, identifying the operating instructions addressed to the processor. The processor instructs the detector to detect and pass specified digital signals. A

memory device holds operating instructions addressed to the processor. The operating instructions control the operation of the processor. The processor loads the operating instructions addressed to the processor into the memory device. The operating instructions include instructions to cause the processor to cause the detector to detect different signals.

The '277 patent discloses reprogrammable receiver stations. These receiver stations include digital detectors that receive information of a transmission and detect signals in the transmission, including new operating instructions. (Col. 21, l. 33 - col. 22, l. 2; col. 22, ll. 21-35; col. 22, l. 63 - col. 23, l. 4; col. 52, ll. 1-11; col. 53, ll. 19-27; col. 13, l. 68 - col. 14, l. 7.) The specification discloses that the receiver stations include processors that receive and process information of some of the detected digital signals. (Col. 13, ll. 8-32, col. 287, l. 37 - col. 288, l. 8; col. 289, ll. 28-66.) The disclosed processors identify the operating instructions addressed to themselves and instruct the detectors to pass the specified signals. (Col. 290, l. 48 - col. 291, l. 16; col. 291, l. 38 - col. 292, l. 2.) Memory devices are disclosed that hold operating instructions addressed to the processor. (Col. 287, l. 53 - col. 288, l. 8; col. 291, ll. 6-16; col. 292, ll. 32-61; col. 294, ll. 13-67.) The specification discloses that the processors load the addressed operating instructions into the memory device. (Col. 292, l. 61 - col. 293, l. 14.) The processors operate under the new instructions to detect further signals. (Col. 294, l. 13 - col. 295, l. 17; col. 295, l. 55 - col. 296, l. 19.)

8. Claim 13

Claim 13 is directed to a signal processing system. The system comprises a digital detector that detects digital signals. A processor receives and processes information of a signal detected by the detector. The processor processes the received signal to identify how and where to pass the information. Various apparatus are operatively connected to the processor. The processor transfers the detected signals to the apparatus to which the signals are addressed or are to be controlled by the signals. A memory device holds operating instructions that control the processor. A controller controls the detector in its detection of signals.

The '277 patent discloses a signal processing system at receiver stations that include digital detectors. (Col. 21, l. 27 - col. 22, l. 2.) The receiver stations include processors that receive information of detected signals and identify how and where to pass information. (Col. 19, ll. 31-51; col. 17, ll. 50-54.) The processor transfers detected signals to equipment such as

processors, buffers, computers, and video tape recorders and players to which the signals are addressed and/or are controlled by the signals. (Col. 10, l. 58 - col. 11, l. 1; col. 24 ll. 18-32; col. 49, ll. 54-63; col. 85, ll. 1-33.) The receiver stations include memory devices hold operating instructions for the processors. (Col. 19, ll. 21-29; col. 85, ll. 1-33.) The receiver stations include controllers that control the detectors. (Col. 22, ll. 36-62; col. 23, ll. 29-42; see Figures 2A-C).

9. Claim 14

Claim 14 sets forth a television receiver station. The television receiver station includes receiver/distributors with at least one receiving a television program transmission including television programming and programming identification signals. An output device displays the television program or transmits the television programming to a remote subscriber station. A storage device receives and stores television programming. Means for selectively receiving television programming from the receiver/distributors or the storage device and transferring the received television programming to either the storage device or the output device are employed. A processor receives the programming and the programming identification information. A controller receives specific unit programming information identification information, identifies a specific unit of television programming received at a specific receiver/distributor by comparing received identification information to scheduled program identification information, and passes programming to either the output device or to the storage device based upon the scheduled information.

The '277 patent disclose both intermediate transmission stations (col. 181, l. 67 - col. 182, l. 28) and ultimate receiver stations (col. 218, ll. 3-26) that receive television programming. Both of these receiver stations include receivers and distributors that receive television programming transmissions that include television programming and programming identifications signals. (Col. 182, ll. 55 – 68; col. 183, ll. 19 – 23; col. 184, ll. 19 – 23; col. 185, ll. 18 – 23; col. 189, ll. 6 – 18; col. 193, ll. 15 – 18; col. 50, ll. 51 – 53; col. 139, ll. 51 – 53; col. 140, ll. 21 – 41; col. 141, ll. 37 – 42; col. 141, l. 68 – col. 142, l. 24; col. 239, lines 27-45.) The intermediate transmissions stations have output devices for transmitting television programming to remote subscriber stations and the ultimate receiver stations have output devices comprising television monitors. (col. 182, ll. 14 – 22; col. 182, l. 55 – col. 183, l. 4; col. 184, l. 10 – 35; col.

219, ll. 12-23.) The receiver stations include storage devices that receive and store television programming. (Col. 182, ll. 14 – 28; col. 183, ll. 31– 38; col. 184, ll. 36 – 57; col. 192, l. 55 – col. 193, l. 7; col. 194, ll. 42 – 65, col. 218, ll. 64 – 67; col. 248, l. 32 – col. 249, l. 7.) The receiver stations include matrix switches that receive programming form receivers and storage devices (col. 183, l. 62 – col. 185, l. 7; col. 193, l. 15 – 68; col. 194, l. 66 – col. 195, l. 27; col. 195, l. 57 – col. 196, l. 22; col. 219, ll. 2 – 11; col. 219, ll. 54 – 66; col. 239, ll. 27 – 37; col. 240, ll. 4 – 22; col. 242, l. 60 – col. 244, l. 28; col. 244, l. 59 – col. 246, l. 16) and transfer programming to storage devices and output devices (col. 184, ll. 15 – 57; col. 192, l. 55 – col. 193, l. 7; col. 194, ll. 1 – 41; col. 246, l. 43 – col. 247, l. 4; col. 247, l. 67 – col. 249, l. 27). The receiver stations include processors that receive programming and programming identification information. (Col. 182, l. 45 – col. 183, l. 4; col. 191, ll. 44 – 48; col. 193, ll. 44 – 48; col. 193, ll. 56 – 60; col. 196, ll. 51 – 55; col. 17, l. 50 – col. 21, l. 13; col. 24, ll. 18 – 33; Col. 220, ll. 16 – 51; col. 239, ll. 27-37; col. 242, l. 60 – col. 244, l. 28; col. 244, l. 59 – col. 245, l. 19; col. 245, l. 50 – col. 246, l. 16.) The receiver stations include controllers. (Col. 183, ll. 8 – 10; col. 220, l. 52 – col. 221, l. 14.) The controllers receive specific unit programming information. (Col. 183, ll. 5 – 7; col. 191, ll. 40 – 48; col. 193, l. 15 – col. 194, l. 41; col. 194, l. 66 – col. 195, l. 27; col. 195, l. 57 – col. 196, l. 22; col. 238, l. 48 – col. 239, l. 26.) The controllers identify a specific unit of television programming received at specific receiver by comparing received identification information to a schedule. (Col. 183, l. 38 – col. 184, l. 15; col. 193, l. 15 – col. 194, l. 6; col. 194, l. 66 – col. 195, l. 27; col. 195, l. 57 – col. 196, l. 22; col. 243, ll. 37 – 54.) The controllers pass programming to output devices and storage devices based upon schedule information. (Col. 184, ll. 10 – 57; col. 192, ll. 55 – col. 193, l. 7; col. 194, ll. 1 – 41; col. 247, l. 67 – col. 249, l. 27.)

10. Claim 15

Claim 15 sets forth a method for identifying and selecting television programming. The method occurs in a system that directs selected television programming to a television output or storage. The system includes a processor for receiving and processing at least part of the television programming transmission, a means for transferring the programming selectively from a television programming receiver to a television programming output device or storage device, and a controller that receives information from the processor and controlling the means for

transferring on the basis the information. The method includes inputting to the controller identification information of a specified television program unit. A part of a television programming unit is input to the processor. Identification data is detected, located or identified in the part that identifies a specific television program unit in the transmission. Information of the data is input to the controller. The program unit information is used to determine the identity of the specific television program. The controller is thus enabled to select a portion of the specific television program unit and cause a device to transfer information of the selected portion to the television programming output device or storage device.

The '277 patent discloses intermediate transmission stations and ultimate receiver stations in which the claimed method occurs as discussed above with respect to claim 14. These receiver stations include inputting to controllers identification information of a specified television program unit. (Col. 183, ll. 14-37; col. 238, l. 55 - col. 239, l. 2.) Part of incoming television programming units are input to processors. (Col. 182, l. 55 - col. 183, l. 4; col. 239, ll. 27-37.) Identification data is detected, located or identified in the part of the television programming input to the processor. (Col. 183, l. 62 - col. 184, l. 2; col. 243, ll. 22-36.) Received unit information is used to determine received program units. (Col. 183, l. 62 - col. 184, l. 2; col. 243, ll. 38-54.) The controllers thus cause a switch or processor to transfer a selected portion of television programming to an output device or storage device. (Col. 184, ll. 3-14; col. 247, ll. 25-50; col. 248, ll. 37-47.)

11. Claim 17

Claim 17 is directed to a system for controlling a decryptor. The system includes a digital detector that receives a portion of a television program transmission that includes a program and signals embedded in the transmission. The detector detects the embedded signals. The system further includes a decryptor that receives and decrypts the detected signals. A controller causes the decryptor to alter it decryption pattern or technique.

The '277 patent discloses signal processors including digital detectors that detect signals in received portions of television program transmissions. (Col. 9, l. 48 - col. 10, l. 16; col. 21, l. 14 - col. 22, l. 2.) The disclosed signal processors include decryptors that receive and decrypt detected signals. (Col. 18, l. 67 - col. 19, l. 21.) The signal processors include controllers that cause the decryptors to use a particular decryption key (corresponding to the recited "pattern") to

decrypt the received signals. (Col. 20, ll. 46-48; col. 82, ll. 40-64; col. 83, ll. 24-35.). The signal processor also includes controllers that cause the decryptors to use particular decryption algorithms (corresponding to the recited "technique."). (Col. 162, l. 15-Col. 175, l. 36 [disclosing controlling decryptors to use various algorithms A, B, and C, as well as various keys Aa, Bb, and Cc).

12. Claim 18

Claim 18 is directed to a signal processing system. The signal processing system includes a storage device that receives signals detected in a program transmission. Signals are input from the storage device to a decryptor. The decryptor receives and decrypts signals and passes signals to a processor. A controller causes the storage device to identify and pass a specific signal to the decryptor and causes the decryptor to decrypt the specific signal.

The '277 patent discloses a signal processor that include a storage devices that receive signals detected in a television program transmission. (Col. 18, ll. 43-66.) The detected signals are input from the storage device to a decryptor. (Col. 18, l. 67 - col. 19, l. 13.) The decryptor decrypts signals and passes the signals to a processor. (Col. 19, ll. 14-21.) A controller causes the storage device to identify and pass a signal to the decryptor and causes the decryptor to decrypt the signal. (Col. 19, ll. 3-20; col. 20, ll. 46-49.)

13. Claim 19

Claim 19 is directed to a television subscriber station. The stations include a plurality of decryptors, each capable of decrypting a selected portion of a television program transmission. A processor identifies and passes to a selected decryptor an instruct-to-decrypt signal that instructs the selected decryptor to decrypt some of the video portion of the transmission. The instruct-to-decrypt signal comprises a code necessary for the decryption of the program transmission.

The '277 patent discloses television subscriber station that include a plurality of decryptors. (Col. 161, ll. 42-52.) The decryptors decrypts selected video or audio portions of the television transmission. (Col. 165, l. 60 – col. 166, l. 15; col. 168, ll. 3-18.) A processor identifies and passes to a decryptor a selected decryption key that is necessary for the decryption

of the program transmission. (Col. 167, l. 45 – col. 168, l. 9; *see also* col. 162, l. 15 - col. 175, l. 36 (disclosing controlling decryptors to decrypt using various keys Aa, Bb, and Cc)).

14. Claim 20

Claim 20 is directed to a television subscriber station. The television subscriber station includes a decryptor that receives and decrypts part of the video portion of an encrypted television program transmission in response to receiving an instruct-to-decrypt signal. A digital detector receives information of a separately defined television program transmission, detects the location or presence of an instruct-to-decrypt signal in the transmission, and outputs digital information of the signal to the decryptor. A controller controls the technique by which the detector locates, detects and outputs signals. The controller is programmed with information as to either signal composition or signal timing.

The '277 patent discloses a television subscriber station that includes decryptors that decrypt the video portion of an encrypted television program transmission in response to receiving a decryption key. (Col. 161, l. 42 – col. 162, l. 33.) A decoder receives information in a separately defined television program transmission. (Col. 169, ll. 36-59.) The decoder includes digital detectors. (Col. 21, l. 19 – col. 22, l. 2.) The detector detects digital information which is input to the decryptor. (Col. 169, ll. 54-68; col. 172, ll. 19-27.) A controller controls how the detector locates, detects and outputs the detected signal. (Col. 20, ll. 34-53; col. 169, l. 54-68.) The controller is programmed with the composition and timing of the television signal. (Col. 169, l. 36 – col. 170, l. 24; *see also* col. 162, l. 15 - col. 175, l. 36 (disclosing controlling decryptors to decrypt by providing them with various keys Aa, Bb, and Cc)).

15. Claim 22

Claim 22 sets forth a television subscriber station. The television subscriber station includes a receiver that receives television program transmissions. A tuner tunes the receiver to a selected television program transmission and informs a processor of the transmission to which the receiver is tuned. A decryptor receives, decrypts and outputs some of the selected television program transmission. A processor receives information transmitted in a selected program transmission, locates or identifies information of an instruct-to-decrypt signal associated with the selected transmission and identifies and transfers to the decryptor a signal need for decryption.

The processor is programmed with or preinformed of the technique for identifying information of the signal needed for decryption.

The '277 patent discloses television subscriber stations that include receivers such a converter boxes. (Col. 165, l. 48 – col. 166, l. 5.) A tuner tunes the receiver to a television program and informs a processor that the receiver has been tuned. (*Id.*) Decryptors receive, decrypt and output portions of the received television program. (Col. 161, l. 42 – col. 162, l. 33.) Processors receive information transmitted in the selected program transmission (col. 170, ll. 25-56), locate and identify information of a decryption key associated with the selected transmission and identifies and transfers to decryptors decryption keys (col. 171, l. 22 – col. 172, l. 55). The processors are programmed with the technique for identifying information needed to select the correct decryption keys. (Col. 169, l. 33 – col. 170, l. 24.)

16. Claim 23

Claim 23 is directed to a television subscriber station. The television subscriber station includes a receiver that receives an encrypted television program transmission. A decryptor decrypts the video portion of the encrypted television program transmission in response to an instruct-to-decrypt signal. A controller controls the manner by which the station locates the instruct signal. A memory device holds information of the instruct signal.

The '277 patent discloses television subscriber stations that include receivers that receive encrypted television program transmissions. (Col. 160, l. 60 – col .161, l. 41; col. 162, ll. 16-24.) Decryptors decrypt the video portion of an encrypted television program transmission in response to receiving a decryption key. (Col. 171, l. 22 – col .172, l. 55.) Controllers control the manner in which the stations locate the decryption keys. (*Id.*) A memory holds information of the decryption key. (Col. 172, ll. 19-27.)

17. Claim 27

Claim 27 is directed to a subscriber station. The subscriber station includes detectors each connected to a programming receiver device, a display device, a storage device, a processing device or a transmission device. The detectors detect information that identifies programming to be received, displayed, stored, processed or transmitted by a specific device. A transferring means transfers information from one of the detectors to a processor. A processor

receives the information and assembles or stores records that contain statistics on program availability use or usage at the station.

The '277 patent discloses subscriber stations that include detectors connected to programming receiver devices, display devices, storage devices, processing devices and transmission devices. (Col. 176, ll. 32-54.) The detectors detect information that identifies programming received, displayed, stored, processed or transmitted each specific device. (Col. 176, l. 62 – col. 177, l. 6.) A bus communications means transfers information from the detectors to a processor. (Col. 176, ll. 55-61.) The processor receives monitoring information and assembles and stores records on program availability use and usage at the station. (Col. 175, ll. 39-57; col. 181, ll. 23-53; col. 190, ll. 45-48.)

18. Claim 28

Claim 28 is directed to a television subscriber or computer user station. The station includes multiple decoders each connected to a specific programming receiver, display, storage, processing, transmission or output device. The decoders locate or identify identifier information that identifies specific programming received, displayed, stored, processed, transmitted or output by a specific device. A means for transferring transfers the information from a decoder to a processor. A controller instructs a selected decoder how to locate the identifier information.

The '277 patent discloses subscriber stations that include decoders connected to a programming receiver, display, storage, processing, transmission and output devices. (Col. 176, ll. 32-54.) The decoders locate and identify information that identifies programming received, displayed, stored, processed, transmitted and output at each specific device. (Col. 176, l. 62 – col. 177, l. 6; col. 9, 61 - col. 10, l. 20.) A bus communications means transfers information from the detectors to a processor. (Col. 176, ll. 55-61.) A controller instructs the controllers how to locate the identifier information. (Col. 178, ll. 18-52.)

19. Claim 30

Claim 30 is directed to a mass medium subscriber station. The station includes various controlled apparatus. A mass medium receiver receives a selected broadcast or cablecast transmission. A detector detects information in the transmission including subscriber station environment control signals. A processor receives the information and the control signals and

outputs the control signals to a specific control. Controllers receive the control signals and each controls a controlled apparatus on the basis of the received control signals.

The '277 patent discloses mass medium subscriber stations that include various controlled apparatus. (Col. 218, ll. 39-47; col. 220, ll. 52-61.) A receiver receives television program transmissions. (Col. 221, ll. 44-56.) A detector detects information in the transmission including controls signals of the subscriber station environment. (Col. 222, ll. 31-51.) A processor receives the detected information and outputs control signals to specific controlled apparatus. (Col. 223, l. 27 – col. 224, l. 13.) The controlled apparatus are controlled on the basis of the received control signals. (*Id; See also* Figure 7A (detected control signals control subscriber station environment including furnace 206, air conditioning 207, window opening/closing device 208)).

20. Claim 32

Claim 32 sets forth a data receiver system. The system includes a first receiver that receives identification signals that identify specific information content in a plurality of concurrent broadcast or cablecast data transmissions. A storage device stores hold-and-compare signals. The system includes means for receiving the identification signals, comparing the identification signals to the hold-and-compare signals and conveying information identified by the comparison to a controller. A second receiver receives selected data transmissions and directs the data transmissions to a data processor or data output. A tuner causes the second receiver to receive the selected data transmissions. A controller selects a specific data transmission based on the information conveyed and instructs the second receiver to receive the selected data transmission.

The '277 patent discloses a data receiver system that includes a processor that scans concurrent transmissions to receive identification signals that identify specific information content. (Col. 234, ll. 24-36; col. 235, ll. 52-54.) The processor includes a storage device to hold identification records of items of interest. (Col. 234, ll. 24-36.) A controller functions to compare identification signals received by the processor with the records of items of interest. (Col. 235, l. 58 – col. 236, l. 7.) A second receiver receives a transmission with data related to the item of interest. (Col. 236, l. 8 – col. 237, l. 5.) A tuner causes the second receiver to receive

the selected data transmission. (Col. 236, ll. 35-43.) A controller instructs the tuner to select a channel on the basis of the comparison. (Col. 236, ll. 28-35; col. 235, l. 58 - col. 236, l. 10.)

21. Claim 33

Claim 33 is directed to a data receiver system. The system includes a first receiver that receives identification signals that identify specific information content of at least one of specific concurrent data transmissions. A second receiver receives a selected data transmission and directs the selected data transmission to a data processor or output. A tuner causes the second receiver to receive the selected data transmission. A processor stores hold-and-compare signals, receives identification signals, compares the identification signals to the hold-and-compare signals and instructs the tuner to cause the second receiver to receive the selected data transmission.

The '277 patent discloses a receiver that scans concurrent transmissions to receive identification signals that identify specific information content. (Col. 234, ll. 24-36; col. 235, ll. 52-54.) A second receiver receives a selected data transmission (col. 236, ll. 35-43) and directs the selected data transmission to be processed and output. (Col. 237, ll. 35-59.) A tuner causes the second receiver to receive the selected data transmission. (Col. 236, ll. 35-43.) A processor stores data regarding data of interest, receives identification signals, compares the identification signals to the stored data of interest and instructs the tuner to tune to channel to receive the selected data transmissions. (Col. 236, l. 8 – col. 237, l. 5.)

22. Claim 34

Claim 34 is directed to a television receiver system. The system includes a first receiver that receives identification signals that identify specific information content a specific one of several concurrent television program transmissions. A second receiver receives a selected program transmission and directs the selected program transmission to a television data processor. A tuner causes the second receiver to receive the selected program transmission. A processor stores hold-and-compare signals, locates or identifies identification signals, compares the identification signals to the hold-and-compare signals, and instructs the tuner to cause the second receiver to receive the selected transmission.

The '277 patent discloses a receiver that scans concurrent transmissions to receive identification signals that identify specific information content. (Col. 234, ll. 24-36; col. 235, ll. 52-54.) A second receiver receives a selected program transmission (col. 236, ll. 35-43) and directs the selected program transmission to be processed. (Col. 237, ll. 35-59.) A tuner causes the second receiver to receive the selected program transmission. (Col. 236, ll. 35-43.) A processor stores data regarding data of interest, locates and identifies identification signals, compares the identification signals to the stored data of interest and instructs the tuner to tune to channel to receive the selected transmissions. (Col. 236, l. 8 – col. 237, l. 5.)

23. Claim 35

Claim 35 is directed to a television subscriber station. The station includes a converter that receives a multichannel television transmission. A tuner selects a specific television channel. A television receiver or display device displays programming of a channel specified by the tuner. A controller stores information of a selected television program unit including a unique code for identifying the selected television program unit and causes the tuner to select a television transmission containing programming of the selected television unit at a specific time.

The '277 patent discloses a station including a converter that receives a multichannel television transmission. (Col. 165, ll. 48-55; col. 244, ll. 59-61.) A tuner selects a television channel. (Col. 244, l. 68 – col. 245, l. 6.) A monitor displays the selected channel. (Col. 248, l. 37 – col. 249, l. 2.) A controller (col. 244, l. 61 – col. 245, l. 6) stores information of selected television program unit, including a unique code identifying the unit, (col. 29, ll. 20-41; col. 239, ll. 3-37) and causes the tuner to select a television channel containing the selected television unit at a specific time (col. 242, l. 44 – col. 245, l. 28.)

24. Claim 38

Claim 38 is directed to a method for receiving selected television or radio programming. The method is conducted in a system that includes a receiver for receiving a television or radio transmission or frequency, a means for transferring television or radio programming from the receiver to a television or radio programming output or storage, a processor capable of receiving and processing a part of a programming transmission, and a controller capable of receiving information from the processor and of controlling the tuner on the basis of some of the

information. The method includes a step of inputting to the controller identification information of a specified television or radio program unit. Part of a programming transmission is inputted to a processor. Identification data is detected in the programming transmission that identifies a specific television or radio program unit. Information of the identification data is input to the controller together with information that identifies a specific transmission or frequency. The controller is enabled to select a portion of the specific television or radio program unit and cause a tuner to tune the receiver to receive information of the selected portion.

The '277 patent discloses a system including a receiver for receiving television or radio transmission or frequency (col. 236, ll. 8-43; col. 248, l. 37 - col. 249, l. 7), means for transferring television or radio programming from the receiver to television or radio output or storage devices (col. 8, ll. 19-25; col. 234, ll. 21-24; col. 237, ll. 51-55; col. 248, l. 37 - col. 249, l. 7), a processor capable of receiving and processing part of a programming transmission (col. 235, ll. 52-54; col. 238, l. 55 - col. 239, l. 2) and a controller capable of receiving information from the processor and of controlling the tuner on the basis of the information (col. 236, ll. 8-43; col. 239, l. 26-37). Identification information of a specified television or radio program unit is input to the controller. (Col. 243, ll. 25-29; col. 238, l. 55 - col. 239, l. 2.) Part of a programming transmission is input to the processor. (Col. 18, l. 17 – col. 22, l. 2; col. 235, ll. 52-54; col. 242, l. 67 - col. 243, l. 36.) Identification data is detected in the programming transmission that identifies a specific television or radio program unit. (Col. 21, ll. 40-50; col. 243, ll. 36-54.) Information of the identification data is input to the controller together with information that identifies a specific transmission or frequency. (Col. 139, l. 55 – col. 140, l. 10; col. 235, l. 62 – col. 236, l. 7; col. 243, l. 55 - col. 244, l. 28.) The controller is enabled to select a portion of the specific television or radio program unit and cause the tuner to tune the receiver to receiver information of the selected portion. (Col. 8, ll. 19-25; col. 234, l 20 –col. 238, l. 10; col. 239, ll. 27-37; col. 248, l. 37 - col. 249, l. 7.)

25. Claim 41

Claim 41 is directed to a system for processing a television program transmission in which a plurality of types of signals including identification signals or instruct-to-decrypt signals are transmitted. The signal types are transmitted in different patterns and at least one of the types is transmitted in varying locations or in a varying pattern of timing in the program transmission.

