

BAR CODE LABEL



U.S. PATENT APPLICATION

SERIAL NUMBER 08/449,263	FILING DATE 05/24/95 RULE 60	CLASS 395	GROUP ART UNIT 2309
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APPLICANT

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CONTINUING DATA***
VERIFIED THIS APPLN IS A CON OF 08/113,329 08/30/93

FOREIGN/PCT APPLICATIONS***
VERIFIED

FOREIGN FILING LICENSE GRANTED 06/26/95 ***** SMALL ENTITY *****

STATE OR COUNTRY NY	SHEETS DRAWING 22	TOTAL CLAIMS 1	INDEPENDENT CLAIMS 1	FILING FEE RECEIVED \$365.00	ATTORNEY DOCKET NO. 5634.172
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ADDRESS

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TITLE

SIGNAL PROCESSING APPARTUS AND METHODS

This is to certify that annexed hereto is a true copy from the records of the United States Patent and Trademark Office of the application which is identified above.

By authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

Date _____ Certifying Officer _____



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

John C. Harvey and James W. Cuddihy

Examiner:

Serial No. 08/449,263

Group Unit: 2309

Filed May 24, 1995

Atty Dkt: 5634.172

For SIGNAL PROCESSING APPARATUS AND METHODS

PATENTS

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SUPPLEMENTAL PRELIMINARY AMENDMENT

Assistant Commissioner of Patents
Washington, D.C. 20231

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GROUP 2200

Sir:

Prior to initiating the Examination of the above-described continuation application, Applicants herewith submit the following Preliminary Amendment and Remarks.

IN THE CLAIMS

Please amend claim 2 and add the following claims:

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- 1 2. (Amended) A method for authorizing the decryption of a unit of
- 2 programming at a subscriber station, said subscriber station having a receiver, a
- 3 detector, a decryptor, and a [timing buffer,] processor, said method comprising the
- 4 steps of:
- 5 receiving a unit of programming, said unit of programming having a control
- 6 signal portion and an information portion;

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140 AA 12/01/95 08449263	1	203	319.00	CK
140 AA 12/01/95 08449263	1	204	125.00	CK

1 detecting said control signal portion of said unit of programming;
2 passing said control signal portion of said unit of programming to said
3 decryptor;
4 passing said information portion of said unit of programming from said step of
5 receiving to said decryptor;
6 decrypting said information portion of said unit of programming in response to
7 said control signal from said step of detecting said control signal to change the
8 technique used to identify or process said control signal portion of said unit of
9 programming in said step of detecting.

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10 3. A method for authorizing the decryption of a unit of programming at a
11 subscriber station, said subscriber station having a receiver, a detector, a decryptor, and
12 a processor, said method comprising the steps of:
13 receiving a unit of programming, said unit of programming having a control
14 signal portion and an information portion;
15 detecting said control signal portion of said unit of programming;
16 passing said control signal portion of said unit of programming to said
17 decryptor;
18 decrypting said control signal portion of said unit of programming to select or
19 decrypt said information portion of said unit of programming;
20 passing said information portion of said unit of programming from said step of
21 receiving to said decryptor;
22 decrypting said information portion of said unit of programming; and

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1 with said step of passing said information portion to said decryptor or said step
2 of decrypting said information portion in response to step of decrypting said control
3 signal.

4 4. A method of controlling a remote transmitter station to communicate
5 program material to a subscriber station and controlling said subscriber station to
6 process or output a unit of programming, said method of communicating comprising
7 the steps of:

8 receiving a control signal which operates at the remote transmitter station to
9 control the communication of a unit of programming and one or more instruct signals
10 and communicating said control signal to said remote transmitter station;

11 receiving a code or datum identifying a unit of programming to be transmitted
12 by the remote transmitter station, and said transmitter station transferring said unit of
13 programming to a transmitter;

14 receiving at said remote transmitter station one or more instruct signals which
15 operate at the subscriber station to identify or decrypt said unit of programming or said
16 instruct signal, said transmitter station transferring said one or more instruct signals to
17 said transmitter; and

18 transmitting from said remote transmitter station an information transmission
19 comprising said unit of programming and said one or more instruct signals, said one or
20 more instruct signals being transmitted in accordance with said control signal.

21 5. The method as in claims 2, 3, or 4, wherein said unit of programming
22 further comprises a portion of a television program.

1 6. The method as in claims 2, 3, or 4, wherein said unit of programming
2 supplements a television program.

3 7. The method as in claims 2, 3, or 4, wherein said unit of programming
4 further comprises a portion of a multimedia presentation.

5 8. The method as in claims 2, 3, or 4, wherein said unit of programming
6 further comprises some downloadable executable code.

7 9. The method as in claims 2, 3, or 4, wherein said unit of programming
8 further comprises some audio programming.

9 10. The method as in claims 2, 3, or 4, wherein said unit of programming
10 further comprises some computer data.

11 11. A method of controlling one or more of a plurality of receiver stations
12 each of which includes a television receiver, a control signal detector, a processor, and
13 with each said receiver station adapted to detect the presence of one or more control
14 signals and programmed to process downloadable executable code, said method of
15 communicating comprising the steps of:

16 (1) receiving some downloadable executable code which is effective at the one
17 or more receiver stations to change a technique of decrypting or enabling and
18 delivering the downloadable executable code to a transmitter;

19 (2) receiving one or more control signals which at the one or more receiver
20 stations operate to execute the downloadable executable code at said processor; and

1 (3) causing said one or more control signals to be communicated to the
2 transmitter at a specific time,
3 thereby to transmit an information transmission comprising the downloadable
4 executable code and one or more control signals.

5 12. The method of claim 11, wherein a television program is displayed at a
6 receiver station and said downloadable executable code programs said receiver station
7 processor or computer to output video, audio, or text in the context of said television
8 program or to process a viewer reaction to said television program or to select
9 information that supplements said television program content.

10 13. A method of controlling a remote intermediate data transmitter station to
11 communicate data to one or more receiver stations, with said remote transmitter station
12 including a broadcast or cablecast transmitter for transmitting one or more signals
13 which are effective at a receiver station to instruct a computer or processor, a plurality
14 of selective transmission devices each operatively connected to said broadcast or
15 cablecast transmitter for communicating a unit of data, a data receiver, a control signal
16 detector, and a controller or computer capable of controlling one or more of said
17 selective transmission devices, and with said remote transmitter station adapted to
18 detect the presence of one or more control signals, to control the communication of
19 specific instruct signals in response to detected specific control signals, and to deliver at
20 its broadcast or cablecast transmitter one or more instruct signals, said method of
21 communicating comprising the steps of:

22 (1) receiving an instruct signal to be transmitted by the remote intermediate
23 data transmitter station and delivering said instruct signal to a transmitter, said instruct

1 signal being effective at the receiver station to change a technique of decrypting or
2 enabling and having an associated code or datum designating signal content or output
3 information content to be generated;

4 (2) receiving one or more control signals which at the remote intermediate
5 data transmitter station operate to control the communication of said instruct signal;
6 and

7 (3) transferring said one or more control signals to said transmitter before a
8 specific time,

9 said transmitter transmitting said instruct signal, said associated code or datum, and
10 said one or more control signals.

11 14. The method of claim 13, wherein said one or more control signals
12 comprise a second code or datum which operates at the remote intermediate data
13 transmitter station to select said instruct signal or some program content associated
14 with said instruct signal, said method further comprising the step of:

15 transmitting a second instruct signal which operates at the remote intermediate
16 data transmitter station at said specific time to communicate said instruct signal to a
17 transmitter.

18 15. A method of controlling a remote transmitter station to deliver a receiver
19 specific mass medium program presentation at a receiver station, said method of
20 communicating comprising the steps of:

21 (1) receiving a mass medium program at the remote transmitter station and
22 delivering said mass medium program to a transmitter;

1 (2) receiving at said remote transmitter station one or more instruct signals
2 which operate to change a technique of decrypting or enabling;

3 (3) receiving a control signal which operates at the remote transmitter station
4 to control the communication of one or more instruct signals and communicating said
5 control signal to said remote transmitter station;

6 (4) receiving a code or datum designating a specific instruct signal to be
7 transmitted by the remote transmitter station, and said transmitter station transferring
8 said designated specific instruct signal to a transmitter; and

9 (5) transmitting from said remote transmitter station an information
10 transmission comprising said mass medium program and one or more designated
11 instruct signals, said one or more instruct signals being transmitted at one or more
12 specific times or on one or more specific channels.

13 16. The method of claim 15, wherein said designated instruct signal comprises
14 an identification datum of said mass medium program or some downloadable
15 executable code.

16 17. A method of processing signals at a receiver station to deliver an output to
17 supplement mass medium programming, said receiver station having a processor, a
18 storage device, and one or more output devices, with at least one of said one or more
19 output devices adapted to output mass medium programming, said method comprising
20 the steps of:

21 (1) receiving mass medium programming at said receiver station from a mass
22 medium programming source and outputting the mass medium programming at an
23 output device, said output device adapted to output mass medium programming;

1 (2) receiving a broadcast or cablecast information transmission at said
2 receiver station, said information transmission including one or more signals to
3 supplement said mass medium programming;

4 (3) detecting a instruct signal in said information transmission and passing
5 said detected instruct signal to a processor; and

6 (4) controlling said processor based on said detected instruct signal, said step
7 of controlling comprising the steps of:

8 (a) changing a technique of decrypting or enabling; and

9 (b) directing said one or more signals to supplemental ~~said~~ mass
10 medium program to a processor or an output device.

11 18. The method of claim 17, wherein one of said one or more supplemental
12 signals is video, audio, text, or electronic data, said method further comprising one
13 selected from the group consisting of:

14 (1) actuating a video, audio, or print output device, as appropriate, to output
15 said one supplemental signal;

16 (2) decrypting at least a portion of said one supplemental signal; and

17 (3) controlling a selective transmission device to communicate said one
18 supplemental signal to said last named processor or output device.

19 19. A method of communicating television program material to one or more
20 receiver stations each of which includes a broadcast or cablecast television receiver, a
21 television monitor, a control signal detector, a processor operatively connected to said
22 television monitor, said processor programmed to detect and respond to one or more

1 instruct signals in a broadcast or cablecast transmission, said method of communicating
2 comprising the steps of:

3 (1) receiving a television program at a transmitter station and delivering said
4 television program to a transmitter;

5 (2) receiving and storing one or more instruct signals at said transmitter
6 station, said one or more instruct signals at the receiver station operate to change a
7 technique of decrypting or enabling;

8 (3) transferring said one or more instruct signals from said transmitter station
9 to a transmitter; and

10 (4) transmitting said television program and said one or more instruct signals
11 from said transmitter station to said one or more receiver stations.

12 20. The method of claim 19, wherein a switch communicates signals
13 selectively from a receiver and a memory or recorder to a transmitter, said method
14 further comprising one of the steps of:

15 detecting a signal which is effective at the transmitter station to instruct
16 communication;

17 determining a specific program input source from which to communicate a
18 signal to a transmitter;

19 controlling said switch to communicate a signal to said transmitter in response to
20 a signal which is effective at the transmitter station to instruct communication;

21 controlling said switch to communicate a signal from a selected program input
22 receiver; and

23 controlling said switch to communicate a program to said memory or recorder.

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21. A method of processing signals at a receiver station comprising the steps

of:

- (a) receiving one or more information transmissions;
- (b) detecting a plurality of signals on said one or more information transmissions;
- (c) changing a decryption or enabling technique in response to at least one of said plurality of signals;
- (d) decrypting or enabling communication of at least one of said plurality of signals on the basis of a changed decryption or enabling technique;
- (e) passing said decrypted or enabled at least one signal to a controllable device;
- (f) controlling said controllable device on the basis of said passed decrypted or enabled at least one signal; and
- (g) storing information evidencing the passing of said passed decrypted or enabled at least one signal.

22. A method for an interactive television demonstration for use with an interactive television viewing apparatus comprising the steps of:

- displaying a television program that demonstrates a technique for preparing a product, performing a service, or generating an output, said interactive television viewing apparatus having an input device to receive input from a viewer;
- prompting said viewer during said television program whether said viewer wants a performance of said technique demonstrated in said step of displaying, said

1 interactive television viewing apparatus having an output device for outputting said
2 product, service, or performance;
3 receiving a reply from said viewer at said input device in response to said step of
4 prompting said viewer, said interactive television viewing apparatus having a
5 processor for processing said viewer reply and generating or controlling output of said
6 product, service, or performance in response to instructions;
7 delivering instructions at said interactive television viewing apparatus in
8 response to said step of receiving a reply, said instructions controlling said interactive
9 television viewing apparatus;
10 processing said instructions from said step of delivering, said specific instruction
11 is effective to change a technique of decrypting or enabling; and
12 performing said technique at said interactive television viewing apparatus, said
13 processor generating or controlling output of said product, service, or performance on
14 the basis of said instructions.

15 23. The method of claim 22, wherein one or more of said instructions is
16 embedded in the non-visible portion of a television signal.

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CH 24. The method of claim 22, wherein one or more of said instructions is
18 delivered in a multichannel signal transmitted over a cable broadband network, said
19 method further comprising the step of demodulating a carrier to receive one or more of
20 said instructions.

21 25. The method of claim 22, wherein one or more of said instructions is
22 delivered in a multichannel signal transmitted over a satellite television transmitter

1 station, said method further comprising the step of demodulating a carrier to receive
2 one or more of said instructions.

3 26. The method of claim 22, further comprising the steps of:
4 storing a subscriber instruction to process or present one or more mass medium
5 programs, data, news items, or computer control instructions in a specific fashion; and
6 processing or presenting one or more specific mass medium programs, data,
7 news items, or computer control instructions in accordance with said instruction.

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8 27. The method of claim 22, wherein information evidencing the availability,
9 use or usage of said television program or said mass medium program is stored or
10 communicated to a remote data collection station, said method further comprising the
11 step of selecting evidence information that identifies or designates one or more of:

- 12 (1) a mass medium program;
- 13 (2) a use of programming;
- 14 (3) a transmission station;
- 15 (4) a receiver station;
- 16 (5) a network;
- 17 (6) a broadcast station;
- 18 (7) a channel on a cable system;
- 19 (8) a time of transmission;
- 20 (9) a unique identifier datum;
- 21 (10) a source or supplier of data;
- 22 (11) a publication, article, publisher, distributor, or an advertisement;
- 23 and

1 (12) an indication of copyright.

2 28. A method for promoting and delivering a product, service, or media
3 output for use with an interactive television viewing apparatus comprising the steps of:

4 displaying a television program that demonstrates a product, a service, or media
5 output, said interactive television viewing apparatus having an input device to receive
6 input from a viewer;

7 prompting said viewer during said television program whether said viewer
8 wants said product, service, or media output demonstrated in said step of displaying,

9 said interactive television viewing apparatus having an output device for outputting
10 said product, service, or media output;

11 receiving a reply from said viewer at said input device in response to said step of

12 prompting said viewer, said interactive television viewing apparatus having a

13 processor for processing said viewer reply and generating or controlling output of said

14 product, service, or performance in response to instructions;

15 delivering instructions at said interactive television viewing apparatus in

16 response to said step of receiving a reply, said instructions controlling said interactive

17 television viewing apparatus delivering said product, service, or media output;

18 processing said instructions from said step of delivering, said instructions

19 effective to execute a technique of decrypting or enabling; and

20 performing said executed technique at said interactive television viewing

21 apparatus, said processor delivering said product, service, or media output on the basis

22 of said instructions.

1 29. The method of claim 28, wherein said interactive television viewing
2 apparatus has a plurality of output devices and said product, service, or media output
3 is delivered at a specific one or more of said plurality of output devices, said method
4 further comprising the steps of:

5 controlling a selective transmission device to communicate some data or
6 instructions in respect of said product, service, or media output to said specific one or
7 more of said plurality of output devices; and

8 actuating an output device that outputs video, audio, or a physical product to
9 output some portion of said product, service, or media output on the basis of said
10 communicated some data or instructions in respect of said product, service, or media
11 output.

12 30. The method of claim 28, wherein one or more of said instructions is
13 embedded in the non-visible portion of a television signal.

14 31. The method of claim 28, wherein one or more of said instructions is
15 delivered in a multichannel signal transmitted by a remote cable television or satellite
16 television transmitter station, said method further comprising the step of tuning a
17 converter to receive one or more of said instructions.

18 32. The method of claim 28, having one selected from the group consisting of:
19 programming said interactive television viewing apparatus to query a remote
20 data source at a particular time or in a particular fashion;

1 delivering at said interactive television viewing apparatus some processed
2 information of a stored datum simultaneously or sequentially with said television
3 program or said product, service, or media output;

4 storing said viewer reply for subsequent processing in response to one or more
5 of said instructions; and

6 assembling and communicating to a remote site data evidencing said viewer
7 reply.

8 33. The method of claim 28, further comprising the steps of:

9 storing a subscriber instruction to receive one or more specific mass medium
10 programs, data, news items, or computer control instructions; and

11 receiving one or more specific mass medium programs, data, news items, or
12 computer control instructions in accordance with said instruction.

13 34. The method of claim 28, further comprising the steps of:

14 storing a subscriber instruction to process or present one or more mass medium
15 programs, data, news items, or computer control instructions in a specific fashion; and

16 processing or presenting one or more specific mass medium programs, data,
17 news items, or computer control instructions in accordance with said instruction.

18 35. The method of claim 28, further comprising the steps of:

19 programming said processor to respond to information communicated from a
20 data or programming source;

21 receiving an information transmission from a local storage device or remote
22 television programming source;

1 inputting at least some of said received information transmission to a control
2 signal detector;
3 detecting data or an instruct signal in said information transmission; and
4 passing said detected data or instruct signal to said processor.

5 36. The method of claim 28, wherein information evidencing the availability,
6 use or usage of said television program or said technique is stored or communicated to
7 a remote data collection station, said method further comprising the step of selecting
8 evidence information that identifies or designates one or more of:

- 9 (1) a mass medium program;
10 (2) a use of programming;
11 (3) a transmission station;
12 (4) a receiver station;
13 (5) a network;
14 (6) a broadcast station;
15 (7) a channel on a cable system;
16 (8) a time of transmission;
17 (9) a unique identifier datum;
18 (10) a source or supplier of data;
19 (11) a publication, article, publisher, distributor, or an advertisement;
20 and
21 (12) an indication of copyright.

22 37. The method of claim 28, further comprising the steps of:

1 receiving one or more data that designate a time or a channel of transmission of
2 said television program or said instructions or that specify the title of or some subject
3 matter contained in said television program or said instructions, and subsequently
4 receiving said television program or said instructions on the basis of said one or
5 more data.

6 38. The method of claim 28, wherein said instructions incorporate executable
7 code said method further comprising the steps of communicating said executable code
8 to said processor and performing, on the basis of said executable code, one selected
9 from the group consisting of:

- 10 (1) receiving a signal containing said television program or said
11 instructions;
12 (2) actuating a video, audio, or print output device, as appropriate, to
13 output said product, service, or media output;
14 (3) decrypting at least a portion of said television program or said
15 instructions;
16 (4) controlling a selective transmission device to communicate at least
17 some of said product, service, or media output to an output device;
18 (5) generating a receiver specific datum to present with received
19 programming; and
20 (6) delivering a receiver specific datum at said interactive television
21 viewing apparatus simultaneously or sequentially with said
22 television program or said product, service, or media output.

1 39. The method of claim 28, wherein said interactive television viewing
2 apparatus includes a storage device, said method further having one selected from the
3 group of:
4 embedding a code or datum in said television program that enables said
5 interactive television viewing apparatus to locate some executable code or control a
6 presentation of said product, service, or media output in accordance with said
7 instructions;
8 communicating a program unit identification code to said storage device and
9 storing said program unit identification code at a storage location associated with said
10 television program;
11 communicating to and storing at said storage device some information to
12 evidence an availability, use, or usage of said television program, said instructions, or
13 some executable code;
14 storing at said storage device an instruct signal which is effective to generate
15 some output to be associated with said product, service, or media output;
16 storing at said storage device an instruct signal which is effective to display a
17 combined or sequential presentation of a mass medium program and a user specific
18 datum;
19 storing at said storage device an instruct signal which is effective to process a
20 user reaction to said television program or said product, service, or media output;
21 storing at said storage device an instruct signal which is effective to
22 communicate to a remote station a query in respect of information to be associated with
23 said television program or to enable display of said product, service, or media output;

1 storing at said storage device an instruct signal which is effective to control a
2 user station to receive information to supplement said television program;
3 storing at said storage device an instruct signal which is effective to process a
4 digital television signal which is separately defined from standard analog television;
5 and
6 storing at said storage device a code or datum to serve as a basis for enabling an
7 output device to display at least some of said product, service, or media output or for
8 enabling said interactive television viewing apparatus to process some executable code.

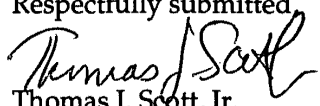
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REMARKS

Applicants respectfully request consideration of the instant Supplemental Preliminary Amendment with respect to the above-described application.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment of fees in connection with this communication to Deposit Account No. 08-3038.

Date: October 30, 1995
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Respectfully submitted,

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UNITED STATES DEPARTMENT OF COMMERCE
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 Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/449,263	05/24/95	HARVEY	J 5634.172
			EXAMINER
THOMAS J SCOTT JR HOWREY AND SIMON 1299 PENNSYLVANIA AVENUE NW WASHINGTON DC 20004			26M1/0320
			URBAN F ART UNIT PAPER NUMBER
			2611 9
			DATE MAILED: 03/20/97

This is a communication from the examiner in charge of your application.
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OFFICE ACTION SUMMARY

Responsive to communication(s) filed on 5/24/95

This action is FINAL.

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

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- Claim(s) 2-39 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 2-39 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - All Some* None of the CERTIFIED copies of the priority documents have been
 - received.
 - received in Application No. (Series Code/Serial Number) _____
 - received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- Notice of Reference Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s) _____
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

BEST AVAILABLE COPY

Serial Number: 08/449,263
Art Unit: 2619

-2-

Part III DETAILED ACTION

1. This action is in response to the amendment(s) filed 5/24/95 and 11/3/95.

2. This action will not attempt to determine the effective filing date of this application. The action will apply art against the claims using two possible effective filing dates, i.e. serial number 06/317,510, filed November 3, 1981, and serial number 07/096,096, filed September 11, 1987. Applicants can overcome the art rejections by establishing that the art applied does not meet the claimed limitations or that the art does not have an early enough filing date.

The action will make initial double patenting rejections presuming that all of the present claims were fully disclosed in both the '81 and '87 cases.

In any rejections made under 35 U.S.C. 112, first paragraph, applicants will be asked to clarify, where required by the examiner, how the present claims are fully disclosed in both the '81 and '87 cases.

3. Applicants are reminded of their duty to maintain a line of patentable demarcation between related applications. It has been noted by the PTO that many of the pending applications have similar claimed subject matter. In the related 327 applications (the serial numbers are included in a list below), it is estimated that there may be between 10,000 and 20,000 claims. Applicants should insure that substantially duplicate claims do not appear in different cases, and should bring to the PTO's attention instances where similar claims have been treated inconsistently, i.e. rejected in one case but not in another.

4. Applicants are cautioned that their continual use of alternatives in the claims raises questions concerning the exact claim meaning. More importantly, it raises questions whether the disclosure supports every possible embodiment or permutation that can be created by the alternative language.

5. The double patenting rejections in this action are based on the premise that all of the present claims were fully disclosed in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414.

Since there was a restriction made in 5,233,654, there will be no double patenting made on that patent or 5,335,277.

6. The PTO's copies of the parent files are in poor form since they have been copied many times by members of the public. The files also are missing some of the papers. The double patenting rejections below presumes that there were no requirements for restriction made in any of the parent files.

7. There are three types of double patenting rejections:

- a) Statutory double patenting rejection under 35 U.S.C. 101,
- b) Nonstatutory obvious type double patenting,
- c) Nonstatutory non-obviousness type double patenting.

In this action, the rejections of the third type that are directed to the claims of the parent patented files will have two different versions. The first rejects the claims because they have not been established to be independent and distinct from the patented claims. The second version includes that premise, and further supports the rejection by establishing that

representative claims from this application have common subject matter with representative ones of the patented claims.

8. Claims 2-39 (all of the claims in this application) are rejected under the judicially created doctrine of non-obviousness non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414 since the claims, if allowed, would improperly extend the "right to exclude" already granted in those patents.

The subject matter claimed in the instant application is fully disclosed in the patents and is covered by the patents since the patents and the application are claiming common subject matter, as follows: a signal processing apparatus and method including an interactive communications system apparatus and method. Furthermore, there is no apparent reason why applicants were prevented from presenting claims corresponding to those of the instant application during prosecution of the parent applications which matured into patents. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

A review of the claims in each of the four parent patents (5,109,414; 4,964,825; 4,704,725; 4,694,490) was made. These

patented claims do not appear "independent and distinct" from the claims in this application. The present claims are directed to a method and apparatus for controlling communications including television communications or programming. The claims in patent 5,109,414 were directed to a processing system and method for signal distribution including television. The claims in patent 4,965,825 were directed to a system and process for signal processing including carrier communications. The claims in patent 4,704,725 were directed to a method of communicating data to receiver stations. The claims in patent 4,694,490 were directed to a method for communicating and processing television programs.

Applicants' invention can be envisioned at in three parts. As with most cable TV systems, there is a head end station which generates the video programming. Applicants have included an intermediate station which receives transmissions, from the head end or subscriber stations, and distributes the programming to each subscriber. The subscriber station receives the programming, and can communicate to the intermediate station with requests or instructions. Even if the claims directed to each station were "independent and distinct" from the claims directed

to the other stations, there would be no reason to "restrict" between the three stations since their overall function is so interrelated that the stations have the same search area, i.e the PTO could not establish a burden if required to search for all three stations.

It is believed that CCPA in *Schneller* used the "independent and distinct" standard as the main factor in its determination that the double patenting rejection should be affirmed. The CCPA stated that the fundamental reason supporting the principle of non-statutory double patenting rejections is to prevent unjustified timewise extension of the right to exclude granted by a patent no matter how the extension is brought about. Further the CCPA stated at 158 USPQ 210 (214):

"... To conform to this reason and to prevail here, appellant has the burden of establishing that the invention in his patent is "independent and distinct" from the invention of the appealed claims. The public policy considerations underlying 35 U.S.C. 121 permit separate patents on "independent and distinct" inventions which are initially "claimed in one application." The statute places initial responsibility for this determination on the Commissioner of Patents. Where, as here, no such determination has been made, it is necessary to scrutinize carefully an applicant's voluntary alleged determination of this issue for it can lead to the improper proliferation of patents on the same invention with the inherent result of extending timewise a patentee's right to exclude others from

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the invention disclosed in the original application and on which his patent has issued."