The system includes a processor that identifies and transfers to a computer an instruct-to-generate signal that causes the computer to generate a portion of video information content of a television program to be displayed at a television display device.

The '277 patent discloses processing a television program transmission in which various signal types are transmitted including identification signals and instruct-to-decrypt signals. (Col. 8, ll. 18-36; col. 10, l. 34 – col. 11, l. 9; col. 169, l. 36 – col. 170, l. 24.) The signal types are transmitted in different patterns and some signals are transmitted in varying locations or in varying patterns of timing in the program transmission. (Col. 9, l. 56 – col. 10, l. 16; col. 48, l. 34 – col. 49, l. 46; col. 160, l. 57 – col. 175, l. 36.) A processor is disclosed that identifies and transfers to a microcomputer instructions that cause the microcomputer to compute a video graphic of personal information to be displayed to a viewer. (Col. 15, l. 28 – col. 16, l. 20.)

26. Claim 42

Claim 42 is directed to a system for processing a television program transmission in which a plurality of types of signal information are transmitted. The signal information includes a unit identification information signal that identifies a unit of information associated with a television program. The signal types are transmitted in varying locations or in varying patterns of timing in the program transmission. The system can process television programming separately defined from standard analog television. The system includes a processor that locates or identifies and transfers an instruct-to-generate-and-transmit signal to a computer that causes the computer generate and transmit video information content to a television display.

The '277 patent discloses processing a television program transmission in which a plurality of types of signal information are transmitted. (Col. 8, ll. 18-36; col. 10, l. 34 – col. 11, l. 9; col. 169, l. 36 – col. 170, l. 24.) The signal information includes information that identifies units of information associated with the television program. (Col. 29, ll. 20-45; col. 51, ll. 6-22.) Signals types are transmitted in varying locations or in varying patterns of timing in the program transmission. (Col. 9, l. 56 – col. 10, l. 16; col. 48, l. 34 – col. 49, l. 46; col. 160, l. 57 – col. 175, l. 36.) The system can process television programming separately defined from standard analog television. (Col. 9, ll. 56-60; col. 21:62 - 22:2; col. 169, l. 36 – col. 170, l. 24; col. 255, ll. 42-66; col. 258, ll. 22-42.) A processor is disclosed that locates or identifies and transfers to a microcomputer instructions that cause the microcomputer compute a video graphic of personal

information of a viewer and to transmit the video graphic to a monitor. (Col. 15, l. 28 – col. 16, l. 49.)

27. Claim 44

Claim 44 is directed to a television receiver system. The system includes a television receiver that receives a selected broadcast or cablecast television transmission and transfers television programming in transmission to a television display. An input device inputs information of the reaction of a viewer to specific television program content. A digital detector detects digital information in a mass medium transmission and transfers some of the detected information to a processor. A processor generates and outputs information of a video overlay that is related to the programming or the reaction information. A television display device receives and displays the video overlay.

The '277 patent discloses television receiver systems that include receivers that receive television transmissions and transfer television programming to a television monitor. (Col. 218, l. 39 – col. 219, l .23; col. 262, ll. 14-44.) A local input is used to input reaction information of a viewer to television program content. (Col. 221, ll. 5-8; col. 283, ll. 21-28.) A decoder detects digital information in the television transmission. (Col. 268, ll. 10-31.) The decoder transfers detected information to a microcomputer. (Col. 268, ll. 41-53; col. 281, l. 61 – col. 282, l. 17.) A microcomputer generates and outputs a video overlay that is related to the television programming and the viewer reaction information. (Col. 281, l. 61 – col. 282, l. 34.) The television monitor receives and displays the video overlay. (*Id.*)

28. Claim 45

Claim 45 is directed to a system for coordinating a multimedia or multiple media presentation. The system includes a mass medium receiver that receives a broadcast or cablecast transmission. A detector detects, in a selected transmission, information including actuation or tuning control instructions. A transmission means transmits control instructions to a tuner. A second mass medium receiver.[2]. A tuner that tunes the second mass medium receiver or apparatus is connected to the second receiver.

[2] Claim 45 is missing the word means in the third element. One of ordinary skill in the art would readily recognize that a transmission means transmits the control instruction to the tuner.

The '277 patent discloses a system for coordinating multimedia presentations that includes a receiver for receiving a mass medium transmission. (Col. 227, ll. 26-34.) A detector detects information in a selected program transmission (col. 228, ll. 6-19) that activates and controls tuning of another receiver (col. 228, l. 30 - col. 229, l.35). A switch is configured to transmit control instructions to tuner. (Col. 228, ll. 39-54.) A second receiver receives a second medium. (Col. 229, ll. 3-5.) A tuner tunes the second receiver to the appropriate frequency. (Col. 229, ll. 3-35.)

29. Claim 46

Claim 46 is directed to a mass medium receiver system. The system includes a receiver that receives a mass medium transmission and transfers programming in the mass medium to an output device. An input device inputs information of the reaction of a viewer to specific mass medium program content. A digital detector detects digital information in a mass medium transmission and transfers detected information to a decryptor. A decryptor decrypts the detected digital information. A controller controls the manner of decryption of the decryptor in response to information input by the input device.

The '277 patent discloses a system that receives mass medium television transmissions including a receiver that transfers television programming to a monitor. (Col. 262, ll. 14-33.) A local input inputs reactions of a viewer to television program content. (Col. 161, l. 56 - col. 162, l. 8; col. 262, ll. 56-64.) A decoder that includes a digital detector detects information in a mass medium transmission. (Col. 21, l. 19 - col. 22, l. 2; col. 263, l. 62 - col. 264, l. 8.) A decryptor decrypts the detected digital information. (Col. 266, ll. 31-35.) A controller controls the manner of decryption of the decryptor in response to the input information. (Col. 114, ll. 9-16; col. 265, l. 31-37.)

30. Claim 47

Claim 47 is directed to multimedia or multiple media subscriber station. The station includes a television receiver that receives a selected television transmission and transfers television programming in the transmission to a television display. An input device inputs information of the reaction of a viewer to specific television programming. A mass medium receiver connected to the television display. A tuner that causes the receiver to receive a selected

transmission of programming that supplements the specific television programming. A controller controls the tuner in response to information inputted by the input device.

The '277 patent discloses a station that receives television transmissions including a receiver that transfers television programming to a television monitor. (Col. 262, ll. 14-33.) A local input inputs reactions of a viewer to television program content. (Col. 161, l. 56 - col. 162, l. 8; col. 262, ll. 56-64.) The station includes multiple receivers for receiving mass medium transmissions. (Col. 218, ll. 48-63.) The station includes a tuner that tunes a second mass medium receiver to receive programming that supplements the specific television program being viewed. (Col. 262, ll. 48-55; col. 265, l. 59 - col. 266, l. 31.) The station includes controller controls the tuner in response to the information inputted through the input device. (Col. 220, ll. 16-51; col. 265, l. 59 - col. 266, l. 31.)

31. Claim 48

Claim 48 is directed to multimedia or multiple media subscriber station. The station includes a television receiver that receives a selected television transmission and transfers television programming in the transmission to a television display. An input device inputs information of the reaction of a viewer to specific television programming. A digital detector detects digital information in a mass medium transmission and combines some the information to controller. A plurality of output devices output programming or information that is related to but distinct from the television programming. A controller causes the an output device to output specific selected programming that is related to the television programming in response to information inputted by the input device and information detected by the digital detector.

The '277 patent discloses a station that receives television transmissions including a receiver that transfers television programming to a television monitor. (Col. 262, ll. 14-33.) A local input inputs reactions of a viewer to television program content. (Col. 161, l. 56 - col. 162, l. 8; col. 262, ll. 56-64.) The station includes a decoder, having a digital detector, that detects information in a mass medium transmission and providesinstructions to a controller. (Col. 21, l.16 - col. 22, l. 2; Col. 219, ll. 37-53; col. 263, l. 62 - col. 264, l. 8.) The station includes a plurality of output devices that can output programming that is related to television programming. (Col. 219, ll. 12-23; col. 262, ll. 48-55) A controller causes the related

programming to be output based on user input and control signals detected by the detector. (Col. 263, l. 1 - col. 264, l. 55.)

32. Claim 49

Claim 49 is directed to multimedia or multiple media subscriber station. The station includes a television receiver that receives a selected television transmission and transfers television programming in the transmission to a television display. An input device inputs information of the reaction of a viewer to specific television programming. Means for receiving programming from receiver, storage, computer, processor or decryptor devices and outputting or directing programming to storage, computer, processor, decryptor or output devices. A controller controls the receiving, outputting or directing of the means for receiving in response to information inputted by the input device.

The '277 patent discloses a station that receives television transmissions including a receiver that transfers television programming to a television monitor. (Col. 218, ll. 48-63.) A local input inputs reactions of a viewer to television program content. (Col. 220, l. 62 - col. 221, l. 14.) The station includes a switch that directs information received from various input devices to be output to various output devices. (Col. 218, ll. 39-47.) A controller controls the switch. (Col. 220, ll. 16 - 43; col. 220, l. 62 - col. 221, l. 14.)

33. Claim 50

Claim 50 is directed to multimedia or multiple media subscriber station. The station includes a television receiver that receives a selected television transmission and transfers television programming in the transmission to a television display. An input device inputs information of the reaction of a viewer to specific television programming. The station includes a mass medium receiver. A digital detector detects digital information in a mass medium transmission and combines some of the detected information to a controller. The controller controls a tuner, decryptor, means for transferring, computer or processor, or output devices in response to information input by the input device and information detected by the detector.

The '277 patent discloses a station that receives television transmissions including a receiver that transfers television programming to a television monitor. (Col. 218, ll. 48-63.) A local input inputs reactions of a viewer to television program content. (Col. 220, l. 62 - col. 221,

l. 14.) The station includes second receivers. (Col. 218, ll. 48-63.) The station includes a decoder, with a digital detectors, that detect information in a mass medium transmission and provides instructions to a controller. (Col. 219, ll. 37-53.) A controller controls tuners, decryptors, means for transferring, computer, processor and output devices based on information input by the input device and control signals detected by the detector. (Col. 21, l. 19 - col. 22, l. 2;col. 220, ll. 16 - 43; col. 220, l. 62 - col. 221, l. 14.)

34. Claim 51

Claim 51 is directed to a multimedia or multiple media subscriber station. The station includes a television receiver that receives a selected television transmission and transfers television programming in the transmission to a television display. An input device inputs information of the reaction of a viewer to specific television programming. A digital detector detects digital information in a transmission and transfers some of the detected information to a storage device. A storage device receives data on programming availability, use or usage from the detector and collects information that identifies specific programming received, processed, or outputted at the station or information inputted at the input device.

The '277 patent discloses a station that receives television transmissions including a receiver that transfers television programming to a television monitor. (Col. 218, ll. 48-63.) A local input inputs reactions of a viewer to television program content. (Col. 220, l. 62 - col. 221, l. 14.) The station includes second receivers. (Col. 218, ll. 48-63.) The station includes a decoders, with a digital detectors, that detects information in specific transmission and transfer information to a storage device. (Col. 17, l. 50 - col. 18, l. 16; col. 21, l. 19 - col. 22, l. 2; col. 219, ll. 37-53.) A storage device collects information that identifies specific programming received, processed, or outputted at the station or information inputted to the input device. (Col. 2, ll. 60-62; col. 19, l. 52 - col. 20, l. 33; col. 219, l. 67 - col. 220, l. 4; col. 262 l. 48 - col. 263, l. 45.)

35. Claim 52

Claim 52 is a method for promoting and delivering programming or data at a television subscriber station. The station includes a television receiver for receiving a television program a, a television display for displaying program content associated with the transmission, an input

device for inputting information of the reaction of a viewer to specific television programming, a digital detector for detecting digital information in a mass medium transmission and combining some of the detected information to a controller, the controller for controlling one of a tuner, a decryptor, a transfer, a computer, a processor, a storage device or output device in response to information inputted by the input device and information detected by the detector. The method includes a step of transmitting in a television transmission program content that promotes the acquisition or purchase of specific programming or data by a viewer. The transmission is received and program content is displayed at the television display. Reaction information of an order by a viewer for the specific programming or data is input. A control instruction is transmitted in a mass medium transmission that instructs the controller to communicate a specific instruction to a controlled apparatus if reaction information of an order exists at the station. The presence of the control instruction at the station is detected. The controller is caused, in response to the instruction and the reaction information, to communicate specific instructions to a tuner, decryptor, transfer, computer, processor, storage or output, to enable delivery of the specific programming or data.

The '277 patent discloses a station including a television receiver, television display, input device, digital detector and controller. (Col. 218, l. 21 - col. 219, l. 66.) The patent discloses transmitting in a television program content that promotes the acquisition or purchase of specific programming or data. (Col. 262, ll. 48-55.) A viewer inputs an order in reaction to the television program content. (Col. 262, ll. 56-64.) Instructions are transmitted in a television transmission that instructs a controller to communicate a specific instruction when the order exists. (Col. 263, l. 62 - col. 264, l. 16; col. 265, ll. 31-37.) A decoders detects the transmitted instruction. (Col. 263, l. 62 - col. 264, l. 8.) The controller, which controls tuners, decryptors, transfers, computers, processors, storage devices and output devices, enables the delivery of the order. (Col. 220, ll. 16-51; col. 263, l. 62 - col. 264, l. 55.)

36. Claim 55

Claim 55 is directed to a mass medium transmission receiver station. The station includes an input device that inputs information of the reaction of a viewer to specific mass medium program content. A first controller controls the timing or manner of decrypting by a decryptor in response to information input by the input device. A memory holds operating

instructions that control the first controller. A second controller controls the controls receiving, detecting or locating of control instructions and the inputting of the control instructions into the memory.

The '277 patent discloses an input device that inputs information of the reaction of a viewer to program content. (Col. 262, ll. 48-64.) A first controller controls the manner in which a decryptor decrypts. (Col. 266, ll. 32-36; col. 114, ll. 9-16.) A memory holds the operating instructions of the first controller. (Col. 20, ll. 34-53.) A second controller controls receiving, detecting and locating control instructions. (Col. 113, l. 8 - col. 114, l. 8.)

37. Claim 56

Claim 56 is directed to a computer station. The station includes a storage device for storing encrypted data. A computer controls the storage device, locates a selected portion of data, and transfers the selected portion to a decryptor or processor. A decryptor decrypts the encrypted data. A processor locates or identifies selected information associated with the selected portion and causes the decryptor to decrypt the selected portion on the basis of the selected information.

The '277 patent discloses a computer station that includes a storage device for storing encrypted data. (Col. 305, ll. 38-50) A computer controls the storage device, locates data, and transfers the data to a decryptor. (Col. 305, l. 51 - col. 306, l. 16.) A decryptor decrypts encrypted data. (Col. 167, l. 38 - col. 168, l. 38) A processor locates or identifies information associated with a portion of selected data that is used to select a decryption key that causes the decryptor to decrypt the selected data. (Col. 170, l. 67 - col. 172, l. 27.)

Grounds Of Rejection To Be Reviewed On Appeal

Appellant finds error in each of the outstanding rejections in the Final Office Action. Appellant requests that the each of the following rejections presented in the Final Office Action be reviewed.

1. Claim 2 is the subject of the following rejections:
    - under 35 U.S.C. §103(a) as being unpatentable over GB #1,556,366 to Betts in view of JP #56-8975 to Okada et al. (Office Action at 157, Advisory Action at 103); and
    - under 35 U.S.C. §102(b) as being anticipated by each of the following:
        - "A Television Facsimile System" by Soejima (Office Action at 153, Advisory Action at 99),
        - U.S. Patent No. 4,042,958 to Saylor et al. (Office Action at 58, Advisory Action at 4), and
        - U.S. Patent No. 4,135,213 to Wintfeld et al. (Office Action at 60, Advisory Action at 6).
2. Claim 4 stands rejected under §103 as being unpatentable over Summers in view of JP #51-138317 to Ikeda et al. (Office Action at 167, Advisory Action at 115).
3. Claim 6 stands rejected under §102(b) as being anticipated by U.S. Patent No. 3,848,082 to Summers (Office Action at 132, Advisory Action at 76) and U.S. Patent No. 4,295,223 to Shutterly (Office Action at 62, Advisory Action at 8).
4. Claim 7 is the subject of the following rejections:
    - under §103(a) as being unpatentable over Summers (Office Action at 158, Advisory Action at 104) and "Broadcast Text Information in France" by Marti (Office Action at 162, Advisory Action at 110); and
    - under §102(b) as being anticipated by each of the following:
        - Shutterly (Office Action at 64, Advisory Action at 10), and
        - "The Concept of Universal 'Teletext' (broadcast and interactive video) Decoder, Microprocessor Based" (hereinafter, "Concept of Universal 'Teletext'")(Office Action at 68, Advisory Action at 13), and
    - under §102(e) as being anticipated by U.S. Patent No. 4,829,569 to Seth-Smith (Office Action at 66, Advisory Action at 12).
5. Claim 10 is the subject of the following rejections:
    - under §103(a) as being unpatentable over Marti in view of "The Antiope

Videotext System" by Graf (Office Action at 159, Advisory Action at 107); and

- under §102(b) and/or (a) as being anticipated by each of the following:
  - Marti (Office Action at 133, Advisory Action at 79),
  - DE 2,904,981 to Zaboklicki (Office Action at 139, Advisory Action at 84),
  - Shutterly (Office Action at 70, Advisory Action at 15), and
  - U.S. Patent No. 4,528,589 to Block et al. (hereinafter "Block '589")(Office Action at 71, Advisory Action at 16).

6. Claim 11 stands rejected under §103(a) as being unpatentable over U.S. Patent No. 3,848,082 to Summers for the same reasons stated with respect to claim 7 (Office Action at 159, Advisory Action at 107).

7. Claim 12 is the subject of the following rejections:

   - under §103(a) as being unpatentable over U.S. Patent No. 3,848,082 to Summers for the same reasons stated with respect to claim 7 (Office Action at 159, Advisory Action at 107); and
   - under §102(b) as being anticipated by each of the following:
     - Zaboklicki (Office Action at 140, Advisory Action at 85),
     - U.S. Patent No. 4,054,911 to Fletcher et al. (Office Action at 72, Advisory Action at 17), and
     - "Telesoftware: Home Computing Via Broadcast Teletext" (Office Action at 74, Advisory Action at 19).

8. Claim 13 stands rejected under §102(b) as being anticipated by Zaboklicki (Office Action at 141, Advisory Action at 86).

9. Claim 14 stands rejected under §103(a) as being unpatentable over

   - U.S. Patent No. 4,025,851 to Hazelwood et al. and "Television Frame Synchronizer" by Imai et al. in view of either "Vertical Interval Signal Applications" by Etkin or U.S. Patent No. 3,866,123 to Hetrich (Office Action at 172, Advisory Action at 120); and
   - Hazelwood et al. and Imai et al in view of "A System of Data Transmission in the Field Blanking Period of the Television Signal" by Hutt (Office Action at 176, Advisory Action at 124).

10. Claim 15 stands rejected under §102(b) or (e) as being anticipated by each of the following references:

    - U.S. Patent No. 4,503,462 to Kelly et al. (Office Action at 142, Advisory Action at 87);
    - U.S. Patent No. 2,614,188 to Jahnei (Office Action at 144, Advisory Action at 89);
    - den Toonder et al. (Office Action at 76, Advisory Action at 21);

- U.S. Patent No. 4,331,973 to Eskin et al. (Office Action at 77, Advisory Action at 22);
- Keiser (Office Action at 78, Advisory Action at 24); and
- Kruger (Office Action at 80, Advisory Action at 25).

11. Claim 17 is the subject of the following rejections:

- rejected under §102(b) as being anticipated by each of the following:
  - U.S. Patent No. 4,205,343 to Barrett (Office Action at 81 and p. 145, Advisory Action at 26 and p. 90),
  - U.S. Patent No. 4,405,942 to Block et al. ("Block '942")(Office Action at 147, Advisory Action at 92),
  - U.S. Patent No. 4,323,921 to Guillou ("Guillou '921") (Office Action at 82, Advisory Action at 27),
  - U.S. Patent No. 4,484,027[3] to Lee et al. (Office Action at 84, Advisory Action at 29),
  - U.S. Patent No. 4,531,021 to Bluestein (Office Action at 85, Advisory Action at 30),
  - U.S. Patent No. 4,535,355 to Arn (Office Action at 85, Advisory Action at 30),
  - Yarbrough '288 (Office Action at 86, Advisory Action at 31),
  - U.S. Patent No. 4,599,647 to George et al. (Office Action at 87, Advisory Action at 32),
  - U.S. Patent No. 4,613,901 to Gilhousen et al. (Office Action at 88, Advisory Action at 33), and
  - U.S. Patent No. 4,634,808 to Moerder (Office Action at 89, Advisory Action at 34); and
- under §102(e) as being anticipated by each of the following:
  - U.S. Patent No. 4,337,483 to Guillou (hereinafter, "Guillou '483")(Office Action at 83, Advisory Action at 28),
  - U.S. Patent No. 4,636,854 to Crowther et al. (Office Action at 90, Advisory Action at 35),
  - Jeffers et al. (Office Action at 90, Advisory Action at 36),
  - U.S. Patent No. 4,821,097 to Robbins (Office Action at 91, Advisory Action at 36),
  - Seth-Smith et al. (Office Action at 92, Advisory Action at 37), and
  - U.S. Patent No. 4,887,296 to Horne (Office Action at 93, Advisory Action at 38).

12. Claim 18 stands rejected under §102(b) as being anticipated by each of the following:

- Block '942 for the same reasons stated with respect to claim 17 (Office Action at 148, Advisory Action at 93);

[3] Presumably this rejection relates to U.S. Patent No. RE33,189, which is a reissue of Lee et al.. Further references in this brief to "Lee et al." will refer to both Lee et al. and its reissue.

- Guillou '483 (Office Action at 95, Advisory Action at 40);
- U.S. Patent No. 4,339,798 to Hedges et al. (Office Action at 94, Advisory Action at 39);
- Bluestein (Office Action at 96, Advisory Action at 41);
- U.S. Patent No. 4,558,180 to Scordo (Office Action at 97, Advisory Action at 42); and
- Seth-Smith (Office Action at 98, Advisory Action at 73).

13. Claim 19 stands rejected on the following bases:

- under §103(a) as being unpatentable over U.S. Patent No. 4,322,745 to Saeki et al. in view of "Satellite Security" by Davis (Office Action at 165, Advisory Action at 113); and
- under §102(b) as being anticipated by each of the following:
  - U.S. Patent No. 4,045,814 to Hartung et al. (Office Action at 99, Advisory Action at 44), and
  - Block '254 (Office Action at 100, Advisory Action at 45).

14. Claim 20 stands rejected on the following bases:

- under §103(a) as being unpatentable over Saeki et al. in view of Davis for the same reasons stated with respect to claim 19 (Office Action at 166, Advisory Action at 115); and
- under §102(b) as being anticipated by Block '942 (Office Action at 146, Advisory Action at 91);

15. Claim 22 stands rejected on the following bases:

- under §103(a) as being unpatentable over Saeki et al. in view of Davis for the same reasons stated with respect to claim 19 (Office Action at 166, Advisory Action at 115); and
- under §102(b) as being anticipated by each of the following:
  - Block '254 (Office Action at 101, Advisory Action at 46), and
  - Aminetzah (Office Action at 102, Advisory Action at 47).

16. Claim 23 stands rejected under §102(b) or (e) as being anticipated by each of the following:

- Block '942 (Office Action at 149, Advisory Action at 94);
- Hartung et al. (Office Action at 103, Advisory Action at 48); and
- Gilhausen et al. (Office Action at 104, Advisory Action at 49).

17. Claim 30 stands rejected under §102(b) as being anticipated by each of the following:

- "The Vertical Interval: A General-Purpose Transmission Path" by Anderson (Office Action at 145, Advisory Action at 90); and
- U.S. Patent No. 4,142,156 to Freund (Office Action at 105, Advisory Action at

50).

18. Claim 32 stands rejected under §102(b) as being anticipated by each of the following:
    - Yarbrough '101 (Office Action at 106, Advisory Action at 51); and
    - Kruger (Office Action at 108, Advisory Action at 52).

19. Claim 33 stands rejected under §102(b) as being anticipated by U.S. Patent No. 4,488,179 to Kruger (Office Action at 109, Advisory Action at 54).

20. Claim 34 stands rejected under §102(b) as being anticipated by U.S. Patent No. 4,488,179 to Kruger (Advisory Action at 55).

21. Claim 35 stands rejected under §102(b) and/or (e) as anticipated by Kruger (Office Action at 111, Advisory Action at 56).

22. Claim 38 stands rejected under §102(b) as being anticipated by each of the following:
    - Monteath et al. (Office Action at 112, Advisory Action at 57);
    - Cogswell et al. (Office Action at 114, Advisory Action at 58); and
    - Kruger (Office Action at 115, Advisory Action at 60).