The CCPA further stated at page 215 the length of time between an earlier patent and a later filed application should be considered. The filing date of this application was over seven years after the first patent issued (serial number 06/317,510, filed November 3, 1981, patented as 4,694,490 on September 15, 1987) and over four years after the first CIP issued as a patent (serial number 07/096,096, filed September 11, 1987, patented as 4,965,825 on October 23, 1990).

To the extent that one would view *Schneller* and *In re Kaplan*, 789 F.2d 1574, 229 USPQ 678 (Fed. Cir. 1986) to be in conflict, it is clear that *Schneller* is the controlling precedent to the factual situation here. In *Schneller*, the Court specifically distinguished a situation of the same applicant from one where the application and patent had different inventive entities. In *Kaplan*, the inventive entities between the patent and application were different, as was required at the time of the Kaplan invention, since Kaplan's filing date was before the Patent Law Amendments Act of 1984. In this present case, as with *Schneller*, the inventive entities of the application and patent

are the same. Clearly, Kaplan was required, or entitled, to file separate applications, whereas applicants and Schneller did not have reason to do so. Finally, decisions of a three-judge panel of the Federal Circuit cannot overturn prior precedential decisions of the CCPA. See *UMC Elec. Co. v. United States* 2 USPQ2d 1465.

9. Claims 2-39 (all of the claims in this application) are rejected under the judicially created doctrine of non-obviousness non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414 since the claims, if allowed, would improperly extend the "right to exclude" already granted in those patents.

This rejection incorporates the rejection above. That double patenting rejection is further supported by *Schneller* because the great majority of the patented claims are "comprising" type claims.¹ While it is recognized that the specific claim limitations in the application may not have been

¹The claims that recite neither "comprising" nor "consisting" are considered to recite open claim language, i.e. equivalent to "comprising". See, for example, claim 1 of Patent 5,109,414.

claimed in the patents, this alone does not establish grounds for overcoming this rejection. The patent claims were directed to parts of applicants' total disclosed system or process. Therefore the recitation of "comprising" enables those patented claims to "cover" claim features now recited by applicants' present application claims.

Since the head end, intermediate, and subscriber stations are part of the overall system, claims to one part "cover" the other part(s) under the *Schneller* decision (page 215), since the preferred embodiment would include all three parts of the main system, i.e. head, intermediate, and subscriber stations. For example, claims to the subscriber station still cover the intermediate station because the subscriber station would be processing information that had to come from the intermediate station. A second example would be that claims to one aspect or function of the intermediate station would cover the invention of another aspect or function of the intermediate station since both functions could be performed with the other. Applicants' disclosed system includes similar features in the head, intermediate, and subscriber stations. For example, the stations can transmit and receive, and have computer, processor and

controller capabilities. For that reason, the disclosure will permit broadly drafted claims to read on either the head, intermediate, or subscriber station. Patent claims that recite receiving and transmitting can cover both intermediate and subscriber stations. The fact that patent claims and application claims are directed to different elements does not prohibit this rejection if there is common or interrelated subject matter recited. The Court in *Schneller* stated at page 215:

"... They "cover" the preferred form ABCXY, common to the patent and this application, in the same sense. The fact that X and Y are distinct elements, performing, independent functions, so that either can be employed without the other, does not change this fact. Neither does appellant's omission of reference to the lip Y from his patent claims."

Application claim 19 is a representative claim. It is directed to a method of communicating television program material to one or more receiver stations each of which includes a broadcast television receiver, a television monitor, a control signal detector and a processor, said the method includes the steps of:

receiving a television program and one or more instruct signals,

transferring the television program and one or more instruct signals to a transmitter, and

transmitting the television and one or more instruct signals, wherein the one or more instruct signals cause a receiver station to change a technique of decrypting or enabling.

A review of representative ones of the patented claims will demonstrate that the patented claims cover the invention claimed in this application:

a) In patent 4,694,490, claim 7 is representative of the claimed method for communicating TV program information to a receiver station. The receiver station receives the video data, displays it, detects the presence of overlay information using an instruct signal, and has computers generate and transmit this overlay info to the display.

b) In patent 4,704,725, claim 3 is representative, and, as summarized below, recites a method of communicating data comprising:

- a) multiple receivers, each with a computer,
- b) transmitting instruct to transmit signals to the computers,
- c) detecting the signals and coupling them to the selected computers,
- d) having the computers control their own selected output device.

c) In patent 4,965,825, claim 24 is representative, and, as summarized below, recites generating a computer output having the steps of:

- a) having multiple receivers, each with a computer,
- b) transmitting an instruct to generate signal to the computers,
- c) causing the computers to generate individual user output information.

d) In patent 5,109,414, claim 15 is representative, and, as summarized below, recites a signal processing system (including):

- a) receiver/distribution means,
- b) switch means,
- c) control signal detector means for transferring data to storage means,
- d) storage means for storing and transferring data to processor means,
- e) processor means for controlling.

While claim 15 is an apparatus claim, a method claim and apparatus claim do not in themselves establish groups that are "independent and distinct".

The patented claims are also primarily directed to methods or structure to control element(s) either directly at that station or at another remote station. This control is generally completed with the reception or recognition of an instruct signal. The same common concept exists in application claim 19.

All of the claims, both patented and pending in this application, when considered together, effectively recite parts of the preferred embodiment, i.e. a head, intermediate, and subscriber station. The patented claims "cover" the claims of the application because the patented limitations do not exclude the limitations of this application.

In the arguments above, the examiner, when discussing several of the patents, stated that the patented claims were broad enough to read on multiple stations. While it is believed this analysis is correct, it is not critical to this rejection. Since the patented claims recite limitations that are interrelated with other similar features claimed in this application, it is the examiner's position that those patented claims "cover" the application claims because all of these claimed features (both in the patent and application) describe what is effectively the preferred embodiment.

The claims in this application, if allowed without a terminal disclaimer, would continue patent protection of the preferred embodiment, i.e. the complete system of the head, intermediate, and subscriber stations, beyond the expiration of applicants' parent patents.

10. It is acknowledged that a multiplicity rejection was mailed on July 27, 1989 in parent file 07/096,096. In this rejection, the examiner had limited the applicants to 25 claims.

Schneller did not equate a multiplicity rejection with a restriction requirement as a permissible exception to being subject to the non-obvious non--statutory double patenting rejection. For that reason, this action will not overturn the legal reasoning in *Schneller* which supports the non-statutory non-obviousness double patenting rejection above.

It is believed, however, that applicants arguments on this multiplicity issue can be better supported if a nexus is established between the claims of this application and those that were canceled in 07/096,096 in response to the multiplicity requirement.

Notwithstanding the comment above, at the time the examiner made the multiplicity rejection, there was a body of case law that had overturned similar rejections. Note *In re Flint* 162 USPQ 228 (CCPA 1969) and *In re Wakefield*, 164 USPQ 636 (CCPA 1970).

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11. A determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time. This action is taken in view of the possibility that many of these applications may be abandoned or merged.

12. Claims 2-39 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following related U.S. applications (all of the applications are series 08):

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#	Ser. No.	#	Ser. No.	#	Ser. No.
1	397371	2	397582	3	397636
4	435757	5	435758	6	437044
7	437045	8	437629	9	437635
10	437791	11	437819	12	437864
13	437887	14	437937	15	438011
16	438206	17	438216	18	438659
19	439668	20	439670	21	440657
22	440837	23	441027	24	441033
25	441575	26	441577	27	441701
28	441749	29	441821	30	441880
31	441942	32	441996	33	442165
34	442327	35	442335	36	442369
37	442383	38	442505	39	442507
40	444643	41	444756	42	444757
43	444758	44	444781	45	444786
46	444787	47	444788	48	444887
49	445045	50	445054	51	445290
52	445294	53	445296	54	445328
55	446123	56	446124	57	446429
58	446430	59	446431	60	446432
61	446494	62	446553	63	446579
64	447380	65	447414	66	447415
67	447416	68	447446	69	447447
70	447448	71	447449	72	447496
73	447502	74	447529	75	447611
76	447621	77	447679	78	447711
79	447712	80	447724	81	447726
82	447826	83	447908	84	447938
85	447974	86	447977	87	448099
88	448116	89	448141	90	448143
91	448175	92	448251	93	448309

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#	Ser. No.	#	Ser. No.	#	Ser. No.
94	448326	95	448643	96	448644
97	448662	98	448667	99	448794
100	448810	101	448833	102	448915
103	448916	104	448917	105	448976
106	448977	107	448978	108	448979
109	449097	110	449110	111	449248
112	*****	113	449281	114	449291
115	449302	116	449351	117	449369
118	449411	119	449413	120	449523
121	449530	122	449531	123	449532
124	449652	125	449697	126	449702
127	449717	128	449718	129	449798
130	449800	131	449829	132	449867
133	449901	134	450680	135	451203
136	451377	137	451496	138	451746
139	452395	140	458566	141	458699
142	458760	143	459216	144	459217
145	459218	146	459506	147	459507
148	459521	149	459522	150	459788
151	460043	152	460081	153	460085
154	460120	155	460187	156	460240
157	460256	158	460274	159	460387
160	460394	161	460401	162	460556
163	460557	164	460591	165	460592
166	460634	167	460642	168	460668
169	460677	170	460711	171	460713
172	460743	173	460765	174	460766
175	460770	176	460793	177	460817
178	466887	179	466888	180	466890
181	466894	182	467045	183	467904
184	468044	185	468323	186	468324
187	468641	188	468736	189	468994

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#	Ser. No.	#	Ser. No.	#	Ser. No.
190	469056	191	469059	192	469078
193	469103	194	469106	195	469107
196	469108	197	469109	198	469355
199	469496	200	469517	201	469612
202	469623	203	469624	204	469626
205	470051	206	470052	207	470053
208	470054	209	470236	210	470447
211	470448	212	470476	213	470570
214	470571	215	471024	216	471191
217	471238	218	471239	219	471240
220	472066	221	472399	222	472462
223	472980	224	473213	225	473224
226	473484	227	473927	228	473996
229	473997	230	473998	231	473999
232	474119	233	474139	234	474145
235	474146	236	474147	237	474496
238	474674	239	474963	240	474964
241	475341	242	475342	243	477547
244	477564	245	477570	246	477660
247	477711	248	477712	249	477805
250	477955	251	478044	252	478107
253	478544	254	478633	255	478767
256	478794	257	478858	258	478864
259	478908	260	479042	261	479215
262	479216	263	479217	264	479374
265	479375	266	479414	267	479523
268	479524	269	479667	270	480059
271	480060	272	480383	273	480392
274	480740	275	481074	276	482573
277	482574	278	482857	279	483054
280	483169	281	483174	282	483269
283	483980	284	484275	285	484276

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#	Ser. No.	#	Ser. No.	#	Ser. No.
286	484858	287	484865	288	485282
289	485283	290	485507	291	485775
292	486258	293	486259	294	486265
295	486266	296	486297	297	487155
298	487397	299	487408	300	487410
301	487411	302	487428	303	487506
304	487516	305	487526	306	487536
307	487546	308	487556	309	487565
310	487649	311	487851	312	487895
313	487980	314	487981	315	487982
316	487984	317	488032	318	488058
319	488378	320	488383	321	488436
322	488438	323	488439	324	488619
325	488620	326	498002	327	511491
328	485773				

The subject matter claimed in the instant application is fully disclosed in the referenced copending applications and would be covered by any patent granted on that copending applications since the referenced copending applications and the instant application are claiming common subject matter, as follows: a signal processing apparatus and method including an interactive communications system apparatus and method.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending applications. *In re*

Schneller, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

A review of the claims in the related copending applications was made. These claims do not appear independent and distinct from the claims in this application. It is believed that CCPA in *Schneller* used the "independent and distinct" standard as the main factor in its determination that the double patenting rejection should be affirmed. The relevant arguments in the preceding paragraphs in support of this position are incorporated herein.

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

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

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

14. Claims 2-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

The examiner must be able to determine the meets and bounds of the claims to perform an effective search and analysis over the art. The examiner is not certain that the meets and bounds of these claims can be determined because of the language in the disclosure and claims. For example, the disclosure teaches many transmitter and receiver stations, instruct signals, control signals, decoders, etc. (This is just a partial list of terms in

applicants' disclosure that apply to plural elements in that disclosure.) When these phrases are claimed, the examiner needs to know "which" element in the disclosure is performing the claimed step. For example, when a hypothetical claim recites "transmitter station", and the disclosure teaches different ones (those in the origination, intermediate, and subscriber stations), the examiner needs to be able to envision what applicants could be claiming.

Applicants' assigned multiple meanings to words in a claim makes a claim indefinite.

Traditionally, examiners "diagram" claims to determine the meets and bounds. To explain what "diagraming" means, the examiner attempts to draw a picture (generally a circuit or a connection of block elements in an electrical application) which represents what was claimed so that the examiner can visualize how a mythical reference could anticipate the claim, if the claim was given its broadest reading. If the claim recites terms or phrases that have multiple meanings in the disclosure, the examiner can't determine whether the diagram of the claim is correct. Given this, how can the examiner determine whether or

not the scope of the art searched for is commiserate with the broadest reading of the claim?

Admittedly, the size of applicants' disclosure with its numerous possible implementations is contributing to the problem, but the problem does exist. Applicants are being requested to reference the claim limitations in this application to the disclosure so that the meets and bounds of these claims can be properly considered. This can be done in a remarks section, the claims do not have to be amended.

Claim Rejections - 35 U.S.C. § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

16. Claims 2-7 and 15-18 are rejected under 35 U.S.C. § 102(e) as being anticipated by Guillou (U.S. Patent NO. 4,337,483).

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As to claims 2 and 17-18, Guillou discloses a method for authorizing the decryption of a unit of programming at a subscriber station 4 containing a receiver 14, a detector 145, a decryptor 42,46,26' and a processor 36 in which a control signal portion(or instruct signal as recited in claim 17) M_i, K is detected and passed to the decryptor and an information portion is passed from the detector to the decryptor. Also disclosed is the use of changing the technique used to process, or decrypt, the unit of programming (col. 20, line 40 - col. 21, line 14). As to claim 3, it is considered that control signal portion M_i is "decrypted" through the use of restoring circuit 110. As to claims 4 and 15-16, also disclosed is transmitter 2 in which a control signal is received from generator 26 for controlling the communication of a unit of programming(or to control the communication of instruct signals from generator 22 as recited in claim 15) to a remote transmitter 12 and receiving "instruct signals" from generator 22 which operate at the subscriber station to decrypt the unit of programming. It is considered that a type of code is used to identify a unit of programming generated by sources 5,6. Also disclosed is the unit of programming being a portion of a TV signal or multimedia

presentation as recited in claims 5-7. As to claim 15, it is considered that a particular code is received in order to designate the proper instruct signal, or key, needed for communication (col. 8, lines 5-54).

Claim Rejections - 35 U.S.C. § 103

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

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

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

18. Claims 8-14 and 19-21 are rejected under 35 U.S.C. § 103 as being unpatentable over Guillou (U.S. Patent NO. 4,337,483).

As to claims 8 and 11-13, Guillou discloses everything claimed as explained above except for the transmitted information portion specifically being downloadable executable code, or audio programming or computer data as recited in claims 9-10. However, the transmission of such information was well known at the time the invention was made and therefore would have been obvious to one having ordinary skill in the art to transmit such information using the above system in order to further change the type of decryption used in the system. As to claims 11 and 13-14, it is considered that a "second" instruct signal is transmitted at a "specific time" after the transfer of control signals. As to the use of storing information evidencing the passing of the decrypted signals as recited in claims 19-21, since Guillou discloses a charging station 112 used to charge the subscriber for particular services, then it would have been obvious to one having ordinary skill in the art to store such decrypted signals in order properly monitor the use of such chargeable services.

19. Claims 22-39 are rejected under 35 U.S.C. § 103 as being unpatentable over Campbell et al. (U.S. Patent No. 4,536,791) in view of Furukawa et al. (U.S. Patent No. 4,439,784).

As to claims 22,26,28 and 33-34, Campbell et al. disclose a method for an interactive television viewing apparatus in which a reply is received from a viewer for controlling the output of a product. Instructions produced in response to the reply are inherently stored and control the television viewing apparatus through the use of processor 104 and also is effective, to some extent, to change a technique of decrypting since these instructions are effective to decrypt and present only the product that has been selected. Campbell et al. does not disclose these available products being displayed to a user for reply. However, such a technique is shown by Furukawa et al. in which a display of products, or programs, are presented to a user to prompt the user for selection, or reply. Therefore, it would have been obvious to one having ordinary skill in the art to apply this user selection technique of Furukawa et al. to the system of Campbell et al. for the simple purpose of allowing the user to visually observe the products that are available. Also disclosed is the instructions being embedded in the television

signal transmitted over a cable network as recited in claims 23-24 and 30-31. As to the instructions being delivered by a satellite transmitter as recited in claim 25, such would have been obvious to one having ordinary skill in the art since one would want to use a communication technique that best suits the particular situation. Also disclosed is the communication of information evidencing the usage of a program to a remote data collection station as recited in claims 27 and 36 (col. 17, lines 50-65) and the passing of detected data 115 to processor 104 received from an information transmission from a data source as recited in claim 35. It is considered that the resulting instructions are a type of "executable code" and contain information relating to the time or channel of the transmission as recited in claims 37-39 in order to properly receive and present the television program.

Claim Rejections - 35 U.S.C. § 112

20. Claims 3, 5/3, 6/3, 7/3, 8/3, 9/3 and 10/3 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, last paragraph, it is unclear as to what is being claimed. It appears that a portion of the step is missing. Therefore, these claims are indefinite.

Claim Objections

21. Claims 17 and 21 are objected to because of the following informalities: in claim 17, line 17, "supplemental" should be changed to --supplement-- and in claim 21, line 8, "one" should be changed to --on--. Appropriate correction is required.

22. A series of interviews were held before prosecution began on this application. Unless identified specifically below in this part of the action, these interviews did not address the merits of any single application, but rather issues that are appropriate to all of the related "Harvey" applications.

The first interview was held on August 13, 1995. It was a personal interview. Attending were one of the applicants, Mr. Harvey, and his attorneys, Messrs. Scott and Woolston. Representing the PTO were Messrs. Godici, Yusko, Orsino, and Groody. Mr. Harvey and his attorneys were informed that because of the large number of related applications, the examination

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would be performed by a team of examiners. As of the August 1995 interview there existed a problem with some of the applications being charged large entity fees when applicants believed that small entity status was deserved. The PTO has referred this matter to the Office of Assistant Commissioner of Patents, specifically Hiram Bernstein, a petitions attorney. Mr. Harvey's representatives will attempt to resolve this issue through Mr. Bernstein. At this time all of the related cases had not been received in the Group. No examination was planned until at least late October because the team members were managers, and needed to complete other end of fiscal year assignments and all employee performance ratings. The PTO requested that any amendments to the specification, other than to correct continuing status, be delayed. Mr. Harvey's representatives stated that no other amendments to the specification were actually planned. The PTO's goal will be to attempt to reduce the amount of paper passed between applicant and PTO since the cases are related and very difficult to move from cite to cite because of their size. Copies of the prior art only need to be filed once. The PTO will only send newly cited art once. Preliminary amendments are being prepared. The PTO however cautioned that the prosecution of the

applications will not be delayed until applicants have filed these amendments. The PTO requested a chart establishing any relationships between cases and what parts of applicants' disclosure related blocks of cases were directed to. It was not, at this time, determined whether this chart would become part of the official file. The PTO planned to research this. It was the PTO's intent to examine related cases simultaneously. The PTO welcomed any claim amendments to include resubmissions of all claims, whether amended or not. Mr. Harvey's representatives were informed that the issue of double patenting was expected to be a major issue.

On November 2, 1995, a telephonic interview was held between Mr. Woolston and Mr. Groody. Mr. Woolston indicated that two prior art statements were being completed, one for cases with a 1987 effective date, the other for cases with a 1981 effective date.

On November 30, 1995, a personal interview was held. Representing applicants were Messrs. Scott, Woolston, and Grabarek. Representing the PTO were Messrs. Yusko, Orsino, and Groody. The content of a simultaneously filed prior art statement was discussed. The PTO's copies of the parent files

are missing the non-U.S. patents cited therein. The PTO requested copies of those prior art documents. Applicants gave the PTO a document showing which cases have already been amended. Since this document merely shows the status of any amended application, it has not been made part of the file record since that paper has no bearing on the merits of any issue before the PTO.

A second interview was held on later on November 30, 1995 between Mr. Scott and Mr. Groody. The sole topic discussed was double patenting. The discussion led to no conclusions on whether a double patenting rejection would be made in these applications.

An interview was held on December 6, 1995 between Mr. Scott and Mr. Groody. The discussion was directed to *In re Schneller*, 158 USPQ 210 (CCPA) and whether that decision will necessitate a double patenting rejection in any of these cases. Mr. Scott was asked whether a terminal disclaimer could be filed in all of the 327 related cases to obviate a possible double patenting rejection in each of these cases over each other. Mr. Scott agreed to consider this.

An interview was held on December 13, 1995 between Mr. Scott and Mr. Groody regarding the terminal disclaimer question above. Mr. Scott proposed filing a terminal disclaimer in about 250 of the 327 cases over each other if the PTO would have each of the about 250 issue within 4 or 6 months of each other. Mr. Groody felt that the PTO would be unwilling to suspend prosecution in some cases just to have other related cases issue close to each other. No agreement was reached.

Two interviews were held between Mr. Scott and Mr. Groody on April 2, 1996. Mr. Scott pointed out that, in parent file 5,233,654, there had been a restriction requirement. After reviewing the file, Mr Groody indicated that there would not be a Schneller double patenting rejection made in any case based on parent patent 5,233,654 and 5,335,277. The action recently sent out in 08/113,329 would be changed to reflect this point. Mr. Scott inquired whether a terminal disclaimer, in these applications, would have to be filed for all of the four Harvey patents (4,694,490; 4,704,725; 4,965,825; 5,109,414). Mr. Groody felt that all four should be disclaimed, if applicants elect to take that approach toward overcoming the double patenting rejections, because of the requirement in terminal disclaimers

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concerning common ownership. Mr. Scott indicated that in parent patent 4,965,825, there had been a multiplicity rejection. Mr. Groody will order the file, but felt that rejection would not overcome the Schneller double patenting rejections since the CCPA did not list this situation as an acceptable reason to file continuing cases. The Court limited it exception to "independent and distinct" claims. Mr. Groody acknowledged that the Board of Appeals may accept the multiplicity argument, but, in the absence of case law on this issue, he would still apply the Schneller rejections.

On June 10, 1996, Mr Scott spoke with Mr. Groody on several topics. Related case 08/397,582 has been withdrawn from issue in Group 2200, and a new action will be mailed containing a double patenting rejection under *In re Schneller*. This application will now be examiner in Group 2600. Mr. Scott questioned whether applicants can withdraw the terminal disclaimer made in 397,582. Mr. Groody was unsure of the answer, but later checked with Mr. Orsino, who informed him that MPEP 1490 controlled.

Mr. Groody still believes that 08/113,329 can be expedited at the Board. Mr. Scott can refer to the appeal brief to be

filed in that case in responding to any application having a *Schneller* double patenting rejection.

A telephone interview was held on June 12, 1996 between Mr. Thomas Woolston and Marc E. Bookbinder representing the PTO. For S.N. 08/448,116, Mr. Woolston indicated that the supplemental preliminary amendment of Nov. 13, 1995 was incomplete and that a complete version of such would be filed shortly to perfect the submission as originally intended. Mr. Woolston also indicated that he intended to file a second supplemental preliminary amendment in this case bringing the total number of claims to 37.

Mr. Bookbinder indicated that the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings. Mr. Woolston stated that such a grouping was available and that he would forward it to the Group as soon as possible.

Mr. Bookbinder requested that each future amendment filed be accompanied by an electronically readable version thereof. Mr. Woolston stated that he could provide a disk to include one or more amendments made to applications as they were filed.

Mr. Woolston stated that he has reviewed actions that have been mailed and that he takes issue particularly with the double

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patenting rejections and the way In re Schneller has been applied. Mr. Bookbinder suggested that Mr. Woolston contact Mr. Groody of Group 2600 to discuss the particulars of the double patenting rejections since he was the author of those rejections.

On November 25, 1996, a telephone interview was held between Mr. Scott and Mr. Groody. Mr. Groody informed Mr. Scott that expedited processing at the Board for 113/329 would be arranged by the Office. No action on applicants' part was necessary. Applicants no longer had to submit a listing of related cases, since the examiners did not need that. Finally, application serial number 08/397,582, which has been withdrawn from issue, will be examined over all of the art cited in all of the later filed Harvey cases.

23. The art cited in the information disclosure statements submitted by applicants has been considered. The examiner initialed 1449 forms will be sent in a later action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Faile whose telephone number is (703) 305-4380.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Andrew Faile
ANDREW FAILE
PRIMARY EXAMINER
GROUP 2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

GRP
2611/\$

In re Application of :
John C. Harvey and James W. Cuddihy : Group Art Unit
 Serial No. 08/449,263 : Examiner
 Filed May 24, 1995 : Atty Dkt: 5634.172

SEP 22 1997
 FILED
 PATENT & TRADEMARK OFFICE

SIGNAL PROCESSING APPARATUS AND METHODS

TRANSMITTAL

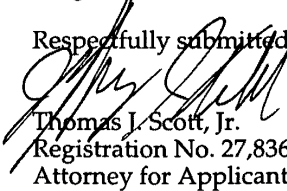
Assistant Commissioner of Patents
 Washington, D.C. 20231

- Amendment.
- The fee has been calculated as shown below:

	(Col 1) Claims Remaining After Amendment		(Col 2) Highest No. Previously Paid for	(Col 3) Present Extra	Rate	Additional Fee
Total	*49	Minus	** 49	= 0	x \$ 11	\$.00
Indep.	*11	Minus	*** 11	= 0	x \$ 40	\$.00
First Presentation of Mult. Dep. Claim					x \$ 125	\$.00
Total Additional Filing Fee: 3 Month Extension						\$ 465.00
Total Fee Enclosed						\$ 465.00

- * If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.
- ** If the "Highest Number Previously Paid For" in this space is less than 20, write "20" in this space.
- *** If the "Highest Number Previously Paid For" in this space is less than 3, write "3" in this space. "The Highest Number Previously Paid For" (Total or Independent) is the highest number found from the equivalent box in Col. 1 of a prior amendment or the number of claims originally filed.