23. Claims 41 and 42 stand rejected under §103(a) as being unpatentable over Summers for the same reasons stated with respect to claims 7 and 12 (Office Action at 159, Advisory Action at 107).

24. Claim 44 is the subject of the following rejections:
    - under §103(a) as being unpatentable over U.S. Patent No. 4,233,628 to Ciciora in view of either page 78 of the "National Cable television Association Executive Siminar [sic] Series" document entitled "Videotex Services" and "'Touch-Tone' Teletext: A Combined Teletext-Viewdata System" by Robinson et al. (Office Action at 156, Advisory Action at 102); and
    - under §102(b) or (e) as being anticipated by each of the following:
        - Ciciora (Office Action at 151, Advisory Action at 96);
        - Kruger (Office Action at 116, Advisory Action at 61); and
        - Edwardson (Office Action at 117, Advisory Action at 62).

25. Claim 45 stand rejected on the following bases:
    - under §103(a) as being unpatentable over U.S. Patent No. 4,329,684 to Monteath et al. and UK #2,034,995 to Wright (Office Action at 180, Advisory Action at 128); and
    - under §102(b) as being anticipated by Eskin et al. (Office Action at 119, Advisory Action at 63) and Kruger (Office Action at 120, Advisory Action at 64).

26. Claim 46 stand rejected on the following bases:

- under §103(a) as being unpatentable over "ORACLE-Broadcasting the Written Word" by James in view of Guillou '921 (Office Action at 182, Advisory Action at 130) and "CEEFAX: Proposed New Broadcasting Service" by Edwardson in view of Guillou '921 (Office Action at 183, Advisory Action at 131); and
- under §102(e) as being anticipated by Guillou '483 (Office Action at 130, Advisory Action at 75).

27. Claim 47 stand rejected under §102(b) as being anticipated by Zaboklicki (Office Action at 138, Advisory Action at 83).

28. Claim 48 stand rejected under §102(b) as being anticipated by Zaboklicki (Office Action at 138, Advisory Action at 83).

29. Claim 49 stand rejected under §102(b) as being anticipated by Zaboklicki (Office Action at 142, Advisory Action at 87).

30. Claim 50 stand rejected under §102(b) as being anticipated by each of the following:

- Zaboklicki (Office Action at 138, Advisory Action at 83);
- Kosco (Office Action at 121, Advisory Action at 65);
- Monteath et al. (Office Action at 122, Advisory Action at 66); and
- Eskin et al. (Office Action at 123, Advisory Action at 68).

31. Claim 51 is the subject of the following rejections:

- under §103(a) as being unpatentable over U.S. Patent No. 4,317,215 to Tabata et al. in view of "Some Applications of Digital Techniques in TV Receivers" by Doyle et al. (Office Action at 168, Advisory Action at 116); and
- under §102(b) as being anticipated by each of the following:
  - Zaboklicki (Office Action at 139, Advisory Action at 84),
  - Monteath et al. (Office Action at 124, Advisory Action at 69), and
  - Eskin et al. (Office Action at 125, Advisory Action at 70).

32. Claim 52 stands rejected under §102(b) as being anticipated under §102(b) by Yanagimachi et al. (Office Action at 127, Advisory Action at 71).

33. Claim 55 stands rejected under §102(b) as being anticipated by den Toonder et al. (Office Action at 128, Advisory Action at 72).

34. Claim 56 is rejected on the following bases:

- under §103(a) as being unpatentable over U.S. Patent No. 3,786,420 to Stambler (Office Action at 163, Advisory Action at 112); and
- under §102(b) as being anticipated by Shutterly (Office Action at 129, Advisory Action at 73).

35. Claims 6, 7, 20, 27 and 28 stand rejected under the judicially created doctrine of

obviousness-type double patenting. Claims 6 and 7 stand rejected over claim 4 of the U.S. Patent 4,965,825 patent. Claim 20 stands rejected over claim 9 of the '825 patent. Claims 27 and 28 stand rejected over claims 4 and 5 of the '825 patent.

The following rejection asserted in the Final Action has been withdrawn by the Examiner in the Advisory Action mailed July 21, 2006:

Claim 3 was rejected under §102(b) as being anticipated by U.S. Patent No. 4,323,922 to den Toonder et al. (Office Action at 61). That rejection has been withdrawn.

Argument

1. PATENT OWNER'S RESPONSE WITH RESPECT TO CLAIM OF PRIORITY UNDER 35 U.S.C. §120

The '277 patent claims priority through a chain of applications. The two most important filing dates in that chain are **November 3, 1981**, which is the filing date of the earliest application (U.S. Patent No. 4,694,490) in the chain and **September 11, 1987**, which is the filing date of continuation-in-part application Serial No. 96,096, which is the earliest application in the chain having the same specification (other than the claims) as the '277 patent.[4] There is no dispute regarding the entitlement of the rejected claims to the September 11, 1987 filing date.

With respect to five of the rejected claims (7, 10, 17, 18 and 23), however, the Examiner relies upon intervening art allegedly published between November 3, 1981 and September 11, 1987, thus raising the issue of whether those five claims are entitled to priority to the 1981 filing date. (*See* Office Action pp. 66, 71, 84, 96 and 104; Advisory Action pp. 12, 16, 29, 41 and 49.)

I. The Requirements of Section 120

In *Callicrate v. Wadsworth Mfg.*, 427 F.3d 1361, 1373, 77 U.S.P.Q.2d 1041, 1051 (Fed. Cir. 2005), the Federal Circuit described the requirements for obtaining priority under 35 U.S.C. §120 as follows:

> In the United States, a claim of priority to an earlier filed application(s) is governed by the provisions of *35 U.S.C. § 120. Section 120* provides, in part:
>
> > An application for patent for an invention disclosed in the manner provided by the first paragraph of *section 112* of this title in an application previously filed in the United States . . . shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an

[4] As the specification of the instant '277 patent is identical (with exception of the claims) to the 1987 specification of the '096 application which issued as Pat. No. 4,965,825, the Examiner and appellant refer to the specification of the instant '277 patent as the 1987 specification.

> application similarly entitled to the benefit of the filing date of the first application[.]
>
> *35 U.S.C. § 120* (effective Nov. 29, 2000) (emphasis added). As indicated in the highlighted language, a "patent may only claim priority to an earlier application if the earlier application fulfills the requirements of *§ 112*, first paragraph. In turn, that paragraph requires, in part, that the application 'shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.'" *Chiron Corp. v. Genentech, Inc., 363 F.3d 1247, 1253 (Fed. Cir. 2004)* (quoting *35 U.S.C. § 112*, ¶ 1).

Thus a proper determination of whether a claim is entitled to priority under § 120 requires an analysis of whether the claimed invention is sufficiently described and enabled by the parent specification. Appellant has demonstrated through the expert declarations of Dr. Alan C. Bovik that application Ser. No. 317,510, filed Nov. 3, 1981, (the 1981 specification) contains a description and demonstrates possession of the invention of claims 7, 10, 17, 18 and 23 of the '277 patent.[5] Claims 7, 10, 17, 18 and 23 are, thus, entitled to benefit of the November 3, 1981, filing date under § 120.

II. The Examiner's Position with Respect to §120 Priority

The Examiner fails to consider the question of §120 priority as required by well-established legal authority. Rather than analyzing whether the claims at issue (7, 10, 17, 18 and 23) are supported by the 1981 specification, the Examiner instead attempts to analyze differences between the 1981 and 1987 specifications in an effort to broadly conclude that priority to 1981 cannot be had regardless of what language is used in the claims. Specifically, the Examiner compares what he asserts are definitions of the term "programming" in the 1981 abstract and the 1987 specification. The 1981 abstract begins:

> Apparatus and methods for automatically controlling programming transmissions and presentations on television and radio equipment and monitoring the programming transmitted and presented.

[5] The initial declaration of Dr. Bovik was filed Aug. 1, 2005, with the response to the initial Office action. The declaration addresses claims 1, 7, 10, 12-14, 16-19, 22, 23, 29 and 35-39. The Examiner has withdrawn the rejections based on intervening art of claims 1, 12-14, 16, 19, 22 and 35-39 in the Final Office Action.

> ("Programming" here means everything transmitted over television or radio intended for communication of entertainment or to instruct or inform.)

'490, abstract ll. 1-7. The summary of the invention of the 1987 specification begins:

> The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.

'277 col. 8, ll. 18-24. The Examiner characterizes these passages from the 1981 abstract and the 1987 specification as an alleged "evolution" of the meaning of term "programming." Specifically, the Examiner asserts that these two excerpts constitute "definitions" and that the "definition" in the 1987 specification is broader than the "definition" in the 1981 abstract[6] (Office Action at 4). Then, the Examiner takes the position "that a broadening in the use and meaning of recited terminology that occurs and [sic] a result of the filing of the 1987 CIP, e.g., the noted *evolution* of the recited program/programming terminology, is sufficient to refute a claim for 120 priority." (Office Action, n. 3, pp. 6-7.) The Examiner makes no effort to provide any explanation why any of the claimed subject matter of claims 7, 10, 17, 18 or 23 is not adequately supported by the 1981 specification.

The Examiner distorts the requirements of §120 so as to ignore the claim language and focus on the differences in wording between the 1981 parent specification and the 1987 continuation-in-part specification. The Examiner then asserts that, in light of the differences, appellants have failed to demonstrate that the 1981 description is a legal equivalent of the 1987 description. (Office Action at 8-9.) There is no support for the Examiner's novel approach to addressing the requirements of §120. In fact, the Examiner's approach is contrary to the well-established requirements of §120.

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[6] The Examiner asserts that the meaning in the art of the term "programming" evolved over time. (Office Action p. 3.) The fact that the meaning of the term "programming" may have evolved is insufficient to demonstrate that the earlier specification does not support claims using the term "programming" in its evolved form.

III. The Examiner's Position Is Irrelevant To The Determination Of §120 Priority

While Appellant asserts that the Examiner's position is incorrect for a variety of reasons discussed below, the Board need not reach that issue because the Examiner's position is completely irrelevant to the determination of §120 priority for the simple reason that none of the claims at issue (7, 10, 17, 18 and 23) use the broad term "programming." Rather, four of the subject claims (7, 10, 17 and 23) qualify the term "programming" or "program" with the term "television." For example, claim 23 recites "*television programming*." Similarly, claims 7, 10 and 17 each recite "a *television program* transmission." Since the 1981 Abstract describes the term "programming" as encompassing "everything transmitted over *television* or radio," the "television programming" recited in claim 23 and "television program transmission" recited in claims 7, 10 and 17 unquestionably falls within, and is a subset of, what is described in the 1981 Abstract. Likewise, the recited "television programming" and "television program transmission" fall within, and is a subset of, the 1987 specification's statement that programming includes "everything that is transmitted electronically." Moreover, nothing cited by the Examiner provides any indication that the qualified term "television programming" is used or defined in different ways in the 1981 and 1987 applications.

With respect to claims 7, 10, 17 and 23, the proper issue for the Board is not whether the definition of the term "programming" is different in the 1981 and 1987 specifications, but rather, the issue is whether the 1981 specification provides adequate support for the claimed "television programming" or "television program transmission." Appellant has clearly identified support for the subject claims in the 1981 specification and has submitted declarations of Dr. Bovik demonstrating that the subject matter recited in claims 7, 10, 17, and 23 was described and supported as required by §112 in the 1981 parent application.

Moreover, a disclosure is not limited to an included definition. Take, for example, a parent specification that describes an invention including elements A, B and C and defines a particular term to include elements A and B. A child specification then defines the same term as including A, B and C. A claim in the child application using the term would be entitled to the benefit of the parent filing date because the combination of elements A, B and C are supported by the parent. Accordingly, the mere fact that there are definitions of a claim term that are

worded differently in a parent specification and a child specification is an insufficient reason to deny the earlier priority date to the claims of the child.

To take an actual example, claim 18 sets forth *a signal* processing *system*. The system includes *a storage device for receiving signals detected in a program transmission.* Note first that the claim language does not use the term "programming." However, even assuming that the 1987 requires that the term "program transmission" to be read broadly, the 1981 specification supports the invention of claim 18. The July 30, 2005 Declaration of Dr. Alan C. Bovik (July 2005 Bovik Decl.), at pages 92-94 of Appendix B, sets forth how the 1981 specification supports the term "program transmission." Dr. Bovik expressly finds that the signal processor depicted in Figures 1, 2A, 2B and 2C relates to programming transmissions such as television, radio, and data transmissions. Dr. Bovik cites to the disclosure at column 10, ll. 24-29 of the '490 Patent that a "head end" facility receives programming from many sources. The cited passage discloses that transmissions may be received from satellites by satellite antenna, amplifiers, and TV receivers. Microwave transmissions may be received by microwave antenna and television video and audio receivers. Conventional TV broadcast transmissions may be received by antenna and a TV demodulator. Other electronic programming input means can also receive programming transmissions. Dr. Bovik further cites to the disclosure at column 20, lines 12-68, of the '490 patent directed to a program transmission including programming in the form of a recipe ordered and printed out during a "Julia Childs" program related to cooking. The Examiner fails to identify any support that is absent from the 1981 specification that would be required to support the term "program transmission" as interpreted in light of the 1987 specification.

Accordingly, claims 7, 10, 17, 18 and 23 are entitled to priority to the 1981 application and the Board need not go further on this issue.

IV. The Examiner's Position That The Term "Programming" Is Defined In Different Ways In The 1981 And 1987 Specifications Is Incorrect

The Examiner's position that the term "programming" is defined in different ways in the 1981 and 1987 specifications is simply incorrect. The Examiner plucks the above passage from the Abstract of the 1981 specification and summarily concludes that the language describes

boundaries of the scope of the term programming. Reading beyond the 1981 abstract, which the Examiner appears not to have done, reveals that the term "programming" is used throughout the 1981 specification to encompass everything transmitted electronically including broadcast microwave transmissions, cablecast transmissions and other electronic transmissions. ('490 patent, col. 7, lines 22-30.) In fact, the 1981 specification expressly describes a wide variety of electronic programming transmissions and the receipt of such transmissions as follows:

> The means for and method of transmission of programming [sic] described here is well known in the art. The facility receives programing from many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic programing input means, 62, can receive programing transmissions.

('490 Patent, col. 10, lines 28-40.) Given this broad disclosure in the 1981 specification of many "means for and method[s] of transmission of programming," the 1981 specification clearly does not limit the term "programming" to transmission over radio and television. The Examiner's notion that the 1981 specification limits the term "programming" to television and radio transmissions is simply wrong and ignores the 1981 specification's clear use of the terminology in a much broader manner that is entirely consistent with the usage of that term in the 1987 specification.

The Examiner improperly relies on the 1981 abstract to avoid considering the express teaching of the 1981 specification. The abstract does not limit the teaching of the specification. The 1981 abstract states: "'Programming' here means everything transmitted over television or radio intended for communication of entertainment or to instruct or inform." This language is not limiting. Rather, the language is inclusive of "*everything* transmitted over television or radio." All signals intended for communication of entertainment or to instruct or inform that may be transmitted over television or radio systems are contemplated by this definition as is evidenced by the disclosure of the specification discussed above. Furthermore, at the time the 1981 application was filed, Rule 72 expressly stated: "The abstract shall not be used for interpreting the scope of the claims." 37 C.F.R. § 1.72 (1981). Thus, the definition of

"programming" in the 1981 abstract was not intended and should not be used to limit the scope of any claim.

Moreover, the relevant legal authority contradicts the Examiner's conclusion that a difference in wording between the parent and the continuation-in-part application prevents any of the '277 claims from obtaining the benefit of the 1981 filing date under § 120. (Office Action, n. 3, pp. 6-7.) Specifically, the case law states the following:

> [T]he earlier and later applications need not use identical words, if the earlier application shows the subject matter that is claimed in the later application, with adequate direction as to how to obtain it. . . . [A]n invention may be described in many different ways and still be the same invention. . . . In *In re Kirchner*, 305 F.2d 897, 904 134 USPQ 324, 330 (C.C.P.A. 1962) the court held that compliance with section 120 does not require that the invention be described in the same way, in both applications.

Kennecott Corp. v. Kyocera Int'l, Inc., 835 F.2d 1419, 1422, 5 U.S.P.Q.2d 1194, 1197 (Fed. Cir. 1987). The invention need not be disclosed in the same words in the 1981 specification as in the 1987 specification. The Examiner's assertion that the "definition" of the term "programming" evolved from the 1981 specification to the 1987 specification is thus insufficient to hold that the requirements of § 120 are not met. The result of the Examiner's exclusive focus on the differences in the "definition" of the term "programming" is that the Examiner fails to consider what the 1981 specification does in fact disclose in its own words. As demonstrated by Dr. Bovik, the 1981 specification does disclose the inventions of claims 7, 10, 17, 18 and 23.

V. Even If The Examiner's Position That The Term "Programming" Is Defined In Different Ways In The 1981 and 1987 Specifications Is Correct Appellant Has Established That Claims 7, 10, 17, 18 and 23 Are Supported By the 1981 Specification

The Examiner couches his argument as one of claim construction, arguing correctly that the '277 patent claims must be interpreted in light of the 1987 specification, but, as discussed above, incorrectly concluding that such interpretation is somehow different than if they were interpreted in light of the 1981 specification. Thus, the Examiner states his test for priority as follows:

> [I]t is [] the examiner's current understanding that a given one of the instant claims is only entitled to section 120 priority back to the

> 1981 filing date when it can be reasonably shown/determined that the 1981 specification in fact provides section 112-1 support ***for the 1987 claim interpretation*** that is, necessarily, determined by the instant specification (i.e. that of the 1987 CIP).

(Office Action at 5.)[7] What the Examiner fails to recognize, however, is that Appellant has demonstrated exactly what the Examiner asserts is required. The declarations of Dr. Bovik demonstrate that the subject matter recited by claims 7, 10, 17, 18 and 23 as interpreted in light of the specification of application Ser. No. 96,096, filed Sep. 11, 1987 (1987 specification) was previously described, as required by Section 112, in the 1981 parent specification. Dr. Bovik has provided explicit citations demonstrating where the elements of claims 7, 10, 17, 18 and 23 are described in the 1981 parent specification. The disclosure cited supports the claim elements *as interpreted in light of the 1987 specification.*

The Examiner asserts that appellant's prior submission does not attempt to show that the subject matter described in the 1987 specification and set forth by the instant claims is in fact subject matter that was previously described in the 1981 parent specification. (Office Action at 8.) The Examiner is incorrect. Dr. Bovik expressly stated that he "carefully reviewed [the] claims . . . of the '277 Patent in view of the specification of the '277 Patent as understood by a person of ordinary skill in the art." July 2005 Bovik Decl., para. 16. In response to Examiner's position set forth in the Office Action, appellants submitted a supplemental declaration of Dr. Bovik on (May 2006 Bovik Decl.) that clearly states his expert opinion that the 1981 specification supports the claims as interpreted in light of the specification of the '277 Patent. The Examiner does not address the issue of priority in the Advisory Action. The Examiner's failure to fully consider and address the declarations of Dr. Bovik is error.

One of the most egregious errors is the Examiner's failure to consider the claim language. It is the Examiner's position "that the respective decryptions [sic] . . . must represent the 'same' invention: i.e. the descriptions must be 'legal equivalents.'" (Office Action at 9.) The Examiner cites no authority for this position. The Examiner misinterprets the law.

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[7] The Examiner emphasizes that the 1987 specification does not formally incorporate the 1981 specification. (Office Action at 4-5 and 8.) The relevance of this fact is unclear. The Examiner fails to explain how an incorporation by reference of the 1981 specification into the 1987 specification would alter the interpretation of the claims. Notwithstanding, appellant submits that the subject matter described in the 1981 specification is described in the 1987 specification.

> The question in cases in which the parent application does *not* contain language contained in the claims of the later application is whether the language which *is* contained in the parent application is the legal equivalent of the claim language.

Wagoner v. Barger, 463 F.2d 1377, 1380, 175 U.S.P.Q. 85, 87 (C.C.P.A. 1972). This test is centered on the *claimed subject matter.* It is the claim language that must be the legal equivalent of the disclosure of the parent 1981 specification. This is no different from stating that the claimed invention must be supported in the manner set forth by the first paragraph of § 112 in the 1981 specification.

VI. Conclusion

Appellant has provided evidence demonstrating that the 1981 specification adequately supports the subject matter of claims 7, 10, 17, 18 and 23. The Examiner has identified no deficiency in the evidence of record and has identified no limitation in these claims that is not supported by the 1981 specification. Accordingly, these claims are entitled to benefit of the 1981 filing date under 35 U.S.C. § 120.

The Examiner's position is based on a comparison the term "programming" in the parent 1981 abstract and the child 1987 CIP specification. This comparison fails to consider the claim language of the claims at issue and fails to consider the disclosure of the 1981 specification as a whole. Accordingly, the Examiner's analysis fails to determine whether the claimed invention is sufficiently disclosed by the 1981 specification. The Examiner has provided insufficient reasons to deny the benefit of the 1981 filing date to claims 7,10, 17, 18 and 23.

2. THE PATENT OWNER'S RESPONSE TO THE REJECTIONS

I. The Rejections Under 35 U.S.C. §§102 and 103

A. Legal Standards

A patent claim is invalid as being anticipated only if every element of the claim is shown, either expressly or under principles of inherency, in a single prior art disclosure. *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 57 U.S.P.Q.2d 1057 (Fed. Cir. 2000); *Hazani v. United States Int'l Trade Comm'n*, 126 F.3d 1473, 1477, 44 U.S.P.Q.2d 1358 (Fed. Cir. 1997); *In re Schreiber*, 128 F.3d 1473, 1477, 44 U.S.P.Q.2d 1429 (Fed. Cir. 1997); *Beloit*

Corp. v. Voith, 626 F. Supp. 991, 1008, 228 U.S.P.Q. 785 (E.D. Va. 1986), *aff'd*, 806 F.2d 471 (Fed. Cir. 1986). Stated another way, "that which infringes if later anticipates if earlier." *Polaroid Corp. v. Eastman Kodak Co.*, 789 F.2d 1556, 1573, 229 U.S.P.Q. 561 (Fed. Cir. 1986) (citing *Peters v. Active Mfg. Co.*, 129 U.S. 530, 537 (1889)).

A proper rejection under 35 U.S.C. § 103(a) includes the following elements:

> (A) the relevant teaching of the prior art relied upon, . . .
> (B) the difference or differences in the claim over the applied reference(s),
> (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and
> (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification

M.P.E.P. § 706.02(j). The elements are required to comply with the standard of patentability enunciated by the Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966) ("Under § 103, the scope and content of the prior art are to be determined, differences between the prior art and the claims at issue are to be ascertained, and the level of ordinary skill in the pertinent art resolved.")

To establish a *prima facie* case of obviousness under § 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference to combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references combined) must teach or suggest all of the claim recitations. M.P.E.P. § 706.02(j). Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not based on the inventor's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

In order to support a § 103 rejection based on the modification of a single reference, the Examiner must provide specific evidence to show *why* one of ordinary skill would be motivated to modify the reference in such a way to incorporate all of the claimed elements. *See In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1316-17 (Fed. Cir. 2000) ("Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference.") (emphasis added). Broad conclusory

statements concerning motivation to modify, standing alone, are not sufficient to support an obviousness rejection. *See In re Freed,* 425 F.2d 785, 787, 165 U.S.P.Q. 570, 571-72 (C.C.P.A. 1970) (an obviousness rejection must be based on facts, "cold hard facts"); *In re Kotzab*, 217 F.3d at 1370, 55 U.S.P.Q.2d at 1317 ("Broad, conclusory statements standing alone are not 'evidence.'"). Accordingly, a statement that a modification would be an "obvious design choice," without factual support, is insufficient as a matter of law. *In re Dembiczak,* 175 F.3d 994, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999), *abrogated on other grounds by In re Gartside*, 203 F.3d 1305, 53 U.S.P.Q.2d 1769 (Fed. Cir. 2000). Finally, as the absence of a suggestion to modify a reference is dispositive in an obviousness determination, a rejection which fails to provide specific evidence as to *why* one of ordinary skill would be motivated to modify the relevant reference is insupportable, as a matter of law. *See Gambro Lundia AB* v. *Baxter Healthcare Corp.,* 110 F.3d 1573, 42 U.S.P.Q.2d 1378 (Fed. Cir. 1997).

In order to support a § 103 rejection based on a combination of references, the Examiner must provide a sufficient motivation for making the relevant combinations. *See* M.P.E.P. §§ 2142 and 2143.01; *see also In re Rouffet*, 149 F.3d 1350, 1355, 47 U.S.P.Q.2d 1453, 1456 (Fed. Cir. 1998) ("When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references."). It is well-settled that an Examiner can "satisfy [the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness] only by showing some *objective teaching* in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (emphasis added); *see also In re Lee*, 277 F.3d 1338, 1344, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir 2002) ("'deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense'"). As with rejections based on the modification of a single reference, "[b]road conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence [of a motivation to combine]'" and thus do not support rejections based on combining references. *In re Dembiczak*, 175 F.3d at 999, 50 U.S.P.Q.2d at 1617. Without objective evidence of a motivation to combine, the obviousness rejection is the "essence of hindsight" reconstruction, the very "syndrome" that the requirement for such evidence is designed to combat, and without which the obvious rejection is insufficient as a matter of law. *Id.* at 999, 50 U.S.P.Q.2d at 1617-18.