- Howrey & Simon check no. _____ in the amount of \$465.00 is enclosed.
- The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 08-3038. This sheet is submitted in triplicate.
 - Any filing fees under 37 CFR 1.16 for the presentation of extra claims.
 - Any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

 Thomas J. Scott, Jr.
 Registration No. 27,836
 Attorney for Applicant

NG # 321,680
for

Date: September 22, 1997
HOWREY & SIMON
 1299 Pennsylvania Avenue, NW
 Washington, D.C. 20004
 Tel: (202) 783-0800



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

/PATENTS

#1110
JLR
2/4/98

In Re Application of

John C. Harvey and James W. Cuddihy

Serial No. 08/449,263

Filed: May 24, 1995

For: SIGNAL PROCESSING APPARATUS AND METHODS

Examiner: Groody, J.

Group Art Unit: 2611

Atty Dkt. 5634.0172

Assistant Commissioner of Patents and Trademarks
Washington, D.C. 20231

RECEIVED
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COMM. 25100

Sir:

AMENDMENT AND REPLY UNDER 37 C.F.R. § 1.111

In response to the Office Action mailed on March 20, 1997, please amend the above-captioned application as follows:

In The Claims

2. A method for authorizing the decryption of a unit of programming at a subscriber station, said subscriber station having a receiver, a detector, a decryptor, and a processor, said method comprising the steps of:

receiving a unit of programming, said unit of programming having a control signal portion and an information portion;

detecting said control signal portion of said unit of programming;

passing said control signal portion of said unit of programming to said decryptor;

passing said information portion of said unit of programming from said step of receiving to said decryptor;

decrypting said information portion of said unit of programming in response to said control signal from said step of detecting said control signal to change the technique used to identify or process said control signal portion of said unit of programming in said step of detecting.

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3. (Amended) A method for authorizing the decryption of a unit of programming at a subscriber station, said subscriber station having a receiver, a detector, a decryptor, and a processor, said method comprising the steps of:

receiving a unit of programming, said unit of programming having a control signal portion and an information portion;

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cont*

detecting said control signal portion of said unit of programming;

passing said control signal portion of said unit of programming to said decryptor;

decrypting said control signal portion of said unit of programming to select or decrypt said information portion of said unit of programming;

passing said information portion of said unit of programming from said step of receiving to said decryptor;

decrypting said information portion of said unit of programming; and

with at least one of said step of passing said information portion to said decryptor [or] and said step of decrypting said information portion occurring in response to said step of decrypting said control signal.

4. (Amended) A method of controlling a remote transmitter station to communicate program material to a subscriber station and controlling said subscriber station to process or output a unit of programming, said method [of communicating] comprising the steps of:

receiving a control signal which operates at the remote transmitter station to control the communication of a unit of programming and one or more first instruct signals and communicating said control signal to said remote transmitter station;

receiving a code or datum identifying a unit of programming to be transmitted by the remote transmitter station, and said transmitter station transferring said unit of programming to a transmitter;

receiving at said remote transmitter station one or more second instruct signals which operate at the subscriber station to identify or decrypt said unit of programming or said first instruct signal, said transmitter station transferring said one or more instruct signals to said transmitter; and

transmitting from said remote transmitter station an information transmission comprising said unit of programming and said one or more first instruct signals and said one or more second instruct signals, said one or more first instruct signals being transmitted in accordance with said control signal.

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C/ correct

5. (Amended) The method as in claims 2, 3, or 4, wherein said unit of programming further [comprises a portion of a television program] includes full motion video.

6. The method as in claims 2, 3, or 4, wherein said unit of programming supplements a television program.

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7. (Amended) The method as in claims 2, 3, or 4, wherein said unit of programming [further comprises] includes a portion of a multimedia presentation.

8. (Amended) The method as in claims 2, 3, or 4, wherein said unit of programming [further comprises] includes some downloadable [executable] code.

9. (Amended) The method as in claims 2, 3, or 4, wherein said unit of programming [further comprises some] includes audio programming.

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10. (Amended) The method as in claims 2, 3, or 4, wherein said unit of programming [further comprises] includes some computer data.

11. (Amended) A method of controlling at least one [or more] of a plurality of receiver stations each of which includes a television receiver, a control signal detector, a processor, [and with each] said at least one of said plurality of receiver stations adapted to detect the presence of at least one [or more] control signal[s] and programmed to process downloadable [executable] code, said method [of communicating] comprising the steps of:

[(1)]receiving some said downloadable [executable] code which is effective at [the one or more] said at least one of said plurality of receiver stations to change a technique of decrypting or enabling and delivering the downloadable [executable] code to [a] at least one transmitter;

[(2)]receiving said at least one [or more] control signal[s] which at [the one or more] said at least one of said plurality of receiver stations operate to execute the downloadable [executable] code at said processor; and

[(3)]causing said at least one [or more] control signal[s] to be communicated to [the] said at least one transmitter at a specific time,

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cont.
thereby to transmit [an] at least one information transmission [comprising] containing the downloadable [executable] code and said at least one [or more] control signal[s].

12. (Amended) The method of claim 11, wherein a television program is displayed at a receiver station and said downloadable [executable] code and said control signal programs said receiver station [processor or computer] to at least one of (i) output video, audio, or text in the context of said television program, (ii) [or to] process a viewer reaction to said television program, and (iii) [or to] select information that completes or supplements said television program content.

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~~13. (Amended) A method of controlling a remote intermediate [data] transmitter station to communicate [data] at least one instruct signal to one or more receiver stations, with said remote intermediate transmitter station including a broadcast or cablecast transmitter [for transmitting one or more signals which are~~

effective at a receiver station to instruct a computer or processor], a plurality of selective [transmission] transfer devices each operatively connected to said broadcast or cablecast transmitter [for communicating a unit of data], a [data] receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and a controller or computer capable of controlling at least one [or more] of said plurality of selective transmission devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one [or more] control signal[s], to control the communication of [specific] said at least one instruct signals in response to [detected specific] said at least one control signal[s], and to deliver at [its] said broadcast or cablecast transmitter said at least one [or more] instruct signal[s], said method [of communicating] comprising the steps of:

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[(1)]receiving [an] said at least one instruct signal [to be transmitted by the remote intermediate data] at said at least one origination transmitter station and delivering said at least one instruct signal to [a] at least one origination transmitter, said at least one instruct signal being effective at the receiver station to change a technique of decrypting or enabling and having an associated code or datum designating signal content [or output information content to be generated];

[(2)]receiving said at least one [or more] control signal[s] which at the remote intermediate [data] transmitter station operates to control the communication of said at least one instruct signal; and

[(3)]transferring said at least one or more control signal[s] to said transmitter before a specific time,

said at least one origination transmitter transmitting said at least one instruct signal, said associated code or datum, and said at least one [or more] control signal[s].

14. (Amended) The method of claim 13, wherein said at least one [or more] control signal[s] comprise a second code or datum which operates at [the remote intermediate data] said at least one origination transmitter station to select said at least one instruct signal or some program content associated with said at least one instruct signal, said method further comprising the step of:

transmitting a second instruct signal which operates at said at least one origination [the remote intermediate data] transmitter station at said specific time to communicate said at least one instruct signal to a transmitter.

15. (Amended) A method of controlling a remote transmitter station to deliver a receiver specific mass medium program presentation at a receiver station, said method [of communicating] comprising the steps of:

[(1)]receiving a mass medium program at the remote transmitter station and delivering said mass medium program to a transmitter;

[(2)]receiving at said remote transmitter station one or more instruct signals which operate to change a technique of decrypting or enabling;

[(3)]receiving a control signal which operates at the remote transmitter station to control the communication of said one or more instruct signals and communicating said control signal to said remote transmitter station;

[(4)]receiving a code or datum designating a specific instruct signal to be transmitted by the remote transmitter station, and said transmitter station transferring said designated specific instruct signal to [a] said transmitter; and

[(5)]transmitting from said remote transmitter station an information transmission comprising said mass medium program and said one or more [designated] instruct signals, said one or more instruct signals being transmitted at one or more specific times or on one or more specific channels.

16. (Amended) The method of claim 15, wherein said [designated] one or more instruct signals [comprises] includes an identification datum of said mass medium program or some downloadable [executable] code.

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~~17. (Amended) A method of processing signals at a receiver station to deliver an output to supplement mass medium programming, said receiver station having a processor, a storage device, and one or more output devices, with at least one of said one or more output devices adapted to output said mass medium programming, said method comprising the steps of:~~

~~[(1)]receiving said mass medium programming at said receiver station from a mass medium programming source and outputting [the] said mass medium programming at [an] said at least one output device[, said output device adapted to output mass medium programming];~~

[(2)]receiving a broadcast or cablecast information transmission at said receiver station, said information transmission including one or more instruct signals and information to supplement said mass medium programming;

[(3)]detecting [a] said one or more instruct signals in said information transmission and passing said [detected] one or more instruct signals to [a] said processor; and

[(4)]controlling said processor based on said [detected] one or more instruct signals, said step of controlling comprising the steps of:

[(a)]changing a technique of decrypting or enabling; and

[(b)]directing said [one or more signals to supplemental]

information to supplement said mass medium [program]

programming to said [a] processor or [an] to said one or more output devices.

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cont.

18. (Amended) The method of claim 17, wherein said information to supplement said mass medium programming includes [one of said one or more supplemental signals is] video, audio, text, or electronic data, said method further comprising one selected from the group consisting of:

(1) actuating a video, audio, or print output device, as appropriate, to output said information to supplement said mass medium programming [one supplemental signal];

(2) decrypting at least a portion of said information to supplement said mass medium programming [one supplemental signal]; and

(3) controlling a selective transmission device to communicate said information to supplement said mass medium programming [one supplemental signal] to said last named processor or output device.

19. (Amended) A method of communicating television program material to one or more receiver stations each of which includes a broadcast or cablecast television receiver, a television monitor, a control signal detector, a processor operatively connected to said television monitor, said processor programmed to detect and respond to one or more instruct signals in a broadcast or cablecast transmission, said method [of communicating] comprising the steps of:

[(1)]receiving a television program at a transmitter station and delivering said television program to a transmitter;

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used [(2)]receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at [the] said one or more receiver stations being [operate] operated to change a technique of decrypting or enabling;

[(3)]transferring said one or more instruct signals from said transmitter station to a transmitter; and

[(4)]transmitting said television program and said one or more instruct signals from said transmitter station to said one or more receiver stations.

20. The method of claim 19, wherein a switch communicates signals selectively from a receiver and a memory or recorder to a transmitter, said method further comprising one of the steps of:

detecting a signal which is effective at the transmitter station to instruct communication;

determining a specific program input source from which to communicate a signal to a transmitter;

controlling said switch to communicate a signal to said transmitter in response to a signal which is effective at the transmitter station to instruct communication;

controlling said switch to communicate a signal from a selected program input receiver; and

controlling said switch to communicate a program to said memory or recorder.

21. (Amended) A method of processing signals at a receiver station comprising the steps of:

- [(a)]receiving at least one [or more] information transmission[s];
- [(b)]detecting a plurality of signals on said at least one [or more] information transmission[s];
- [(c)]changing a decryption or enabling technique in response to at least [one] a first of said plurality of signals;
- [(d)]decrypting or enabling communication of at least [one] a second of said plurality of signals [one] on the basis of a changed decryption or enabling technique;
- [(e)]passing said decrypted or enabled at least [one] said second of said plurality of signals to a controllable device;

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cont.

[(f)]controlling said controllable device on the basis of said passed decrypted or enabled at least [one] said second of said plurality of signals; and

[(g)]storing information evidencing the passing of said [passed decrypted or enabled] at least [one] said second of said plurality of signals.

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22. (Amended) A method [for an interactive television demonstration] for use with an interactive television viewing apparatus comprising the steps of:

displaying a television program that demonstrates a technique for preparing a product, performing a service, or generating an output, said interactive television viewing apparatus having an input device to receive input from a viewer;

prompting said viewer during said television program whether said viewer wants a performance of said technique demonstrated in said step of displaying, said interactive television viewing apparatus having an output device for outputting at least one of said product, said service, [or] and said performance;

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receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and at least one of generating [or] and controlling output of said at least one of said product, said service, [or] and said performance in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving [a] said reply, said instructions controlling said interactive television viewing apparatus;

processing said instructions from said step of delivering, said [specific] instructions being [is] effective to change a technique of decrypting or enabling; and performing said technique at said interactive television viewing apparatus, said processor at least one of generating [or] and controlling output of said at least one of said product, said service, [or] and said performance on the basis of said instructions.

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amended

23. The method of claim 22, wherein one or more of said instructions is embedded in the non-visible portion of a television signal.

24. (Amended) The method of claim 22, wherein one or more of said instructions is delivered in a multichannel signal transmitted over a cable broadband network, said method further comprising the step of demodulating a carrier to receive at least one [or more] of said instructions.

25. (Amended) The method of claim 22, wherein said at least one [or more] of said instructions is delivered in a multichannel signal transmitted over a satellite television transmitter station, said method further comprising the step of demodulating a carrier to receive said at least one [or more] of said instructions.

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cont.

26. (Amended) The method of claim 22, further comprising the steps of: storing a subscriber instruction to process or present at least one [or more] mass medium programs, data, news items, or computer control [instructions] instructions in a specific fashion; and

processing or presenting at least one [or more] specific mass medium programs, data, news items, or computer control [instructions] instructions in accordance with said instruction.

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~~27. (Amended) The method of claim 22, wherein information evidencing the availability, use or usage of said television program or [said] a mass medium program is stored or communicated to a remote data collection station, said method further comprising the step of selecting evidence information that identifies or designates at least one [or more] of:~~

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- (1) a mass medium program;
 - (2) a use of programming;
 - (3) a transmission station;
 - (4) a receiver station;
 - (5) a network;
 - (6) a broadcast station;
 - (7) a channel on a cable system;
 - (8) a time of transmission;
 - (9) a unique identifier datum;
 - (10) a source or supplier of data;
 - (11) a publication, article, publisher, distributor, or an advertisement;
 - and
 - (12) an indication of copyright.

28. (Amended) A method for promoting and delivering at least one of a product, a service, [or] and a media output for use with an interactive television viewing apparatus comprising the steps of:

displaying a television program that demonstrates [a] said at least one of said product, [a] said service, [or] and said media output, said interactive television viewing apparatus having an input device to receive input from a viewer;

prompting said viewer during said television program whether said viewer wants said at least one of said product, said service, [or] and said media output demonstrated in said step of displaying, said interactive television viewing apparatus having an output device for outputting said at least one of said product, said service, [or] and said media output;

receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and at least one of generating [or] and controlling output of said at least one of said product, said service, [or] and said performance in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving [a] said reply, said instructions controlling said interactive television viewing apparatus [delivering said product, service, or media output];

processing said instructions from said step of delivering, said instructions effective to execute a technique of decrypting or enabling; and

[performing said ~~executed~~ technique at said interactive television viewing apparatus, said processor] delivering said at least one of said product, said service, [or] and said media output on the basis of said instructions.

29. (Amended) The method of claim 28, wherein said interactive television viewing apparatus has a plurality of output devices and said at least one of said product, said service, [or] and said media output is delivered at a specific at least one [or more] of said plurality of output devices, said method further comprising the steps of:

controlling a selective transmission device to communicate some data or instructions in respect of said at least one of said product, said service, [or] and said media output to said specific at least one [or more] of said plurality of output devices;

and
actuating [an] said at least one of said plurality of output devices that outputs video, audio, or a physical product to output some portion of said at least one of said product, said service, [or] and said media output on the basis of said communicated some data or instructions in respect of said at least one of said product, said service, [or] and said media output.

30. (Amended) The method of claim 28, wherein at least one [or more] of said instructions is embedded in the non-visible portion of a television signal.

31. (Amended) The method of claim 28, wherein at least one [or more] of said instructions is delivered in a multichannel signal transmitted by a remote cable

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television or satellite television transmitter station, said method further comprising the step of tuning a converter to receive at least one [or more] of said instructions.

32. (Amended) The method of claim 28, having one selected from the group consisting of:

programming said interactive television viewing apparatus to query a remote data source at a particular time or in a particular fashion;

delivering at said interactive television viewing apparatus some processed information of a stored datum simultaneously or sequentially with said television program or said at least one of said product, said service, [or] and said media output;

storing said viewer reply for subsequent processing in response to at least one [or more] of said instructions; and

assembling and communicating to a remote site data evidencing said viewer reply.

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33. (Amended) The method of claim 28, further comprising the steps of:

storing a subscriber instruction to receive at least one [or more] specific mass medium programs, data, news items, or computer control [instructions] instructions; and

receiving said at least one [or more] specific mass medium programs, data, news items, or computer control [instructions] instructions in accordance with said instruction.

34. (Amended) The method of claim 28, further comprising the steps of:

storing a subscriber instruction to process or present at least one [or more] mass medium programs, data, news items, or computer control [instructions] instructions in a specific fashion; and

processing or presenting at least one [or more] specific mass medium programs, data, news items, or computer control [instructions] instructions in accordance with said instruction.

35. (Amended) The method of claim 28, further comprising the steps of:
programming said processor to respond to information communicated from a data or programming source;

receiving an information transmission from a local storage device or remote television programming source;

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inputting at least some of said received information transmission to a control signal detector;

detecting data or an instruct signal in said information transmission; and

passing said detected data or said instruct signal to said processor.

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~~36. (Amended) The method of claim 28, wherein information evidencing the availability, use or usage of said television program or said technique is stored or communicated to a remote data collection station, said method further comprising the step of selecting evidence information that identifies or designates at least one [or more] of:~~

~~(1) a mass medium program;~~

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cont.
- (2) a use of programming;
 - (3) a transmission station;
 - (4) a receiver station;
 - (5) a network;
 - (6) a broadcast station;
 - (7) a channel on a cable system;
 - (8) a time of transmission;
 - (9) a unique identifier datum;
 - (10) a source or supplier of data;
 - (11) a publication, article, publisher, distributor, or an advertisement;
and
 - (12) an indication of copyright.

37. (Amended) The method of claim 28, further comprising the steps of:
receiving at least one [or more data] datum that designate a time or a channel of transmission of said television program or said instructions or that specify the title of or some subject matter contained in said television program or said instructions; and
subsequently
receiving said television program or said instructions on the basis of said at least one [or more data] datum.

38. (Amended) The method of claim 28, wherein said instructions incorporate [executable] code said method further comprising the steps of

communicating said [executable] code to said processor and performing, on the basis of said [executable] code, one selected from the group consisting of:

- (1) receiving a signal containing said television program or said instructions;
- (2) actuating a video, audio, or print output device, as appropriate, to output said at least one of said product, said service, [or] and said media output;
- (3) decrypting at least a portion of said television program or said instructions;
- (4) controlling a selective transmission device to communicate at least some of said at least one of said product, said service, [or] and said media output to an output device;
- (5) generating a receiver specific datum to present with received programming; and
- (6) delivering a receiver specific datum at said interactive television viewing apparatus simultaneously or sequentially with said television program or said at least one of said product, said service, [or] and said media output.

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cont.

~~39. (Amended) The method of claim 28, wherein said interactive television viewing apparatus includes a storage device, said method further having one selected from the group of:~~

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embedding a code or datum in said television program that enables said interactive television viewing apparatus to locate some [executable] code or control a presentation of said at least one of said product, said service, [or] and said media output in accordance with said instructions;

communicating a program unit identification code to said storage device and storing said program unit identification code at a storage location associated with said television program;

communicating to and storing at said storage device some information to evidence an availability, use, or usage of said television program, said instructions, or some [executable] code;

storing at said storage device an instruct signal which is effective to generate some output to be associated with said at least one of said product, said service, [or] and said media output;

storing at said storage device an instruct signal which is effective to display a combined or sequential presentation of a mass medium program and a user specific datum;

storing at said storage device an instruct signal which is effective to process a user reaction to said television program or said at least one of said product, said service, [or] and said media output;

storing at said storage device an instruct signal which is effective to communicate to a remote station a query in respect of information to be associated with

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cont

said television program or to enable display of said at least one of said product, said service, [or] and said media output;

storing at said storage device an instruct signal which is effective to control a user station to receive information to supplement said television program;

storing at said storage device an instruct signal which is effective to process a digital television signal which is separately defined from standard analog television;

and

storing at said storage device a code or datum to serve as a basis for enabling an output device to display at least some of said at least one of said product, said service, [or] and said media output or for enabling said interactive television viewing apparatus to process some [executable] code.

*CH
could*

REMARKS

The Office Action dated March 20, 1997 has been carefully reviewed. Claims 2-39 remain active in the application.

In paragraph 14, claims 2-39 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Applicants respectfully submit that this rejection is overcome by the amendments which clarify the claims in response to the Examiner's specific objections. The Office Action states that the "examiner is not certain that the meets [sic] and bounds of these claims can be determined because of the language in the disclosure and claims." It further states that "[a]pplicants are being requested to reference the claim limitations in this application to the disclosure so that the meets [sic] and bounds of

these claims can be properly considered.” Applicants overcome this rejection and submit they are under no duty to prospectively reference claim limitations to the specification where the Examiner has not specifically identified what is objected to as indefinite. MPEP § 2111 states that “[d]uring patent examination, the pending claims must be ‘given the broadest reasonable interpretation consistent with the specification.’” Also, it is only “when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language.” MPEP § 2111.01. Applicants respectfully request that this blanket rejection for indefiniteness be withdrawn.

However, in order to advance the prosecution of the present application, Applicants provide the following summary of the pertinent disclosure including reference to examples supporting the claimed subject matter. The present application claims priority to application serial number 317,510 (the ‘81 case). The disclosure of the ‘81 case is generally addressed to apparatus and methods for automatically controlling the transmission and presentation of information programming, including the application of embedded signaling for a number of functions, including the control over decryption and access, monitoring of usage/availability, control of external equipment, coordination of multiple broadcasts, automated compilation and collection of billing data, and generation and presentation of combined media presentations of broadcast and locally-generated user specific content. (‘81 case, Abstract; col. 3 line 29 to col. 5 line 27). The priority disclosure further discusses coordination and control of programming at several levels of the communications chain, including transmission stations, intermediate transmission stations, and receiver stations. Regarding the present application, independent claim 2 is directed at a method of authorizing decryption. (See, e.g., ‘81 case, in general, see the paragraph beginning at col. 4 line 31, see also col. 6, line 22 to col. 7, line 64, see also col. 8, line 20 to col. 10, line 13, and col.

12, line 68 to col. 15, line 25, see col. 21, line 20 to col. 22, line 4)¹. Independent claims 3, 17 and 19 are directed to a method of authorizing decryption. (See, e.g., '81 case, col. 20, line 16 to line 68)². Independent claims 4, 13 and 15 are directed to a method of controlling a remote transmitter station. (See, e.g., '81 case, col. 9, lines 31 to 33, col. 10, line 14 to col. 15, line 25, col. 20, line 16 to line 68, col. 21, line 20 to col. 22, line 4)³. Independent claim 11 is directed to a method of controlling receiver stations. (See, e.g., '81 case, col. 8, line 20 to col. 9, line 25, col. 10, line 14 to col. 12, line 67, col. 15, line 20 to line 25 and col. 19, line 3 to col. 20, line 68)⁴. Independent claims 22 and 28 are directed to a method for use with an interactive television viewing apparatus. (See, e.g., '81 case, col. 18, line 33 to col. 22, line 4)⁵. Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter. Applicants will provide additional specification support in their detailed response to the Examiner's specific rejections provided *infra*.

Claims 3 and 5-10 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. In particular, it is asserted that the last paragraph of claim 3 is indefinite and that the other claims, being in dependent form, are also indefinite. Accordingly, Applicants have amended claim 3 and believe it is sufficiently clear and definite under 35 USC § 112,

¹ Corresponds to '87 Specification at pp. 13, 16, 516 to 533, 40 to 43, 248, 28 to 37, 278 to 312, 197 to 246.

² Corresponds to '87 Specification at pp. 469 to 478.

³ Corresponds to '87 Specification at pp. 324 to 390, 469 to 478.

⁴ Corresponds to '87 Specification at pp. 324 to 390, 469 to 478, 428 to 429 and 446.

⁵ Corresponds to '87 Specification at pp. 404 to 419, 419 to 447, 469 to 478 and 249 to 267.

second paragraph. Applicants respectfully submit that this rejection is overcome by the amendments which clarify the claims.

Claims 17 and 21 stand objected to for certain informalities. Accordingly, Applicants have amended the claims in response to the Examiner's assertion.

Claims 2-7 and 15-18 are rejected under 35 U.S.C. § 102 (e) as allegedly being anticipated by Guillou (US 4,337,483). For a prior art reference to anticipate in terms of §102, every element of the claimed invention must be identically shown in a single reference. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Absence from a cited reference of any element of a claim negates anticipation of that claim by the reference. Kloster Speedsteel AB v Crucible, Inc., 230 U.S.P.Q. 81 (Fed. Cir. 1986), on rehearing, 231 U.S.P.Q. 160 (Fed. Cir. 1986).

Guillou relates to a text-video transmission system comprising an information emitting center and a plurality of receiver stations. The information emitting center comprises an encryption means using an operating key. The receiver stations comprise a decryption means using the operating key.

Guillou does not anticipate independent claim 2 because Guillou does not disclose all of the elements of the Applicant's invention. For example, Guillou fails to disclose the step of decrypting an information portion of some programming in response to a control signal portion. Furthermore, Guillou fails to disclose decrypting the information portion to change the technique used to identify or process the control signal portion. Nothing in Guillou teaches or suggests changing a technique of identifying or processing a control portion of some programming. Therefore, since Guillou fails to disclose all the limitations in Applicant's claim 2, the rejection under 35 USC § 102 was improper and should be withdrawn.

Guillou does not anticipate independent claim 3 because Guillou does not disclose all of the elements of the Applicant's invention. For example, Guillou fails to disclose the step of decrypting a control signal portion of some programming to select or decrypt the information portion of the programming. Guillou does not suggest decrypting a control signal portion to select or decrypt an information portion. Guillou decrypts encoded text-video at a receiver station, but nothing in Guillou suggests decrypting something in order to select or decrypt something else. Furthermore, Guillou fails to disclose the step of decrypting a control signal which causes at least one of passing an information portion to a decryptor and decrypting an information portion of some programming. Therefore, since Guillou fails to disclose all the limitations in Applicant's claim 3, the rejection under 35 USC § 102 was improper and should be withdrawn.

Guillou does not anticipate independent claim 4 because Guillou does not disclose all of the elements of the Applicant's invention. For example, Guillou fails to disclose the step of receiving a control signal at a remote transmitter station. Guillou controls the communication of text which is transmitted from an emitter station, but Guillou does not teach receiving a control signal at the emitter station. Rather, the controlling of the transmission of text in Guillou is performed locally and internally from the emitter station. Furthermore, Guillou fails to disclose receiving a first and second instruct signal. Applicants disclose a first instruct signal which operates at the remote transmitter station, and a second instruct signal which operates at the subscriber station. Guillou does not teach or suggest two distinct instruct signals. Therefore, since Guillou fails to disclose all the limitations in Applicant's claim 4, the rejection under 35 USC § 102 was improper and should be withdrawn. Furthermore, claims 5-7 are patentable at least by virtue of their dependence on patentable independent claim 4.

Guillou does not anticipate independent claim 15 because Guillou does not disclose all of the elements of the Applicant's invention. For example, Guillou fails to disclose receiving a mass medium program at a remote transmitter station and delivering it to a transmitter. Guillou transmits text-video, but does not suggest transmitting mass medium programming. Thus, the Applicant's invention is not anticipated by Guillou. Furthermore, Guillou fails to disclose receiving at a remote transmitting station an instruct signal which operates to change a method of decrypting or enabling. Guillou discloses a system that decrypts text-video, but Guillou fails to teach or suggest changing a method of decrypting or enabling. Therefore, since Guillou fails to disclose all the limitations in Applicant's claim 15, the rejection under 35 USC § 102 was improper and should be withdrawn. Furthermore, claim 16 is patentable at least by virtue of its dependence on patentable independent claim 15.

Guillou does not anticipate independent claim 17 because Guillou does not disclose all of the elements of the Applicant's invention. For example, Guillou fails to disclose receiving a mass medium program at a receiver station and outputting it at an output device. Guillou transmits text-video, but does not suggest transmitting mass medium programming. Thus, the Applicant's invention is not anticipated by Guillou. Furthermore, Guillou fails to disclose controlling a processor based on a detected instruct signal, where the step of controlling comprises changing a technique of decrypting or enabling. Guillou discloses a system that decrypts text-video, but Guillou fails to teach or suggest changing a method of decrypting or enabling. Therefore, since Guillou fails to disclose all the limitations in Applicant's claim 17, the rejection under 35 USC § 102 was improper and should be withdrawn. Furthermore, claim 18 is patentable at least by virtue of its dependence on patentable independent claim 17.

Claims 8-14 and 19-21 stand rejected under 35 USC § 103 as allegedly being unpatentable over Guillou US 4,337,483. A *prima facie* case of obviousness is established

when the teachings from the prior art would have appeared to have suggested the claimed subject matter to a person of ordinary skill in the art. In re Rijckaert, 9 F.3d 1531, 28 U.S.P.Q.2d 1955 (Fed. Cir. 1993). There must be a reason or suggestion in the art for combining references, other than the knowledge obtained from Applicants' disclosure. In re Dow Chemical, 5 U.S.P.Q.2d 1529, 1532 (Fed. Cir. 1988). The examiner may not "engage in a hindsight reconstruction of the claimed invention, using applicant's structure as a template and selecting elements from the references to fill the gaps". In re Gorman, 933 F.2d 982, 18 U.S.P.Q.2d 1885 (Fed. Cir. 1991). The mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Fitch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

Claims 8-14 and 19-21 have key elements that are not included in Guillou. For example, Guillou does not anticipate or render unpatentable claims 8-10 because these claims have elements that are not disclosed or suggested in Guillou. Claims 8 through 10 are dependent from independent claims 2, 3 or 4. Claim 2 is patentable over Guillou for the reasons described above. Therefore, for the same reasons that Guillou fails to anticipate claim 2, Guillou fails to render claims 8-10 unpatentable under 35 USC § 103.

Regarding independent claim 11, Applicants assert that Guillou does not disclose everything that is claimed in Applicants claim 11. In fact, Guillou lacks several key elements disclosed in claim 11 of the present application. For example, Guillou does not disclose changing a technique of decryption. It would not have been obvious to an artisan, skilled at that time, to incorporate the technique of changing a decryption technique. Guillou does not even suggest this type of a technique. Therefore, the rejection of claim 11 under 35 USC § 103 was improper. Furthermore, claim 12 is patentable over Guillou at least by virtue of its dependence on patentable claim 11.

Regarding independent claim 13, Guillou lacks the key element of receiving an instruct signal at an origination transmitter station where the instruct signal is effective at the receiver station to change a technique of decryption or enabling and having an associated code or datum designating signal content or output information content to be generated. Guillou suggests nothing related to changing a technique of decryption, nor does it suggest anything related to generating signal content or information content. Therefore, claim 13 is patentable in view of Guillou, and claim 14 is also patentable at least by virtue of its dependence on patentable claim 13.

Regarding claim 19, Guillou fails again to disclose the step of changing the technique of decrypting or enabling. Further, Guillou does not disclose transmitting television programming, but rather Guillou transmits text-video. In light of the elements missing in Guillou and the fact that the missing elements would not have been obvious respecting the disclosed system in Guillou, the rejection under 35 USC § 103 was improper. Furthermore, claim 20 is patentable in view of Guillou at least by virtue of its dependence on patentable claim 19.

Regarding independent claim 21, Applicants assert the rejection under 35 USC § 102 was improper and should be withdrawn. Claim 21 discloses key elements not taught or suggested in Guillou. For example, Guillou fails to disclose detecting a plurality of signals on at least one information transmission and changing a decryption or enabling technique in response to at least a first of the plurality of signals. Further, Guillou does not suggest decrypting or enabling communication of at least a second of the plurality of signals on the basis of the changed decryption or enabling technique. Therefore, claim 21 is patentably distinct from Guillou and the Applicants respectfully request reconsideration of the rejection.

Claims 22-39 stand rejected under 35 USC § 103 as allegedly being unpatentable over Campbell et al. (US Patent No. 4,536,791) in view of Furukawa et al. (US Patent No. 4,439,784). A *prima facie* case of obviousness is established when the teachings from the prior art would have appeared to have suggested the claimed subject matter to a person of ordinary skill in the art. In re Rijckaert, 9 F.3d 1531, 28 U.S.P.Q.2d 1955 (Fed. Cir. 1993). There must be a reason or suggestion in the art for combining references, other than the knowledge obtained from Applicants' disclosure. In re Dow Chemical, 5 U.S.P.Q.2d 1529, 1532 (Fed. Cir. 1988). The examiner may not "engage in a hindsight reconstruction of the claimed invention, using applicant's structure as a template and selecting elements from the references to fill the gaps". In re Gorman, 933 F.2d 982, 18 U.S.P.Q.2d 1885 (Fed. Cir. 1991). The mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Fitch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

U.S. Patent No. 4,536,791 to Campbell et al. relates to addressable cable television control systems with video format data transmission. Campbell discloses an addressable cable television control system that controls a television program and data signal transmission from a central station to a plurality of remote user stations. Campbell's data signals include both control and text signals in video line format which are inserted on the vertical interval of the television signals. An intelligent converter at each remote user location uses the data signals to control access to the system on the basis of channel, tier of service, special event and program subject matter. The converter includes apparatus for interfacing with a two-way interactive data acquisition and control system.

Campbell teaches a head end station that includes a central data system utilizing a control computer which gathers data from a wide variety of sources and formats the

data for transmission on video frequency channels. The formatted data is then transmitted by communication link to a television program processor where it is incorporated into the vertical blanking intervals of video signals by a variety of television program sources. The head end unit then transmits the combined cable television and data signal to remote subscribers. Normally, the signals are then transmitted through a cable network to a plurality of subscribers. The signals are received by an addressable converter which then processes the data on line as determined by subscriber input for desired viewing on one or more television sets.

Furukawa relates to a CATV system wherein power supplies of television sets associated with terminal units are cut in response to an instruction contained in a down-data signal supplied by a central facility of the system. Television set power supplies can be cut selectively and periodically by incorporating address information in the down-data signal.

The Examiner stated that Campbell discloses a method of interactive television in which a reply is received from a viewer for controlling the output of the product; instructions produced are inherently stored and control the television output of a product; and that the technique of decryption is changed through the use of such instructions. The Applicants respectfully disagree with all of these assertions. Campbell teaches nothing related to the Applicants' claimed invention regarding changing the technique of decryption. Moreover, Campbell does not even suggest a method of decryption. Campbell merely addresses television programming and provides for access to the programming via access code based on tiers of service. But nothing in Campbell suggests the method of decryption claimed by the Applicants.

The Examiner also stated that Campbell does not disclose the available products being displayed to a user for reply, but that Furukawa discloses such a technique in

which a display of products, or programs, are presented to a user to prompt the user for selection, or reply. Applicants agree that Campbell fails to disclose the available products being displayed to a user for reply, however, Applicants disagree that a combination of Campbell with Furukawa teaches or suggests the claimed invention, or that the references themselves even suggest such a combination.

Furukawa discloses a method for cutting off power supplies to television sets located at individual terminals in a CATV system. However, nothing in Furukawa suggests receiving a reply from a viewer based on a prompting of that viewer. Further, Furukawa fails to disclose displaying a television program that demonstrates a technique for preparing a product. Additionally, Campbell fails to teach or suggest this step. Campbell does teach a system of providing access to programming based on access code and tiers of service. However, Campbell fails to teach the claimed invention of the Applicants. Moreover, neither Campbell or Furukawa teach the decryption method claimed by the Applicants. Nothing in Furukawa is decrypted and Campbell teaches nothing related to the Applicants method of decryption. Even if Campbell were to be combined with Furukawa, the features of Applicants' invention recited above would neither be taught or suggested

Therefore, since independent claims 22 and 28 both relate to a method of changing decryption techniques, for at least the reasons presented above, the teachings of Campbell and Furukawa, alone or in combination, fail to teach or suggest Applicants' claimed invention. Furthermore dependent claims 23-27 and 29-39 are patentable at least by virtue of their dependence on independent claims 22 and 28 respectively. Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 22-39 under 35 USC § 103 and pass claims 22-39 to allowance.

Claims 2-39 are rejected under the judicially created doctrine of non-obviousness, non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414. As to the double patenting rejections of paragraphs 5-13, applicants' views are fully discussed in applicants' reply brief to the rejections in application number 08/113,329, and that reply brief is incorporated by reference herein. Moreover, the claims of the present application are patentably distinct from the representative claims of U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414.

As an initial matter, the examiner's rejection of the present application under the Schneller double patenting theory based on Harvey U.S. Patents 4,694,490 and 4,704,725 is improper because the present application does not claim the benefit of those applications under 35 U.S.C. § 120. Thus, there could never have been a basis for claiming the present subject matter in those applications. Therefore, the rejection based on Harvey U.S. Patents 4,694,490 and 4,704,725 should be withdrawn.

Moreover, the PTO fails to specifically identify all claims from cited Harvey patents that cover specific claims in the present application. Rather, the Office Action references "representative claims" from patents and the present application. The Office Action does not cite specific elements from claims in a patent covering specific elements in claims in the application. In fact, the Office Action acknowledges that the patent claims and application claims are directed to different elements, but states that this "does not prohibit this rejection if there is common or interrelated subject matter recited." The Office Action then references Schneller in support of this erroneous statement, not supported by Schneller.

The claims in the present application are distinct from the claims in the Harvey patents. As previously mentioned, the Office Action states that the independent and distinct standard was the main factor in the Schneller court's determination that the

double patenting rejection should be affirmed. The Office Action has misinterpreted this phrase. This phrase means independent 'or' distinct. MPEP (6th ed.) § 802.01. The MPEP defines independent as meaning "that there is no disclosed relationship between the two or more subjects disclosed" and that they are not connected. The MPEP defines the term distinct as meaning that "two or more subjects disclosed are related . . . but are capable of separate manufacture, use, or sale as claimed" Two or more subjects cannot then be unrelated, independent, and also related, and thus distinct. Analyzing the PTO's cited representative claims referenced in the Office Action, the claims of the present application are clearly distinct from the claims in the patents and therefore the claims in the present application are patentable. Although not required, applicants will analyze the claims of the present application with respect to the designated representative claims of Harvey U.S. Patents 4,694,490 and 4,704,725.

Claim 19 of the present application is distinct from the first representative claim, claim 7 of U.S. Patent 4,694,490.

Patent 4,694,490 claim 7 recites a method of communicating television program material, said material including a video signal containing a television program and an instruct-to-overlay signal, to multiple receiver stations. The video signal is received and the instruct-to-overlay signal detected and processed by a computer. The computer generates and transmits its overlay video signals, in response to the instruct-to-overlay signal, to a television receiver which presents a combined display of the television program and overlay video signals, said display being specific to a particular user.

Patent claim 7 does not cover present application claim 19. Patent claim 7 relates to instruct-to-overlay signals that are detected and processed by a computer which then transmits to a television receiver overlay video signals for use with the television programming in a combined display. Application claim 19 does not require the use of instruct-to-overlay signals, overlay modification control signals, or specific user

applications. In addition, application claim 19, unlike patent claim 7, discloses a method for receiving and storing instruct signals at a transmitter station where the instruct signal operates at a receiver station to change a technique of decrypting or enabling. Furthermore, patent claim 7 requires the detection of the instruct-to-overlay signal at the receiver station “at a time when the corresponding overlay is not being displayed.” There is no comparable limitation in application claim 19. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, the two inventions are distinct.

U.S. patent 4,694,490, claim 7	Present application, claim 19
<p>In a method of communicating television program material to a multiplicity of receiver stations each of which includes a television receiver and computer, the computers being adapted to generate and transmit overlay video signals, to their associated television receivers, said overlay signals causing the display of user specific information related to said program material, and with at least some of said computers being programmed to process overlay modification control signals so as to modify the overlay video signals transmitted to their associated receivers, each of said computers being programmed to accommodate a specific user application, and wherein a video signal containing a television program signal and an instruct to-overlay signal are transmitted to said receiver stations, the steps of:</p> <p>receiving said video signal at a plurality of receiver stations and displaying said program material on the video receivers of selected ones of said plurality of receiver stations</p>	<p>19. A method of communicating television program material to one or more receiver stations each of which includes a broadcast or cablecast television receiver, a television monitor, a control signal detector, a processor operatively connected to said television monitor, said processor programmed to detect and respond to one or more instruct signals in a broadcast or cablecast transmission, said method of communicating comprising the steps of:</p> <ol style="list-style-type: none"> (1) receiving a television program at a transmitter station and delivering said television program to a transmitter; (2) receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at the receiver station operate to change a technique of decrypting or enabling; (3) transferring said one or more instruct signals from said transmitter station to a transmitter; and (4) transmitting said television program and said one or more instruct signals from said transmitter station to

detecting the presence of said instruct-to-overlay signal at said selected receiver stations at a time when the corresponding overlay is not being displayed, and coupling said instruct-to-overlay signal to the computers at said selected receiver stations, and causing the computers at said selected receiver stations to generate and transmit their overlay video signals to their associated television receivers in response to said instruct-to-overlay signal, thereby to present a combined display at the selected receiver stations consisting of the television program and the related computer generated overlay, the overlays displayed at a multiplicity of said receiver stations being different, with each display specific to a specific user.

said one or more receiver stations.

Claim 19 of the present application is distinct from the second representative claim, claim 3 of U.S. Patent 4,704,725.

Patent 4,704,725 claim 3 recites a method of communicating output signals comprising data and user specific signals at a multiplicity of receiver stations from computers to output devices. At least some of the computers can modify the user specific signals by processing modification control signals. The computers communicate the data and user specific signals in response to a received and detected instruct-to-transmit signal.

Patent claim 3 does not cover present application claim 19. Patent claim 3 relates to instruct-to-overlay signals that are detected and processed by a computer which then transmits to a television receiver overlay video signals for use with the television programming in a combined display. Application claim 19 does not require the use of instruct-to-overlay signals, overlay modification control signals, or specific user

applications. In addition, application claim 19, unlike patent claim 3, discloses a method for receiving and storing instruct signals at a transmitter station where the instruct signal operates at a receiver station to change a technique of decrypting or enabling. Furthermore, patent claim 3 requires the detection of the instruct-to-overlay signal at the receiver station "at a time when the corresponding overlay is not being displayed." There is no comparable limitation in application claim 19. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, the two inventions are distinct.

U.S. patent 4,704,725, claim 3	Present application, claim 19
<p>A method of communicating data to a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific signals to one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify the user specific signals transmitted to their associated output devices, each of said computers being programmed to accommodate a special user application, comprising the steps of:</p> <p>transmitting an instruct-to-transmit signal to said computers at a time when the corresponding user specific information is not being transmitted to an output device;</p> <p>detecting the presence of said instruct-to-transmit signal at selected receiver stations and coupling said instruct-to-transmit signal to the computers associated with said selected stations, and</p> <p>causing said last named computers</p>	<p>19. A method of communicating television program material to one or more receiver stations each of which includes a broadcast or cablecast television receiver, a television monitor, a control signal detector, a processor operatively connected to said television monitor, said processor programmed to detect and respond to one or more instruct signals in a broadcast or cablecast transmission, said method of communicating comprising the steps of:</p> <p>(1) receiving a television program at a transmitter station and delivering said television program to a transmitter;</p> <p>(2) receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at the receiver station operate to change a technique of decrypting or enabling;</p> <p>(3) transferring said one or more instruct signals from said transmitter station to a transmitter; and</p> <p>(4) transmitting said television</p>

to generate and transmit their user specific signals to their associated output devices in response to said instruct-to-transmit signal, thereby to transmit to the selected output devices an output signal comprising said data and said related user specific signals, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

program and said one or more instruct signals from said transmitter station to said one or more receiver stations.

Claim 4 of the present application is distinct from the third representative claim, claim 24 of U.S. Patent 4,965,825.

Patent 4,965,825 claim 24 recites a method of generating user specific output information at a multiplicity of receiver stations. Each receiver station is programmed with a special user application and has a computer adapted to generate user specific output information. Each receiver station has an output device to which its computer transmits a user specific signal. At a time when the user specific output information does not exist, an instruct-to-generate signal is transmitted to the receiver stations. In response to the instruct-to-generate signal, the computers generate and transmit to the output devices the user specific output information in user specific signals which are different, "with each output signal specific to a specific user".

Patent claim 24 does not cover present application claim 19. Patent claim 24 relates to instruct-to-overlay signals that are detected and processed by a computer which then transmits to a television receiver overlay video signals for use with the television programming in a combined display. Application claim 19 does not require the use of instruct-to-overlay signals, overlay modification control signals, or specific user applications. In addition, application claim 19, unlike patent claim 24, discloses a method for receiving and storing instruct signals at a transmitter station where the instruct signal operates at a receiver station to change a technique of decrypting or

enabling. Furthermore, patent claim 24 requires the detection of the instruct-to-overlay signal at the receiver station “at a time when the corresponding overlay is not being displayed.” There is no comparable limitation in application claim 19. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, the two inventions are distinct.

U.S. patent 4,965,825, claim 24	Present application, claim 19
<p>In a method of generating computer output at a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific output information content and user specific signals to one or more associated output devices, with at least one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify said computers' method of processing data and generating output information content, each of said computers, being programmed to accommodate a special user application, the steps of: transmitting an instruct-to-generate signal to said computers at a time when corresponding user specific output information content does not exist, and causing said last named computers to generate their user specific output information content in response to said instruct-to-generate signal, thereby to transmit to each of their associated output devices an output information content and the user specific signal of its associated computer, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.</p>	<p>19. A method of communicating television program material to one or more receiver stations each of which includes a broadcast or cablecast television receiver, a television monitor, a control signal detector, a processor operatively connected to said television monitor, said processor programmed to detect and respond to one or more instruct signals in a broadcast or cablecast transmission, said method of communicating comprising the steps of:</p> <ol style="list-style-type: none"> (1) receiving a television program at a transmitter station and delivering said television program to a transmitter; (2) receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at the receiver station operate to change a technique of decrypting or enabling; (3) transferring said one or more instruct signals from said transmitter station to a transmitter; and (4) transmitting said television program and said one or more instruct signals from said transmitter station to said one or more receiver stations.

Claim 4 of the present application is distinct from the fourth representative claim, claim 15 of U.S. Patent 5,109,414

Patent 5,109,414 claim 15 recites a signal processing system which receives data from a data source and outputs the data to a matrix switch and a detector, control signals are detected within the received data and stored for further processing, and a processor controls the directing functions of: (1) the matrix switch which receives the data as input and can direct selected portions of the data to a data transmission means; and (2) the device which stores and transfers the control signals to the processor. The processor performs these controlling functions on the basis of instructions within the control signals.

Patent claim 15 does not cover present application claim 19. Patent claim 15 relates to instruct-to-overlay signals that are detected and processed by a computer which then transmits to a television receiver overlay video signals for use with the television programming in a combined display. Application claim 19 does not require the use of instruct-to-overlay signals, overlay modification control signals, or specific user applications. In addition, application claim 19, unlike patent claim 15, discloses a method for receiving and storing instruct signals at a transmitter station where the instruct signal operates at a receiver station to change a technique of decrypting or enabling. Furthermore, patent claim 15 requires the detection of the instruct-to-overlay signal at the receiver station "at a time when the corresponding overlay is not being displayed." There is no comparable limitation in application claim 19. The two claims are capable of separate manufacture, sale, and use as claimed and, as such, the two inventions are distinct.

U.S. patent 5,109,414, claim 15	Present application, claim 19
In a signal processing system,	19. A method of communicating

a receiver/distribution means for receiving data from a data source and for outputting said data to a matrix switch means and a control signal detector means,

a matrix switch means for receiving said data from said receiver/distributor means and for directing selected portions of said received data to a data transmission means,

a control signal detector means for detecting control signals respecting said data and transferring said control signals to a storage/transfer means, said control signal means being configured to detect said control signals at a predetermined location within said data,

a storage/transfer means for receiving and storing said control signals and for transferring at least a portion of said control signals to a processor means for further processing, and

a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means based on instructions contained in said control signals.

television program material to one or more receiver stations each of which includes a broadcast or cablecast television receiver, a television monitor, a control signal detector, a processor operatively connected to said television monitor, said processor programmed to detect and respond to one or more instruct signals in a broadcast or cablecast transmission, said method of communicating comprising the steps of:

(1) receiving a television program at a transmitter station and delivering said television program to a transmitter;

(2) receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at the receiver station operate to change a technique of decrypting or enabling;

(3) transferring said one or more instruct signals from said transmitter station to a transmitter; and

(4) transmitting said television program and said one or more instruct signals from said transmitter station to said one or more receiver stations.

Claims 2-39 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and other listed U.S. applications. The rejection should be a provisional rejection until one or more of the copending applications issues, at which time the rejection can be made non-provisional.

Secondly, although the rejection is stated as a judicially created obviousness double patenting rejection, the examiner's arguments are those of a Schneller non-obviousness, non-statutory double patenting rejection. Applicants' reply brief addresses the merits of the Schneller-type rejection.

The examiner's comments on the claims is acknowledged and appreciated. With respect to the assertion, in paragraph 2, that no attempt to will be made to determine the effective filing date of this application, applicant claims priority under 35 U.S.C. § 120 of the following applications:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Patent No.</u>
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825
06/829,531	February 14, 1986	4,704,725
06/317,510	November 3, 1981	4,694,490

As to the paragraph numbered 3, applicants acknowledge their duty to maintain a line of patentable demarcation between related applications. Assuming, arguendo, that substantially duplicate claims exist, the applicants intend to make a good faith effort to alert the PTO of any instances in which the PTO treats such claims inconsistently.

As to the paragraph numbered 4, applicants acknowledge and appreciate the examiner's concern over the use of alternative claim language. Applicants assert that they believe that the disclosure supports every possible embodiment or permutation that can be created using said language. During the prosecution of this application, applicants intend to ensure that the disclosure supports each possible embodiment claimed using alternative claims.

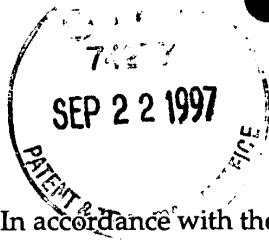
In paragraph 11, the Office Action states that "determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time." Applicants submit that the examiner and the PTO cannot defer further rejections to a later time. Every ground of

rejection should be made in examiner's first Office Action. 37 CFR § 1.104(a) states that "[o]n taking up an application for examination . . . the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated." The MPEP states "[t]he examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to such matters before action is made." MPEP § 707.07, citing 37 CFR § 1.105. Finally, "[p]iecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available . . ." "Where a major technical rejection is proper, it should be stated with full development of reasons rather than by mere conclusion coupled with some stereotyped expression." MPEP § 707.07(g). Applicants submit that the examiner has a duty to give each application a complete examination, to make rejections with specificity, and that not to defer rejections. For these reasons, applicants likewise traverse the rejection based on the "judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following [list of all applicants copending applications]." Applicants submit that this rejection, even if appropriately made with specificity, should be a provisional double patenting rejection. Applicants respectfully request that this rejection be withdrawn.

As to the grouping of paragraphs numbered 22, applicants acknowledge and appreciate the interviews provided by the PTO. Applicants also appreciate the detailed description of the interviews provided in the Office Action. The Office Action states that "the Group would like to have a complete grouping of applications in a manner

that was submitted earlier for only a portion of the total filings.” Applicants note that based on the Office Actions received thus far, the PTO does not appear to be following the groupings applicants submitted previously. The order of examination of applicants’ applications do not seem to have any correspondence to the groupings previously submitted. Applicants, therefore, will not supply further groupings. Applicants will, however, gladly supply further groupings if requested by the PTO for the purpose of following these groupings. Mr. Groody has confirmed in a telephone conversation between Mr. Groody and Mr. Scott that no more groupings need be sent.

In the interest of maintaining a clear record, applicants respectfully traverse the Office Action’s interview summary statement that an offer was made to terminally disclaim the present application with the ‘81 or ‘87 patents. Rather, applicants respectfully submit that their offer was to disclaim a block of copending applications against one another, provided their issue date was in close enough proximity so as not to result in unnecessarily great losses in patent term duration.

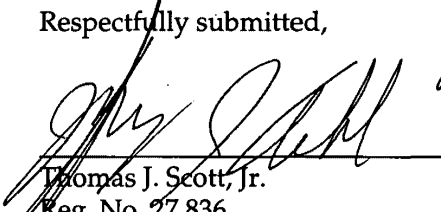


CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, that all pending claims patentably distinguish over the prior art, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for telephone interview to discuss resolution of such informalities.