As set forth in greater detail below, the Examiner failed to follow these requirements when making the §§ 102 and 103 rejections of the claims of the '277 patent. For this reason alone, the §§ 102 and 103 rejections are improper and should be withdrawn.

B. Claim 2

Claim 2 is the subject of the following rejections:

- under 35 U.S.C. §103(a) as being unpatentable over GB #1,556,366 to Betts in view of JP #56-8975 to Okada et al. (Office Action at 157); and
- under 35 U.S.C. §102(b) as being anticipated by each of the following:
  - "A Television Facsimile System" by Soejima (Office Action at 153),
  - U.S. Patent No. 4,042,958 to Saylor et al. (Office Action at 58), and
  - U.S. Patent No. 4,135,213 to Wintfeld et al. (Office Action at 60).

Appellant appeals these rejections.

Claim 2 reads as follows:

2. A method of processing control signals and controlling equipment at a remote site based on a broadcast transmission, including:

(a) the step of receiving at a remote site a broadcast carrier transmission;

(b) the step of demodulating said broadcast carrier transmission to detect an information transmission therein;

(c) the step of detecting and identifying at said remote site control signals associated with said information transmission;

(d) the step of passing at least a portion of control signals to a computer control means at said remote site;

(e) the step of comparing a selected position of said control signals with a code inputted into said computer control means on the basis of information contained in said information transmission; and

(f) the step of activating a printing means when the comparison step provides a match between the inputted code and the selected portion of the control signals.

Betts is directed to a device for displaying data transmitted in the line scan periods of a television signal. As the Examiner has now acknowledged in the initial, final and advisory actions, Betts fails to show any activating of a printing means. The Examiner takes Official Notice that was notoriously well known in the art to have provided teletext decoders with printers in order to obtain hardcopies of displayed teletext images. The Examiner initially attempted to show this feature by reference to the untranslated Japanese patent, Okada et al. As the Patent Owner pointed out, the Examiner's reliance on the untranslated Japanese patent was improper. With the July 24, 2006 Advisory Action, the Examiner provides a translation of

Okada et al. Rather than citing to that translation for support, the Examiner instead continues to rely upon the abstract of Okada et al. (Advisory Action, at p. 104.) The Examiner's aversion to considering the actual disclosure of Okada et al. is understandable, as the disclosure does not support the Examiner's rejection. Specifically, there is no showing that Okada et al. activates a printer when a comparison step provides a match between an inputted code and a selected portion of control signals as set forth by claim 2. In fact, Okada et al. discloses something entirely different. Specifically, Okada et al. discloses that when a copy key (36) becomes turned on, *i.e.*, "the inputted code," the switch circuit (32) becomes turned ON such that initialization of the copying action is being controlled by the control signal CTL. (Okada et al. at p. 8.) Nothing whatsoever in Okada et al. discloses or suggests the comparison step recited in claim 2. The Examiner makes no effort whatsoever to address this deficiency in Okada et al. For at least the above reasons, the rejection based on Betts in view of Okada et al. is improper.

Soejima is an article describing experiments to multiplex character data on television signals, where the characters provide sufficient resolution for printing Chinese characters. The Examiner cites solely to Figures 7 and 2 of the article and asserts that the apparatus performs the method of claim 2. (Advisory Action at p. 99.) The Examiner provides his interpretation of the operation of the device depicted in Figure 7 *with no reference whatsoever to the text* of the Soejima article. The Examiner has failed to show where Soejima teaches the step of detecting and identifying set forth by claim 2. The Examiner asserts that certain filters and amplifier of Figure 7 detect and identify control signals. Soejima includes no such teaching. Soejima also fails to show the step of comparing set forth by claim 2. The Examiner asserts that certain circuits and relays of Figure 7 comprise a computer device that compares and detects matches between portions of control signals and viewer's inputs. Soejima includes no such teaching. Soejima does not teach each limitation of claim 2 for at least the above reasons. Accordingly, Soejima does not anticipate claim 2.

In contrast to the rejections based upon Soejima and Betts/Okada et al, the Examiner attempts to address the Patent Owner's prior arguments with respect to Saylor et al. and Wintfeld et al. Wintfeld et al. is a continuation of Saylor et al., and the Patent Owner's arguments apply equally to both references. The Examiner's analysis with respect to Saylor et al. and Wintfeld et al. suffers from two fatal flaws. First, the Examiner puts forth a tortured interpretation of the final step of claim two, which reads as follows: "(f) the step of activating a printing means *when*

the comparison step provides a match between the inputted code and the selected portion of the control signals." The Examiner asserts that the term "when" in this element of claim two means any time after the match occurs. This interpretation of the Examiner is contrary to the plain language of the claim and contrary to common sense. In the claim, when a code is entered, a comparison is performed and a match either occurs or its does not occur. Nothing in claim 2 or in the '277 patent specification suggests some type of prolonged period of matching such as that suggested by the Examiner. Second, the Examiner asserts that Saylor et al. discloses "an automated print mode" in which the selected pages of information "are printed automatically upon detection/receipt." (Office Action at 59, Advisory Action at 6.) The Examiner's assertion in this regard fails on its face. The passage the Examiner cites from Saylor et al. (col. 68, lines 18-34) says nothing about printing anything when a match occurs between an inputted code and a portion of control signals. Rather, the cited passage simply says that a page will automatically be reprinted when the page is updated. In other words, "detection/receipt" of an updated page is not the same as the comparison step of claim 2. Indeed, detection/receipt is recited as an earlier and different step(s) of claim 2 (see elements (b) and (c)). Accordingly, the Examiner's position is untenable and claim 2 is patentable over the cited references.

For all these reasons, the references cited by the Examiner do not anticipate claim 2 of the '277 patent.

C. Claim 4

With respect to claim 4, the Examiner maintains the rejection of claim 4 under §103 as being unpatentable over Summers in view of JP #51-138317 to Ikeda et al. (Advisory Action at 115). The Patent Owner respectfully traverses the Examiner's rejection. Claim 4 reads as follows:

4. A data receiver system comprising:

> a switch operatively connected to a first input of a broadcast transmission and a second input of a cablecast transmission for selecting either said first input or said second input and transferring the selected transmission to a digital detector;
>
> a controller operatively connected to said switch for causing said switch to select either said first input or said second input; and
>
> a digital detector operatively connected to said switch for detecting digital data in said selected transmission and for relaying said data to a data processor.

Summers in view of Ikeda et al. fail to show or suggest each element of the invention of claim 4. The Examiner acknowledges that Summers does not show or suggest a switch and associated controller for selecting between an "over-air" transmission or a cable transmission. The Examiner asserts that the single input of the Summers device is compatible with either an "over-air" transmission link or a cable transmission link. However, such compatibility would not suggest to of ordinary skill the art a system that has a first input of a broadcast transmission and a second input of a cablecast transmission.

The Examiner asserts that Ikeda et al. evidences that it is desirable to have placed switching circuitry at the input of TV receiver and to enable the TV receiver to be switched automatically by a controller. Nothing in Summers, however, indicates that there was any concern whatsoever of unreliability of cable television. The Examiner argues that one skilled in the art would have been motivated to modify the CATV connected receiver of Summers with the switching circuitry described by Ikeda et al to obtain a TV receiver that remains operation despite the occurrence of faults in the CATV network. That alleged motivation, however, is not at all clear. The point of Summers is to transmit and receive supplemental data via a video signal. While such supplemental data could be transmitted via cable or antenna, nothing in Summers indicates that the same data or system of data would be transmitted over both cable and antenna. Thus, it is not at all clear that it would be desirable for a system according to Summers to switch between cable and antenna transmission because such switching likely would render Summers system of transmitting and receiving supplemental data inoperable.

For all these reasons, the Examiner fails to establish a *prima facie* case of obviousness against claim 4.

D. Claim 6

Claim 6 was rejected under §102(b) as being anticipated by U.S. Patent No. 3,848,082 to Summers (Office Action at 132) and U.S. Patent No. 4,295,223 to Shutterly (Office Action at 62). The Patent Owner respectfully traverses these rejections.

Claim 6 reads as follows:

6. A system for identifying a predetermined signal in a television program transmission in which a plurality of signal types are transmitted said signal being transmitted in a varying location or a varying timing pattern, said television program transmission being separately defined from standard analog video and audio television, said system comprising:

a digital detector for receiving said transmission and detecting said predetermined signal in said transmission based on either a specific location or a specific time; and

a controller operatively connected to said detector for causing said detector to detect said predetermined signal based on either a specific location or time, said controller being programmed with either the varying locations or the varying timing pattern of said signal.

Claim 6 requires a "television program transmission" that is "separately defined from standard analog video and audio television." In the prior Response, Appellant explained that the Report and Recommendation of Special Master Regarding Claim Construction (Harmon Report) in the related litigation, *Pegasus Development Corp. v. DirecTV*, D.Del., C.A. No. 00-1020, specifically defines the claim language "separately defined from standard analog video and audio television" as requiring that the television program transmission not be a standard analog video and audio television transmission. (Harmon Report at 65.) The Examiner now contends that merely because information is embedded therein, an otherwise standard analog television transmission becomes "other than standard." The Examiner's position ignores the very language of the claim itself. Specifically, the claim recites, "identifying a predetermined signal in a television program transmission . . . said television program transmission being separately defined from standard analog video and audio television." The embedded signals referenced by the Examiner presumably would be "the predetermined signal," not the "television program transmission." Thus, the claim expressly excludes standard analog television transmissions, i.e., **analog television transmissions with or without embedded digital signals**. Consistent with this view, Special Master Harmon issued a supplemental paper in the Delaware Suit clarifying that a transmission "separately defined from standard analog video and audio television" **excludes** an analog television transmission with embedded digital signals. Mar. 29, 2003, Letter from Special Master Robert L. Harmon. This makes complete sense because standard analog television in 1987 included embedded digital signals, such as in the case of close captioning for the deaf or teletext, both of which had been known since the late 70's/early 80's. Thus, the claim plainly cannot read on prior art involving standard analog television transmissions such as NTSC transmissions with or without embedded digital data. In Shutterly for example, the Examiner asserts that audio signaling samples are separately defined from standard analog audio and video television. Such audio signaling samples, however, are not a television program transmission and thus cannot satisfy the claim.

Contrary to the Examiner's position, the "television program transmissions" of the referenced cited by the Examiner unquestionably are standard analog television transmissions. Thus, these references, alone or combined, do not disclose a system for detecting digital signals in a transmission separately defined from a standard analog television transmission.

Further, the citations of the Examiner do not disclose or suggest the claimed digital detector. The first two cited sections of Shutterly (col. 1, ll. 51-68 and col. 17, ll. 10-12) do not disclose a digital detector for detecting digital signals in the transmission, rather, they relate to signal insertion. Moreover, the inserted signals are analog, whereas the claim plainly requires a **digital** detector that detects digital signals. The third cited section (col. 17, ll. 52-60) likewise does not disclose a digital detector.

Shutterly further fails to disclose or suggest "a controller operatively connected to said detector for causing said detector to detect said predetermined signal." First, col. 7, ll. 3-7 and Fig. 9 describe a microprocessor 100 at the insertion/transmitting end, which is not "operatively connected" to the descrambler relied upon by the Examiner as the digital detector. Next, referring to Fig. 13, the video samples that represent the audio pulse on each active video line are located at the exact time by means of a digital timer. The timer starts as the H-pulse and counts 67 cycles of the 7.16 MHz clock line 288. Alternate samples are latched into an audio sample latch 204 by means of a properly timed 7.16 MHz clock. Each latched sample is then transferred to an input FIFO circuit 353, which stores the video samples representing the received audio pulse until they can be processed by the microprocessor. Shutterly at col. 18, ll. 37-52. Nowhere in Shutterly does it disclose or suggest that this microprocessor exerts any control over, *i.e.*, causes, the digital timer or 7.16 MHz clock in order "to detect" a "predetermined signal" as recited in claim 6.

For all of these reasons, claim 6 is patentable over Summers and Shutterly.

E. Claim 7

Claim 7 was the subject of the following rejections:

- under §103(a) as being unpatentable over Summers (Office Action at 158) and "Broadcast Text Information in France" by Marti (Office Action at 162); and
- under §102(b) as being anticipated by each of the following:
  - Shutterly (Office Action at 64), and
  - "The Concept of Universal 'Teletext' (broadcast and interactive video) Decoder,

Microprocessor Based" (hereinafter, "Concept of Universal 'Teletext'")(Office Action at 68), and

- under §102(e) as being anticipated by U.S. Patent No. 4,829,569 to Seth-Smith (Office Action at 66).

The Patent Owner respectfully traverses these rejections.

Claim 7 reads as follows:

7. A system for locating or identifying a specific signal in a television program transmission that contains digital information and for assembling information contained in said specific signal, said transmission being separately defined from standard analog video and audio television, said system comprising:

a digital detector for receiving at least some information of said transmission and detecting said specific signal at a specific location or time;

a storage device operatively connected to said digital detector for receiving detected digital information of said specific signal and assembling at least some of said digital information into either information or instruction message units; and

a controller operatively connected to said detector and said storage device for causing said detector to locate, detect or output said signal and for controlling a technique used by said storage device to assemble message units, said controller being programmed with information of the composition of said signal or with either the varying location or the varying timing pattern of said signal.

Claim 7 includes several terms that were interpreted in the related litigation, *Personalized Media Communications, L.L.C. v. Scientific Atlanta, Inc.*, N.D.Ga., Civ. Action No. 1:02-CV-824-CAP. Specifically, the phrase "in said transmission" was interpreted in the Special Master's Report and Recommendation or Claim Construction (Peterson Report) as follows: "The word 'in' means 'embedded.' 'Embedded' means enclosed within or made an integral part of." (Peterson Report at 392.) The phrase "varying location or timing pattern" was interpreted as follows:

> A "location" is some part or portion of a "television program transmission." A "varying location" is some part or portion of a "television program transmission" that changes, but does not include changing the channel or carrier frequency. A "timing pattern" is the plan or model for when to embed a signal in programming. A "varying timing pattern is a plan or model for when to embed a signal in programming that changes.

(Peterson Report at 412-413.) Claim 7 further requires a "television program transmission" that is "separately defined from standard analog video and audio television." The Peterson Report construed "television program transmission" as "a single transmission enveloped within a single carrier wave." Peterson Report at 388. The Peterson Report further stated that the term "is not

limited to analog transmission, nor is it limited to a single program or service." Id. In the ITC Litigation, the Federal Circuit likewise interpreted it to mean "a single transmission enveloped within a single carrier wave." *Personalized Media*, 161 F.3d 696, 707, 48 U.S.P.Q.2d 1880, 1890 (1998). The Harmon Report specifically addresses the claim language "separately defined from standard analog video and audio television." The Report defines this claim phrase as requiring that the television program transmission not be a standard analog video and audio television transmission. (Harmon Report at 65.) As indicated above for claim 6, Special Master Peterson issued a clarification indicating that the term "separately defined" excludes analog television whether or not it includes embedded digital signals. See Mar. 29, 2003, Letter from Special Master Robert L. Harmon. The Peterson Report defines the phrase in the same way. (Peterson Report at 416.) Applying these proper definitions, claim 7 is neither anticipated nor obvious in view of the references cited by the Examiner.

The Examiner states that "it continues to be the examiner's position that a television program transmission that includes a 'non-standard' signal component therein, constitutes a 'television program transmission' that is separately defined' from 'standard' television. The Examiner's interpretation is inconsistent with the specification and effectively reads the phrase "separately defined from standard analog video and audio television" out of the claim. For example, the specification of the '277 patent, while describing the detection of signals in standard television transmissions, also describes the detection of signals in transmissions other than those for standard television. Describing the operation of the signal decoder 30 in Figure 2A, the specification discloses the distribution of the television base band signal through three separate paths A, standard video, B, standard audio, and C, "the separately defined transmission:"

> The first path, designated A, detects signal information embedded in the *video* information portion of said television channel signal.
>
> * * *
>
> The second path, designated B, detects signal information embedded in the *audio* information portion of said television channel signal.
>
> * * *

> The third path, designated C, *inputs the separately defined transmission* to a digital detector, 38, which detects signal information embedded in any other information portion of said television channel signal and inputs detected signal information to controller, 39.

Col. 21, ll. 27-66 (emphasis added).[8]

The inventors therefore have expressly distinguished standard television transmissions with digital signals embedded therein from non-standard, "separately defined" transmissions with digital signals embedded therein. *See also* col. 21, ll. 27-66 (describing the video, audio, and a "separately defined transmission"). The specification itself characterizes a "separately defined" transmission as something other than a standard transmission with digital signals embedded within it.

Moreover, claim 7 is directed to an apparatus for, among other things, detecting embedded signals in a non-standard television transmission. Under the Examiner's interpretation, embedding signals in a standard television transmission would automatically render the transmission non-standard. Accordingly, every transmission that could be operated on by the system of claim 7 would by definition be a "non-standard" television transmission because it would include embedded digital signals. The phrase "said transmission being separately defined from standard analog video and audio television" therefore would not limit the claim in any manner, as any television transmission including embedded signals, however defined, would be "separately defined." An interpretation that renders claim language a nullity or meaningless is clearly erroneous. *See Lantech, Inc. v. Keip Mach. Co.*, 32 F.3d 542, 546, 31 U.S.P.Q.2d 1666, 1670 (Fed. Cir. 1994) ("All limitations in a claim must be considered meaningful.") (citation omitted).

A more plausible reading is that the "separately defined" phrase refers to the character of the transmission, regardless of whether signals are embedded therein or not. This gives meaning to the express words of the claim, is consistent with the claim wording (*e.g.*, "*said transmission being* separately defined from standard analog video and audio television") and with the specification. Accordingly, the phrase "said transmission being separately defined from standard

[8] The '277 specification includes Figure 2C and describes it as a signal decoder that can be added to another embodiment of a signal processor so that it "can receive and monitor available programming in transmission frequencies other than radio and television frequencies." Col. 20, ll. 59-63.

analog video and audio television" means a transmission that is something other than standard analog video and audio television.

The signals of Summers are standard analog television transmissions that can be received by standard televisions to display television programs. In other rejections, the Examiner himself appears to use this test of whether the signal can be used/displayed by standard analog TV signal processing circuitry as a test of whether a transmission is a standard analog audio and video television transmission, yet fails to recognize that the test contradicts his position with respect to embedded information. (See Advisory Action at p. 109.) The entire point of those types of systems is to include additional information in a standard analog television transmission such that the additional information does not interfere with the standard television transmission. Moreover, throughout this and other examinations of Appellant's patents and applications, the Examiner has consistently taken the position that teletext systems were "notoriously well-known" and used throughout the world. Accordingly, such teletext systems were, at the time, being transmitted in and with "standard analog audio and video television."

In fact, the Examiner has taken the exact same position taken by the defendants (including the requestor) in the Delaware litigation – a position that was rejected by special Master Harmon in the following analysis:

> "Separately defined from standard analog video and audio television." The parties leave no doubt about their divide on this limitation. Defendants say it can "include analog video and audio television transmissions with digital data embedded therein." (Joint Chart pp. 44-45) Plaintiffs say it has to be "other than standard analog video and audio television." (Id.) The question then becomes, of course, what is standard analog video and audio television? Even a satisfactory answer to that does not end the matter, however, for one must determine the meaning of "separately defined from."
>
> The parties appear to be in general agreement that, although "standard analog video and audio television" may have different meanings in different parts of the world (according to regulatory standards), the phrase does not include digital television. The term "separately defined from" can certainly mean, in its ordinary sense, "different from" or "other than." The specification uses the term once ('277 C21L62) in a way consistent with the ordinary meaning; thus, the "separately defined transmission" is routed to "a signal decoder that detects and processes signal information

> embedded in a frequency other than a television or radio frequency." ('277 C22L21-23) Moreover, the ordinary meaning appears to be consistent with other claims in the patent, such as claim 8, which speaks of a receiver system configured to receive both "an analog television transmission" and a "television program transmission that is separately defined from standard analog television." **Accordingly, it is recommended that this limitation be construed to mean a television program transmission that is not a standard analog video and audio television transmission.**

(Harmon Report at 64-65.)

In view of the proper interpretation of claim 7, the Examiner's reliance upon Summers and Marti is misplaced. First, Summers and Marti do not appear to disclose anything other than standard analog video and audio television. In the case of Marti, the inclusion of embedded teletext data does not change the status of the transmission as being standard analog television of the day.

Second, the passage from Summers cited by the Examiner (col. 7, ll. 56-68) does not indicate that the storage means 36 assembles anything into units, let alone disclosing that the storage means 36 assembles digital information into either instruction or message units, as required by claim 7. Likewise, Marti does not disclose or suggest the claimed storage device operatively connected to a digital detector "for receiving detected digital information and assembling said detected information into message units." Specifically, the examiner cites to page 365 of Marti, which includes the following statement:

> Incoming data from the video are demodulated and demultiplexed. Data that are selected from the total flow are sent into a buffer. When some data are ready, the microprocessor interprets it and transfers the result into the page memory: *this is later organized into a format of a word per displayed character.*"

Nothing in Marti discusses how this later organization is accomplished, but it clearly is not a function performed by the page memory. Moreover, the passage from Marti expressly states that the microprocessor "interprets" the received data as "transfers the result" rather than "passing the detected information" as required by the claim.

The Examiner's discussion of Marti in this regard likewise suffers from deficiencies. Specifically, the Examiner admits that Marti does not disclose that a controller is programmed to know the composition of the received signal. (Office Action at 162, Advisory Action at 111).

The Examiner asserts that the receiver/decoder disclosed by Marti "must be 'programmed'," yet he provides no citation whatsoever to Marti to support his position. The Examiner's argument, however, appears to equate "information of the composition of said signal" with "programming identifying the lines of the TV signal broadcast which must be searched for the teletext data carried therein." The Examiner apparently overlooks that fact that claim 7 refers to "said signal," which is a reference back to the specific signal being detected by the digital detector. This signal is a digital signal, examples of the content of which are shown in the '277 patent in Figs. 2E-K. Nothing in Marti or the alleged prior art referenced by the Examiner discloses or suggests programming the controller of information of such a signal.

With respect to Shutterly and Seth-Smith, the Examiner asserts that scrambling converts a standard analog television program transmission into "other than standard." The '277 patent specification, however, specifically discusses scrambling of analog television signals as being well-known and, hence, being "standard." Separate from this characterization in the '277 patent, scrambled analog television signals were well known in 1987 and -- along with unscrambled analog television, teletext encoded analog television, and close caption encoded analog television -- were part of standard analog television of the day. Further, once the scrambled signal is received in Shutterly and Seth-Smith, it is descrambled, thereby leaving, even under the Examiner's interpretation, a standard analog video and audio signal. In the claim, however, the digital detector must receive at least a portion of the non-standard transmission and detect digital signals therein. In the references cited by the Examiner, this simply cannot happen because even if there were a digital detector, it would not be receiving information from a transmission other than standard analog audio and video. Furthermore, Seth-Smith is not proper prior art against claim 7, as this claim is entitled to the 1981 filing date as discussed above.

Further, the Shutterly reference was before the Examiner in the original prosecution of the '277 patent. The first cited portion of Shutterly (col. 17, ll. 10-21) does not disclose a digital detector for detecting a signal in the transmission, rather, it relates to signal insertion. Moreover, the signals inserted are analog, not digital. The Examiner does not address these deficiencies. The second cited portion (col. 17, ll. 52-60) likewise does not disclose a digital detector. Further, the cited sections of Shutterly do not appear to indicate that the audio samples are assembled into units. Shutterly also does not disclose or suggest "a controller ... for causing said detector to locate, detect or output said signal" as recited in claim 7. First, col. 7, ll. 3-7 and Fig.

9 of Shutterly describe a microprocessor 100 at the insertion/transmitting end, which is not operatively connected to the descrambler relied upon by the Examiner as the digital detector. Second, referring to Fig. 13, the video samples that represent the audio pulse on each active video line are located at the exact time by means of a digital timer. The timer starts at the H-pulse and counts 67 cycles of the 7.16 MHz clock line 288. Alternate samples are latched into an audio sample latch 204 by means of a properly timed 7.16 MHz clock. Each latched sample is then transferred to an input FIFO circuit 353, which stores the video samples representing the received audio pulse until they can be processed by the microprocessor. (Shutterly, at col. 18, ll. 37-52.) Nowhere in Shutterly does it disclose or suggest that the microprocessor exerts any control over the digital timer or 7.16 MHz clock in order "to locate, detect or output" a "specific signal" as recited in claim 7.