Respectfully submitted,



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of

John C. Harvey and James W. Cuddihy

Serial No. 08/449,263

Filed: May 24, 1995

For: **SIGNAL PROCESSING APPARATUS
AND METHODS**

Examiner: Luther, W.

Group Art Unit: 2731

Atty. Docket. 05634.0172

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and Trademarks
Washington, D.C. 20231

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**AMENDMENT AND REQUEST FOR RECONSIDERATION UNDER
37 C.F.R. § 1.111**

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I. AMENDMENTS

The amendments set forth below are made in response to the Non-Final Office Action mailed March 30, 2000. Applicants respectfully request that the Examiner enter the following amendments in the above-captioned application and reconsider the allowability of the application as amended under 37 C.F.R. § 1.111.

A. To the Specification

Applicants request entering the below amendments to the specification.

On page 1, in the paragraph entitled, "Cross-Reference to Related Applications," on the second line, please delete:

"herein incorporated by reference in its entirety".

This text was mistakenly presented in the statement of the chain of priority of the application under 35 U.S.C. § 120. The statement is surplusage as the specification of Application Number 08/113,329 is the identical specification to that of the instant application.

On page 18, line 13, please change "Fig. 6" to -- Figs. 6a and 6b --.

On page 37, line 23, delete both occurrences of "units" and replace both occurrences with -- words --.

On page 37, line 24, delete "words" and replace with -- units --.

On page 37, line 25, delete "words" and replace with -- units --.

The above amendments to the specification are being made to correct typographical errors and to make the sentence consistent with the disclosure. *See*, Applicants' specification at page 14, line 26 through page 15, line 6. No new matter is added by these amendments.

B. To the Claims

Applicants request that the Examiner enter the amendments to the claims set forth below. Claims 2-10, 13, 45-48, 50, 54, 59, 70, 88, 91-93, 103-107, 111, 116-120, 122-125, 127-131, 135-142, 144, 155-156, 159, 163 & 166 are amended. Claims 118, 119, 122, 123, 125-128 & 140 are cancelled. Claims 191-198 are added. For the PTO's convenience, claims that remain unchanged are included below in order to allow the Examiner to review all pending claims from this response in their numerical order.

Please cancel claims 118, 119, 122, 123, 125-128 and 140. } N.E.

GI
Conf.

2. (Amended) A method for [authorizing] controlling the decryption of programming at a subscriber station, said subscriber station having a receiver, a detector, at least one decryptor, and a processor, said method comprising the steps of:

receiving programming, said programming having [a] an encrypted control signal [portion and an information portion];

detecting said control signal [portion of said programming];

passing said control signal [portion of said programming] to said at least one decryptor;

[passing said information portion of said programming from said step of receiving to said at least one decryptor;]

decrypting [at least partially said information portion of said programming in response to] said control signal [portion from said step of detecting];

presenting said programming to a viewer or listener based on said step of decrypting

[identifying a new control signal portion from said step of decrypting;

passing said new control signal portion to said at least one decryptor;

one of passing;

G1
Cmd.

- a) said at least partially decrypted information portion to said at least one decryptor to at least partially redecrypt at least partially decrypted information portion in response to said new control signal portion; and
- b) said at least partially decrypted information portion to an output device].

G2
Cmd.

3. (Amended) A method for [authorizing] controlling the decryption of programming at a subscriber station, said subscriber station having a receiver, a detector, a decryptor, and a processor, said method comprising the steps of:

receiving programming, said programming having a control signal portion and an information portion;

detecting said control signal portion of said programming;

passing said control signal portion of said programming to said decryptor;

decrypting said control signal portion of said programming [to at least one of pass and decrypt said information portion of said programming];

passing said information portion of said programming [from said step of receiving] to said decryptor;

decrypting [at least partially] said information portion of said programming; and

presenting said programming based on said decrypted control signal portion

[performing at least one of said step of passing said information portion to said decryptor and said step of decrypting said information portion in response to said step of decrypting said control signal portion;

identifying a new control signal portion from said step of decrypting said information portion of said programming, wherein said new control signal portion implements a new decryption scheme at said decryptor;

communicating said new control signal portion to said decryptor;

one of passing:

- a) said at least partially decrypted information portion to said decryptor to at least partially redecrypt said at least partially decrypted information portion in response to said new decryption scheme; and
- b) said at least partially decrypted information portion to an output device].

G2
9 Amcd

4. (Amended) A method of controlling a remote transmitter station to communicate program material to a subscriber station and controlling said subscriber station to process or output programming, said method comprising the steps of:

receiving a control signal which operates at the remote transmitter station to control the communication of said programming and one or more first instruct signals and communicating said control signal to said remote transmitter station;

receiving [a code or datum identifying] an identifier designating programming to be transmitted by the remote transmitter station, and said remote transmitter station transferring said programming to a transmitter;

receiving at said remote transmitter station one or more second instruct signals which operate at the subscriber station [to identify] or decrypt said programming or said one or more first instruct signals [signal], said transmitter station transferring said one or more second instruct signals to said transmitter; and

transmitting from said remote transmitter station an information transmission comprising said programming and said one or more first instruct signals and said one or more second instruct signals, said one or more first instruct signals being transmitted in accordance with said control signal.

5. (Amended) The method as in claims 2, 3, or 4, wherein said programming further includes [full motion] encrypted video.

G3

6. (Amended) The method as in claims 2, 3, or 4, wherein said [programming supplements a television program] subscriber station stores information that evidences processing said programming.

G4

7. (Amended) The method as in claims 2, 3, or 4, wherein said programming [includes a portion of a multimedia presentation] is received at said subscriber station in one channel of a multichannel signal and an instruction which enables decryption of said programming is contained in a portion of said multimedia signal outside said one channel.

8. (Amended) The method as in claims 2, 3, or 4, wherein said [programming includes some downloadable code] subscriber station detects, in a transmission channel containing said programming, an instruction that enables decryption of said programming.

9. (Amended) The method as in claims 2, 3, or 4, wherein a portion of said programming [includes audio programming] is unencrypted.

10. (Amended) The method as in claims 2, 3, or 4, wherein said programming includes [some] computer data.

11. (Unchanged) A method of controlling at least one of a plurality of receiver stations each of which includes a television receiver, a control signal detector, a processor, said at least one of said plurality of receiver stations adapted to detect the presence of at least one control signal and programmed to process downloadable code, said method comprising the steps of:

receiving said downloadable code which is effective at said at least one of said plurality of receiver stations to implement a new technique of decrypting and delivering the downloadable code to at least one transmitter;

receiving said at least one control signal which at said at least one of said plurality of receiver stations operate to execute the downloadable code at said processor; and

causing said at least one control signal to be communicated to said at least one transmitter at a specific time,

thereby to transmit at least one information transmission containing the downloadable code and said at least one control signal.

12. (Unchanged) The method of claim 11, wherein a television program is displayed at a receiver station and said downloadable code and said control signal programs said receiver station to at least one of (i) output video, audio, or text in the context of said television program, (ii) process a viewer reaction to said television program, and (iii) select information that completes or supplements said television program content.

G5
9 Cont.

13. (Amended) A method of controlling a remote intermediate transmitter station to communicate at least one instruct signal to one or more receiver stations, with said remote intermediate transmitter station including a broadcast or cablecast transmitter, a plurality of selective transfer devices each operatively connected to said broadcast or cablecast transmitter, a receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and a controller or computer capable of controlling at least one of said plurality of selective [transmission] transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one control signal, to control [the] communication of said at least one instruct [signals] signal in response to said at least one control signal, and to deliver at

said broadcast or cablecast transmitter said at least one instruct signal, said method comprising the steps of:

receiving said at least one instruct signal at said at least one origination transmitter station and delivering said at least one instruct signal to at least one origination transmitter, said at least one instruct signal being effective at [the] said one or more receiver [station] stations to implement a new technique of decrypting and having an associated code or datum designating content of said instruct signal;

receiving said at least one control signal which at [the] said remote intermediate transmitter station operates to control [the] communication of said at least one instruct signal; and

transferring said at least one [or more] control signal to said at least one origination transmitter before a specific time,

said at least one origination transmitter transmitting said at least one instruct signal, said associated code or datum, and said at least one control signal.

14. (Unchanged) The method of claim 13, wherein said at least one control signal comprise a second code or datum which operates at said at least one origination transmitter station to select said at least one instruct signal or some program content associated with said at least one instruct signal, said method further comprising the step of:

transmitting a second instruct signal which operates at said at least one origination transmitter station at said specific time to communicate said at least one instruct signal to a transmitter.

15. (Unchanged) A method of controlling a remote transmitter station to deliver a receiver specific mass medium program presentation at a receiver station, said method comprising the steps of:

receiving a mass medium program at the remote transmitter station and delivering said mass medium program to a transmitter;

receiving at said remote transmitter station one or more instruct signals which operate to change a technique of decrypting or enabling;

receiving a control signal which operates at the remote transmitter station to control the communication of said one or more instruct signals and communicating said control signal to said remote transmitter station;

receiving a code or datum designating a specific instruct signal to be transmitted by the remote transmitter station, and said transmitter station transferring said designated specific instruct signal to said transmitter; and

transmitting from said remote transmitter station an information transmission comprising said mass medium program and said one or more instruct signals, said one or more instruct signals being transmitted at one or more specific times or on one or more specific channels.

16. (Unchanged) The method of claim 15, wherein said one or more instruct signals includes an identification datum of said mass medium program or some downloadable code.

17. (Unchanged) A method of processing signals at a receiver station to deliver an output to supplement mass medium programming, said receiver station having a processor, a storage device, and one or more output devices, with at least one of said one or more output devices adapted to output said mass medium programming, said method comprising the steps of:

receiving said mass medium programming at said receiver station from a mass medium programming source and outputting said mass medium programming at said at least one output device;

receiving a broadcast or cablecast information transmission at said receiver station, said information transmission including one or more instruct signals and information to supplement said mass medium programming;

detecting said one or more instruct signals in said information transmission and passing said one or more instruct signals to said processor; and

controlling said processor based on said one or more instruct signals, said step of controlling comprising the steps of:

implementing a new technique of decrypting;

directing an at least partially decrypted information to be at least partially redecrypted in response to said new technique of decrypting; and

directing said information to supplement said mass medium programming to said processor or to said one or more output devices.

18. (Unchanged) The method of claim 17, wherein said information to supplement said mass medium programming includes video, audio, text, or electronic data, said method further comprising one selected from the group consisting of:

(1) actuating a video, audio, or print output device, as appropriate, to output said information to supplement said mass medium programming;

(2) decrypting at least a portion of said information to supplement said mass medium programming; and

(3) controlling a selective transmission device to communicate said information to supplement said mass medium programming to said last named processor or output device.

19. (Unchanged) A method of communicating television program material to one or more receiver stations each of which includes a broadcast or cablecast television receiver, a television monitor, a control signal detector, a processor operatively connected

to said television monitor, said processor programmed to detect and respond to one or more instruct signals in a broadcast or cablecast transmission, said method comprising the steps of:

receiving a television program at a transmitter station and delivering said television program to a transmitter;

receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at said one or more receiver stations operative to implement a new technique of decrypting;

transferring said one or more instruct signals from said transmitter station to a transmitter; and

transmitting said television program and said one or more instruct signals from said transmitter station to said one or more receiver stations.

20. (Unchanged) The method of claim 19, wherein a switch communicates signals selectively from a receiver and a memory or recorder to a transmitter, said method further comprising one of the steps of:

detecting a signal which is effective at the transmitter station to instruct communication;

determining a specific program input source from which to communicate a signal to a transmitter;

controlling said switch to communicate a signal to said transmitter in response to a signal which is effective at the transmitter station to instruct communication;

controlling said switch to communicate a signal from a selected program input receiver; and

controlling said switch to communicate a program to said memory or recorder.

21. (Unchanged) A method of processing signals at a receiver station comprising the steps of:

- receiving at least one information transmission;
- detecting a plurality of signals on said at least one information transmission;
- changing a decryption or enabling technique in response to at least a first of said plurality of signals;
- decrypting or enabling communication of at least a second of said plurality of signals on the basis of a changed decryption or enabling technique;
- passing said decrypted or enabled at least said second of said plurality of signals to a controllable device;
- controlling said controllable device on the basis of said passed decrypted or enabled at least said second of said plurality of signals; and
- storing information evidencing the passing of said at least said second of said plurality of signals.

22. (Unchanged) A method for use with an interactive television viewing apparatus comprising the steps of:

- outputting a television program one of demonstrating and describing a technique for preparing a product, performing a service, or generating an output, said interactive television viewing apparatus having an input device to receive input from a viewer;
- prompting said viewer during said television program whether said viewer wants a performance of said technique from said step of outputting, said interactive television viewing apparatus having an output device for outputting at least one of said product, said service, and said performance;
- receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and at least one of generating and controlling output of

said at least one of said product, said service, and said performance in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving said reply, said instructions controlling said interactive television viewing apparatus;

processing said instructions from said step of delivering, said instructions being effective to change a technique of decrypting or enabling; and

performing said technique at said interactive television viewing apparatus, said processor at least one of generating and controlling output of said at least one of said product, said service, and said performance on the basis of said instructions.

23. (Unchanged) The method of claim 22, wherein one or more of said instructions is embedded in the non-visible portion of a television signal.

24. (Unchanged) The method of claim 22, wherein one or more of said instructions is delivered in a multichannel signal transmitted over a cable broadband network, said method further comprising the step of demodulating a carrier to receive at least one of said instructions.

25. (Unchanged) The method of claim 22, wherein said at least one of said instructions is delivered in a multichannel signal transmitted over a satellite television transmitter station, said method further comprising the step of demodulating a carrier to receive said at least one of said instructions.

26. (Unchanged) The method of claim 22, further comprising the steps of: storing a subscriber instruction to process or present at least one mass medium programs, data, news items, or computer control instructions in a specific fashion; and

processing or presenting at least one specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction.

27. (Unchanged) The method of claim 22, wherein information evidencing the availability, use or usage of said television program or a mass medium program is stored or communicated to a remote data collection station, said method further comprising the step of selecting evidence information that identifies or designates at least one of:

- (1) a mass medium program;
- (2) a use of programming;
- (3) a transmission station;
- (4) a receiver station;
- (5) a network;
- (6) a broadcast station;
- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) a unique identifier datum;
- (10) a source or supplier of data;
- (11) a distributor or an advertisement; and
- (12) an indication of copyright.

28. (Unchanged) A method for promoting and delivering at least one of a product, a service, and a media output for use with an interactive television viewing apparatus comprising the steps of:

outputting a television program one of demonstrating and describing said at least one of said product, said service, and said media output, said interactive television viewing apparatus having an input device to receive input from a viewer;

prompting said viewer during said television program whether said viewer wants said at least one of said product, said service, and said media output from said step of outputting, said interactive television viewing apparatus having an output device for outputting said at least one of said product, said service, and said media output;

receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and at least one of generating and controlling output of said at least one of said product, said service, and said media output in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving said reply, said instructions controlling said interactive television viewing apparatus;

processing said instructions from said step of delivering, said instructions effective to execute a technique of decrypting or enabling; and

delivering said at least one of said product, said service, and said media output on the basis of said instructions.

29. (Unchanged) The method of claim 28, wherein said interactive television viewing apparatus has a plurality of output devices and said at least one of said product, said service, and said media output is delivered at a specific at least one of said plurality of output devices, said method further comprising the steps of:

controlling a selective transmission device to communicate some data or instructions in respect of said at least one of said product, said service, and said media output to said specific at least one of said plurality of output devices; and

actuating said at least one of said plurality of output devices that outputs video, audio, or a physical product to output some portion of said at least one of said product, said service, and said media output on the basis of said communicated some data or

instructions in respect of said at least one of said product, said service, and said media output.

30. (Unchanged) The method of claim 28, wherein at least one of said instructions is embedded in the non-visible portion of a television signal.

31. (Unchanged) The method of claim 28, wherein at least one of said instructions is delivered in a multichannel signal transmitted by a remote cable television or satellite television transmitter station, said method further comprising the step of tuning a converter to receive at least one of said instructions.

32. (Unchanged) The method of claim 28, having one selected from the group consisting of:

programming said interactive television viewing apparatus to query a remote data source at a particular time or in a particular fashion;

delivering at said interactive television viewing apparatus some processed information of a stored datum simultaneously or sequentially with said television program or said at least one of said product, said service, and said media output;

storing said viewer reply for subsequent processing in response to at least one of said instructions; and

assembling and communicating to a remote site data evidencing said viewer reply.

33. (Unchanged) The method of claim 28, further comprising the steps of: storing a subscriber instruction to receive at least one specific mass medium programs, data, news items, or computer control instructions; and

receiving said at least one specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction.

34. (Unchanged) The method of claim 28, further comprising the steps of:
storing a subscriber instruction to process or present at least one mass medium programs, data, news items, or computer control instructions in a specific fashion; and
processing or presenting at least one specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction.

35. (Unchanged) The method of claim 28, further comprising the steps of:
programming said processor to respond to information communicated from a data or programming source;
receiving an information transmission from a local storage device or remote television programming source;
inputting at least some of said received information transmission to a control signal detector;
detecting data or an instruct signal in said information transmission; and
passing said detected data or said instruct signal to said processor.

36. (Unchanged) The method of claim 28, wherein information evidencing the availability, use or usage of said television program or said technique is stored or communicated to a remote data collection station, said method further comprising the step of selecting evidence information that identifies or designates at least one of:

- (1) a mass medium program;
- (2) a use of programming;
- (3) a transmission station;
- (4) a receiver station;
- (5) a network;
- (6) a broadcast station;

- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) a unique identifier datum;
- (10) a source or supplier of data;
- (11) a distributor or an advertisement; and
- (12) an indication of copyright.

37. (Unchanged) The method of claim 28, further comprising the steps of:
receiving at least one datum that designate a time or a channel of transmission of
said television program or said instructions or that specify the title of or some subject
matter contained in said television program or said instructions; and subsequently
receiving said television program or said instructions on the basis of said at least
one datum.

38. (Unchanged) The method of claim 28, wherein said instructions
incorporate code said method further comprising the steps of communicating said code to
said processor and performing, on the basis of said code, one selected from the group
consisting of:

- (1) receiving a signal containing said television program or said instructions;
- (2) actuating a video, audio, or print output device, as appropriate, to output
said at least one of said product, said service, and said media output;
- (3) decrypting at least a portion of said television program or said instructions;
- (4) controlling a selective transmission device to communicate at least some
of said at least one of said product, said service, and said media output to an output
device;
- (5) generating a receiver specific datum to present with received
programming; and

(6) delivering a receiver specific datum at said interactive television viewing apparatus simultaneously or sequentially with said television program or said at least one of said product, said service, and said media output.

39. (Unchanged) The method of claim 28, wherein said interactive television viewing apparatus includes a storage device, said method further having one selected from the group of:

embedding a code or datum in said television program that enables said interactive television viewing apparatus to locate some code or control a presentation of said at least one of said product, said service, and said media output in accordance with said instructions;

communicating a program unit identification code to said storage device and storing said program unit identification code at a storage location associated with said television program;

communicating to and storing at said storage device some information to evidence an availability, use, or usage of said television program, said instructions, or some code;

storing at said storage device an instruct signal which is effective to generate some output to be associated with said at least one of said product, said service, and said media output;

storing at said storage device an instruct signal which is effective to display a combined or sequential presentation of a mass medium program and a user specific datum;

storing at said storage device an instruct signal which is effective to process a user reaction to said television program or said at least one of said product, said service, and said media output;

storing at said storage device an instruct signal which is effective to communicate to a remote station a query in respect of information to be associated with said television

program or to enable display of said at least one of said product, said service, and said media output;

storing at said storage device an instruct signal which is effective to control a user station to receive information to supplement said television program;

storing at said storage device an instruct signal which is effective to process a digital television signal which is separately defined from standard analog television; and

storing at said storage device a code or datum to serve as a basis for enabling an output device to display at least some of said at least one of said product, said service, and said media output or for enabling said interactive television viewing apparatus to process some code.

40. (Unchanged) The method of claim 19, wherein said step of transferring is performed based on a comparison.

41. (Unchanged) The method of claim 19, wherein said step of transferring is performed in accordance with a schedule.

42. (Unchanged) The method of claim 41, wherein said schedule specifies a transmission time and a transmission channel, said method further comprising the steps of receiving and storing said schedule at said transmitter station.

43. (Unchanged) The method of claim 19, wherein said one or more instruct signals operate at said one or more receiver stations based on an identifier, said method further comprising the step of transmitting said identifier.

44. (Unchanged) The method of claim 43, wherein an information transmission containing said television program is received at said one or more receiver

station, wherein said television program is outputted at said one or more receiver stations, and wherein said identifier identifies at least one of (i) said television program, (ii) a channel containing said television program, and (iii) at least one datum input at said one or more receiver stations in response to information outputted in one of (a) said information transmission and (b) said television program.

45. (Amended) A method of delivering mass medium programming to a plurality of subscribers in a communications network, said network comprising a transmission station and a plurality of receiver stations, said transmission station comprising a computer capable of storing and processing data and a signal generator capable of embedding digital information in a mass medium programming transmission, with each receiver station comprising an output device for outputting mass medium programming and a computer for storing data, responding to instructions, and outputting information to the mass medium output device of its station, said method comprising the steps of:

- programming for hybrid operations;
- identifying a channel;
- detecting a plurality of embedded signals;
- passing said plurality of embedded signals to a processor;
- identifying a signal that requires decryption;
- identifying a decryption key on the basis of a pattern of composition;
- decrypting a portion of said identified signal based on said step of identifying a decryption key; and
- processing each signal.

46. (Amended) A method for controlling decryption of programming at a receiver station, said receiver station having a receiver for receiving a point-to-multipoint

information transmission, a digital detector operatively connected to said receiver for detecting a plurality of signal types, a processor operatively connected to said digital detector for locating or identifying a specific control signal, a plurality of decryptors operatively connected to said receiver or said processor [for decrypting programming,] and with said processor programmed to control at least one of said plurality of decryptors, said method comprising the steps of:

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- storing code designating at least a portion of said [television or computer] programming;
- receiving an information transmission that contains said [television or computer] programming and a control signal;
- separating said [television or computer programming] transmission into a plurality of portions;
- passing said plurality of portions selectively to said plurality of decryptors;
- controlling said plurality of decryptors based on said code; [and]
- decrypting said [television or computer] programming and said control signal;
- presenting said programming to a viewer or listener based on said step of decrypting.

47. (Amended) A method for enabling communication of [television or computer] programming at a receiver station, said receiver station having a receiver for receiving one or more [television or computer] programming signals, a selective [transmission] transfer device operatively connected to said receiver for preventing or enabling the communication of programming, a detector operatively connected to said receiver for detecting control signals, a processor operatively connected to said control signal detector capable of controlling said selective [transmission] transfer device, and with said processor programmed to process or respond to a plurality of control signals, said method comprising the steps of:

storing [information of] a plurality of codes or [identification] data, each code or [identification] datum for enabling communication of at least [some] a portion of a unit of [television or computer] programming;

receiving an information transmission that contains a unit of [television or computer] programming and one or more control signals;

passing at least [some] a portion of said information transmission to said control signal detector;

detecting said one or more control signals in said information transmission and transferring said detected one or more control signals to said processor;

selecting a specific [code or identification datum in accordance with] portion of said one or more control [signal] signals in a predetermined fashion; and

enabling communication of said unit of [television or computer] programming, based on said storing step, by controlling said selective transmission device to decrypt a portion of said unit of [television or computer] programming, based on said selecting step, and [communicate] communicating said portion of said unit of [television or computer] programming.

48. (Amended) A method of controlling one or more receiver stations each of which includes a broadcast or cablecast signal receiver, at least one processor, a selective transmission device for enabling communication of a unit of [television or computer] programming, a [control signal] detector, said [signal] detector adapted to receive signals from [a broadcast or cablecast signal,] said receiver and said processor programmed to respond to signals from said detector, and said method [of controlling] comprising the steps of:

(1) receiving at a broadcast or cablecast transmitter station [a] said first unit of [television or computer] programming [and transferring said unit of television programming to a transmitter];

(2) receiving at said broadcast or cablecast transmitter station [a] said code or [identification] datum which designates [or identifies] at least a portion of said first unit of [television or computer] programming;

(3) receiving and storing at said broadcast or cablecast transmitter station one or more control signals, said control signals designating or specifying one or more times or locations to transmit said code or datum; and

(4) [transferring] transmitting said first unit of programming and said code or datum to [said] a transmitter in accordance with said one or more control [signal,] signals [said transmitter broadcasting or cablecasting unit of television or computer programming and said code or datum to said one or more receiver stations].

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49. (Unchanged) The method of claim 48, further comprising the [step] steps of receiving at said broadcast or cablecast transmitter station [an instruct signal and transferring said instruct signal to said transmitter, said instruct signal operates at said one or more receiver stations to instruct said processor in a manner in which to control said selective transmission device in enabling a portion of said unit of television or computer programming designated or identified by said code or identification datum] a second unit of programming which promotes use of said code or datum, and transmitting said second unit of programming.

50. (Amended) A method of communicating subscriber station information from a subscriber station to one or more remote data collection stations, said method comprising the steps of:

[(1)] receiving at a subscriber station information that designates an instruction to be processed or an output to be delivered;

[(2)] receiving a [viewer's or participant's] user reaction to an output at said subscriber station;

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● [(3)] processing an instruct signal which is effective to decrypt or enable at said subscriber station in response to said [viewer or participant's] user reaction at said subscriber station, said step of processing [at said subscriber station] directed by instructions from said instruct signal;

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● [(4)] generating an indicia that said instruct signal [from said step of processing] was delivered or [confirming the delivery of said effect from said step of processing] was effective to decrypt or enable;

● [(5)] transferring said indicia from said step of generating from said subscriber station to one or more remote data collection stations.

51. (Unchanged) The method of claim 50, wherein said instruct signal is input by a subscriber, said method further comprising the steps of:

● storing a subscriber instruction to receive one or more specific mass medium programs, data, news items, or computer control instructions; and

receiving one or more specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction.

52. (Unchanged) The method of claim 50, wherein said instruct signal is input by a subscriber, said method further comprising the steps of:

storing a subscriber instruction to process or present one or more mass medium programs, data, news items, or computer control instructions in a specific fashion; and

processing or presenting one or more specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction.

● 53. (Unchanged) The method of claim 50, wherein said instruct signal is detected in an information transmission from a data or programming source, said method further comprising the steps of:

programming a processor to respond to an instruct signal communicated from a data or programming source;
receiving an information transmission from a data or programming source;
inputting at least some of said information transmission to a control signal detector;
detecting said instruct signal in said information transmission; and
passing said instruct signal to said processor.

54. (Amended) A method of controlling a remote intermediate transmitter station to communicate mass medium program material to at least one receiver station, with said remote intermediate transmitter station including one of a broadcast and a cablecast transmitter for transmitting mass medium programming, a plurality of selective transfer devices each operatively connected to said one of broadcast and a cablecast transmitter for communicating said mass medium programming, a mass medium programming receiver for receiving said mass medium programming from at least one origination station, a control signal detector, and at least one of a controller and a computer capable of controlling at least one of said plurality of selective transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one control signal, to control [the] communication of said mass medium programming in response to said at least one control signal, and to deliver at said one of a broadcast and a cablecast transmitter said mass medium programming, said method of communicating comprising the steps of:

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[[1]] receiving said mass medium programming at said at least one origination [transmitter] station and delivering said mass medium programming to at least one origination transmitter, said mass medium programming to have an associated instruct signal which is effective to enable decryption of at least a portion of said mass medium programming;

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[(2)] receiving said at least one control signal which at [the] said remote intermediate mass medium programming transmitter station operates to control [the] communication of said unit of mass medium programming and said instruct signal to said one of a broadcast and a cablecast transmitter; and

[(3)] transmitting said at least one control signal from said at least one origination transmitter before a specific time.

55. (Unchanged) The method of claim 54, wherein said at least one control signal includes a code or datum which operates at the remote intermediate mass medium programming transmitter station to identify said mass medium programming, said method further comprising the step of:

transmitting a schedule which operates at the remote intermediate mass medium programming transmitter station to communicate said mass medium programming to said one of a broadcast and a cablecast transmitter at said specific time.

56. (Unchanged) The method of claim 54, wherein one of (1) said specific time is a scheduled time of transmitting said one or more units of mass medium programming at said remote intermediate mass medium programming transmitter station and (2) said at least one control signal is effective at the remote intermediate mass medium programming transmitter station to control said plurality of selective transmission devices at different times.

57. (Unchanged) The method of claim 54, further comprising the step of embedding said at least one control signal in a signal one of containing and to contain said mass medium programming before transmitting said mass medium to said remote transmitter station.

58. (Unchanged) The method of claim 54, wherein said remote intermediate mass medium programming transmitter station communicates said mass medium programming according to a schedule and said at least one control signal is effective at the remote intermediate mass medium programming transmitter station to communicate a specific at least some of said mass medium programming at least one of to a plurality of transmitters and to a transmitter a plurality of times.

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59. (Amended) A method of communicating program material to at least one receiver station each of which includes a television receiver, at least one decryptor[,], a control signal detector, a processor operably connected to said at least one decryptor, and with each said receiver station adapted to detect and respond to at least one instruct signal, said method comprising the steps of:

(1) receiving a television program to be transmitted at a transmitter station and delivering said television program to a transmitter, said television program including audio and an encrypted portion of video to be displayed;

(2) receiving and storing said at least one instruct signal at said transmitter station, said at least one instruct signal operative [at the receiver station operate] to enable decryption of [at least some] said encrypted portion of video of said television program at the receiver station;

(3) transferring said at least one instruct signal to said transmitter; and

(4) transmitting from said transmitter station an information transmission containing said television program and said at least one instruct signal.

60. (Unchanged) The method of claim 59, wherein said step of transmitting directs said information transmission to a plurality of receiver stations at the same time and each of said plurality of receiver stations at least one of receives and responds to said at least one instruct signal concurrently.

61. (Unchanged) The method of claim 59, wherein said step of transmitting directs said information transmission to a plurality of receiver stations at different times and each of said plurality of receiver stations responds to said at least one instruct signal at a different time.

62. (Unchanged) The method of claim 59, wherein a controller controls a switch to communicate [to] at least one of said television program and said at least one instruct signal to said transmitter, further comprising one of the steps of:

detecting a signal which is effective at the transmitter station to instruct communication;

inputting to said controller a signal which is effective to control said switch;

controlling said switch to communicate according to a transmission schedule;

controlling said switch to communicate from a specific one of a plurality of program input receivers; and

controlling said switch to communicate to a selected one of a plurality of transmitters.

63. (Unchanged) The method of claim 59, further comprising the steps of causing a memory location that is capable of storing and communicating a signal which is effective at the receiver station to update, to communicate said update signal to a transmitter to transmit said update signal, thereby to cause at least one receiver station to update data stored in a computer.

64. (Unchanged) A method of providing enabling information to a receiver station from a remote enabling source, said enabling information for use at the receiver

station in controlling a mass medium program presentation, said method comprising the steps of:

storing enabling information at said remote enabling source;

receiving at said remote enabling source a query from said receiver station;

transmitting an enabling signal which is effective to enable decryption from said remote enabling source to said receiver station in response to said step of receiving said query, said receiver station storing at least some of said transmitted enabling signal;

transmitting from a second remote source to said receiver station an encrypted mass medium presentation signal which is decrypted on the basis of said stored at least some of said enabling signal and enables said receiver station to present mass medium programming.

65. (Unchanged) An interactive method for mass medium programming promotion and delivery for use with an interactive television viewing apparatus comprising the steps of:

displaying a television program that promotes mass medium programming, said interactive television viewing apparatus having an input device to receive input from a subscriber;

prompting said subscriber during said television program whether said subscriber wants said mass medium programming promoted in said step of displaying, said interactive television viewing apparatus having a memory for storing an identifier ;

receiving a reply from said subscriber at said input device in response to said step of prompting said subscriber, said interactive television viewing apparatus having a processor for processing said subscriber reply and said identifier;

processing said reply from said step of receiving a reply and selecting said identifier , said interactive television viewing apparatus having a transmitter for communicating said identifier to at least one remote station;

communicating said selected identifier to said at least one remote station, said interactive mass medium output apparatus and said remote station comprising a network having a plurality of transmitter stations;

assembling, in said network, code which is effective at said interactive television viewing apparatus to identify and decrypt said mass medium programming, said interactive television viewing apparatus having a receiver for receiving at least a portion of said code from said at least one remote station;

delivering said code at said interactive television viewing apparatus; and
delivering said mass medium programming on the basis of said code.

66. (Unchanged) The method of claim 65, wherein said at least a portion of said code is embedded in the non-visible portion of a television signal.

67. (Amended) The method of claim 65, wherein information evidencing the availability, use or usage of said television program or said mass medium programming is stored or communicated to a remote data collection station, said method further comprising the step of selecting evidence information that identifies or designates one or more of:

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- (1) a mass medium program;
- (2) a use of data;
- (3) a transmission station;
- (4) a receiver station;
- (5) a network;
- (6) a broadcast station;
- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) a unique identifier datum;

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- (10) a source or supplier of data;
- (11) a [publication, article, publisher,] distributor[,] or an advertisement; and
- (12) an indication of [copyright] a payment obligation.

68. (Unchanged) The method of claim 65, further comprising the steps of communicating said code to said processor and performing, on the basis of said code, one selected from the group consisting of:

- (1) receiving a signal containing said mass medium programming;
- (2) actuating a video, audio, or print storage or output device, as appropriate, to store or output said mass medium programming;
- (3) decrypting at least a portion of said mass medium programming;
- (4) controlling a selective transmission device to communicate said mass medium programming to a storage device or an output device;
- (5) generating a receiver specific datum to on the basis of information contained in said mass medium programming;
- (6) delivering a receiver specific datum at said interactive television viewing apparatus simultaneously or sequentially with said mass medium programming; and
- (7) decrypting at least some of said code.

69. (Unchanged) The method of claim 65, wherein said identifier is communicated to said at least one remote station after said mass medium programming is delivered.

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70. (Amended) A method of signal processing at a receiver station having [an output device] a decryptor and at least one reprogrammable processor, said method comprising the steps of:

- (a) receiving a signal containing executable processor code;

(b) controlling said processor to extract said executable processor code from said signal; and

(c) controlling [a] said decryptor to enable communication of at least one encrypted portion of a television signal based on said step of controlling said processor.

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71. (Unchanged) The method of claim 70, further comprising the steps of:
passing said executable processor code to said at least one reprogrammable processor; and

storing information evidencing one of a function performed by and a function initiated by said at least one reprogrammable processor in consequence of said executable processor code having been passed to said at least one reprogrammable processor.

72. (Unchanged) A method of controlling a plurality of receiver stations each of which includes a television receiver, a signal detector, and a processor, each receiver station of said plurality of receiver stations (i) adapted to detect the presence of at least one control signal that controls an execution of downloadable code that comprises a signal that one of decrypts and enables and (ii) programmed to process said downloadable code, said method of controlling comprising the steps of:

(1) receiving, at a transmitter station, said downloadable code, said downloadable code having at each of said plurality of receiver stations a target processor to process data;

(2) transferring said downloadable code from said transmitter station to a transmitter;

(3) receiving said at least one control signal at said transmitter station;

(4) transferring said at least one control signal from said transmitter station to said transmitter; and

(5) transmitting an information transmission comprising the downloadable code and said at least one control signal.

73. (Unchanged) The method of claim 72, wherein a television program is displayed at at least one receiver station of said plurality of receiver stations and said downloadable code programs said processor of said at least one receiver station to one of (i) output at least one of video, audio, and text in the context of said television program; (ii) process a viewer reaction to said television program; and (iii) select information that one of completes and supplements content of said television program.

74. (Unchanged) The method of claim 72, wherein said downloadable code is transmitted to two of said plurality of receiver stations at different times and each of said two receiver stations receive and respond to one of said at least one control signal and said downloadable code asynchronously.

75. (Unchanged) The method of claim 72, further comprising the steps of receiving said downloadable code at a receiver in the transmitter station, communicating said downloadable code from said receiver to a memory location, and storing said downloadable code at said memory location for a period of time prior to said transferring said downloadable code from said transmitter station to said transmitter.

76. (Unchanged) The method of claim 72, wherein at least one receiver station of said plurality of receiver stations is one of (i) adapted to detect the presence of said at least one control signal and (ii) programmed to respond to said downloadable code, on the basis of a pattern of signal composition, said method further comprising the step of composing, in said pattern, at least a portion of at least one of (i) said at least one control signal and (ii) said downloadable code.

77. (Unchanged) The method of claim 72, wherein at least one receiver station of said plurality of receiver stations is one of (i) adapted to detect the presence of said at least one control signal and (ii) programmed to respond to said downloadable code on the basis of a varying location of a signal in an information transmission, said method further comprising the step of causing at least a portion of at least one of (i) said control signal and (ii) said downloadable code to be transmitted in said varying location.

78. (Unchanged) The method of claim 72, wherein at least one receiver station of said plurality of receiver stations is one of (i) adapted to detect the presence of said at least one control signal and (ii) programmed to respond to said downloadable code on the basis of a varying timing pattern of signal transmission, said method further comprising the step of causing at least some of at least one of (i) said at least one control signal and (ii) said downloadable code to be transmitted in accordance with said varying timing pattern.

79. (Unchanged) The method of claim 72, wherein at least one of (i) said downloadable code and (ii) identification data in respect of said downloadable code are embedded in at least one of a television signal and a signal containing a television program.

80. (Unchanged) A method of communicating subscriber station information from a subscriber station to at least one remote data collection station, said method comprising the steps of:

- (1) inputting a subscriber reaction at said subscriber station;
- (2) receiving at said subscriber station an instruct signal that designates at least one of (i) at least one of code and data to process and (ii) an output to deliver;

(3) determining the presence of said subscriber reaction at said subscriber station in response to said instruct signal;

(4) processing said at least one of code and data to at least one of decrypt and enable delivery of said output at said subscriber station in consequence of said step of determining; and

(5) transferring from said subscriber station to said at least one remote data collection station an indicium confirming at least one of (i) said processing of said at least one of said code and said data and (ii) delivery of said output.

81. (Unchanged) The method of claim 80, wherein said instruct signal is input by a subscriber, said method further comprising the steps of:

storing a subscriber instruction to receive at least one of specific mass medium programs, data, news items, and computer control instructions; and

receiving said at least one of specific mass medium programs, data, news items, and computer control instructions in accordance with said instruction.

82. (Unchanged) The method of claim 80, wherein said instruct signal is input by one of a processor and a subscriber, said method further comprising the steps of:

storing a subscriber instruction to one of process and present at least one of mass medium programs, data, news items, and computer control instructions in a specific fashion; and

doing at least one of processing and presenting said at least one of specific mass medium programs, data, news items, and computer control instructions in accordance with said instruction.

83. (Unchanged) The method of claim 80, wherein said instruct signal is detected in an information transmission from one of a data source and a programming source, said method further comprising the steps of:

programming a processor to respond to said instruct signal;

receiving said information transmission from said one of said data source and said programming source;

inputting at least a portion of said information transmission to a control signal detector;

detecting at least one of data and a second instruct signal in said information transmission; and

passing said detected one of said data and said second instruct signal to said processor.

84. (Unchanged) A method of processing signals to enable a subsequent mass medium programming presentation comprising the steps of:

receiving a programming signal containing mass medium programming, at least a portion of said programming signal being encrypted;

communicating said programming signal to a storage device;

receiving at least one processor instruction which is effective at a user station to instruct one of a processor and a computer to control a decryptor to decrypt said at least a portion of said mass medium programming;

communicating said at least one processor instruction to said storage device; and

storing said at least one processor instruction at said storage device in association with said mass medium programming.

85. (Unchanged) The method of claim 84, wherein said mass medium programming comprises at least one of video, audio, and text, said method further comprising one of the steps of:

embedding said at least one processor instruction in one of a television and a radio signal;

embedding a code in said mass medium programming that enables one of a processor and a computer to at least one of receive and output information to at least one of complete and supplement said mass medium programming in accordance with said at least one processor instruction;

communicating an identification code that is associated with said mass medium programming to said storage device;

storing said identification code at a storage location associated with said mass medium programming;

communicating to and storing at said storage device information, to be processed at a user station, that evidences one of an availability, use, and usage of at least one of video, audio, and text associated with said mass medium programming;

storing at said storage device an instruct signal which instructs a user station to select said mass medium programming.

86. (Unchanged) The method of claim 84, further comprising the step of storing information at said storage device that evidences an availability, use, and usage of said at least one processor instruction, said evidence information one of designating and identifying at least one of:

- (1) a mass medium program;
- (2) a proper use of programming;
- (3) a transmission station;
- (4) a receiver station;

- (5) a network;
- (6) a broadcast station;
- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) an instruct signal;
- (10) one of a source of data and a supplier of data;
- (11) one of a publication, article, publisher, distributor, and an advertisement;

and

- (12) an indication of copyright.

87. (Unchanged) The method of claim 84, said method further comprising the steps of:

selecting one of:

- (1) a datum that identifies a computer software in said programming signal;

[(2) a datum that instructs receiver end equipment of one of what specific programming to select to one of play and record other than that immediately at hand, how to load said specific programming on one of player equipment and recorder equipment, when and how to one of play said specific programming and record said specific programming other than immediately, how to modify said specific programming, what one of equipment, channel and channels to transmit said specific programming on, when to transmit said specific programming, and how and where to one of file said specific programming, refile said specific programming, and dispose of said specific programming ;]

- [(3)] (2) a datum that designates an addressed apparatus;

[(4)] (3) a datum that specifies one of where, when, and how to locate said programming signal;

- [(5)] (4) a datum that informs a processor of a fashion for identifying and processing a signal;
 - [(6)] (5) a datum that is part of a decryption code;
 - [(7)] (6) a comparison datum that designates a communication schedule;
- and
- embedding said selected one in said programming signal.

88. (Amended) The method of claim 84, further comprising the steps of:
selecting an instruction, said instruction being one of:

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- (1) a switch control instruction;
- (2) a timing control instruction;
- (3) a locating control signal;
- (4) an instruct-to-contact signal that designates a remote receiver station;
- (5) an instruct-to-transfer signal that designates one of broadcast programming and cablecast programming;
- (6) an instruct-to-delay signal that designates one of broadcast programming and cablecast programming;
- (7) one of an instruct-to-decrypt signal and an instruct-to-interrupt signal that designates a programming and a way to one of decrypt and interrupt;
- (8) one of an instruct-to-enable signal and instruct-to-disable signal that designates an apparatus;
- (9) an instruct-to-record signal that designates one of a broadcast program and a cablecast program;
- (10) an instruction signal that controls a multimedia presentation;
- (11) an instruction signal that governs one of a broadcast receiver station environment and a or cablecast receiver station environment;
- (12) an instruct-to-power-on signal that designates a receiver;

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- (13) an instruct-to-tune signal that designates one of a receiver and a frequency;
 - (14) an instruct-to-coordinate signal that designates two apparatus;
 - (15) an instruct-to-compare signal that designates one of a news transmission and a computer input;
 - (16) an identifier signal that causes a computer to instruct a plurality of tuners each to tune to one of a broadcast transmission and a cablecast transmission;
 - (17) an instruct-to-coordinate signal that designates two units of multimedia information and one of: (1) an output time and (2) an output place;
 - (18) an instruct-to-generate signal that designates an output datum;
 - (19) an instruct-to-transmit signal that designates a computer output;
 - (20) an instruct-to-overlay signal that designates a television image;
 - (21) an instruct-that-if signal that designates a function to perform if a predetermined condition exists;
 - (22) an instruct-to-enable-and-deliver signal that designates information that supplements a television program;
 - (23) an instruct-to-transmit signal that designates a computer peripheral [storage] device;
 - (24) a code signal that designates a datum to one of remove and embed; and
 - (25) a signal addressed to a receiver station apparatus; and embedding said selected instruction in said programming signal.

89. (Unchanged) A method of processing signals at a receiver station comprising the steps of:

- (a) receiving at least one information transmission;
- (b) detecting a plurality of signals in said at least one information transmission, at least one first signal of said plurality of signals including downloadable code;

- (c) passing said downloadable code to a processor;
- (d) controlling one of a decryptor and an enabling device to one of decrypt and enable communication in a specific fashion on the basis of said downloadable code;
- (e) doing, in accordance with said controlling, one of decrypting and enabling communication of at least one second signal of said plurality of signals in said specific fashion;
- (f) passing said at least one second signal to one of said processor and an output device; and
- (g) storing information evidencing the passing of one of said downloadable code and said passed at least one second signal.

90. (Unchanged) A television receiver station apparatus for authorizing and generating a plurality of outputs from a received signal source comprising:

- a receiver section to receive a multichannel signal, said multichannel signal having a plurality of television programs and audio programs encoded in said multichannel signal;
- a processor operatively connected to said receiver section to route at least two channels from said multichannel signal;
- a first decoder operatively connected to said processor for receiving a first channel from said multichannel signal routed by said processor, said decoder having an output;
- a second decoder operatively connected to said processor for receiving a second channel from said multichannel signal routed by said processor said decoder having an output;
- a first decryption circuit operatively connected to said first decoder and said processor, said processor authorizing said first decryption circuit to decrypt the output from said first decoder;

a first receiver station operatively connected to a first decryptor for receiving a decrypted signal from said first decryptor and generating a first receiver station output;

a second decryption circuit operatively connected to said second decoder and said processor, said processor authorizing said second decryption circuit to decrypt the output from said second decoder; and

a second receiving station operatively connected to a second decryptor for receiving a decrypted signal from said second decryptor and generating a second receiver station output.

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91. (Amended) A method of processing signals at a receiver station, said receiver station having a receiver, a digital detector operatively connected to said receiver for detecting digital data, a decryptor operatively connected to said digital detector for decrypting some digital data, and a controller operatively connected to said digital detector or said decryptor for controlling said decryptor on the basis of some received information, said method comprising the steps of:

receiving a signal containing [television] programming and a sequence of signal words and inputting at least [some] a portion of said signal to said digital detector;

detecting said sequence of signal words based on a varying pattern of location or timing [digital data in said signal and passing said detected data to said decryptor and at least a portion of said detected data to said controller];

controlling said decryptor to decrypt one of said signal words [said detected data selectively on the basis of information contained in said at least a portion of said detected data]; and

providing said programming based on said decrypted signal word and said step of detecting

[decrypting said portions and passing said portions to a processor or storage device].

92. (Amended) A method of processing signals at a receiver station, said receiver station having a receiver, a digital detector operatively connected to said receiver for detecting digital data, a decryptor operatively connected to said digital detector for decrypting some digital data, and a controller operatively connected to said digital detector or said decryptor for controlling said decryptor on the basis of some received information, said method comprising the steps of:

receiving a plurality of signals [signal] containing [television] programming and inputting at least some of said signals [signal] to said digital detector;

detecting digital data in said [signal] signals in accordance with a varying pattern of timing or location and passing some detected data to said decryptor and said controller;

controlling said decryptor to alter its decryption pattern or technique on the basis of information contained in said detected data; and

decrypting some portion of said detected and passed digital data using a selected decryption pattern or technique based on said step of detecting in order to provide a decrypted output of programming to a viewer or listener.

93. (Amended) A method of controlling a receiver station [which includes a television receiver, a digital detector, a decryptor, at least one processor or controller capable of processing data, and with said receiver station adapted] to detect digital data and [programmed to] control [said] a decryptor based on a varying pattern of timing or location, said method of controlling comprising the steps of:

(1) receiving [one of television] programming [and an instruct signal which is effective at the receiver station to instruct,] and delivering [one of] said [television] programming [and said instruct signal] to a transmitter;

(2) receiving [some] digital data comprising at least an instruct signal and communicating said digital data to a signal embedder, said instruct signal operative at said receiver station to control said decryptor;

(3) controlling said signal embedder [or] to embed said digital data in an information transmission in a varying pattern of [discrete signaling appearances, said pattern having varying composition,] timing, or locations;

(4) communicating said information transmission to said transmitter; and

(5) transmitting said [television] programming and said information transmission including said digital data.

94. (Unchanged) A method of processing signals at a receiver station comprising the steps of:

(a) receiving one or more information transmissions;

(b) detecting a plurality of signals on said one or more information transmissions;

(c) decrypting at least one of said plurality of signals selectively on the basis of information in said plurality of signals;

(d) passing said decrypted at least one signal to a controllable device;

(e) controlling said controllable device on the basis of said passed decrypted at least one signal; and

(f) storing information evidencing the passing of said passed decrypted at least one signal.

95. (Unchanged) The method of claim 94, further comprising any one of the steps of:

generating a signal to control a tuner to receive a television program in response to one of said detected and passed one or more instruct signals;

displaying a television program at a television monitor;
inputting said one or more information transmissions to a control signal detector
in response to a command;
storing a television program at a memory or recorder;
detecting and storing information evidencing a function performed by said
computer in response to one of said detected and passed one or more instruct signals; and
assembling a record of the availability, use or usage of a television program;
logging the transmission of a television program to said receiver station; and
transmitting some stored evidence information to a remote data collection station.

96. (Unchanged) The method of claim 94, wherein said information
transmission is received from a local source, said method further comprising the step of:
storing an information transmission containing one or more signals which are
effective at the receiver station to decrypt or enable.

97. (Amended) The method of claim 94, wherein the stored evidence
information identifies or designates one or more of:

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- (1) a mass medium program;
 - (2) a proper use of programming;
 - (3) a transmission station;
 - (4) a receiver station;
 - (5) a network;
 - (6) a broadcast station;
 - (7) a channel on a cable system;
 - (8) a time of transmission;
 - (9) a unique identifier datum;
 - (10) a source or supplier of data;

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- (11) a [publication, article, publisher,] distributor[,] or an advertisement; and
(13) an indication of [copyright] a payment obligation.
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98. (Unchanged) A method of controlling a remote intermediate data transmitter station to communicate data to one or more receiver stations, with said remote transmitter station including a broadcast or cablecast transmitter for transmitting said data, a plurality of selective transmission devices each operatively connected to said broadcast or cablecast transmitter for communicating said data, a data receiver, a control signal detector, and a controller or computer capable of controlling one or more of said selective transmission devices, and with said remote transmitter station adapted to detect one or more control signals, to control the communication of said data in response to one or more detected specific control signals, and to deliver data at its broadcast or cablecast transmitter, said method of communicating comprising the steps of:

- (1) receiving data to be transmitted by the remote intermediate data transmitter station and delivering said data to a transmitter, said data comprising an instruct signal which is effective at the receiver station to decrypt or enable data selectively;
- (2) receiving one or more control signals which at the remote intermediate data transmitter station operate to control the communication of said data; and
- (3) transmitting said one or more control signals to said transmitter before a specific time.

99. (Unchanged) The method of claim 98, wherein said one or more control signals comprise a code or datum which operates at the remote intermediate data transmitter station to identify said data, said method further comprising the step of:

transmitting a schedule which operates at the remote intermediate data transmitter station to communicate said data to a transmitter at said specific time.

100. (Unchanged) The method of claim 98, wherein said specific time is a scheduled time of transmitting said data at said remote intermediate data transmitter station or said one or more control signals are effective at the remote intermediate data transmitter station to control one or more of said plurality of selective transmission devices at different times.

101. (Unchanged) The method of claim 98, further comprising the step of embedding a specific one of said one or more control signals in said data before transmitting said data to said remote transmitter station.

102. (Unchanged) A method of processing signals to control a television programming presentation comprising the steps of:

receiving a television signal containing television programming and communicating said television signal to a storage device;

receiving a first instruct signal which is effective to instruct a processor in a manner of decrypting or enabling;

selecting one of:

- (1) a time at which to communicate said first instruct signal; and
- (2) a location to which to communicate said first instruct signal;

communicating said first instruct signal at said selected time or to said selected location; and

storing said television signal and said first instruct signal at said storage device.

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103. (Amended) The method of claim 102, wherein said selected location is in said television signal, said method further comprising the step of storing some information at said storage device that evidences one or more of:

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- (1) a title of a television program;
 - (2) a proper use of programming;
 - (3) a transmission station;
 - (4) a receiver station;
 - (5) a network;
 - (6) a broadcast station;
 - (7) a channel on a cable system;
 - (8) a time of transmission;
 - (9) a identification of an instruct signal;
 - (10) a source or supplier of data;
 - (11) a [publication, article, publisher,] distributor[,] or an advertisement; and
 - (12) an indication of [copyright] a payment obligation.

104. (Amended) The method of claim 102, said method further comprising the steps of:

selecting one of:

- (1) a datum that identifies a unit of computer software in said television signal;
- [(2)] a datum that specifies some of a way to instruct receiver end equipment what specific programming to select to play or record other than that immediately at hand, how to load it on player or recorder equipment, when and how to play it or record it other than immediately, how to modify it, what equipment or channel or channels to transmit it on, when to transmit it, and how and where to file it or refile it or dispose of it;]
- [(3)] (2) a datum that designates an addressed apparatus;
- [(4)] (3) a datum that specifies where, when, or how to locate a signal;

[(5)] (4) a datum that informs a processor of a fashion for identifying and processing a signal;

[(6)] (5) a datum that is part of a decryption code;

[(7)] (6) a comparison datum that designates a communication schedule;

and

embedding said selected one in said television signal.