Even further, Shutterly fails to disclose or suggest the controller "being programmed with information of the composition of said signal or with either the varying location or the varying timing pattern of said signal" as recited in claim 7. Shutterly fails to disclose or suggest programming a controller "with information of a varying location or timing pattern." In contrast, in the preferred embodiment of the '277 patent, one purpose of the invention is to provide a technique "whereby the pattern of the composition, timing and location of embedded signals *may vary* in such fashions that only receiving apparatus that are preinformed regarding the patterns that obtain at any given time will be able to process the signals correctly." (Emphasis added). ('277 Patent, Col. 9, ll. 37-47).

With respect to the Concept of a Universal Teletext reference, the Examiner goes even further a field, asserting that an analog video and audio signal having teletext data therein was not a "standard" television transmission. The Examiner, however, again ignores the '277 patent specification, which describes scrambling techniques as being well-known in the art. (Col. 156, lines 63-64.) As discussed above, the Harmon findings, as well as the knowledge of the person of ordinary skill in 1987, demonstrate that standard analog television of the day included that with teletext data, and thus is excluded from the ambit of claim 7.

In essence, (i) all of the references asserted by the Examiner teach standard analog video and audio television; (ii) all of these references fail to disclose a storage device operatively connected to the digital detector for "assembling at least some of said digital information into either information or instruction message units;" and (iii) none of the references disclose or

suggest a controller that is "programmed with information of the composition of said signal or with either varying location or the varying timing pattern of said signal" as required by claim 7.

For all these reasons, the references cited by the Examiner do not anticipate or render obvious claim 7 of the '277 patent.

F. Claim 10

Claim 10 was the subject of the following rejections:

- under §103(a) as being unpatentable over Marti in view of "The Antiope Videotext System" by Graf (Office Action at 159); and
- under §102(b) and/or (a) as being anticipated by each of the following:
  - Marti (Office Action at 133),
  - DE 2,904,981 to Zaboklicki (Office Action at 139),
  - Shutterly (Office Action at 70), and
  - U.S. Patent No. 4,528,589 to Block et al. (hereinafter "Block '589")(Office Action at 71).

The Patent Owner respectfully traverses these rejections.

Claim 10 reads as follows:

10. A television receiver system comprising:

a receiver for receiving a selected portion of a television program transmission that is not a standard television signal;

a digital detector operatively connected to said receiver for receiving said selected portion and detecting a digital signal;

a storage device operatively connected to said digital detector for receiving detected digital information and assembling said detected information into message units;

a controller operatively connected to said receiver, said detector and said storage device, said controller controlling said receiver to pass selected information to said detector, said detector to pass detected information to said storage device, and said storage device to assemble detected information into message units.

Claim 10 recites the phrase "that is not a standard television signal." This phrase was interpreted by both Special Masters means a television program transmission that is something other than a standard analog video and audio television transmission. As discussed above, the Examiner takes the position that any standard television signal that has information added to or embedded in it or is scrambled therefore becomes non-standard. Also discussed previously, the Examiner's interpretation flies in the face of the '277 patent specification, which describes such techniques as conventional and well-known, *i.e.*, standard, and described a non-standard signal

or transmission as being a digital television signal. Interestingly, the Examiner's citation to Graf expressly admits that the Antiope service included "data embedded within a few vacant lines of the VBI *of a conventional TV signal transmission.*" (Advisory Action at 109.) To say the least, it is odd for the examiner to make such a statement while at the same time asserting that such a "conventional TV signal transmission" is non-standard. Also as discussed above, the Examiner's interpretation flies in the face of what was known to be standard analog television in 1987. For at least this reason, claim 10 is patentable over the references cited by the Examiner.

Further, the Marti reference cited by the patent examiner suffers from many additional deficiencies. The Examiner apparently recognizes these deficiencies in Marti, and cites Graf for further support. The Examiner's reliance on Graf, however is misplaced. The Examiner asserts that Graf discloses two modes of transmission, a first mode similar to that in Marti in which the information is transmitted in a standard television signal and a second "full-field mode." What the Examiner fails to recognize is that the mode the Examiner refers to as "full-field" would not be a "television *program* transmission" at all, but rather, it would be a simple data transmission. The '277 patent discloses a digital television transmission as a signal that is not a standard television signal. What makes it something other than a standard analog television signal is not the content of the signal, *i.e.*, Antiope data vs. television programming, but rather, the character of the signal as being digital rather than analog. In the '277 patent specification, digital data is embedded in the digital television signal. Marti and Graf disclose no such similar system. Rather, they incorporate data into an analog television signal. The result is still an analog television signal that is standard, and thus excluded from the ambit of the claim.

Marti further does not disclose or suggest the claimed storage device operatively connected to a digital detector "for receiving detected digital information and assembling said detected information into message units." Specifically, the examiner cites to page 365 of Marti, which includes the following statement:

> Incoming data from the video are demodulated and demultiplexed. Data that are selected from the total flow are sent into a buffer. When some data are ready, the microprocessor interprets it and transfers the result into the page memory: *this is later organized into a format of a word per displayed character.*"

Nothing in Marti discusses how this later organization is accomplished, but it clearly is not a function performed by the page memory. Moreover, the passage from Marti expressly states that

the microprocessor "interprets" the received data as "transfers the result" rather than "passing the detected information" as required by the claim.

The Examiner's other anticipation rejections suffer from similar shortcomings. For example, Zaboklicki does not disclose or suggest anything other than a standard analog television signal. As noted above, the Examiner's position that embedding something in a standard analog television signal makes it non-standard ignores the fact that the claim refers to the format of the signal or transmission rather than the content. Specifically, the '277 patent specification identified a digital television signal and being other than a standard analog television signal. The Shutterly and Block '589 references suffer from similar deficiencies. Shutterly discloses the insertion of a sampled audio signal into a non-occupied portion of an analog video signal. Shutterly further appears to disclose a timer rather than a digital detector. Even further, the cited passages of Shutterly recite that audio samples are written into memory in pseudo-random order and then read out in sequence to descramble the audio signal. There is no disclosure in the cited sections of assembling the audio samples into "units." Finally, Shutterly fails to disclose or suggest the claimed controller. Referring to Fig. 13 of Shutterly, the video samples that represent the audio pulse on each active video line are located at the exact time by means of a digital timer. The timer starts at the H-pulse and counts 67 cycles of the 7.16 MHz clock line 288. Alternate samples are latched into an audio sample latch 204 by means of a properly time 7.16 MHz clock. Each latched sample is then transferred to an input FIFO circuit 353 that stores the video samples representing the received audio pulse until they can be processed by the microprocessor. (Col. 18, ll. 37-52). Nowhere in Shutterly does it teach or suggest that the microprocessor exerts any control over the digital timer or 7.16 MHz clock in order "to pass selected information to said detector, said detector to pass detected information to said storage device" as recited in claim 10. Block '589 discloses a television subscription billing system in the context of conventional broadcast or cable techniques. The cited passages do not disclose or suggest a television program transmission that is not a standard television signal. (See col. 3, ll. 36-39, col. 4, line 49 – col. 5, l. 9 and Fig. 2.) Furthermore, Block '589 issued from an application that was filed on February 1984. As claim 10 is entitled to the benefit of the 1981 filing date for the reasons discussed above, Block '589 is not available as prior art against claim 10.

For all these reasons, claim 10 is patentable over the references cited by the Examiner.

G. Claim 11

Claim 11 was rejected under §103(a) as being unpatentable over U.S. Patent No. 3,848,082 to Summers for the same reasons stated with respect to claim 7 (Office Action at 159).

Claim 11 reads as follows:

11. A television receiver system comprising:

a first processor for receiving information of a selected television program transmission and detecting a specific signal in said transmission based upon a location or timing pattern of said specific signal in said transmission, said first processor being programmed with information of a varying location or timing pattern;

a second processor operatively connected to said first processor for receiving and processing information of said specific signal, and for identifying when and where to pass said information based upon said information, and passing said information.

Claim 11 includes several terms that were interpreted in the Atlanta Litigation. Specifically, the phrase "in said transmission" was interpreted as follows: "The word 'in' means 'embedded.' 'Embedded' means enclosed within or made an integral part of." (Peterson Report at 392.) The phrase "varying location or timing pattern" was interpreted as follows:

> A "location" is some part or portion of a "television program transmission." A "varying location" is some part or portion of a "television program transmission" that changes, but does not include changing the channel or carrier frequency. A "timing pattern" is the plan or model for when to embed a signal in programming. A "varying timing pattern is a plan or model for when to embed a signal in programming that changes.

(Peterson Report at 412-413.) Applying these proper definitions, claim 11 is neither anticipated nor obvious in view of the references cited by the Examiner.

In view of the proper interpretation of claim 11, the Examiner's reliance upon Summers is misplaced. Specifically, the Examiner relies the discussion in Summers of pseudo-random transmission on various channels as the claimed varying location or timing pattern. (Summers at col. 6, ll. 12-25.) The claimed varying "location," however, was interpreted as follows and excludes varying the channel: "A 'varying location' is some part or portion of a "television program transmission" that changes, but does not include changing the channel or carrier frequency." (Peterson Report at 413.) Since Summers discloses only varying the channel, it does not disclose or suggest the invention of claim 11. Further, the Examiner's assertion that Summers' storage means 36 is the claim second processor relies upon the disclosure in Summers that the storage means 36 is programmable, but does not correlate the language of the final

element of claim 11 to the storage means 36 of Summers. Accordingly, Summers discloses neither the first nor the second processors of claim 11.

For all these reasons, claim 11 is not anticipated or rendered obvious by the reference cited by the Examiner.

H. Claim 12

Claim 12 was the subject of the following rejections:

- under §103(a) as being unpatentable over U.S. Patent No. 3,848,082 to Summers for the same reasons stated with respect to claim 7 (Office Action at 159); and
- under §102(b) as being anticipated by each of the following:
  - Zaboklicki (Office Action at 140),
  - U.S. Patent No. 4,054,911 to Fletcher et al. (Office Action at 72), and
  - "Telesoftware: Home Computing Via Broadcast Teletext" (Office Action at 74).

Claim 12 reads as follows:

12. A reprogrammable system comprising:

a digital detector for receiving information of a transmission and detecting digital signals in said transmission, said digital signals including new operating instructions;

a processor operatively connected to said digital detector for receiving and processing information of some of said digital signals, said processor identifying those of said operating instructions addressed to said processor, said processor instructing said detector to detect and pass specified signals;

a memory device operatively connected to said processor for holding operating instructions addressed to said processor, said operating instructions controlling the operation of said processor; and

said processor loading said operating instructions that are addressed to said processor into said memory device to thereby reprogram said processor, said operating instructions including instructions to cause said processor to cause said detector to detect different signals.

With respect to Summers, the Peterson Report provided the following guidance on the interpretation of the terms of claim 12:

> In claim 12, "new operating instructions" means new computer software for reprogramming a computer's operating system to operate differently, that meet the express requirements of claim, namely, that (1) the instructions are "for controlling the operation of said processor," (2) include "instructions to cause said processor to cause said detector to detect different signals," and (3) the instructions are "addressed to said processor." A "memory device" is a device where information can be stored and retrieved. In the phrase "loading said operating instructions that are addressed to said processor into said memory device to thereby reprogram said processor," the term "to *** reprogram" means to

> rewrite or revise at least a portion of the operating system."

(Peterson Report at 444.) The Peterson Report went on to add the following interpretation:

> In the phrase "instructions to cause said processor to cause said detector to detect different signals," the word "cause" means "to effect by command," and does not mean "enable" or make possible.

(Id. at 446.) Given these interpretations, the references cited by the Examiner do not anticipate or render obvious claim 12 because the references to not disclose or suggest the claim elements leading up to and including the rewriting/revision of at least a portion of the operating system.

Summers makes a brief reference that "the present invention could also be utilized to program a data storage means 36 (FIG. 2) such as a computer...." (Col. 7, ll. 57-60.) That reference in no way suggests rewriting or revising the operating system or causing a processor to cause a detector to detect different signals. There is simply nothing in Summers to that effect.

With respect to Zaboklicki, the Examiner asserts, "the Telesoftware of Zaboklicki is software that controls the operation of the processor and in this broad sense comprises 'operating instructions.'" The Telesoftware cited by the Examiner as being downloaded in Zaboklicki is not operating instructions that rewrite or revise the operating system. Further, in the rejection based upon Zaboklicki, the Examiner provides no discussion or reference to the element of the instructions causing the processor to cause the detector to detect different signals, as required by claim 12.

Appellant also submits that Zaboklicki is not enabling for the teachings that the Examiner offers. Zaboklicki is a laid open German application based on a Polish patent application. There are two translations of the German application in this record. The first is a translation of the German application originally provided by the Office in the related pending applications. ("Schreiber Translation"). That English translation is nearly incomprehensible. In attempt to discern the teaching of Zaboklicki, the inventors obtained another translation. ("TransPerfect Translation") Even with two translations, however, Zaboklicki is a fatally flawed reference. At best, Zaboklicki is an aggregation of desirable features of an interactive television system with no coherent explanation regarding how to implement any particular feature. Zaboklicki lists the components of a television system, but fails to teach how the components operate to provide any particular function. It is not clear what subject matter in Zaboklicki, if any, is disclosed in

sufficient detail to have been placed in the public's possession as is required to be applicable as prior art. M.P.E.P. § 2121.01. The disclosure of Zaboklicki is insufficient to anticipate the instant claims.

The Examiner has taken the non-enabled nature of Zaboklicki as an invitation to fill-in the operational details deemed necessary to allege anticipation of appellants' claims. The details provided by the Examiner are now asserted to anticipate appellants' claims. The Examiner provides his summary of the alleged showing of Zaboklicki at 135-137 of the Final Office Action. The Examiner's summary includes no references to any actual teaching of Zaboklicki from either translation. The Patent Owner submits that the lack of citations to the disclosure of Zaboklicki is due to the incomprehensible nature of the Zaboklicki disclosure. The Patent Owner has never acceded to the Examiner's assertion of the teachings of Zaboklicki.

The Examiner's rejections are not based on the teaching of Zaboklicki. Rather, the rejections are based on hypothetical systems created by the Examiner that might be arrived at if one skilled in the art attempted to construct an operational system in view of the teaching of Zaboklicki if such a person had the inventors' disclosures, and claims, in hand. The Examiner's constructions are impermissibly guided by the inventors' disclosure and claims. The rejections based on Zaboklicki are thus improper and should be withdrawn.

Fletcher was before the patent Examiner in the original prosecution of the '277 patent. Fletcher describes an information retrieval system in which a terminal receives a main program (application program) or software bootstrap (assisting in the loading of the main program) from a remote database. (Abstract and col. 5, ll. 46-52). Upon initialization, a terminal 300 executes the software bootstrap and then a particular control program of a plurality of control programs received from the database in order to set the functionality of the terminal. (Col. 7, ll. 18-26; col. 8, ll. 24-52 and Figs. 5-6). Fletcher fails to teach or suggest receiving "new operating instructions" that are for revising/rewriting an operating system stored in nonvolatile memory so as to reprogram the system on an ongoing basis. Fletcher's operating system is stored in ROM and is not remotely reprogrammable. At best, Fletcher teaches that the device can receive new application programs to deliver new functions. But there is not remotely any suggestion of reprogramming the operating system itself in Fletcher.

Fletcher's terminal includes a central processor 310. (Fig. 7.) Via the transmission of the permission packet, the processor is instructed to load a particular control program. (Col. 9, ll. 13-

46.) Fletcher does not disclose or suggest that this processor is capable of "instructing said detector to detect and pass specified signals" as recited in claim 12. Further, Fletcher fails to disclose or suggest "a memory device ... for holding operating instructions addressed to said processor" as required by claim 12. Fletcher discloses RAM 332, but this memory does not hold operating system code. ROM 334 holds the operating system code, but that code is not remotely reprogrammable. Fletcher further fails to teach or suggest "said processor loading said operating instructions that are addressed to said processor ... to thereby reprogram said processor" as claimed. The Examiner relies on loading the main program and the software bootstrap into volatile memory RAM 332, but these operations do not reprogram the device by rewriting/revising the operating system, which is stored in nonvolatile memory. Also, there is no reprogramming on an ongoing basis because Fletcher is clear that the downloaded instructions are lost if the system is turned off. (Col. 49, ll. 36-42.) The cited passages of Fletcher focus on the loading of programs rather than the detection, thereby providing no support for the claim element "said operating instructions including instructions to cause said processor to cause said detector to detect different signals" as recited in claim 12.

The "Telesoftware" reference ("Hedger") likewise fails to disclose or suggest these elements of claim 12. The section of Hedger at 281, col. 2 describes generic teletext detection in a composite video signal. No teaching or suggestion is provided therein with respect to "digital signals including *new operating instructions*." Moreover, the operating instructions set forth in claim 12 reprogram, revise or rewrite an operating system, which is not disclosed in Hedger. Similar to Fletcher, Hedger teaches the downloading of new applications, but not the reprogramming of the operating system of the device. With respect to the processor, the cited section of Hedger teaches that the processor will run the control program and attempt to identify a special sequence of characters in the page store, and until identified, the system behaves like a standard teletext receiver. No disclosure or suggestion is provided therein of a processor "identifying those of said operating instructions addressed to said processor," "said processor instructing said detector to detect and pass specified signals," or operating instructions "to reprogram said processor" as recited in claim 12. With respect to the memory device, the cited pages from Hedger merely describe the page store, scratch pad, and secondary memory (all of which are RAM) within the system, and the control program. No disclosure or suggestion is

made of a memory device "for holding operating instructions addressed to said processor" as claimed.

For all these reasons, claim 12 of the '277 patent is patentable over the references cited by the Examiner.

I. Claim 13

Claim 13 was rejected under §102(b) as being anticipated by Zaboklicki (Office Action at 141).

Claim 13 reads as follows:

13. A signal processing system comprising:

a digital detector for detecting digital signals;

a processor operatively connected to said digital detector for receiving and processing information of a signal detected by said detector, processing the received detected signals to identify how and where to pass said information;

a plurality of apparatus operatively connected to said processor, said processor transferring said detected signals to said apparatus that are addressed by said signals or to be controlled by said signals;

a memory device operatively connected to said processor for holding operating instructions that control said processor; and

a controller operatively connected to said detector and said memory device for controlling the detector in its detection of signals.

As discussed above with respect to claim 12, the Zaboklicki reference is not enabling and therefore the rejections based on Zaboklicki are improper and should be withdrawn.

The Examiner's rejection of claim 13 is based on selective exclusion of phrases in the claim. For example, the processor element of claim 13 recites that the processor processes the signals to identify how and where to pass said information. The Examiner asserts that items 26, 44, 42 and 47 of Zaboklicki may pass information to either of items 54 and 57 but makes no reference to the "when" component of the claim.

Further, the final element of claim 13 requires a controller "for controlling the detector in its detection of signals." The Zaboklicki reference cited by the Examiner does not satisfy this feature. For example, with respect to Zaboklicki, the Examiner asserts that items 39, 6, and 49 form a controller, but nowhere in Zaboklicki is there any indication that any of those elements control the alleged digital detector, which the Examiner asserts is one or more of items 36, 40, 41

and 54, "in its detection of signals." The Examiner cites two passages from Zaboklicki for support: (1) the last six lines on page 21; and (2) the last three lines of page 15 through the first four lines on page 16. The last six lines on page 21, however, appear to be totally irrelevant, as they make no mention of the alleged digital detectors. The cited lines on pages 15-16 relate to "data selection circuit 41," which apparently compares received addresses to addresses supplied by local central unit 6. Such a data selection circuit 41, however, is not a digital detector and thus cannot satisfy the claim.

For at least these reasons, claim 13 is patentable over the reference cited by the Examiner.

J. Claim 14

Claim 14 was rejected under §103(a) as being unpatentable over the following references:

- U.S. Patent No. 4,025,851 to Hazelwood et al. and "Television Frame Synchronizer" by Imai et al. in view of either "Vertical Interval Signal Applications" by Etkin or U.S. Patent No. 3,866,123 to Hetrich (Office Action at 172); and
- Hazelwood et al. and Imai et al in view of "A System of Data Transmission in the Field Blanking Period of the Television Signal" by Hutt (Office Action at 176).

Claim 14 reads as follows:

14. A television receiver station comprising:

a plurality of receiver/distributors with at least one receiving a television programming transmission, each transmission including the television programming and programming identification signals identifying the programming;

an output device for displaying television programming or transmitting television programming to a remote subscriber station;

a storage device for receiving and storing television programming;

means for selectively receiving television programming from either one of said receiver/distributors or said storage device and selectively transferring the received television programming to either said storage device or to said output device;

a processor operatively connected to at least one of said plurality of receiver/distributors for receiving the programming and the programming identification information; and

a controller operatively connected to said processor for receiving specific unit programming identification information, identifying a specific unit of television programming received at a specific receiver/distributor by comparing of received identification information to previously received scheduled program identification information, and passing programming to either said output device or to said storage device based upon said scheduled information.

The Examiner's rejections of claim 14 fail to address the element of "previously received scheduled program identification information" and "passing programming to either said output device or to said storage device based upon said scheduled information." These elements of claim 14 require the controller to have previously received scheduled program identification information. The references cited by the Examiner do not account for this previous reception whatsoever. Further, claim 14 requires the controller to make a decision to pass the programming to the output device or to the storage device "based upon said scheduled information." The cited references provide no disclosure or discussion of this feature. The simple recording of the network feed, as the Examiner asserts is disclosed in the references, is not the same as or remotely close enough to suggest the claimed invention. For all these reasons, claim 14 is patentable over the cited references.

K. Claim 15

Claim 15 was rejected under §102(b) or (e) as being anticipated by each of the following references:

- U.S. Patent No. 4,503,462 to Kelly et al. (Office Action at 142);
- U.S. Patent No. 2,614,188 to Jahnei (Office Action at 144);
- den Toodner et al. (Office Action at 76);
- U.S. Patent No. 4,331,973 to Eskin et al. (Office Action at 77);
- Keiser (Office Action at 78); and
- Kruger (Office Action at 80).

Claim 15 reads as follows:

15. A method for identifying and selecting television programming in a system that is adapted to direct selected television programming to a television programming output or storage, said system including a processor for receiving and processing at least part of the television programming transmission, a means for transferring said programming selectively from a television programming receiver to a television programming output device or storage device, and a controller for receiving information from said processor and for controlling said means for transferring on the basis of at least some of said information, said method comprising the steps of:

inputting to said controller identification information of at least one specified television program unit;

inputting at least part of a television programming transmission to said processor;

detecting, locating or identifying in said part identification data that identified a specific television program unit in said transmission; and

inputting information of said data to said controller, determining based on said program unit information that said specific unit is a specific unit and thereby to enable said controller to select at least a portion of said specific television program unit and cause said means for transferring to transfer information of said selected portion to said television programming output device or storage device.

As the Patent Owner stated in the prior Response, Kelly et al. discloses a subscription television system having various subscription tiers. A code identifying the associated tier of the signal is encoded in the television signal. (Col. 3, ll. 23-28.) Such a tier code does not constitute the claimed "identification *data* that identified *a specific television program unit*." The Examiner now attempts to counter the Patent Owner's argument by citing a the first step in the method of claim 15 as showing that "the identification information may be for more than one specified program unit." The Examiner's assertion in this regard is irrelevant, as the Patent Owner has not argued that the tier information of Kelley et al. cannot be the "identification information" of that first-recited step. Rather, the tier code is not the claimed "identification data that identified *a specific television program unit*" that appears later in the claim. The reason is simply that the tier code does not identify the program, but rather, identifies a tier to which the program belongs. Such a tier code does not disclose or suggest the claimed "identification data" because the tier code does not identify any particular programming.

Jahnei likewise fails to disclose the claimed identification data. Jahnei simply includes a time code in a transmission. The time code is used to trigger a recording device to record whatever is being transmitted, regardless of whether what is being transmitted is actually what the user desired to record. The Examiner asserts that a time code in unique and therefore identifies the program segment. The Examiner's assertion, however, is incorrect for obvious reasons. In the claimed invention, a single program unit could be aired at any time and the schedule of such airing could be changed at any time, yet the identifying data would remain the same because it identifies the specific program unit. In contrast, the time data of Jahnei is meaningless in this regard, because the same program unit aired at two different times would have two different identifiers and if the schedule was changed the identifier presumably would either be changed or would be incorrect. Jahnei therefore does not satisfy claim 15.

The other references asserted by the Requestor likewise do not disclose or suggest all of the elements of claim 15. For example, den Toonder provides a television coding system in which a receiver's decoder decodes a television signal if the unit has been authorized to receive programs at that particular program level. As with Kelly, den Toonder's program level information is not "identification data that identified a specific television program unit in said transmission," as provided by claim 15.

For at least these reasons, claim 15 is patentable over the references cited by the Examiner.