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105. (Amended) The method of claim 102, further comprising the steps of:
selecting a second instruct signal, said second instruct signal being one of:

(1) a switch control signal;

(2) a timing control signal;

(3) a locating control signal;

(4) an instruct-to-contact signal that designates a remote receiver station;

(5) an instruct-to-transfer signal that designates a unit of broadcast or cablecast programming;

(6) an instruct-to-delay signal that designates a unit of broadcast or cablecast programming;

(7) an instruct-to-decrypt or instruct-to-interrupt signal that designates a unit of programming and a way to decrypt or interrupt;

(8) an instruct-to-enable or instruct-to-disable signal that designates an apparatus;

(9) an instruct-to-record signal that designates a broadcast or cablecast program;

(10) an instruction signal that controls a multimedia presentation;

(11) an instruction signal that governs a broadcast or cablecast receiver station environment;

(12) an instruct-to-power-on signal that designates a receiver;

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- (13) an instruct-to-tune signal that designates a receiver or a frequency;
 - (14) an instruct-to-coordinate signal that designates two apparatus;
 - (15) an instruct-to-compare signal that designates a news transmission or a computer input;
 - (16) an identifier signal that causes a computer to instruct a plurality of tuners each to tune to a broadcast or cablecast transmission;
 - (17) an instruct-to-coordinate signal that designates two units of multimedia information and one of: (1) an output time and (2) an output place;
 - (18) an instruct-to-generate signal that designates an output datum;
 - (19) an instruct-to-transmit signal that designates a computer output;
 - (20) an instruct-to-overlay signal that designates a television image;
 - (21) an instruct-that-if signal that designates a function to perform if a predetermined condition exists;
 - (22) an instruct-to-enable-and-deliver signal that designates information that supplements a television program;
 - (23) an instruct-to-transmit signal that designates a computer peripheral [storage] device;
 - (24) a code signal that designates a datum to remove or embed; and
 - (25) a signal addressed to a receiver station apparatus; and embedding said selected second instruct signal in said television signal.

106. (Amended) A method of communicating data and update material to at least one mass medium programming receiver station, wherein said receiver station includes a broadcast or cablecast data receiver, a data storage device, a control signal detector, a computer capable of processing data, and with each said receiver station adapted to detect and respond to at least one instruct signal and to store data for subsequent processing, said method of communicating comprising the steps of:

[(1)] receiving data to be transmitted and delivering [the] said data to a transmitter;

[(2)] receiving said at least one instruct signal, said at least one instruct signal being effective at [the] said receiver station to decrypt or enable data selectively;

[(3)] transferring said at least one instruct signal to a transmitter; and

[(4)] transmitting an information transmission comprising said data and said at least one instruct signal.

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107. (Amended) The method of claim 106, further comprising the steps of: causing a memory location to communicate [the] said at least one instruct signal to a transmitter to transmit said at least one instruct signal, said memory location being capable of storing and communicating said at least one instruct signal which at [the] said receiver station operates to overlay; and

causing [at least one] said receiver station to deliver a combined or sequential output of television data and a receiver specific datum at [its] a television monitor at a specific time.

108. (Unchanged) The method of claim 106, wherein some identification data or said at least one instruct signal is embedded in a television signal containing said data.

109. (Unchanged) A method of processing signals at a receiver station comprising the steps of:

(a) receiving at least one information transmission;

(b) detecting a plurality of signals on said at least one information transmission, at least one of said detected plurality of signals being effective at said receiver station to instruct;

- (c) decrypting at least one of said plurality of signals, said at least one decrypted signal including at least one instruct signal which is effective to instruct;
- (d) passing each decrypted instruct signal to a controllable device;
- (e) controlling said controllable device on the basis of decrypted information contained in said at least one decrypted signal including at least one instruct signal; and
- (f) storing information evidencing the passing of said decrypted at least one instruct signal.

110. (Unchanged) A method of processing signals at a receiver station comprising the steps of:

- (a) receiving at least one information transmission;
- (b) detecting a plurality of signals on said at least one information transmission, at least one of said detected plurality of signals being signals which are effective at said receiver station to instruct;
- (c) decrypting at least one of said plurality of signals, said at least one decrypted signal including at least one instruct signal which is effective to instruct;
- (d) passing said decrypted at least one instruct signal to a controllable device on the basis of decrypted information in said decrypted at least one instruct signal;
- (e) controlling said controllable device on the basis of passed said decrypted at least one instruct signal; and
- (f) storing information evidencing the passing of said passed decrypted at least one instruct signal.

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111. (Amended) A method for decryptor activation in a broadband data network comprising:

- receiving a transmission comprising encrypted materials;

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decrypting under first processor control [detecting] a first portion of said encrypted materials [signal] in said transmission [from said step of receiving];
[selecting said first signal from said step of detecting;]
inputting said first portion of said encrypted materials [signal from said step of selecting] to a decryptor;
[receiving a second signal at said decryptor;]
decrypting [said] under second processor control a second portion of said encrypted materials [signal in response to] based on said step of [inputting] decrypting said first portion of said encrypted materials [signal to said decryptor];
passing said decrypted second signal from said decryptor to a processor; and
processing said decrypted second signal from said step of passing at said processor].

112. (Unchanged) The method of claim 111 wherein said transmission in said step of receiving a transmission is a multichannel signal separated in the frequency domain.

113. (Unchanged) The method of claim 112 wherein said transmission is a cable system broadcast.

114. (Unchanged) The method of claim 111 wherein said transmission in said step of receiving a transmission is a multichannel signal separated in the time domain.

115. (Unchanged) The method of claim 111 wherein said transmission in said step of receiving a transmission is generated at a local data source.

116. (Amended) The method of claim 115 wherein said local data source [is] comprises a VCR.

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117. (Amended) The method of claim 115 wherein said local data source [is] comprises a laser disk.

118. (Amended) The method of claim 111 wherein said [second signal is] encrypted materials comprise a portion of a television program.

119. (Amended) The method of claim 111 wherein said [second signal is] encrypted materials comprise a digital data signal.

120. (Amended) The method of claim [111] 121 further comprising the step of printing the information received in said transmission on a printer.

121. (Unchanged) The method of claim 111 further comprising the step of displaying the information received in said [second] transmission on a display device.

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122. (Amended) The method of claim 111 wherein said step of [selecting a first signal] receiving is performed on the basis of information stored at a computer or on a disk.

123. (Amended) The method of claim 111, wherein said transmission in said step of receiving a transmission and [said second] a signal [in said step of receiving a second signal at said decryptor] necessary for decryption are [communicated] received from difference sources.

124. (Amended) The method of claim 123, wherein one of said transmission [and said second signal] and said signal necessary for decryption is received from a remote source [and the other of said transmission and said second signal is received from a local source].

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125. (Amended) The method of claim 123, further comprising the step of contacting [a] said remote transmitter station to receive said one of said [first signal and said second signal] transmission and said signal necessary for decryption.

126. (Unchanged) The method of claim 125, further comprising the step of programming a processor or controller to contact a remote site to get a first signal necessary for the decryption or passing of a second signal.

127. (Amended) The method of claim 111, wherein [one of said first] a signal [and said second signal] necessary for decryption is communicated by telephone.

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9 Cmt.

128. (Amended) The method of claim 111, further comprising the step of programming a processor [or controller] to locate or identify [said first] a signal necessary for [the] decryption [or passing of said second signal].

129. (Amended) A method for controlling [a] decryptor apparatus in a multichannel television network, said method comprising the step of:
receiving a multichannel television signal, [each] said multichannel television signal having at least one television program, said television program having an associated embedded encrypted control signal [signals],
detecting said embedded control signal [signals];

passing said embedded control signal [signals from said step of detecting] to said decryptor apparatus;

decrypting said embedded control signal [signals];

controlling [said decryptor in response] decryption of information based on [to] said embedded control signal [signals] from said step of decrypting to change [said decryptor's] a decrypting technique or pattern of said decryptor apparatus.

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Cmt.

130. (Amended) A method of controlling a remote transmitter station to communicate [a first signal to a subscriber station] and controlling [said] a subscriber station to [communicate a second signal to at least one of a processor and an] output information [device], said method comprising the steps of:

receiving [an information] a first signal [to be transmitted by the remote transmitter station] and delivering said first signal [to] from a transmitter;

receiving [at least one] an instruct signal which is effective [at the subscriber station] to [control] cause a portion of decryptor apparatus to decrypt and communicating said [at least one] instruct signal [to] from said transmitter;

receiving [at least one] a control signal which [at the remote transmitter station operate] operates to control the communication of said [information] first signal and said [at least one] instruct signal; [and]

causing said [at least one] control signal to be communicated [to] from said transmitter before a specific time[.];

[thereby to transmit] transmitting an information transmission including said [information] first signal, said [at least one] instruct signal, and said [at least one] control signal;

routing portions of the information transmission selectively to a plurality of processors in response to one or more of said instruct signal and said control signal;

communicating information from each of said plurality of processors selectively to said decryptor apparatus based on said step of routing; and
causing said decryptor apparatus to output a specific sequence of information based on said step of communicating.

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131. (Amended) A method of providing an enabling signal to a receiver station from a remote data source, said enabling signal for use in decrypting at the receiver station a programming signal, said receiver station being programmed to get information necessary for enabling a programming signal, said method comprising the steps of:

storing at the remote data source one or more control signals [necessary] for enabling a decryptor to decrypt [or communicate some data in respect of] a video [output or a television program, each control signal comprising (1) a code or datum designating the enabling information and (2) an information portion, said information portion comprising information necessary for enabling output];

receiving at the remote data source from the receiver station a communication to get specific enabling information;

communicating, from the remote data source to the receiver station in response to said communication from the receiver station, [at least an information signal of a first of said one or more control signals] a control signal,

whereby the receiver station inputs [the information portion of] said [first of said one or more] control signal [signals] to a [controller or] decryptor [and enables the communication of a second signal necessary for at least one of generating and outputting some data displayed at an output device as said video output or as an output presented to complete or supplement said television program].

132. (Unchanged) A method of controlling one or more of a plurality of receiver stations each of which includes a mass medium program receiver, a signal detector, at least one computer or processor, and with each said receiver station adapted to detect the presence of at least one control signals and to input a viewer reaction to a specific offer communicated in a mass medium program, said method comprising the steps of:

receiving at least one first instruct signal at a transmitter station and delivering said at least one first instruct signal to at least one transmitter, said at least one first instruct signal being effective at said one or more receiver stations to at least one of generate output and control the presentation of output;

receiving a code or datum at said transmitter station, said code or datum designating said first instruct signal or said viewer reaction;

receiving at least one second instruct signal at said transmitter station, said at least one second instruct signal at the one or more receiver stations being operative to decrypt or enable said at least one first instruct signal;

transferring at least one of said code or datum and said at least one second instruct signal to said at least one transmitter; and

transmitting one or more information transmission containing said at least one first instruct signal, said code or datum, and said at least one second instruct signal.

133. (Unchanged) A method of controlling at least one of a plurality of receiver stations each of which includes a broadcast or cablecast mass medium program receiver, at least one output device, a control signal detector, at least one processor capable of responding to at least one instruct signal, and with each said mass medium program receiver adapted to detect and respond to said at least one instruct signal, said method comprising the steps of:

receiving at a broadcast or cablecast transmitter station said at least one instruct signal which is effective at said at least one of said plurality of receiver stations to decrypt or enable, and delivering said at least one instruct signal to a transmitter;

receiving at said broadcast or cablecast transmitter station at least one control signal which at said at least one of said plurality of receiver stations operates to communicate said at least one instruct signal to a specific processor; and

transferring said at least one control signal to the transmitter, said transmitter transmitting said at least one instruct signal and said at least one control signal.

134. (Unchanged) A method of processing signals at a receiver station comprising the steps of:

receiving one or more information transmissions at said receiver station;

detecting a plurality of signals on said one or more information transmissions, at least a first of one of said plurality of signals including downloadable code;

controlling a decryptor or enabling device in response to said downloadable code;

decrypting or enabling communication of at least a second of said plurality of signals on the basis of said step of controlling said decryptor or enabling device;

passing said decrypted or enabled at least said second of said plurality of signals to a controllable device;

controlling said controllable device on the basis of said passed decrypted or enabled at least said second of said plurality of signals; and

storing information evidencing the passing of said at least said second of said plurality of signals or the controlling of said controllable device based on said step of controlling.

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135. (Amended) A method for decrypting data from a storage device using a computer operatively connected to said storage device, said storage device having

encrypted data stored thereon, and a decryptor [operatively connected to said computer] adapted to receive data from said storage device and control instructions [from] communicated by said computer, said method comprising the steps of:

selecting data at said storage device;

transferring at least some of said selected data from said step of selecting from said storage device to said decryptor;

identifying information in said selected data from said step of selecting; and

decrypting said at least some selected data from said step of transferring in response to the information in said selected data from said step of identifying.

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136. (Amended) The method of claim 135, wherein said storage device is [a laser disk, a floppy disk, or a storage medium capable of storing video data, said method further comprising one of the steps of:

connecting] to [said computer or said decryptor] a processor that is adapted to [assemble or] store [a record of the availability,] evidence of use or usage of said data[;], said method further comprising one step of the group consisting of:

programming [a] said processor [connected to said computer or said storage device] to assemble [or store a record of the availability, use or usage of some specific data] said evidence; and

[adapting a device that controls said decryptor] programming said processor to communicate [selected] said [information] evidence to a remote data collection station[;

inputting to a device that is adapted to communicate availability, use or usage information to a remote data collection station some information that identifies said selected data or that designates a source or supplier of said selected data;

inputting to a device that is adapted to communicate availability, use or usage information to a remote data collection station some information that identifies a buyer of said selected data or that designates a receiver or user of said selected data;

processing a title of said selected data; and
using some of said identified information as a code for said step of decrypting].

137. (Amended) The method of claim 135, wherein [said selected data comprises a title or identifier datum and one or more codes] code [for decryption] is processed, said method further comprising one of the [steps] step of the group consisting of:

[connecting to said computer or said decryptor a processor that is adapted to assemble or store a record on the basis of a title or identifier datum;

programming a processor connected to said computer or said storage device to assemble or store a record on the basis of a title or identifier datum;

adapting a device that controls said decryptor to communicate a title or identifier datum to a remote data collection station;

inputting a title or identifier datum to a device that is adapted to communicate availability, use or usage information to a remote data collection station;

inputting information that designates a receiver or user to a device that is adapted to communicate availability, use or usage information to a remote data collection station;

processing said title or identifier datum to locate or identify a code for decryption;]

decrypting said code; and

using said [one or more codes] code to decrypt [at least some] a portion of said selected data[; and

performing a second step of decrypting].

138. (Amended) A method of processing signals at a receiver station comprising the steps of:

receiving a plurality of kinds of programming [one or more information transmissions];

detecting a plurality of code [codes] or [identifier] data in said plurality of kinds of programming, [one or more information transmissions, at least] one of said detected plurality of code [codes] or [identifier] data comprising [being] a signal which is effective at said receiver station to control decryption;

communicating a portion of each kind of programming, including [passing] each detected code or [identifier] datum, to a decryptor [processor or controller];

controlling said [a] decryptor in response to [on the basis of] said signal;

decrypting each kind of programming [some video data or some data communicated from to said decryptor from a storage device in response to said signal];

storing information evidencing the [passing] communication of one or more of said detected and communicated code [and passed codes] or datum [identifier data].

139. (Amended) The method of claim 138, further comprising [one of] the [steps] step of the group consisting of:

[programming said receiver station to decrypt some information stored on [said] a laser disk or a television storage device;]

generating a signal to control a tuner [to receive a television program in response to a detected and communicated [passed] code or identifier datum;

inputting said one or more information transmissions to a control signal detector in response to a command;

storing a received television program at a memory or recorder;

storing information evidencing some output in response to a detected and passed code or identifier datum;]

assembling [a record of the availability, use or usage of some information on the basis of a title] said stored evidence information; and

transmitting [some] said stored evidence information to a remote data collection station.

140. (Amended) The method of claim 138, [wherein said one or more information transmissions are received from a local source, said method] further comprising the step of:

storing [a first information transmission of said one or more information transmissions, said first information transmission containing said signal] portions of each of said plurality of kinds of programming.

141. (Amended) The method of claim 138, wherein the stored evidence information [identifies or] designates one or more of:

- (1) a mass medium program;
- (2) a [proper] use of programming;
- (3) a transmission station;
- (4) a receiver station;
- (5) a network;
- (6) a broadcast station;
- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) a unique identifier datum;
- (10) one of a source and a supplier of data; [and]
- (11) one of a distributor and an advertisement; and
- (12) an indication of a payment obligation.

142. (Amended) A method of gathering information on [the] use of at least one of a resource to [be decrypted] decrypt and a control signal which is effective to

decrypt at a receiver station, said receiver station having a processor, and a controlled device, said receiver station transferring said gathered information to a remote station, said method comprising the steps of:

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identifying said at least one of [said] a resource and [said] a control signal;
monitoring said at least one of [said] a resource and [said] a control signal;
storing a record of [the] use of said at least one of [said] a resource and [said] a control signal from said step of monitoring; and
communicating information on said use of said at least one of [said] a resource and [said] a control signal from said step of storing a record from said receiver station to a remote station.

143. (Unchanged) The method of claim 142, wherein said at least one of said resource and said control signal is received from a local source, said method further comprising the step of:

storing said at least one of said resource and said control signal.

144. (Amended) The method of claim 142, wherein said information identifies or designates one or more of:

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- (1) a mass medium program;
- (2) a [proper] use of programming;
- (3) a transmission station;
- (4) a receiver station;
- (5) a network;
- (6) a broadcast station;
- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) a unique identifier datum;

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- (10) one of a source and a supplier of data;
- (11) one of a distributor and an advertisement; and
- (12) an indication of [copyright] a payment obligation.

145. (Unchanged) A method of controlling a remote transmitter station to deliver a receiver specific output at a receiver station and controlling said receiver station to communicate one or more receiver specific data to a remote data collection station, with said receiver station being remote from said remote transmitter station and said remote data collection station being remote from said receiver station, said method comprising the steps of:

receiving, at the remote transmitter station, one or more instruct signals which operate at the receiver station (i) to decrypt and (ii) to assemble said one or more receiver specific data or communicate said one or more receiver specific data to said remote data collection station ;

receiving, at said remote transmitter station, a control signal which operates at the remote transmitter station to control the communication of said one or more instruct signals to said receiver station ;

receiving, at said remote transmitter station, a code or datum designating a specific instruct signal of said one or more instruct signals, said specific instruct signal to be transmitted by the remote transmitter station;

transferring said designated specific instruct signal to a transmitter; and

transmitting, from said remote transmitter station, an information transmission comprising said designated specific instruct signal and said one or more instruct signals, at one or more specific times or on one or more specific channels in accordance with said control signal.

146. (Unchanged) The method of claim 145, wherein one or more receiver specific data evidence the availability, use, or usage of information or evidence a receiver specific response to said designated specific instruct signal.

147. (Unchanged) The method of claim 145, wherein said designated specific instruct signal comprises some downloadable code.

148. (Unchanged) A method of generating and encoding signals to control a presentation comprising the steps of:

receiving at least some of a program, said at least some of said program containing audio information;

receiving an instruction that (i) designates additional program material that at least one of completes and supplements said at least some of said program and (ii) directs an ancillary processor of a receiver station to decrypt at least a portion of one of said program and said additional program material;

encoding said instruction; and

storing said encoded instruction in conjunction with said at least some of said program and said additional program material.

149. (Unchanged) The method of claim 148 wherein said additional program material is stored at said ancillary processor and said encoded instruction directs said ancillary processor to generate a video overlay that is to be coordinated with video information in said program.

150. (Unchanged) The method of claim 149 further comprising the step of:

transmitting a combined video signal from said program and a video overlay generated by said ancillary processor over a broadcast or cablecast network to a plurality of receiver stations.

151. (Unchanged) The method of claim 149 further comprising the step of: transmitting a combined video signal from said program and a video overlay generated by said ancillary processor to a video display.

152. (Unchanged) A method for an interactive television demonstration for use with an interactive television viewing apparatus comprising the steps of:

displaying a television program that demonstrates a technique for preparing a product, performing a service, or generating an output, said interactive viewing apparatus having an input device to receive input from a viewer;

prompting said viewer during said television program whether said viewer wants a performance of said technique demonstrated in said step of displaying, said interactive television viewing apparatus having at least one output device for outputting said product, service, or performance;

receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and generating or controlling output of said product, service, or performance in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving a reply, said instructions controlling said interactive television viewing apparatus;

detecting a code or datum which is effective to enable said interactive television viewing apparatus having a decoder or decryptor for enabling one of said instructions and said interactive television viewing apparatus; and

generating or controlling output of said product, service, or performance on the basis of said instructions.

153. (Unchanged) The method of claim 152, wherein said code or datum is inputted to said interactive viewing apparatus by a viewer or a remote information provider.

154. (Unchanged) A method of providing enabling information to a receiver station from a remote enabling source, said enabling information for use at the receiver station in television signal processing, said method comprising the steps of:

storing enabling information at said remote enabling source;

receiving at said remote enabling source a query from said receiver station;

transmitting a code or instruct signal which is effective to decrypt from said remote enabling source to said receiver station in response to said step of receiving said query, wherein at least some of said transmitted code or instruct signal is stored at said receiver station; and

transmitting from a television signal source to said receiver station a signal which controls said receiver station to select and process said stored at least some of said code or instruct signal and to decrypt at least part of a signal communicated from said television signal source.

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155. (Amended) A method for locating an embedded instruct-to-decrypt signal in an analog video signal using [having] a line receiver to synchronize the reception of information transmitted within the non-display portions of said video signal, a decoder including a detector to detect embedded signals, a decryptor to receive said instruct-to-decrypt signal, and a programmable controller to control said line receiver to

receive embedded signals in said analog video signal [in the time domain and at different video positions], said method comprising the steps of:

receiving a video signal, said video signal having a plurality of embedded signals at least one of which is an instruct-to-decrypt signal;

synchronizing a line receiver to said [analog] video signal from said step of receiving, to isolate said plurality of embedded signals from the display portions of said [analog] video signal;

detecting an instruct-to-decrypt signal from said plurality of embedded signals from said step of synchronizing;

decrypting at least a portion of said [analog] video signal in response to said instruct-to-decrypt signal from said step of detecting; and

controlling one of said line receiver and said detector to detect said instruct-to-decrypt signal in a different location in said [analog] video signal.

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156. (Amended) A method for controlling decryption of television or computer programming at a receiver station, said receiver station having a receiver for receiving television or computer programming, a detector operatively connected to said receiver for detecting a plurality of signal types, a processor operatively connected to said detector for locating or identifying a specific instruct-to-decrypt signal, a decryptor operatively connected to said receiver or said processor [for decrypting programming], and with instruct-to-decrypt signals being of a signal type and being transmitted in varying locations or in a varying pattern of timing, said method comprising the steps of:

storing information of the composition of a plurality of instruct-to-decrypt signals or storing a procedure for locating or identifying a specific instruct-to-decrypt signal in a plurality of signal types;

receiving an information transmission that contains a plurality of signal types and at least one unit of television or computer programming;

● passing at least some of said information transmission to said detector;
detecting data of said plurality of signal types and transferring said detected data
to said processor;
identifying or locating a specific instruct-to-decrypt signal by processing said
detected data in accordance with said stored information; and
decrypting at least some of said unit of television or computer programming on
the basis of said identified or located specific instruct-to-decrypt signal.

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157. (Unchanged) The method of claim 156, wherein said unit of television or computer programming is a channel of television programming, said method further comprising the step of communicating some of a selected channel of television programming to said decryptor.

● 158. (Unchanged) The method of claim 157, wherein said specific instruct-to-decrypt signal identifies or designates said channel of television programming.

159. (Amended) The method of claim 156, wherein said information transmission contains a plurality of concurrently transmitted units of television or computer programming [or is communicated by a cable system or satellite], said method further comprising the steps of:

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receiving said information transmission at a converter;
selecting a specific unit of television or computer programming; and
decrypting said selected specific unit of television or computer programming on the basis of an instruct-to-decrypt signal that identifies or designates said specific unit of television or computer programming.

160. (Unchanged) The method of claim 159, wherein said unit of television or computer programming is a television channel and said specific instruct-to-decrypt signal is embedded in said television channel.

161. (Unchanged) The method of claim 159, wherein said unit of television or computer programming is a television channel and said specific instruct-to-decrypt signal is located in a portion of said information transmission that is outside said television channel.

162. (Unchanged) The method of claim 159, wherein said information transmission contains a plurality of concurrently transmitted units of television or computer programming and two of said plurality of instruct-to-decrypt signals control decryption of different ones of said plurality of concurrently transmitted units of television or computer programming.

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163. (Amended) The method of claim 162, wherein said converter is a cable [or satellite] converter, said method further comprising the step of programming said [converter] receiver station to process units of television or computer programming in two or more formats.

164. (Unchanged) The method of claim 163, further comprising one of the steps of:
processing a selected analog channel of television programming; and
processing a selected channel of television programming containing a digital television signal.

165. (Unchanged) The method of claim 156, wherein said unit of television or computer programming comprises a digital television signal, said method further comprising the step of programming said receiver station to process said digital television signal.

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166. (Amended) A method for enabling communication of television or computer programming at a receiver station, said receiver station having a receiver for receiving one or more television or computer programming signals, a detector operatively connected to said receiver for detecting control signals, a processor operatively connected to said control signal detector for locating or identifying an instruct-to-enable signal, a selective transfer device operatively connected to said receiver or said processor for communicating programming, and with instruct-to-enable signals being transmitted in varying locations or in a varying pattern of timing, said method comprising the steps of:

storing information of a procedure for locating or identifying an instruct-to-enable signal which is transmitted in varying locations or in a varying pattern of timing;

receiving an information transmission that contains a unit of television or computer programming and one or more [instruct-to-decrypt] instruct-to-enable signals transmitted in varying locations or in a varying pattern of timing;

passing at least some of said information transmission to said control signal detector;

detecting one or more control signals in said information transmission and transferring said detected one or more control signals to said processor;

identifying or locating an instruct-to-enable signal by processing said detected one or more control signals in accordance with said stored information; and

controlling said selective transfer device to communicate at least some of said unit of television or computer programming on the basis of said identified or located instruct-to-enable signal.