L. Claim 17

Claim 17 was the subject of the following rejections:

- rejected under §102(b) as being anticipated by each of the following:
  - U.S. Patent No. 4,205,343 to Barrett (Office Action at 81 and p. 145),
  - U.S. Patent No. 4,405,942 to Block et al. ("Block '942")(Office Action at 147),
  - U.S. Patent No. 4,323,921 to Guillou ("Guillou '921") (Office Action at 82),
  - U.S. Patent No. 4,484,027[9] to Lee et al. (Office Action at 84),
  - U.S. Patent No. 4,531,021 to Bluestein (Office Action at 85),
  - U.S. Patent No. 4,535,355 to Arn (Office Action at 85),
  - Yarbrough '288 (Office Action at 86),
  - U.S. Patent No. 4,599,647 to George et al. (Office Action at 87),
  - U.S. Patent No. 4,613,901 to Gilhousen et al. (Office Action at 88), and
  - U.S. Patent No. 4,634,808 to Moerder (Office Action at 89); and
- under §102(e) as being anticipated by each of the following:
  - U.S. Patent No. 4,337,483 to Guillou (hereinafter, "Guillou '483")(Office Action at 83),
  - U.S. Patent No. 4,636,854 to Crowther et al. (Office Action at 90),
  - Jeffers et al. (Office Action at 90),
  - U.S. Patent No. 4,821,097 to Robbins (Office Action at 91),
  - Seth-Smith et al. (Office Action at 92), and
  - U.S. Patent No. 4,887,296 to Horne (Office Action at 93).

Claim 17 reads as follows:

17. A system for controlling a decryptor, said system comprising:

a digital detector for receiving at least a portion of a television program transmission, said program transmission comprising a program and a plurality of signals embedded in said transmission, said detector detecting said signals;

a decryptor operatively connected to said detector for receiving and decrypting said detected signals; and

a controller operatively connected to said decryptor for causing said decryptor to alter its decryption pattern or technique.

[9] Presumably this rejection relates to U.S. Patent No. RE33,189, which is a reissue of Lee et al.. Further references in this response to "Lee et al." will refer to both Lee et al. and its reissue.

As a preliminary matter, Lee et al., George et al., Bluestein et al., Moeder, Gilhousen et al., Crowther et al., Jeffers et al., Robbins, Seth-Smith et al., and Horne are not prior art because claim 17 is entitled to the priority date of November 3, 1981.

The Peterson and Harmon Reports each interpret the claim language "decryption pattern or technique" to mean decryption key or algorithm, respectively. (Peterson Report at 497; Harmon Report pp. 73-74.) The references cited by the Examiner fail to disclose at least the final element of claim 17: "a controller operatively connected to said decryptor for causing said decryptor to alter its decryption pattern or technique." In Barrett, a cipher key is set by a selector 26. (Col. 2, l. 49 and col. 3, l. 51-54.) In the final Office Action, the Examiner asserts that because Barrett includes a cipher key selector 26, it is implicit that the cipher key may be changed. The Examiner's assertion, however, it irrelevant because the issue is not whether a cipher key may be changed, but rather, it is whether there is a controller for causing a decryptor to alter its decryption pattern or technique. Barrett discloses a blank box with the words "cipher key selector" in Fig. 2 and a single phrase – not even a full sentence – stating that "the appropriate cipher key is set by selector 26." (Col. 2, line 49.) Nothing in Barrett discloses or suggests that the cipher key selector 26 is a "controller" or how it may be used to select a cipher. Accordingly, nothing in Barrett discloses or suggests that a controller operatively connected to the decryptor causes the decryptor to alter is key or algorithm.

With respect to Block, the Examiner comments that he maintains that the claimed encryption/decryption is not limited to digital encryption/decryption and cites Atrich et al. for that proposition. As discussed above with respect to claim 3, however, the '277 patent specification requires more than the scrambling/descrambling relied upon by the Examiner. Moreover, both the Harmon and Peterson Reports were clear that decryption -- as is well understood in the art -- is a digital operation performed on digital signals, not analog signals. Descrambling of analog television signals does not correspond to decryption whatsoever, as is well understood in the art. Thus, references like Block that teach 1970's vintage analog descrambling are simply not even relevant to Appellant's claims covering control of decryption operations.

With respect to the other references, the Examiner provides no comment or discussion whatsoever with respect to the Patent Owner's prior arguments. Crowther et al. relates to scrambling/descrambling rather than decryption and thus does not disclose numerous elements of

claim 17, including the controller. Guillou '921 appears to disclose the delivery of multiple keys to the receiver but does not disclose controlling the decryptor to alter its pattern (key) or technique (algorithm). Guillou '483 discloses the generation of decoding octets, but again does not disclose the claimed controller for causing the decryptor to alter its decryption pattern or technique. Bluestein et al. appears to disclose a decryptor, but does not disclose a controller operatively connected to that decryptor for causing the decryptor to alter its decryption pattern or technique. Jeffers et al. provides a decryption key based on a factory loaded subscriber unit signature key. (Col. 13, ll. 19-47.) Jeffers et al., however, provides no teaching or suggestion of the claimed controller. Robbins is directed to providing digital audio on the sound carrier of a standard television signal. Robbins discloses that encryption keys are distributed (col. 10, ll. 6-7), but it does not disclose or suggest a controller that causes a decryptor to alter is decryption pattern or technique. Seth-Smith, Horne, and Block '942 likewise do not disclose the claimed controller.

Lee et al. discloses a security system for subscription television (SSTV) encryption employing a pseudo random number sequence for scrambling and descrambling of analog video signals. (Col. 2, ll. 33-35 and col. 3, ll. 32-35.) In the Lee et al. system, an enciphered random number is transmitted, but nothing in Lee et al. suggested that decryption of the random number is ever altered.

Yarbrough '288 encrypts a sensed-code to prevent it from being used at any receiver other than the one it was intended for. The encrypted sensed-code is not meant to be decrypted, but rather, serves as a copy protection means. Therefore, Yarbrough '288 fails to suggest a controller that causes the decryptor to alter its decryption pattern or technique.

George et. al. is directed to a receiver for use with a separate controller-decoder to permit upgrades to the receiver. George et al. fails to teach or suggest a decryptor for receiving and decrypting detected signals as claimed. The claimed detector receives at least a portion of a television program transmission that comprises a program and a plurality of signals embedded in the transmission. George et al. does not teach a decryptor that receives and decrypts signals that are embedded in a program transmission with the program content.

Gilhousen et al. discloses a category key generator 167 and a channel key generator 171, which the Requestor relied upon as a decryptor. Category generator 167 generates a decrypted category key by processing the encrypted category key signal in accordance with the DES

encryption algorithm upon the DES algorithm being keyed by the unique subscriber key signal. (Col. 13., ll. 23-28.) The category key generator operates on an encrypted input using the standard DES encryption algorithm keyed by an input key. Channel key generator 171 operates in the same manner; where the encrypted input is the encrypted channel key, and the key is the category key. These generators operate in a standard manner with only the input of the encrypted data and a key. No controller is required or disclosed that operates to alter the decryption pattern or technique of these generators. With respect to Moerder, the Requestor relies upon a passage in Moerder related to the storage of different subscriber key seed signals used by the subscriber key generator. There is not teaching or suggestion in that passage of a controller for causing a decryptor to alter its decryption pattern or technique.

For all these reasons, claim 17 is patentable over the references cited by the Examiner.

M. Claim 18

Claim 18 was rejected under §102(b) as being anticipated by each of

- Block '942 for the same reasons stated with respect to claim 17 (Office Action at 148);
- Guillou '483 (Office Action at 95);
- U.S. Patent No. 4,339,798 to Hedges et al. (Office Action at 94);
- Bluestein (Office Action at 96);
- U.S. Patent No. 4,558,180 to Scordo (Office Action at 97); and
- Seth-Smith (Office Action at 98).

The Patent Owner respectfully traverses these rejections.

Claim 18 reads as follows:

18. A signal processing system comprising:

a storage device for receiving signals detected in a program transmission and inputting said signals selectively to a decryptor;

a decryptor operatively connected to said storage device for receiving, decrypting, and passing signals to a processor; and

a controller operatively connected to said storage device and said decryptor for causing said storage device to identify and pass a specific signal to said decryptor and causing said decryptor to decrypt said specific signal.

As a preliminary matter, Bluestein et al., Scordo and Seth-Smith do not constitute prior art because claim 18 is entitled to the priority date of November 3, 1981.

All of the referenced cite by the Examiner against claim 18 suffer from the same deficiency: they do not disclose the claimed controller for causing the storage device to identify and pass a specific signal and causing the decryptor to decrypt that specific signal. As discussed above with respect to claim 3, however, the '277 patent specification requires more than the scrambling/descrambling relied upon by the Examiner. Accordingly, none of the cited references can anticipate claim 18.

N. Claim 19

Claim 19 was rejected on the following bases:

- under §103(a) as being unpatentable over U.S. Patent No. 4,322,745 to Saeki et al. in view of "Satellite Security" by Davis (Office Action at 165); and
- under §102(b) as being anticipated by each of the following:
  - U.S. Patent No. 4,045,814 to Hartung et al. (Office Action at 99), and
  - Block '254 (Office Action at 100).

Claim 19 reads as follows:

19. A television subscriber station comprising:

a plurality of decryptors, each decryptor capable of decrypting a selected one of a plurality of portions of a television program transmission; and

a processor operatively connected to some of said decryptors for identifying and passing to a selected decryptor an instruct-to-decrypt signal that instructs the selected decryptor to decrypt some of the video portion of said transmission, said instruct-to-decrypt signal comprising a code necessary for the decryption of said program transmission.

The Examiner acknowledges that Saeki et al. utilize a class of devices known as scramblers rather than decryptors. Contrary to the Examiner's assertion, a scrambler/descrambler such as that disclosed in Saeki et al is not the same as the claimed decryptor. As discussed in the Harmon Report, "the ordinary meaning of "decrypt" is "decode" or "decipher" and the ordinary meaning of a decryptor is thus a device that decodes or deciphers, in the context of this claim, detected signals that have been encrypted." (Harmon Report at 70.) The claim constructions in both the Delaware Suit and Atlanta Suit supported the customary understanding in the art that decryption refers to a digital operation on digital signals, in contradistinction to descramabling which is performed on analog signals. Thus, Saeki et al. fails to disclose at least a plurality of decryptors and an instruct-to-decrypt signal that instructs the selected decryptor to decrypt some of the video portion of the transmission. Further, the other

references cited by the Examiner against claim 19 likewise fail to disclose or suggest at least the claimed plurality of decryptors or an instruct-to-decrypt signal that instructs the selected decryptor to decrypt some of the video portion of the transmission.

O. Claim 20

Claim 20 was rejected under §103(a) as unpatentable over Saeki et al. in view of Davis for the same reasons stated with respect to claim 19 (Office Action at 166) and under §102(b) as being anticipated by Block '942 (Office Action at 146).

Claim 20 reads as follows:

20. A television subscriber station comprising:

> a decryptor for receiving and decrypting part of the video portion of an encrypted television program transmission in response to receiving an instruct-to-decrypt signal;
>
> a digital detector operatively connected to said decryptor for receiving information of a separately defined television program transmission, detecting the location or presence of an instruct-to-decrypt signal in said transmission, and outputting digital information of said signal to said decryptor; and
>
> a controller operatively connected to said detector for controlling the technique by which said detector locates, detects and outputs signals, said controller being programmed with information as to either signal composition or signal timing.

As discussed above, the Examiner reliance upon scrambler/descrambler prior art is misplaced. Accordingly, claim 20 is patentable over the Saeki et al. for the same reasons stated with respect to claim 19. Specifically, Saeki et al. relates to the use of scramblers/descramblers and does disclose or suggest either the claimed decryptor or instruct-to-decrypt signal. Block '942 does not constitute prior art because claim 20 is entitled to the November 3, 1981 priority date. Block '942 discloses a scrambling technique "wherein parts of the video signal arranged in a first predetermined sequence are delayed in relation to each other to form an encoded video signal having its parts rearranged in sequence relative to their positions in the first predetermined sequence." (Abstract.) Nothing in Block '942 discloses or suggests the digital detector, decryption and controller of claim 20. For at least these reasons, claim 20 is patentable over the references cited by the Examiner.

P. Claim 22

Claim 22 was rejected on the following bases:

- under §103(a) as unpatentable over Saeki et al. in view of Davis for the same reasons

stated with respect to claim 19 (Office Action at 166); and

- under §102(b) as being anticipated by each of the following:
  - Block '254 (Office Action at 101), and
  - Aminetzah (Office Action at 102).

Claim 22 reads as follows:

22. A television subscriber station comprising:

a receiver for receiving a plurality of television program transmissions;

a tuner for tuning said receiver to a selected one of the plurality of television program transmissions and of informing a processor of the selected transmission to which said receiver is tuned;

a decryptor operatively connected to said receiver for receiving, decrypting, and outputting some of said selected television program transmission; and

a processor operatively connected to said tuner and said decryptor, for receiving information transmitted in a selected program transmission, locating or identifying information of an instruct-to-decrypt signal associated with said selected transmission, and identifying and transferring to said decryptor a signal needed for decryption, said processor being programmed with or preinformed of the technique for identifying information of said signal needed for decryption.

Claim 22 is patentable over the cited references for reasons similar to those stated with stated with respect to claims 19 and 20. Specifically, Saeki et al. relates to the use of scramblers/descramblers and does disclose or suggest the claimed decryptor, instruct-to-decrypt signal or processor being programmed with or preinformed of the technique for identifying information of a signal needed for decryption. Likewise, the other references cited by the Examiner fail to disclose these elements of claim 22.

Q. Claim 23

Claim 23 was rejected under §102(b) or (e) as being anticipated by each of Block '942 (Office Action at 149), Hartung et al. (Office Action at 103) and Gilhousen et al. (Office Action at 104).

Claim 23 reads as follows:

23. A television subscriber station comprising:

a receiver for receiving an encrypted television programming transmission;

a decryptor operatively connected to said detector for decrypting the video portion of said encrypted television programming transmission in response to an instruct-to-decrypt signal;

a controller operatively connected to said detector for controlling the manner by which said station locates said signal; and

a memory device operatively connected to said controller for holding information of said instruct-to-decrypt signal.

As a preliminary matter, Gilhousen does not constitute prior art because claim 23 is entitled to the November 3, 1981 priority date. The references cited by the Examiner predominantly relate to traditional scrambling/descrambling devices. As discussed previously, they do not disclose or suggest the claimed decryptor for decrypting the video portion of an encrypted television program transmission in response to an instruct-to-decrypt signal, the claimed controller, or the claimed memory device for holding information of the instruct-to-decrypt signal. Accordingly, claim 23 is patentable over the references cited by the Examiner.

R. Claim 30

Claim 30 was rejected under §102(b) as anticipated by each of "The Vertical Interval: A general-Purpose Transmission Path" by Anderson (Office Action at 145) and U.S. Patent No. 4,142,156 to Freund (Office Action at 105).

Claim 30 reads as follows:

30. A mass medium subscriber station comprising:

a mass medium receiver for receiving a selected broadcast or cablecast transmission;

a detector operatively connected to said mass medium receiver for detecting information in said selected broadcast or cablecast transmission, said information including subscriber station environment control signals;

a processor for receiving information detected by said detector identifying said environment controller signals, and outputting said signals to a specific control.

a plurality of controlled apparatus; and

a plurality of controllers each operatively connected to said processor and one of said controlled apparatus, each of said controllers receiving selected ones of said control signals from said processor and controlling one of said controlled apparatus on the basis of said received control signals.

Claim 30 relates to controlling the subscriber station environment. Anderson discloses a system for remotely controlling VTR's. It does not disclose the claimed system for controlling the environment of a subscriber station and do not in any sense include "station environment control signals." Apparently ignoring this obvious deficiency of Anderson, the Examiner makes an assertion that by a user or owner purchasing decoding and control circuitry, the station "subscribes" to the automated recording service of Anderson. The relevance of the Examiner's assertion is not understood, because it does not appear to relate to the Patent Owner's prior

arguments or to the claim at all. In sum, the Examiner's rejection of claim 30 based upon Anderson simply ignores numerous elements of the claim that simply do not appear anywhere in Anderson.

With respect to Freund, the Examiner makes no effort to address the Patent Owner's prior arguments. In the rejection based on Freund, the Examiner appears to give no weight to the claim limitation that detected information is "in selected broadcast or cablecast transmission." In the context of the '277 patent, the word "in" has been interpreted to mean "embedded." Thus, claim 30 requires that the detected information be embedded within the broadcast or cablecast transmission. Freund disclosed a system such as in a hotel in which signals are sent over a cable via bursts of pulses. (Col. 2, ll. 5-13.) These bursts of pulses are not embedded in a broadcast or cablecast transmission. For these reasons, Anderson and Freund do not anticipate claim 30.

S. Claim 32

Claim 32 was rejected under §102(b) as being anticipated by each of Yarbrough '101 (Office Action at 106) and Kruger (Office Action at 108). The rejections are identical to those made in the prior Office Action, and the Examiner does not address the Patent Owner's prior arguments.

Claim 32 reads as follows:

32. A data receiver system comprising:

a first receiver for receiving identification signals that identify specific information content in a plurality of concurrent broadcast or cablecast data transmissions;

a storage device for storing hold-and-compare signals;

a means operatively connected to said first receiver and said storage for receiving said identification signals and said hold-and-compare signals, comparing said identification signals to said hold-and-compare signals, and conveying the information identified by said comparison to a controller;

a second receiver operatively connected to a data processor or a data output for receiving selected data transmissions and directing said data transmissions to said data processor or output;

a tuner operatively connected to said second receiver for causing said second receiver to receive said selected data transmissions; and

a controller operatively connected to said means for comparing and said tuner for selecting a specific data transmission on the basis of information conveyed by said means for comparing and instructing said tuner to cause said second receiver to receive said selected data transmissions.

Claim 32 recites a system having *two* receivers. The passages cited by the Examiner and Requestor for the Yarbrough '101 reference for the first and second receivers are the same. Thus, the Examiner and requestor have not identified what they contend in the Yarbrough '101 reference constitutes the first receiver and what constitutes the second receiver. Indeed, neither of those references appears to disclose first and second receivers as required by claim 32. Kruger discloses two tuners, but it does not disclose all of the elements of claim 32 and their recited relationships with each other. For example, claim 32 requires a "means for comparing ... said identification signals to said hold-and-compare signals." The controller in the final element of claim 32 must instruct the tuner to cause the second receiver to receive the selected data transmissions "on the basis of information conveyed by said means for comparing." The passages cited by the Examiner and Requestor do not disclose or suggest such a system.

T. Claim 33

Claim 33 was rejected under §102(b) as being anticipated by U.S. Patent No. 4,488,179 to Kruger (Office Action at 109).

Claim 33 reads as follows:

33. A data receiver system comprising:

> a first receiver for receiving identification signals that identify specific information content of a specific one or ones of a plurality of concurrent broadcast or cablecast data transmissions;
>
> a second receiver operatively connected to a data processor or a data output for receiving a selected one of said plurality of data transmission and directing said one of said data processor or output;
>
> a tuner operatively connected to said second receiver for causing said second receiver to receive said selected data transmission; and
>
> a processor operatively connected to said first receiver and said tuner for storing hold-and-compare signals, receiving said identification signals, comparing said identification signals to hold-and-compare signals, and instructing said tuner to cause said second receiver to receive said selected data transmission.

Claim 33 is patentable over Kruger for the same reasons stated with respect to claim 32.

U. Claim 34

Claim 34 was rejected under §102(b) as being anticipated by U.S. Patent No. 4,488,179 to Kruger (Advisory Action at 55).

Claim 34 reads as follows:

34. A television receiver system comprising:

a first receiver for receiving identification signals that identifying specific information content of a specific one of a plurality of concurrent broadcast or cablecast television program transmissions;

a second receiver operatively connected to a television data processor for receiving a selected one of said plurality of television program transmission and directing said one to said data processor;

a tuner operatively connected to said second receiver for causing said second receiver to receive said selected television program transmission; and

a processor operatively connected to said first receiver and said tuner for storing hold-and-compare signals, locating or identifying said identification signals, comparing said identification signals to hold-and-compare signals, and instructing said tuner to cause said second receiver to receive said selected transmission.

Claim 34 is patentable over Kruger for the same reasons stated with respect to claim 32.

V. Claim 35

Claim 35 was rejected under §102(b) and/or (e) as anticipated by each of Kruger (Office Action at 111).

Claim 35 previously was amended to read as follows:

35. (Amended) A television subscriber station comprising:

a converter for receiving a multichannel television transmission;

a tuner operatively connected to said converter for selecting a specific television channel;

a television receiver or display device for displaying programming of a channel specified by said tuner; and

a controller operatively connected to said tuner for storing information of a selected television program unit including a unique code for identifying said selected television program and causing said tuner to select a television transmission containing programming of said selected television unit at a specific time.

The Examiner asserts that the "program identification information" reference at col. 4, line 36 of Kruger satisfies amended claim 35. Nothing in Kruger, however, indicates that such program identification is "a unique code" for identifying the selected television program. The program identification of Kruger could be a category such as news or sports that clearly is not a unique code. Accordingly, Kruger does not anticipate claim 35.

W. Claim 38

Claim 38 was rejected under §102(b) as being anticipated by each of Monteath et al. (Office Action at 112); Cogswell et al. (Office Action at 114) and Kruger (Office Action at 162).

Claim 38 reads as follows:

38. A method for receiving selected television or radio programming in a system that includes a receiver for

receiving a television or radio transmission or frequency, a means for transferring television or radio programming from said receiver to a television or radio programming output or storage, a processor capable of receiving and processing at least part of a programming transmission, and a controller capable of receiving information from said processor and of controlling said tuner on the basis of at least some of said information, said method comprising the steps of:

> inputting to said controller identification information of at least one specified television or radio program unit;
>
> inputting at least part of a programming transmission to said processor;
>
> detecting in said part identification data that identifies a specific television or radio program unit;
>
> inputting information of said identification data to said controller together with information that identifies a specific transmission or frequency; and
>
> enabling said controller to select at least a portion of said specific television or radio program unit and cause said tuner to tune said receiver to receive information of said selected portion.

As a preliminary matter, the Examiner incorrectly asserts that the first inputting step is inherently performed by the third inputting step of claim 38. That is simply not true. In the first inputting step, "identification information of at least one specified television or radio program unit" is inputted into the controller. In the third step, "information of said identification *data*" is inputted into the controller. The two recited types of information are not the same and need not come from the same course. Accordingly, the first and third inputting steps are distinct steps in the claimed method.

Monteath et al. discloses a system for uses a light pen or bar code scanner to read information displayed on patches of a television screen. Monteath et al. does not disclose the identification information or identification data required by claim 38. Specifically, Monteath et al. does not provide any indication of whether it is simply permitting a user to select dates and times from a schedule, as opposed to the identification information recited in claim 38. Further, nothing in Monteath et al. suggests the step of detecting identification data of a specific program unit. Cogswell et al. suffers form a similar deficiency in that the address of the subscriber station is used for control rather than information identifying a specific television or radio program. The Examiner's and Requestor's citations to Kruger fail to properly distinguish between the various inputting steps of claim 38. For at least these reasons, claim 38 is patentable over the cited references.

X. Claims 41 and 42

Claims 41 and 42 were rejected under §103(a) as being unpatentable over Summers for the same reasons stated with respect to claim 11 (Office Action at 159).

Claims 41-42 read as follows:

41. A system for processing a television program transmission in which a plurality of types of signals including identification signals or instruct-to-decrypt signals are transmitted, said types being transmitted in different patterns and at least one of said types being transmitted in varying locations or in a varying pattern of timing in said program transmission, said system comprising:

a processor for identifying and transferring to a computer an instruct-to-generate signal that causes said computer to generate a portion of the video information content of a television program to be displayed at a television display device.

42. A system for processing a television program transmission in which a plurality of types of signal information are transmitted in different patterns, with said types of signal information including at least a unit identification information signal that identifies a unit of information associated with a television program, with said signal types being transmitted in varying locations or in a varying pattern of timing in said program transmission, said system capable of processing television programming separately defined from standard analog television, said system comprising:

a processor for locating or identifying and transferring to a computer an instruct-to-generate-and-transmit signal that causes said computer to generate and transmit to a television display a portion of the video information content of a television program.

Claims 41 and 42 are patentable over the cited reference for the same reasons stated with respect to claims 11 and 12.

Y. Claim 44

Claim 44 was the subject of the following rejections:

- under §103(a) as being unpatentable over U.S. Patent No. 4,233,628 to Ciciora in view of either page 78 of the "National Cable television Association Executive Siminar [sic] Series" document entitled "Videotex Services" and "'Touch-tone' Teletext: A Combined Teletext-Viewdata System" by Robinson et al. (Office Action at 156); and
- under §102(b) or (e) as being anticipated by each of Ciciora (Office Action at 151), Kruger (Office Action at 116) and Edwardson (Office Action at 117).

Claim 44 reads as follows:

44. A television receiver system comprising:

a television receiver for receiving a selected broadcast or cablecast television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television program content;

a digital detector operatively connected to a mass medium receiver for detecting digital information in a mass

medium transmission and transferring some of said detected information to a processor; and

a processor operatively connected to said detector and said input device for generating and outputting information of a video overlay that is related to said television programming or said reaction information; and

a television display device operatively connected to said processor for receiving and displaying said video overlay.

In making the §102 rejections, the Examiner ignores the express language of claim 44. Specifically, the claim recites "the reaction of a viewer to *specific television program content.*" The examiner asserts that this element is implicit in the cited references, yet the only citation he provides for support is to a viewer's selection of a teletext page from a displayed teletext index page. Such a teletext index page, however, is not the claims "television program content." In fact, nothing at all in the references suggests the inputting of a viewer reaction to television program content. Apparently recognizing this void in the prior art, the Examiner list a series of alleged "implicit" reactions that are not remotely disclosed in the references and represent nothing more than the Examiner using hindsight in his rejections.

In the obviousness rejections of claim 44, the Examiner relies upon very vague references to "in-program cues." The references, however, provide virtually no discussion of what "in-program cues" means. The Videotex Services reference includes next to the passage cited by the Examiner a footnote referring to "caption-cuing," which would seem to indicate that the cuing occurs in caption, and thus, any viewer reaction is to the caption rather than to the specific television program content. The Examiner's §102 references suffer form a similar problem. Accordingly, claim 44 is patentable over the cited references.

Z. Claim 45

Claim 45 was rejected under §103(a) as being unpatentable over U.S. Patent No. 4,329,684 to Monteath et al. and UK #2,034,995 to Wright (Office Action at 180) and under §102(b) as being anticipated by Eskin et al. (Office Action at 119) and Kruger (Office Action at 120).

Claim 45 reads as follows:

45. A system for coordinating a multimedia or multiple media presentation comprising:

a first mass medium receiver for receiving a broadcast or cablecast transmission;

a detector operatively connected to said first mass medium receiver for detecting information in a selected

broadcast or cablecast transmission, said information including actuation or tuning control instructions;

a transmission operatively connected to said detector for transmitting control instruction to said tuner;

a second mass medium receiver for a transmission; and

a tuner operatively connected to a second mass medium receiver or to apparatus operatively connected to said second receiver for tuning said receiver or said apparatus.

Claim 45 recites a system having *two* receivers and a detector for detecting information including actuation or tuning control instructions in a broadcast or cablecast transmission. Claim 45 differs from the references cited by the Examiner at least in that in claim 45 the tuning of the second receiver comes from tuning control instructions detected in a selected broadcast or cablecast. This differs from the references because the references are understood to disclose systems in which the tuning instructions for the second receiver do not come from the broadcast or cablecast, but rather come from instructions input by the user. In the final Office Action, the Examiner provides no comment with respect to these points previously raised by the Patent Owner.

AA. Claim 46

Claim 46 was rejected on the following bases:

- under §103(a) as being obvious over "ORACLE-Broadcasting the Written Word" by James in view of Guillou '921 (Office Action at 182) and "CEEFAX: Proposed New Broadcasting Service" by Edwardson in view of Guillou '921 (Office Action at 183); and
- under §102(e) as being anticipated by Guillou '483 (Office Action at 130).

Claim 46 reads as follows:

46. A mass medium receiver system comprising:

a mass medium receiver for receiving a selected broadcast or cablecast mass medium transmission and transferring programming in said transmission to a mass medium programming output device;

an input device for inputting information of the reaction of a viewer to specific mass medium program content;

a digital detector operatively connected to said mass medium receiver for detecting digital information in a mass medium transmission and transferring said detected information to a decryptor;

a decryptor for decrypting detected digital information; and

a controller for controlling said decryptor regarding its manner of decryption, said controller controlling said decryptor in response to information inputted by said input device.

As discussed in James, the Independent Broadcasting Authority of Britain developed a text distribution capability called ORACLE. The user of the ORACLE system selects pages of information for display. The user may also choose to switch the television picture off, thus choosing between superimposing text on the picture or displaying the text on a neutral background. Neither of these selections by the user is information of the reaction of a viewer to specific mass medium program content. There is no disclosure or suggestion in James that the user's selection of a page or choice of display mode is a reaction to content of any program. To the contrary, these user choices could be made prior to the output of any program content. Accordingly, James fails to show or suggest any input device for inputting reactions to specific mass medium program content. Further, there is no suggestion in Guillou '921 that the ANTIOPE system included an input device for inputting the reaction of a viewer to specific mass medium program content. James further identifies no decryptor as required by claim 46, and Guillou '921 provides no suggestion or motivation to modify the ORACLE system as suggested by the Examiner. Likewise, James includes no suggestion or motivation to include any access control system such as is set forth in Guillou. Moreover, neither James nor Guillou '921 disclose or suggest a controller controlling a decryptor in response to information inputted by the input device. While Guillou '921 appears to disclose an input device, that device does not receive a viewer's reaction to specific mass medium program content.

Edwardson suffers from similar deficiencies in that it does not disclose an input device for inputting a viewer's reaction to a specific mass medium program content. Further, Edwardson and Guillou '921 do not appear to disclose a digital detector as claimed. Nothing in Guillou '921 indicates that the receiving means 14, cited by the Examiner, detects digital information in a mass medium program segment. To the contrary, the receiving means 14 appears to be for receiving the signals transmitted. (Col. 3, l. 50.) Notwithstanding, there is no motivation or suggestion in either Edwardson or Guillou '921 for including such a receiver 14 in the CEEFAX system addressed by Edwardson. Finally, Edwardson does not disclose the claimed controller, and there is not motivation or suggestion in either reference for doing so.

Guillou '483 (and Guillou '921) likewise does not disclose or suggest the claimed controller. The Examiner now relies key restoring circuit 110 of Guillou '483, but there is no suggestion in Guillou '483 that key restoring circuit 110 is responsive to information input by keyboard 147, which is relied upon to show an input device. In responding to the Patent

Owner's prior arguments, the Examiner refers to elements 36 and 26' as generating signals for controlling the manner in which the encrypted data is decrypted by the decryptor. The Examiners' waffling between different elements of Guillou '483 reflects the fact that the Examiner simply cannot identify any element of Guillou '483 that satisfies the controller recited in the claim.

BB. Claim 47

Claim 47 was rejected under §102(b) as being anticipated by §102(b) by Zaboklicki (Office Action at 138).

Claim 47 reads as follows:

47. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a mass medium receiver connected to said television display;

a tuner operatively connected to said mass medium receiver for causing said receiver to receive a selected transmission of programming that supplements said specific television programming; and

a controller operatively connected to said input device and said tuner for controlling said tuner in response to information inputted by said input device.

As discussed above with respect to claim 12, the Zaboklicki reference is not enabling and therefore the rejections based on Zaboklicki are improper and should be withdrawn.

Nevertheless, even if Zaboklicki were enabling, it does not anticipate claim 47. In particular, the Examiner continues to take portions of the claims out of context and ignore terms of the claims. Claim 47 requires an input device for inputting information of the reaction of a viewer to specific *television* programming and a controller for controlling a tuner in response to that information. While "programming" generally may be in any form ('277 patent, col. 218, lines 3-16), "television programming" may not. Throughout the '277 patent specification, "television programming" is consistently used to refer to television audio and video and does not refer to teletext data or other information added to a transmission. The Examiner reads the "television" out of the claim. Such a reading is improper. Claim 47 expressly requires an input device for inputting a viewer's reaction to "specific *television* programming." Zaboklicki

includes no such thing. Rather, if anything, Zaboklicki suggests that a viewer may input "answers" in response to standard teletext prompts. The television programming of claim 47 is the actual programming, not teletext of other information added to the television programming.

CC. Claim 48

Claim 48 was rejected under §102(b) as being anticipated by Zaboklicki (Office Action at 138).

Claim 48 reads as follows:

48. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a specific portion of a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a digital detector operatively connected to a mass medium receiver for detecting digital information in a mass medium transmission and combining some of said detected information to a controller;

a plurality of output devices, for outputting programming or information related to but distinct from said television programming; and

a controller operatively connected to said input device, said detector and a selected output device for causing said output device to output specific selected programming or information related to but distinct from said television programming, said controller causing said output device to output said selected programming or information in response to information inputted by said input device and information detected by said digital detector.

Claim 48 is patentable for the same reasons stated with respect to claim 47.

DD. Claim 49

Claim 49 was rejected under §102(b) as anticipated by Zaboklicki (Office Action at 142).

Claim 49 reads as follows:

49. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer of specific television programming;

a means for receiving programming from a plurality of receiver, storage, computer, processor, and/or decryptor devices and operatively connected to and capable of outputting or directing said programming selectively to a plurality of storage, computer, processor, decryptor, and/or output devices; and

a controller operatively connected to said receiving means for controlling the receiving, outputting, or directing of said receiving means in response to information inputted by said input device.

Claim 49 is patentable over the cited references for the same reasons stated with respect to claim 47.

EE. Claim 50

Claim 50 was rejected under §102(b) as being anticipated by each of Zaboklicki (Office Action at 138), Kosco (Office Action at 121), Monteath et al. (Office Action at 122) and Eskin et al. (Office Action at 123).

Claim 50 reads as follows:

50. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a mass medium receiver;

a digital detector operatively connected to said mass medium receiver for detecting digital information in a mass medium transmission and combining at least some of said detected information to a controller; and

a controller operatively connected to a tuner, a decryptor, a means for transferring, a computer, a processor or an output device for controlling said tuner, decryptor, means for transferring, computer, processor or output device in response to information inputted by said input device and information detected by said detector.

Claim 50 is patentable over Zaboklicki for the cited references for the same reasons stated with respect to claim 47.

Kosco discloses a simple pay-per-view system in which the viewer may watch a short preview of a movie before paying for the entire movie. The Examiner's rejection based upon Kosco is vague and ambiguous at best. The Examiner to read the claimed input device for inputting information of the reaction of a viewer to specific television programming on the viewer's selection of the pay-per-view movie. In the Kosco system, however, the alleged controller 31 is not "responsive to information inputted by said input device" as required by the claim. Rather, the controller 31 is responsive to an enable signal received. (See Kosco, col. 6, lines 9-21.) Monteath et al. discloses a light sensing pen. Monteath et al. includes no teaching that the light pen receives information that identifies specific programming received, processed, or outputted. Eskin et al. is directed to a panelist response scanning system. The Examiner appears to rely on data register 54 of Eskin et al. to show a storage device. There is no teaching

that data register 54 is for receiving data on programming availability, use or usage as set forth by claim 51.

FF. Claim 51

Claim 51 was the subject of the following rejections:

- under §103(a) as unpatentable over U.S. Patent No. 4,317,215 to Tabata et al. in view of "Some Applications of Digital Techniques in TV Receivers" by Doyle et al. (Office Action at 168);
- under §102(b) as being anticipated by each of Zaboklicki (Office Action at 139), Monteath et al. (Office Action at 124) and Eskin et al. (Office Action at 125).

Claim 51 reads as follows:

51. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a digital detector operatively connected to a means for detecting digital information in a specific transmission and transferring at least some of said detected information to a storage device; and

a storage device connected to said detector for receiving data on programming availability, use or usage from said detector, said storage collecting information that identifies specific programming received, processed, or outputted at said station or information inputted at said input device.

The Examiner acknowledges that Tabata et al. does not expressly teach each limitation of claim 51. Tabata et al. is directed to a CATV system in which channel identifying data is incorporated in each transmitted channel, and subscriber terminals return such data to the CATV center to indicated the channel actually being received. The Examiner relies on the channel selecting device of Tabata et al. to show an input device. The channel selecting device of Tabata et al. does input information of the reaction of a viewer to specific television programming. The Examiner asserts that channel selection signals inherently represent the reaction of a viewer to specific TV programming. The Examiner assertion is incorrect. The user may select a channel with viewing any TV programming. Accordingly, the channel selection is not inherently a reaction to programming the viewer does not wish to view. Tabata et al. includes no suggestion that the channel selection device inputs is for inputting information of the reaction of a viewer to specific television programming.

The Examiner further asserts that some sort of storage device is both implicit and inherent with the data processing circuit block of Tabata et al. The Examiner asserts that sent program identification data must be stored/buffered to be sent. Claim 51, however, sets forth that the storage collects information. The Examiner asserts that data is buffered for transmission, not that information is collected as set forth by claim 51. Tabata et al. does not teach or suggest a storage device for collecting information that identifies specific programming.

The Examiner applies the secondary reference Doyle et al. to supplement the teaching of Tabata et al. However, the Examiner does not assert that Doyle et al. suggests an input device or a storage device as set forth by claim 51. For the above reasons, the Office Action does not establish a *prima facie* case of obviousness against claim 51.

The invention of claim 51 includes a storage device connected to said detector for receiving data on programming availability, use or usage from said detector, said storage collecting information that identifies specific programming received, processed, or outputted at said station or information inputted at said input device. None of the references applied to anticipate claim 51 includes a storage device for receiving data on programming availability, use or usage which collects information that identifies specific programming received, processed, or outputted. The Examiner identifies components of the Zaboklicki system with no reference to the operation of those elements in the disclosure of Zaboklicki. The Examiner provides citations to the specifications of Monteath et al. and Eskin et al. with no explanation of how the cited passages teach the limitations of claim 52. Claim 52 is patentable over Zaboklicki for the same reasons stated with respect to claim 47. Additionally, the Examiner asserts that Zaboklicki stores teletext data that identifies specific programming segments to be output by the program. The Examiner identifies no such teaching in the disclosure of Zaboklicki. The Zaboklicki disclose is vague and non-enabling. The Zaboklicki disclosure does not teach data collecting information that identifies specific programming received, processed, or outputted. Monteath et al. discloses a light sensing pen. Monteath et al. includes no teaching that the light pen receives information that identifies specific programming received, processed, or outputted. Eskin et al. is directed to a panelist response scanning system. The Examiner appears to rely on data register 54 of Eskin et al. to show a storage device. There is no teaching that data register 54 is for receiving data on programming availability, use or usage as set forth by claim 51.

For all these reasons, the references cited by the Examiner do not anticipate or render obvious claim 51 of the '277 patent.

GG. Claim 52

Claim 52 was rejected under §102(b) as being anticipated under §102(b) by Yanagimachi et al. (Office Action at 127).

Claim 52 reads as follows:

52. A method for promoting and delivering programming or data at a television subscriber station that includes a television receiver for a television program transmission, a television display for displaying program content associated with said transmission, an input device for inputting information of the reaction of a viewer to specific television programming, a digital detector operatively connected to a mass medium receiver for detecting digital information in a mass medium transmission and combining at least some of said detected information to a controller, the controller operatively connected to one of a plurality of devices including a tuner, a decryptor, a transfer, a computer, a processor, a storage device or output device for controlling said devices in response to information inputted by said input device and information detected by said detector, said method comprising the steps of:

transmitting in a television transmission program content that promotes the acquisition or purchase of specific programming or data by a viewer;

receiving said transmission and displaying said program content at said television display;

inputting reaction information of an order by a viewer for said specific programming or data;

transmitting in a mass medium transmission a control instruction that instructs said controller to communicate a specific instruction or instructions to at least one controlled apparatus if reaction information of an order exists at said station;

detecting the presence of said control instruction at said station and transferring said instruction to said controller; and

causing said controller, in response to said instruction and said reaction information of an order, to communicate a specific instruction or instructions to one of said tuner, decryptor, transfer, computer, processor, storage or output, thereby to enable said station to delivery said specific programming or data.

Claim 52 sets forth a step of transmitting content that promotes the acquisition or purchase of specific programming or data by a viewer. The applied reference fails to teach this step. The Examiner provides citations to the specification of Yanagimachi et al. with no explanation of how the cited passages teach the limitations of claim 52. The Examiner identifies no step of transmitting content that promotes the acquisition or purchase of specific programming by a viewer in Yanagimachi et al. Yanagimachi et al. is directed a system for transmitting programmed instruction. The Yanagimachi et al. system provides for the transmission of a series of program materials such as still pictures. Based on the users input, the program materials are ordered for output. All of the program materials are acquired by the

Yanagimachi et al. system. Accordingly, the Examiner does not identify content that promotes the acquisition or purchase of specific programming in the teaching of Yanagimachi et al. For theses reasons, the applied references fail to anticipate claim 52.

HH. Claim 55

Claim 55 was rejected under §102(b) as being anticipated by den Toonder et al. (Office Action at 128).

Claim 55 reads as follows:

55. A mass medium transmission receiver station comprising:

an input device for inputting information of the reaction of a viewer to specific mass medium program content;

a first controller operatively connected to said input device for controlling a decryptor regarding its timing or manner of decrypting, said controller controlling said decryptor in response to information inputted by said input device;

a memory device operatively connected to said first controller for holding operating instructions that control said first controller; and

a second controller operatively connected to said memory device for controlling the receiving, detecting, or locating of control instructions and the inputting of said control instructions into said memory.

Claim 55 sets forth a first controller and a second controller. Den Toonder et al. is directed to decoder for use in subscription television. The den Toonder et al. device includes a single microprocessor. The Examiner provides citations to the specification den Toonder et al. with no explanation of how the cited passages teach the limitations of the steps of claim 55. The Patent Owner has carefully review the citations the Examiner has provided to show a second controller, but finds no controller other that the microprocessor relied upon to show the first controller. In addition, claim 55 includes an input device for inputting information of the reaction of a viewer to specific mass medium program content. The Examiner relies on keylock switch 84 to show an input device. However, keylock switch is used to disable certain levels of programming. Den Toonder et al. col. 4, ll. 37-39. There is no suggestion that keylock switch 84 is used to input information of the reaction of a viewer to specific mass medium program content. To the contrary, the keylock switch 84 is used to prevent any reaction to certain program content. Accordingly, the Patent Owner submits that den Toonder et al. fails to anticipate claim 55.

II. Claim 56

Claim 56 was rejected under §103(a) as unpatentable over U.S. Patent No. 3,786,420 to Stambler (Office Action at 163) and under §102(b) as being anticipated by Shutterly (Office Action at 129).

Claim 56 as amended reads as follows:

56. A computer station comprising:

a storage device for storing encrypted data;

a computer operatively connected to said storage device for controlling said storage device, locating a selected portion of said data, and transferring said selected portion to a decryptor or a processor;

a decryptor operatively connected to said storage device or said computer for decrypting encrypted data; and

a process for locating or identifying selected information associated with said selected portion and causing said decryptor to decrypt said selected portion on the basis of said selected information.

Claim 56 includes a computer for controlling a storage device, locating a selected portion of encrypted data, and transferring said selected portion to decryptor or a processor. Claim 56 includes a clear typographical error in the issued claim. Claim 56 sets for an apparatus. The final element of claim 56 recited "a process." One of ordinary skill would recognize that apparatus included "a processor" for performing the recited function. The Examiner fails to identify a computer for locating a selected portion of encrypted data. Neither a computer nor processor as set forth in amended claim 56 is identified in the applied art. With regard to Stambler, the Examiner relies on card reader 11, select translator circuit 14, comparator circuit 25, and storage keyboard 26 to show a computer. The storage device relied upon is a credit card. The Examiner fails to explain how the cited circuitry controls the credit card. Stambler describes that the card reader contains a scanning means for reading all the information on the card and that the output of the card reader is applied to the translator circuit. Stambler fails to show or suggest that the cited circuitry locates a selected portion of encrypted data. The Examiner relies on the input first-in first-out (FIFO) memory circuit 353 of Shutterly to show a storage device and on microprocessor 200 to show a computer. The Input FIFO circuit 353 simply outputs data in the order it is received. There operation of Input FIFO circuit 353 is consistent throughout the operation of the Shutterly device. Due to the typographical error in the claim, the Examiner has asserted that the applied reference teach the function of the processor. However, no processor is

identified that performs the functions identified by the Examiner. Claim 56 is patentable over the cited art for at least the above reasons.

II. The Double Patenting Rejections

Claims 6, 7, 20, 27 and 28 stand rejected as being rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of Patent Owner's patent 4,965,825 ('825 patent). Claims 6 and 7 stand rejected over claim 4 of the '825 patent. Claim 20 stands rejected over claim 9 of the '825 patent. Claims 27 and 28 stand rejected over claims 4 and 5 of the '825 patent. Appellants respectfully submits that the Examiner fails to establish a proper *prima facie* double patenting rejection of claims 6, 7, 20, 27 and 28.

In determining whether obviousness-type double patenting exists the relevant inquiry is whether the claim or claims pending in the current application define an invention that is merely an obvious variation of an invention claimed the issued patent. M.P.E.P. § 804. A rejection based on obviousness-type double patenting must demonstrate that the claimed subject matter is not patentably distinct from the subject matter claimed in the issued patent. *See In re Longi*, 759 F.2d 887, 225 U.S.P.Q. 645 (Fed. Cir. 1985). The M.P.E.P. instructs examiners to employ the *Graham* factors, *see Graham v. John Deere Co.,* 383 U.S. 1, 148 U.S.P.Q. 459 (1966), used to establish a case of obviousness when making an obviousness-type double patenting analysis. M.P.E.P. § 804. Further, the M.P.E.P. instructs examiners that:

> Any obviousness-type double patenting rejection should make clear:
>
> > (A) The differences between the inventions defined by the conflicting claims - a claim in the patent compared to a claim in the application; and
> >
> > (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim in issue is an obvious variation of the invention defined in a claim in the patent.

M.P.E.P. § 804; *see also In re Kaplan*, 789 F.2d 1574, 229 U.S.P.Q. 1574 (Fed. Cir. 1986) (to support an obviousness-type double patenting rejection "there must be some clear evidence to establish why the variation would have been obvious").

The Examiner fails to discusses any *Graham* factors or the reasons why a person of ordinary skill in the art would conclude that the inventions defined in the pending claims are merely obvious variations of the invention claimed in the '825 patent. Accordingly, the Examiner has not made out a *prima facie* case of obviousness-type double patenting.

Claim 6 stands rejected as being unpatentable over claim 4 of the '825 patent. As noted in the Aug. 2005 Response, the invention of claim 6 includes:

> a digital detector for receiving said transmission and detecting said predetermined signal in said transmission *in a varying location or a varying timing pattern* based on either a specific location or a specific time; and
>
> a controller operatively connected to said detector for causing said detector to detect said predetermined signal based on either a specific location or time, said controller *being programmed with either the varying locations or the varying timing pattern of said signal.*

The Examiner asserts that the digital detector and controller perform functions corresponding to the detector means and control means of claim 4 of the '825 patent. (Office Action at 193.) However, the Examiner does not address the controller *being programmed with either the varying locations or the varying timing pattern of said signal.* Claim 4 of the '825 patent includes no suggestion that the controller is programmed with the varying location or the varying timing patterns of received signals.

Claim 7 stands rejected as being unpatentable over claim 4 of the '825 patent. (Office Action at 193-94.) The invention defined by claim 7 includes:

> a controller operatively connected to said detector and said storage device for causing said detector to locate, detect or output said signal and *for controlling a technique used by said storage device to assemble message units, said controller being programmed with information of the composition of said signal or with either the varying location or the varying timing pattern of said signal.*

The Examiner relies on the control means of claim 4 of the '825 patent that is responsive to some other of said detected signals in said data stream to alter the location in succeeding information signals examined for embedded signals. (Office Action at 193-94.) However, there is no

suggestion in claim 4 of the '825 patent that this control means is *for controlling a technique used by said storage device to assemble message units*. Furthermore, the is no suggestion that this control means is *programmed with information of the composition of said signal or with either the varying location or the varying timing pattern of said signal.*

Claim 20 stands rejected as being unpatentable over claim 9 of the '825 patent. (Office Action at 194.) The invention defined by claim 20 includes:

> a decryptor for . . . decrypting *part of the video portion* of an encrypted television program transmission *in response to receiving an instruct-to-decrypt signal*;
>
> a digital detector . . . for receiving information of *a separately defined television program,* detecting the location or presence of *an instruct-to-decrypt signal* in said transmission . . . ; and
>
> a controller . . . being programmed with information as to either signal composition or signal timing.

The Examiner asserts that the "decryptor," "digital detector," and "controller" of claim 20 are for performing functions corresponding to the "detector means," "control means" and "decryptor means" of claim 9 of the '825 patent. The Examiner, however, fails to address the *instruct-to-decrypt signal*. Claim 9 of the '825 patent fails to suggest a decryptor for decrypting *in response to receiving an instruct-to-decrypt signal* or a digital detector for detecting the location or presence of *an instruct-to-decrypt signal*. Furthermore, claim 9 of the '825 patent fails to show or suggest a controller being programmed with information as to either signal composition or signal timing.

Claim 27 stands rejected as being unpatentable over claims 4 and 5 of the '825 patent. (Office Action at 195-96.) The Examiner asserts claims 4 and 5 of the '825 patent in an analogous manner against claim 27. The invention defined by claim 27 includes:

> a plurality of detectors, each operatively connected to a specific one of a programming receiver device, a display device, a storage device, a processing device or a transmission device for detecting information *that identifies specific programming to be received, displayed, stored, processed or transmitted by said specific devices*; and

> a processor . . . for receiving said information and assembling or storing records *that contain statistics* on programming availability, use or usage at said station.

The Examiner relies on the detector means of claims 4 and 5 of the '825 patent to correspond to the presently claimed plurality of detectors. However, claims 4 and 5 of the '825 fail to show or suggest a plurality of detectors that are for detecting information *that identifies specific programming to be received, displayed, stored, processed or transmitted by said specific devices.* The Examiner asserts that the "recorder means" and "control means" of claims 4 and 5 of the '825 patent correspond to the presently claimed processor. However, claims 4 and 5 fail to show or suggest that any processor is for receiving said information and assembling or storing records *that contain statistics* on programming availability, use or usage at said station.

Claim 28 stands rejected as being unpatentable over claims 4 and 5 of the '825 patent. (Office Action at 195-96.) The Examiner asserts claims 4 and 5 of the '825 patent in an analogous manner against claim 28. The invention defined by claim 28 includes:

> a plurality of decoders, each operatively connected to a specific programming receiver, display, storage, processing, transmission, or output device *for locating or identifying identifier information that identifies specific programming received, displayed, stored, processed, transmitted, or outputted by said specific device*; and
>
> a controller operatively connected to some of said plurality of decoders *for instructing a selected one of said decoders how to locate said identifier information.*

The Examiner erroneously asserts that claim 28 broadly recites a "plurality of detectors" and a "processor." (Office Action at 196.) The Examiner asserts that the "plurality of detectors" corresponds to the previously recited "detector means" and that the recited "processor" corresponds to the previously recited "recorder means" and "control means." However, the Examiner fails to address the *identifier information* set forth in claim 28. Claims 4 and 5 of the '825 patent fail to show or suggest a plurality of decoders *for locating or identifying identifier information that identifies specific programming received, displayed, stored, processed, transmitted, or outputted by said specific device.* Claims 4 and 5 of the '825 patent fail to show

or suggest a controller *for instructing a selected one of said decoders how to locate said identifier information.*

For at least the above reasons, the Examiner has failed to set forth a *prima facie* case that claims 6, 7, 20, 27 and 28 are obvious in view of the claims of the '825 patent. In the discussion of each rejected claim, the Examiner asserts that the broad recitations of the instant claims improperly extend the right to exclude with respect to the subject matter of the claims of the '825 patent. The Examiner fails to set forth when an extension of the right to exclude is improper. It is common for later patent claims to cover subject matter claimed in an earlier patent.

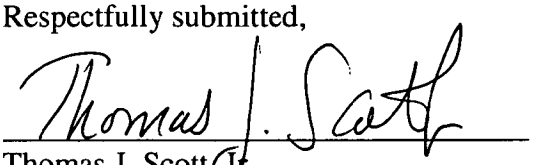
> "[O]ne patent dominates another if a claim of the first patent reads on a device built or process practiced according to the second patent disclosure. This commonplace situation in not, per se, double patenting."

In re Kaplan, 789 F.2d 1574, 229 U.S.P.Q. 678, 681 (Fed. Cir. 1986). However, a non-statutory obvious-type double patenting rejection is appropriate where the claim under examination is not *patentably distinct* from a claim in a prior patent. See *In re Goodman*, 11 F.3d 1046, 29 U.S.P.Q.2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 U.S.P.Q. 645 (Fed. Cir. 1985). The Examiner has failed to demonstrate that claims 6, 7, 20, 27 and 28 are not patentably distinct from claims in the '825 patent. For at least these reasons, the Patent Owner respectfully requests that the double patenting rejections of claims 6, 7, 20, 27 and 28 be withdrawn.

3. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that the Examiner has failed to establish that the claims 2, 4, 6, 7, 10-15, 17-20, 22, 23, 27, 28, 30, 32, 33, 35, 38, 41, 42, 44-52, 55 and 56 of U.S. Patent 5,335,277 are unpatentable under 35 U.S.C. §§ 102 or 103(a) or the doctrine of double patenting. Claims 2, 4, 6, 7, 10-15, 17-20, 22, 23, 27, 28, 30, 32, 33, 35, 38, 41, 42, 44-52, 55 and 56 are patentably distinguishable over the prior art of record, taken in any proper combination. Accordingly, appellant respectfully requests that the Examiner's rejections be reversed and the Examiner be directed to confirm the patentability of claims 2, 4, 6, 7, 10-15, 17-20, 22, 23, 27, 28, 30, 32, 33, 35, 38, 41, 42, 44-52, 55 and 56.

Respectfully submitted,



Date: August 16, 2006

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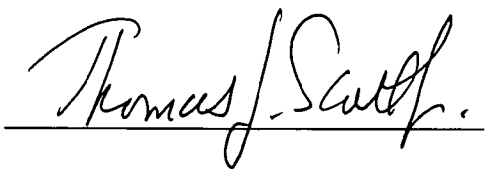

Claims Appendix

2. A method of processing control signals and controlling equipment at a remote site based on a broadcast transmission, including:

(a) the step of receiving at a remote site a broadcast carrier transmission;

(b) the step of demodulating said broadcast carrier transmission to detect an information transmission therein;

(c) the step of detecting and identifying at said remote site control signals associated with said information transmission;

(d) the step of passing at least a portion of control signals to a computer control means at said remote site;

(e) the step of comparing a selected position of said control signals with a code imputed into said computer control means on the basis of information contained in said information transmission; and

(f) the step of activating a printing means when the comparison step provides a match between the inputted code and the selected portion of the control signals.

4. A data receiver system comprising:

a switch operatively connected to a first input of a broadcast transmission and a second input of a cablecast transmission for selecting either said first input or said second input and transferring the selected transmission to a digital detector;

a controller operatively connected to said switch for causing said switch to select either said first input or said second input; and

a digital detector operatively connected to said switch for detecting digital data in said

selected transmission and for relaying said data to a data processor.

6. A system for identifying a predetermined signal in a television program transmission in which a plurality of signal types are transmitted said signal being transmitted in a varying location or a varying timing pattern, said television program transmission being separately defined from standard analog video and audio television, said system comprising:

a digital detector for receiving said transmission and detecting said predetermined signal in said transmission based on either a specific location or a specific time; and

a controller operatively connected to said detector for causing said detector to detect said predetermined signal based on either a specific location or time, said controller being programmed with either the varying locations or the varying timing pattern of said signal.

7. A system for locating or identifying a specific signal in a television program transmission that contains digital information and for assembling information contained in said specific signal, said transmission being separately defined from standard analog video and audio television, said system comprising:

a digital detector for receiving at least some information of said transmission and detecting said specific signal at a specific location or time;

a storage device operatively connected to said digital detector for receiving detected digital information of said specific signal and assembling at least some of said digital information into either information or instruction message units; and

a controller operatively connected to said detector and said storage device for causing

said detector to locate, detect or output said signal and for controlling a technique used by said storage device to assemble message units, said controller being programmed with information of the composition of said signal or with either the varying location or the varying timing pattern of said signal.

10. A television receiver system comprising:

a receiver for receiving a selected portion of a television program transmission that is not a standard television signal;

a digital detector operatively connected to said receiver for receiving said selected portion and detecting a digital signal;

a storage device operatively connected to said digital detector for receiving detected digital information and assembling said detected information into message units;

a controller operatively connected to said receiver, said detector and said storage device, said controller controlling said receiver to pass selected information to said detector, said detector to pass detected information to said storage device, and said storage device to assemble detected information into message units.

11. A television receiver system comprising:

a first processor for receiving information of a selected television program transmission and detecting a specific signal in said transmission based upon a location or timing pattern of said specific signal in said transmission, said first processor being programmed with information of a varying location or timing pattern;

a second processor operatively connected to said first processor for receiving and

processing information of said specific signal, and for identifying when and where to pass said information based upon said information, and passing said information.

12. A reprogrammable system comprising:

a digital detector for receiving information of a transmission and detecting digital signals in said transmission, said digital signals including new operating instructions;

a processor operatively connected to said digital detector for receiving and processing information of some of said digital signals, said processor identifying those of said operating instructions addressed to said processor, said processor instructing said detector to detect and pass specified signals;

a memory device operatively connected to said processor for holding operating instructions addressed to said processor, said operating instructions controlling the operation of said processor; and

said processor loading said operating instructions that are addressed to said processor into said memory device to thereby reprogram said processor, said operating instructions including instructions to cause said processor to cause said detector to detect different signals.

13. A signal processing system comprising:

a digital detector for detecting digital signals;

a processor operatively connected to said digital detector for receiving and processing information of a signal detected by said detector, processing the received detected signals to identify how and where to pass said information;

a plurality of apparatus operatively connected to said processor, said processor transferring said detected signals to said apparatus that are addressed by said signals or to be controlled by said signals;

a memory device operatively connected to said processor for holding operating instructions that control said processor; and

a controller operatively connected to said detector and said memory device for controlling the detector in its detection of signals.

14. A television receiver station comprising:

a plurality of receiver/distributors with at least one receiving a television programming transmission, each transmission including the television programming and programming identification signals identifying the programming;

an output device for displaying television programming or transmitting television programming to a remote subscriber station;

a storage device for receiving and storing television programming;

means for selectively receiving television programming from either one of said receiver/distributors or said storage device and selectively transferring the received television programming to either said storage device or to said output device;

a processor operatively connected to at least one of said plurality of receiver/distributors for receiving the programming and the programming identification information; and

a controller operatively connected to said processor for receiving specific unit programming identification information, identifying a specific unit of television programming received at a specific receiver/distributor by comparing of received

identification information to previously received scheduled program identification information, and passing programming to either said output device or to said storage device based upon said scheduled information.

15. A method for identifying and selecting television programming in a system that is adapted to direct selected television programming to a television programming output or storage, said system including a processor for receiving and processing at least part of the television programming transmission, a means for transferring said programming selectively from a television programming receiver to a television programming output device or storage device, and a controller for receiving information from said processor and for controlling said means for transferring on the basis of at least some of said information, said method comprising the steps of:

inputting to said controller identification information of at least one specified television program unit;

inputting at least part of a television programming transmission to said processor;

detecting, locating or identifying in said part identification data that identified a specific television program unit in said transmission; and

inputting information of said data to said controller, determining based on said program unit information that said specific unit is a specific unit and thereby to enable said controller to select at least a portion of said specific television program unit and cause said means for transferring to transfer information of said selected portion to said television programming output device or storage device.

17. A system for controlling a decryptor, said system comprising:

a digital detector for receiving at least a portion of a television program transmission, said program transmission comprising a program and a plurality of signals embedded in said

transmission, said detector detecting said signals;

a decryptor operatively connected to said detector for receiving and decrypting said detected signals; and

a controller operatively connected to said decryptor for causing said decryptor to alter its decryption pattern or technique.

18. A signal processing system comprising:

a storage device for receiving signals detected in a program transmission and inputting said signals selectively to a decryptor;

a decryptor operatively connected to said storage device for receiving, decrypting, and passing signals to a processor; and

a controller operatively connected to said storage device and said decryptor for causing said storage device to identify and pass a specific signal to said decryptor and causing said decryptor to decrypt said specific signal.

19. A television subscriber station comprising:

a plurality of decryptors, each decryptor capable of decrypting a selected one of a plurality of portions of a television program transmission; and

a processor operatively connected to some of said decryptors for identifying and passing to a selected decryptor an instruct-to-decrypt signal that instructs the selected decryptor to decrypt some of the video portion of said transmission, said instruct-to-decrypt signal comprising a code necessary for the decryption of said program transmission.

20. A television subscriber station comprising:

a decryptor for receiving and decrypting part of the video portion of an encrypted television program transmission in response to receiving an instruct-to-decrypt signal;

a digital detector operatively connected to said decryptor for receiving information of a separately defined television program transmission, detecting the location or presence of an instruct-to-decrypt signal in said transmission, and outputting digital information of said signal to said decryptor; and

a controller operatively connected to said detector for controlling the technique by which said detector locates, detects and outputs signals, said controller being programmed with information as to either signal composition or signal timing.

21. A television subscriber station comprising:

a tuner for receiving and tuning to a selected one of a plurality of television program transmissions;

a first processor operatively connected to said tuner for locating a selected portion of a selected analog television transmission, detecting digital information in said portion, determining the presence of a first instruct-to-decrypt signal;

a second processor operatively connected to said tuner for locating a selected portion of a selected separately defined television program transmission, detecting digital information in said separate portion, determining the presence of a second instruct-to-decrypt signal;

a third processor operatively connected to said tuner, said first processor, and said second processor for controlling the manner by which a selected one of said first and second processors locates, detects or passes signals, said third processor being programmed with

information as to either the composition or timing of a signal and with information of the standard broadcast or cablecast practices in effect on a selected transmission or frequency; and

a decryptor operatively connected to said first processor and said second processor for receiving, decrypting, and outputting information of said selected television program transmission in response to receiving information of said instruct-to-decrypt signals from said first and second processors.

22. A television subscriber station comprising:

a receiver for receiving a plurality of television program transmissions;

a tuner for tuning said receiver to a selected one of the plurality of television program transmissions and of informing a processor of the selected transmission to which said receiver is tuned;

a decryptor operatively connected to said receiver for receiving, decrypting, and outputting some of said selected television program transmission; and

a processor operatively connected to said tuner and said decryptor, for receiving information transmitted in a selected program transmission, locating or identifying information of an instruct-to-decrypt signal associated with said selected transmission, and identifying and transferring to said decryptor a signal needed for decryption, said processor being programmed with or preinformed of the technique for identifying information of said signal needed for decryption.

23. A television subscriber station comprising:

a receiver for receiving an encrypted television programming transmission;

a decryptor operatively connected to said detector for decrypting the video portion of said encrypted television programming transmission in response to an instruct-to-decrypt signal;

a controller operatively connected to said detector for controlling the manner by which said station locates said signal; and

a memory device operatively connected to said controller for holding information of said instruct-to-decrypt signal.

27. A subscriber station comprising:

a plurality of detectors, each operatively connected to a specific one of a programming receiver device, a display device, a storage device, a processing device or a transmission device for detecting information that identifies specific programming to be received, displayed, stored, processed or transmitted by said specific devices;

means for transferring said information from one of said detectors to a processor; and

a processor connected to said means for transferring for receiving said information and assembling or storing records that contain statistics on programming availability, use or usage at said station.

28. A television subscriber or computer user station comprising:

a plurality of decoders, each operatively connected to a specific programming receiver, display, storage, processing, transmission, or output device for locating or identifying identifier information that identifies specific programming received, displayed, stored,

processed, transmitted, or outputted by said specific device;

means for transferring said information from one of said decoder to a processor; and

a controller operatively connected to some of said plurality of decoders for instructing a selected one of said decoders how to locate said identifier information.

30. A mass medium subscriber station comprising:

a mass medium receiver for receiving a selected broadcast or cablecast transmission;

a detector operatively connected to said mass medium receiver for detecting information in said selected broadcast or cablecast transmission, said information including subscriber station environment control signals;

a processor for receiving information detected by said detector identifying said environment controller signals, and outputting said signals to a specific control.

a plurality of controlled apparatus; and

a plurality of controllers each operatively connected to said processor and one of said controlled apparatus, each of said controllers receiving selected ones of said control signals from said processor and controlling one of said controlled apparatus on the basis of said received control signals.

32. A data receiver system comprising:

a first receiver for receiving identification signals that identify specific information content in a plurality of concurrent broadcast or cablecast data transmissions;

a storage device for storing hold-and-compare signals;

a means operatively connected to said first receiver and said storage for receiving said

identification signals and said hold-and-compare signals, comparing said identification signals to said hold-and-compare signals, and conveying the information identified by said comparison to a controller;

a second receiver operatively connected to a data processor or a data output for receiving selected data transmissions and directing said data transmissions to said data processor or output;

a tuner operatively connected to said second receiver for causing said second receiver to receive said selected data transmissions; and

a controller operatively connected to said means for comparing and said tuner for selecting a specific data transmission on the basis of information conveyed by said means for comparing and instructing said tuner to cause said second receiver to receive said selected data transmissions.

33. A data receiver system comprising:

a first receiver for receiving identification signals that identify specific information content of a specific one or ones of a plurality of concurrent broadcast or cablecast data transmissions;

a second receiver operatively connected to a data processor or a data output for receiving a selected one of said plurality of data transmission and directing said one of said data processor or output;

a tuner operatively connected to said second receiver for causing said second receiver to receive said selected data transmission; and

a processor operatively connected to said first receiver and said tuner for storing hold-

and-compare signals, receiving said identification signals, comparing said identification signals to hold-and-compare signals, and instructing said tuner to cause said second receiver to receive said selected data transmission.

34. A television receiver system comprising:

a first receiver for receiving identification signals that identifying specific information content of a specific one of a plurality of concurrent broadcast or cablecast television program transmissions;

a second receiver operatively connected to a television data processor for receiving a selected one of said plurality of television program transmission and directing said one to said data processor;

a tuner operatively connected to said second receiver for causing said second receiver to receive said selected television program transmission; and

a processor operatively connected to said first receiver and said tuner for storing hold-and-compare signals, locating or identifying said identification signals, comparing said identification signals to hold-and-compare signals, and instructing said tuner to cause said second receiver to receive said selected transmission.

35. (amended) A television subscriber station comprising:

a converter for receiving a multichannel television transmission;

a tuner operatively connected to said converter for selecting a specific television channel;

a television receiver or display device for displaying programming of a channel specified by said tuner; and

a controller operatively connected to said tuner for storing information of a selected television program unit including a unique code for identifying said selected television program and causing said tuner to select a television transmission containing programming of said selected television unit at a specific time.

38. A method for receiving selected television or radio programming in a system that includes a receiver for receiving a television or radio transmission or frequency, a means for transferring television or radio programming from said receiver to a television or radio programming output or storage, a processor capable of receiving and processing at least part of a programming transmission, and a controller capable of receiving information from said processor and of controlling said tuner on the basis of at least some of said information, said method comprising the steps of:

inputting to said controller identification information of at least one specified television or radio program unit;

inputting at least part of a programming transmission to said processor;

detecting in said part identification data that identifies a specific television or radio program unit;

inputting information of said identification data to said controller together with information that identifies a specific transmission or frequency; and

enabling said controller to select at least a portion of said specific television or radio program nit and cause said tuner to tune said receiver to receive information of said selected portion.

41. A system for processing a television program transmission in which a plurality of types of signals including identification signals or instruct-to-decrypt signals are transmitted, said types being transmitted in different patterns and at least one of said types being transmitted in varying locations or in a varying pattern of timing in said program transmission, said system comprising:

a processor for identifying and transferring to a computer an instruct-to-generate signal that causes said computer to generate a portion of the video information content of a television program to be displayed at a television display device.

42. A system for processing a television program transmission in which a plurality of types of signal information are transmitted in different patterns, with said types of signal information including at least a unit identification information signal that identifies a unit of information associated with a television program, with said signal types being transmitted in varying locations or in a varying pattern of timing in said program transmission, said system capable of processing television programming separately defined from standard analog television, said system comprising:

a processor for locating or identifying and transferring to a computer an instruct-to-generate-and-transmit signal that causes said computer to generate and transmit to a television display a portion of the video information content of a television program.

44. A television receiver system comprising:

a television receiver for receiving a selected broadcast or cablecast television transmission and transferring television programming in said transmission to a television

display;

an input device for inputting information of the reaction of a viewer to specific television program content;

a digital detector operatively connected to a mass medium receiver for detecting digital information in a mass medium transmission and transferring some of said detected information to a processor; and

a processor operatively connected to said detector and said input device for generating and outputting information of a video overlay that is related to said television programming or said reaction information; and

a television display device operatively connected to said processor for receiving and displaying said video overlay.

45. A system for coordinating a multimedia or multiple media presentation comprising:

a first mass medium receiver for receiving a broadcast or cablecast transmission;

a detector operatively connected to said first mass medium receiver for detecting information in a selected broadcast or cablecast transmission, said information including actuation or tuning control instructions;

a transmission operatively connected to said detector for transmitting control instruction to said tuner;

a second mass medium receiver for a transmission; and

a tuner operatively connected to a second mass medium receiver or to apparatus operatively connected to said second receiver for tuning said receiver or said apparatus.

46. A mass medium receiver system comprising:

a mass medium receiver for receiving a selected broadcast or cablecast mass medium transmission and transferring programming in said transmission to a mass medium programming output device;

an input device for inputting information of the reaction of a viewer to specific mass medium program content;

a digital detector operatively connected to said mass medium receiver for detecting digital information in a mass medium transmission and transferring said detected information to a decryptor;

a decryptor for decrypting detected digital information; and

a controller for controlling said decryptor regarding its manner of decryption, said controller controlling said decryptor in response to information inputted by said input device.

47. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a mass medium receiver connected to said television display;

a tuner operatively connected to said mass medium receiver for causing said receiver to receive a selected transmission of programming that supplements said specific television programming; and

a controller operatively connected to said input device and said tuner for controlling said tuner in response to information inputted by said input device.

48. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a specific portion of a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a digital detector operatively connected to a mass medium receiver for detecting digital information in a mass medium transmission and combining some of said detected information to a controller;

a plurality of output devices, for outputting programming or information related to but distinct from said television programming; and

a controller operatively connected to said input device, said detector and a selected output device for causing said output device to output specific selected programming or information related to but distinct from said television programming, said controller causing said output device to output said selected programming or information in response to information inputted by said input device and information detected by said digital detector.

49. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer of specific television programming;

a means for receiving programming from a plurality of receiver, storage, computer, processor, and/or decryptor devices and operatively connected to and capable of outputting or directing said programming selectively to a plurality of storage, computer, processor, decryptor, and/or output devices; and

a controller operatively connected to said receiving means for controlling the receiving, outputting, or directing of said receiving means in response to information inputted by said input device.

50. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a mass medium receiver;

a digital detector operatively connected to said mass medium receiver for detecting digital information in a mass medium transmission and combining at least some of said detected information to a controller; and

a controller operatively connected to a tuner, a decryptor, a means for transferring, a computer, a processor or an output device for controlling said tuner, decryptor, means for transferring, computer, processor or output device in response to information inputted by said input device and information detected by said detector.

51. A multimedia or multiple media subscriber station comprising:

a television receiver for receiving a selected television transmission and transferring television programming in said transmission to a television display;

an input device for inputting information of the reaction of a viewer to specific television programming;

a digital detector operatively connected to a means for detecting digital information in a specific transmission and transferring at least some of said detected information to a storage device; and

a storage device connected to said detector for receiving data on programming availability, use or usage from said detector, said storage collecting information that identifies specific programming received, processed, or outputted at said station or information inputted at said input device.

52. A method for promoting and delivering programming or data at a television subscriber station that includes a television receiver for a television program transmission, a television display for displaying program content associated with said transmission, an input device for inputting information of the reaction of a viewer to specific television programming, a digital detector operatively connected to a mass medium receiver for detecting digital information in a mass medium transmission and combining at least some of said detected information to a controller, the controller operatively connected to one of a plurality of devices including a tuner, a decryptor, a transfer, a computer, a processor, a storage device or output device for controlling said

devices in response to information inputted by said input device and information detected by said detector, said method comprising the steps of:

transmitting in a television transmission program content that promotes the acquisition or purchase of specific programming or data by a viewer;

receiving said transmission and displaying said program content at said television display;

inputting reaction information of an order by a viewer for said specific programming or data;

transmitting in a mass medium transmission a control instruction that instructs said controller to communicate a specific instruction or instructions to at least one controlled apparatus if reaction information of an order exists at said station;

detecting the presence of said control instruction at said station and transferring said instruction to said controller; and

causing said controller, in response to said instruction and said reaction information of an order, to communicate a specific instruction or instructions to one of said tuner, decryptor, transfer, computer, processor, storage or output, thereby to enable said station to delivery said specific programming or data.

55. A mass medium transmission receiver station comprising:

an input device for inputting information of the reaction of a viewer to specific mass medium program content;

a first controller operatively connected to said input device for controlling a decryptor regarding its timing or manner of decrypting, said controller controlling said decryptor in

response to information inputted by said input device;

a memory device operatively connected to said first controller for holding operating instructions that control said first controller; and

a second controller operatively connected to said memory device for controlling the receiving, detecting, or locating of control instructions and the inputting of said control instructions into said memory.

56. A computer station comprising:

a storage device for storing encrypted data;

a computer operatively connected to said storage device for controlling said storage device, locating a selected portion of said data, and transferring said selected portion to a decryptor or a processor;

a decryptor operatively connected to said storage device or said computer for decrypting encrypted data; and

a process for locating or identifying selected information associated with said selected portion and causing said decryptor to decrypt said selected portion on the basis of said selected information.

Evidence Appendix

July 30, 2005, Declaration of Dr. Alan C. Bovik

May 11, 2006, Supplemental Declaration of Dr. Alan C. Bovik