167. (Unchanged) A method of controlling a plurality of receiver stations each of which includes a broadcast or cablecast signal receiver, at least one processor, a selective transfer device capable of communicating a signal to a processor or computer, a control signal detector, said signal detector adapted to receive signals from a broadcast or cablecast signal, and said processor programmed to respond to signals from said detector, and said method comprising the steps of:

(1) receiving at a broadcast or cablecast transmitter station an instruct signal, said instruct signal instructing a selective transfer device at each of said plurality of receiver stations to communicate at least some of a specific unit of television or computer programming to a processor or computer;

(2) receiving one or more control signals at said broadcast or cablecast transmitter station, said control signals identifying one or more specific receiver stations to which said instruct signal is addressed; and

(3) transferring said instruct signal and said one or more control signals from said transmitter station to a transmitter at one or more specific times, said transmitter broadcasting or cablecasting said instruct signal and said one or more control signals to said plurality of receiver stations.

168. (Unchanged) The method of claim 167, wherein said one or more control signals identifies two of said plurality of receiver stations at the same time and each of said two receiver stations receive and detect the presence of said control signal or respond to said instruct signal at the same time.

169. (Unchanged) The method of claim 167, wherein said one or more control signals identifies two of said plurality of receiver stations in sequence and each of said

two receiver stations receive and detect the presence and respond to said instruct signal sequentially.

170. (Unchanged) The method of claim 167, wherein said one or more control signals further comprises downloadable code for said processor at one or more of said plurality of receiver stations, said downloadable code changing the way or method in which said processor responds to said instruct signal.

171. (Unchanged) The method of claim 167, wherein at least one receiver station includes a selective transfer device which is capable of storing and communicating instruct signals at selected times and said control signal causes said receiver station to delay communication or execution of said instruct signal.

172. (Unchanged) The method of claim 167, wherein at least one receiver station includes a selective transfer device that is capable of switching or communicating instruct signals to selected devices and said control signal causes said receiver station to switch or select a device.

173. (Unchanged) The method of claim 167, wherein at least one receiver station is adapted to detect the presence of said control signal or programmed to respond to said instruct signal on the basis of a pattern of signal composition, said method further comprising the step of composing at least some of said control signal or said instruct signal in said pattern.

174. (Unchanged) The method of claim 167, wherein at least one receiver station is adapted to detect the presence of said control signal or programmed to respond to said instruct signal on the basis of the location of a signal in an information

transmission, said method further comprising the step of causing at least some of said control signal or instruct signal to be transmitted in said location.

175. (Unchanged) The method of claim 167, wherein at least one receiver station is adapted to detect the presence of said control signal or programmed to respond to said instruct signal on the basis of a timing pattern of signal transmission, said method further comprising the step of causing at least some of said control signal or said instruct signal to be transmitted in accordance with said pattern.

176. (Unchanged) The method of claim 167, further comprising the steps of receiving said instruct signal at a receiver in the transmitter station, communicating said instruct signal from said receiver to a memory location, and storing said instruct signal at said memory location for a period of time prior to communicating said instruct signal to a transmitter.

177. (Unchanged) The method of claim 167, wherein a switch communicates signals selectively from a receiver and a memory or recorder to a transmitter, said method further comprising one of the steps of:

detecting a signal which is effective at the transmitter station to instruct communication;

determining a specific signal source from which to communicate a signal to a transmitter;

controlling said switch to communicate a signal to said transmitter in response to a signal which is effective at the transmitter station to instruct communication;

controlling said switch to communicate a signal from a selected signal source;

controlling said switch to communicate to said memory or recorder a signal which is effective at the receiver station to instruct;

inputting to a controller a signal which is effective to control said switch;
controlling said switch to communicate one or more signals according to a transmission schedule;
controlling said switch to communicate a from a specific one of a plurality of signal sources; and
controlling said switch to communicate a signal to a selected one of a plurality of transmitters.

178. (Unchanged) The method of claim 167, further comprising one of the steps of:

transmitting to a receiver station one or more data that designate a time or a channel of transmission of said instruct signal or that specify the title of or some subject matter contained in a unit of mass medium programming or data associated with said instruct signal; and

transmitting to a receiver station a control signal to cause said receiver station to tune to a broadcast or cablecast transmission containing a specific instruct signal.

179. (Unchanged) A method of controlling one or more receiver stations each of which includes a broadcast or cablecast signal receiver, at least one processor, a decryptor for decrypting a unit of television or computer programming, a control signal detector, said signal detector adapted to receive signals from a broadcast or cablecast signal, and said processor programmed to respond to signals from said detector, and said method of controlling comprising the steps of:

(1) receiving at a broadcast or cablecast transmitter station a unit of television or computer programming and transferring said unit of television programming to a transmitter;

(2) receiving at said broadcast or cablecast transmitter station an instruct-to-decrypt signal which designates or identifies said unit of television or computer programming;

(3) receiving and storing at said broadcast or cablecast transmitter station one or more control signals, said control signals designating or specifying one or more times or locations to transmit said instruct signal; and

(4) transferring said instruct signal to said transmitter in accordance with said control signal, said transmitter broadcasting or cablecasting unit of television or computer programming and said instruct signal to said one or more receiver stations.

180. (Unchanged) A method of communicating subscriber station information from a subscriber station to one or more remote collection stations, said method comprising the steps of:

(1) inputting an instruct signal which is effective at said subscriber station to decrypt or enable;

(2) detecting the presence of an instruction, code or datum, associated with said instruct signal, which is effective at the subscriber station to generate one or more subscriber station specific data or to select and assemble a plurality of specific subscriber station specific data into a record;

(3) processing at the subscriber station one or more inputted data and performing, in response to said detected instruction, one of:

(a) generating one or more subscriber station specific data and communicating said generated one or more subscriber station specific data to a transmitter; and

(b) selecting and assembling into a record a specific plurality of subscriber specific data and communicating said record and said selected specific plurality of subscriber specific data to a transmitter; and

(4) transmitting said communicated one or more generated subscriber station specific data or said communicated record and specific plurality of subscriber specific data to said one or more remote collection stations.

181. (Unchanged) A method of controlling the receipt and processing at a receiver station of mass medium program materials, said receiver station including a receiver and a processor, said method comprising the steps of:

receiving on said receiver identification signals that identify specific signal content for at least one of a plurality of concurrent broadcast or cablecast signal transmissions;

providing a comparison signal to said processor;

comparing said comparison signal to said identification signals and generating a control signal identifying a desired one of said plurality of broadcast or cablecast signal transmissions;

tuning the receiver, based on the generated control signal, to receive said desired one of said plurality of broadcast or cablecast signal transmissions;

performing one of:

(1) responding to a control signal in respect of an instruct signal which is effective to decrypt or enable, detected in said desired signal transmission;

(2) selecting and storing one or more data in or associated with an instruct signal which is effective to decrypt or enable, received in said desired signal transmission; and

(3) controlling a receiver or selective transfer device to communicate to an output device or a storage device some mass medium program material received in said desired said transmission, on the basis of an instruct signal which is effective to decrypt or enable.

182. (Unchanged) A method of processing signals at a receiver station having a computer and an output device to deliver at the output device a combined or sequential presentation of a program and a user specific output, said computer having a storage device for storing user data and said output device outputting mass medium programming and other information, said method comprising the steps of:

storing user data of interest;

receiving mass medium programming from a programming source and outputting the mass medium programming at said output device;

receiving a broadcast or cablecast information transmission including an instruct signal which is effective to decrypt or enable;

detecting said instruct signal in the information transmission and passing said detected instruct signal to said computer; and

controlling said computer based on said detected instruct signal, said step of controlling comprising:

(1) selecting a specific portion of said stored user data of interest;

(2) communicating said selected specific portion of said stored user data of interest to said output device; and subsequently

(3) ceasing to communicate said specific portion to said output device;

(4) delivering at said output device the combined or sequential output of said received mass medium programming and said selected specific portion of said stored user data of interest in the period of time between said step of communicating said selected specific portion to said output device and said step of ceasing to communicate said selected specific portion to said output device.

183. (Unchanged) A method of controlling one or more of a plurality of receiver stations each of which includes a mass medium program receiver, a signal detector, at least one computer or processor, and with each said receiver station adapted

to detect the presence of one or more control signals and to input a viewer reaction to an offer communicated in a mass medium program, said method comprising the steps of:

- (1) receiving a code or datum at a transmitter station, wherein said code or datum designates a product or service offered in a mass medium program or a viewer reaction to an offer communicated in a mass medium program;
- (2) receiving one or more control signals at said transmitter station, wherein said one or more control signals at the one or more receiver stations operate to decrypt or enable;
- (3) transferring said code or datum and said one or more control signals to a transmitter at said transmitter station; and
- (4) transmitting said code or datum and said one or more control signal from said transmitter station.

184. (Unchanged) An interactive method for data promotion and delivery for use with an interactive mass medium program output apparatus comprising the steps of:

- displaying a mass medium program that promotes data, said interactive mass medium program output apparatus having input device to receive input from a subscriber;
- prompting said subscriber during said mass medium program whether said subscriber wants said data promoted in said step of displaying, said interactive mass medium program output apparatus having an output device for outputting said data;
- receiving a reply from said subscriber at said input device in response to said step of prompting said subscriber, said interactive mass medium program output apparatus having a processor for processing said subscriber reply and controlling delivery of said data in response to instructions;
- delivering instructions at said interactive mass medium program output apparatus in response to said step of receiving a reply, said instructions controlling said interactive mass medium program output apparatus;

processing said instructions from said step of delivering, said instructions being effective to decrypt or enable; and

delivering said data on the basis of said instructions.

185. (Unchanged) The method of claim 184, wherein one or more of said instructions is embedded in the non-visible or non-audible portion of a mass medium program signal.

186. (Unchanged) The method of claim 184, wherein one or more of said instructions is delivered in a multichannel signal transmitted over a cable broadband network, said method further comprising the step of demodulating a carrier to receive one or more of said instructions.

187. (Unchanged) The method of claim 184, wherein one or more of said instructions is delivered in a multichannel signal transmitted via a satellite, said method further comprising the step of demodulating a carrier to receive one or more of said instructions.

188. (Unchanged) The method of claim 184, further comprising the steps of:
storing a subscriber instruction to receive one or more specific mass medium programs, data, news items, or computer control instructions; and
receiving one or more specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction.

189. (Unchanged) The method of claim 184, further comprising the steps of:
programming said processor to respond to information communicated from a data or programming source;

receiving an information transmission from a local storage device or remote mass medium programming source;

detecting data or an instruct signal in said information transmission; and
passing said detected data or instruct signal to said processor.

190. (Unchanged) The method of claim 184, wherein information indicating the availability, use or usage of said mass medium program or said data are stored or communicated to a remote data collection station, said method further comprising the step of selecting evidence information that identifies or designates one selected from the group consisting of:

- (1) a mass medium program;
- (2) a use of programming;
- (3) a transmission station;
- (4) a receiver station;
- (5) a network;
- (6) a broadcast station;
- (7) a channel on a cable system;
- (8) a time of transmission;
- (9) a unique identifier datum;
- (10) a source or supplier of data;
- (11) a distributor or an advertisement; and
- (12) an indication of copyright.

Please add the following new claims:

*G26
GC
1/2*

191. (New Claim) The method of claim 129, wherein said step of passing comprises inputting code to control said decryptor apparatus.

192. (New Claim) The method of claim 191, wherein said code is decrypted.

193. (New Claim) The method of claim 130 wherein the step of transmitting further comprises transmitting said information transmission to the remote transmitter station.

*G2b
G mdd*

194. (New Claim) The method of claim 130 wherein the step of transmitting further comprises transmitting said information transmission to the subscriber station.

195. (New Claim) The method of claim 130 wherein the step of causing includes causing a plurality of decryptors to decrypt in parallel.

196. (New Claim) The method of claim 130 wherein the step of causing includes causing said decryptor apparatus to decrypt sequentially.

197. (New Claim) The method of claim 130, wherein said decryptor apparatus decrypts said first signal.

198. (New Claim) The method of claim 131 further comprising:
receiving a programming signal containing encrypted video at said receiver station;

decrypting said encrypted video to provide video suitable for viewing. *h*

II. REMARKS

A. Introduction

Applicants have carefully reviewed the Office Action originally issued on March 30, 2000 and have made the foregoing amendments in response thereto.

1. Claim Accounting

Claims 2-10, 13, 45-48, 50, 54, 59, 70, 88, 91-93, 103-107, 111, 116-120, 122-125, 127-131, 135-142, 144, 155-156, 159, 163 & 166 are amended. Claims 118, 119, 122, 123, 125-128 & 140 are cancelled. Claims 191-198 are added. Claims 2-117, 120, 124, 129-139 & 141-198 are pending in the application. Applicants present no new matter in the foregoing amendments. Applicants respectfully request approval and entry of this amendment.

2. Summary of Office Action Rejections

The Office Action mailed on March 30, 2000 only rejects claims 2-89. However, Applicants' have added claims 99-190 in an amendment on May 9, 2000 in consonance with Applicants' agreement with the PTO to consolidate certain of Applicants' co-pending applications. Therefore, this response considers the rejection of claims 2-89 to apply to all currently pending claims 2-190 and newly added claims 191-198.

The following summarizes the objections and rejections of the March 30, 2000 Office Action with respect to its corresponding paragraph numbers:

Paragraph 3. Claims 2-117, 120, 124, 129-139 & 141-198 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Paragraph 4. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to digital related processes and apparatus, are rejected under 35 U.S.C. § 112, first

paragraph, as containing subject matter which was not described in the specification in such a way to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Paragraph 5. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to data, datum, and indicia and related processes and apparatus, are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Paragraph 6. Claims 2-117, 120, 124, 129-139 & 141-198 are rejected under 35 U.S.C. § 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed.

Paragraph 8. Claims 2-117, 120, 124, 129-139 & 141-198 are rejected under 35 U.S.C. § 112, second paragraph, as failing to set forth the subject matter which Applicants regard as their invention.

Paragraph 9. Claims 2-117, 120, 124, 129-139 & 141-198 using the terms having different descriptions from Applicants' 1987 specification and 1981 priority application, are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants' regard as their invention.

Paragraph 10. Claims 2-117, 120, 124, 129-139 & 141-198 using the terms, *inter alia*, 'program' and 'programming' are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants' regard as their invention.

Paragraph 12. Claims 2-117, 120, 124, 129-139 & 141-198 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Applicants' U.S. Pat. Nos. 4,694,490 and 4,704,725.

Paragraph 14. Claims 2-117, 120, 124, 129-139 & 141-198 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants WO 89/02682.

Paragraph 15. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to processes of controlling cable head end processes and monitoring of those processes and combined medium presentation, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenberg, U.S. Pat. No. 4,547,804 in view of Galumbeck et al., U.S. Pat. No. 4,725,886.

Paragraph 16. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to, *inter alia*, processes of controlling broadcast subscriber stations, including decrypting, processing, storing, generation and monitoring to those processes and combined medium presentation, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jeffers et al., U.S. Pat. No. 4,739,510.

Paragraph 17. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to, *inter alia*, processes of controlling cable head end processes and monitoring of those processes and combined medium presentation are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hazelwood et al., U.S. Pat. No. 4,025,851 in view of the publication "System and Apparatus for Automatic Monitoring Control of Broadcast Circuits" by Yaname et al. and Hetrich, Australian Patent No. 74,619.

Paragraph 18. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to, *inter alia*, processes of controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes, are rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of the common subject matter suggested by Campbell et al., (WO 81/02961, abandoned parent application no. 135,987, and U.S. Pat. No. 4,536,791), in view of at least one or more of: Breeze "Television Line 21 Encoded Information and It's Impact on Receiver Station Design"; Schnee, U.S. Pat. No. 4,290,142; and Zaboklicki, DE 2,904,891.

Paragraph 19. Claims 2-117, 120, 124, 129-139 & 141-198 that are directed to, *inter alia*, either processes of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation or processes of controlling subscriber stations and method and process for monitoring and providing combined medium presentations, that fall out each particular determining group members of the group of claims described in rejection above, the groups are rejected further in view of one or more of: Hazelwood et al., Yaname et al., Hetrich, Marsden, Young et al., "Journal of SMPTE" Oct. 1971, U.S. Pat. No. 3,761,888 to Flynn, U.S. Pat. No. 3,627,914 to Davis, Tunmann et al., U.K. Pat. No. 959,374 to Germany, Byloff, Chiddix, Skilton, Schiller et al., Zettl, Vikene, U.S. Pat. No. 4,547,804 to Greenberg, Jeffers et al., Diederich, Campbell et al. (WO 81/02961, abandoned U.S. application no. 135,987, and U.S. Pat. No. 4,536,791), Kazama et al., Gosch, Stern, Breeze, Barlow, Millar, U.S. Pat. No. 4,725,886 to Galumbeck et al., "CBS/CCETT North American Broadcast Teletext Specification," Zaboklicki, U.S. Pat. No. 4,064,490 to Nagel, U.S. Pat. No. 4,251,691 to Kakihara, Hedger et al., Anderson, Gunn, Gaucher, U.S. Pat. No. 4,290,142 to Schnee et al.

Paragraphs 20-21. All claims are subject by the Office to an administrative requirement based on the nonstatutory double patenting rejection based on a judicially created doctrine preventing the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.

Paragraph 23. All pending claims are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over at least one or more of Applicants' issued patents, U.S. Pat. Nos.: 4,694,490; 4,704,725; 4,965,825; 5,109,414; 5,233,654; and 5,335,277, in view of at least one or more of: Marsden, Young et al., Flynn, Davis, Tunmann et al., Germany, Chiddix, Skilton, Schiller et al., Zettl, Vikene, Greenberg, Jeffers et al., Diederich, Campbell et al., Kazama et al., Gosch, Stern, Breeze, Barlow, Millar, Galumbeck, CBS/CETT North American Broadcast Teletext

Specification,” Zaboklicki, Nagel, Kakihara, Hedger et al., Anderson, Gunn, Gaucher, and Schnee et al.

Paragraph 24. Rejects Applicants’ basis for amending the typographical errors in the instant specification in two places on page 37.

Paragraph 25. The oath or declaration is defective under 37 C.F.R. § 1.67(a).

B. Summary of Claim Amendments

Claims 2-10, 13, 45-48, 50, 54, 59, 70, 88, 91-93, 103-107, 111, 116-120, 122-125, 127-131, 135-142, 144, 155-156, 159, 163 & 166 are amended.

Claim 2 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 3 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 4 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 5 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 6 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 7 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 8 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 9 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 10 has been amended to further clarify the claim language in view of Applicants’ disclosure.

Claim 13 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 45 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 46 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 47 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 48 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 50 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 54 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 59 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 67 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 70 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 88 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 91 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 92 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 93 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 97 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 103 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 104 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 105 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 106 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 107 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 111 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 116 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 117 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 118 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 119 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 120 has been amended to change its dependency.

Claim 122 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 123 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 124 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 125 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 127 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 128 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 129 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 130 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 131 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 135 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 136 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 137 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 138 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 139 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 140 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 141 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 142 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 144 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 155 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 156 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 159 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 163 has been amended to further clarify the claim language in view of Applicants' disclosure.

Claim 166 has been amended to further clarify the claim language in view of Applicants' disclosure.

C. Statement of Patentable Novelty under 37 C.F.R. § 1.111

Applicants submit that the independent claims as amended include the following limitations that are not found in the prior art. These limitations show patentable novelty in view of the state of the art disclosed by the references cited and the objections made.

Claim 2:

receiving programming, said programming having an encrypted control signal;

detecting said control signal;
passing said control signal to said at least one decryptor;
decrypting said control signal;
presenting said programming to a viewer or listener based on said step of
decrypting.

Claim 3:

receiving programming, said programming having a control signal portion and an
information portion;

detecting said control signal portion of said programming;
passing said control signal portion of said programming to said decryptor;
decrypting said control signal portion of said programming;
passing said information portion of said programming to said decryptor;
decrypting said information portion of said programming; and
presenting said programming based on said decrypted control signal portion.

Claim 4:

receiving a control signal which operates at the remote transmitter station to
control the communication of said programming and one or more first instruct signals and
communicating said control signal to said remote transmitter station;

receiving an identifier designating programming to be transmitted by the remote
transmitter station, and said remote transmitter station transferring said programming to a
transmitter;

receiving at said remote transmitter station one or more second instruct signals
which operate at the subscriber station or decrypt said programming or said one or more
first instruct signals, said transmitter station transferring said one or more second instruct
signals to said transmitter; and

transmitting from said remote transmitter station an information transmission comprising said programming and said one or more first instruct signals and said one or more second instruct signals, said one or more first instruct signals being transmitted in accordance with said control signal.

Claim 11:

receiving said downloadable code which is effective at said at least one of said plurality of receiver stations to implement a new technique of decrypting and delivering the downloadable code to at least one transmitter;

receiving said at least one control signal which at said at least one of said plurality of receiver stations operate to execute the downloadable code at said processor; and

causing said at least one control signal to be communicated to said at least one transmitter at a specific time,

thereby to transmit at least one information transmission containing the downloadable code and said at least one control signal.

Claim 13:

receiving said at least one instruct signal at said at least one origination transmitter station and delivering said at least one instruct signal to at least one origination transmitter, said at least one instruct signal being effective at said one or more receiver stations to implement a new technique of decrypting and having an associated code or datum designating content of said instruct signal;

receiving said at least one control signal which at said remote intermediate transmitter station operates to control communication of said at least one instruct signal; and

transferring said at least one control signal to said at least one origination transmitter before a specific time,

said at least one origination transmitter transmitting said at least one instruct signal, said associated code or datum, and said at least one control signal.

Claim 15:

receiving a mass medium program at the remote transmitter station and delivering said mass medium program to a transmitter;

receiving at said remote transmitter station one or more instruct signals which operate to change a technique of decrypting or enabling;

receiving a control signal which operates at the remote transmitter station to control the communication of said one or more instruct signals and communicating said control signal to said remote transmitter station;

receiving a code or datum designating a specific instruct signal to be transmitted by the remote transmitter station, and said transmitter station transferring said designated specific instruct signal to said transmitter; and

transmitting from said remote transmitter station an information transmission comprising said mass medium program and said one or more instruct signals, said one or more instruct signals being transmitted at one or more specific times or on one or more specific channels.

Claim 17:

receiving said mass medium programming at said receiver station from a mass medium programming source and outputting said mass medium programming at said at least one output device;

receiving a broadcast or cablecast information transmission at said receiver station, said information transmission including one or more instruct signals and information to supplement said mass medium programming;

detecting said one or more instruct signals in said information transmission and passing said one or more instruct signals to said processor; and
controlling said processor based on said one or more instruct signals, said step of controlling comprising the steps of:
implementing a new technique of decrypting;
directing an at least partially decrypted information to be at least partially redecrypted in response to said new technique of decrypting; and
directing said information to supplement said mass medium programming to said processor or to said one or more output devices.

Claim 19:

receiving a television program at a transmitter station and delivering said television program to a transmitter;
receiving and storing one or more instruct signals at said transmitter station, said one or more instruct signals at said one or more receiver stations operative to implement a new technique of decrypting;
transferring said one or more instruct signals from said transmitter station to a transmitter; and
transmitting said television program and said one or more instruct signals from said transmitter station to said one or more receiver stations.

Claim 21:

receiving at least one information transmission;
detecting a plurality of signals on said at least one information transmission;
changing a decryption or enabling technique in response to at least a first of said plurality of signals;

decrypting or enabling communication of at least a second of said plurality of signals on the basis of a changed decryption or enabling technique;
passing said decrypted or enabled at least said second of said plurality of signals to a controllable device;
controlling said controllable device on the basis of said passed decrypted or enabled at least said second of said plurality of signals; and
storing information evidencing the passing of said at least said second of said plurality of signals.

Claim 22:

outputting a television program one of demonstrating and describing a technique for preparing a product, performing a service, or generating an output, said interactive television viewing apparatus having an input device to receive input from a viewer;
prompting said viewer during said television program whether said viewer wants a performance of said technique from said step of outputting, said interactive television viewing apparatus having an output device for outputting at least one of said product, said service, and said performance;
receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and at least one of generating and controlling output of said at least one of said product, said service, and said performance in response to instructions;
delivering said instructions at said interactive television viewing apparatus in response to said step of receiving said reply, said instructions controlling said interactive television viewing apparatus;
processing said instructions from said step of delivering, said instructions being effective to change a technique of decrypting or enabling; and

performing said technique at said interactive television viewing apparatus, said processor at least one of generating and controlling output of said at least one of said product, said service, and said performance on the basis of said instructions.

Claim 28:

outputting a television program one of demonstrating and describing said at least one of said product, said service, and said media output, said interactive television viewing apparatus having an input device to receive input from a viewer;

prompting said viewer during said television program whether said viewer wants said at least one of said product, said service, and said media output from said step of outputting, said interactive television viewing apparatus having an output device for outputting said at least one of said product, said service, and said media output;

receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor for processing said viewer reply and at least one of generating and controlling output of said at least one of said product, said service, and said media output in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving said reply, said instructions controlling said interactive television viewing apparatus;

processing said instructions from said step of delivering, said instructions effective to execute a technique of decrypting or enabling; and

delivering said at least one of said product, said service, and said media output on the basis of said instructions.

Claim 45:

programming for hybrid operations;

identifying a channel;
detecting a plurality of embedded signals;
passing said plurality of embedded signals to a processor;
identifying a signal that requires decryption;
identifying a decryption key on the basis of a pattern of composition;
decrypting a portion of said identified signal based on said step of identifying a decryption key; and
processing each signal.

Claim 46:

storing code designating at least a portion of said programming;
receiving an information transmission that contains said programming and a control signal;
separating said transmission into a plurality of portions;
passing said plurality of portions selectively to said plurality of decryptors;
controlling said plurality of decryptors based on said code;
decrypting said programming and said control signal;
presenting said programming to a viewer or listener based on said step of decrypting.

Claim 47:

storing a plurality of codes or data, each code or datum for enabling communication of at least a portion of a unit of programming;
receiving an information transmission that contains a unit of programming and one or more control signals;
passing at least a portion of said information transmission to said control signal detector;

detecting said one or more control signals in said information transmission and transferring said detected one or more control signals to said processor;
selecting a specific portion of said one or more control signals in a predetermined fashion; and
enabling communication of said unit of programming, based on said storing step, by controlling said selective transmission device to decrypt a portion of said unit of programming, based on said selecting step, and communicating said portion of said unit of programming.

Claim 48:

- (1) receiving at a broadcast or cablecast transmitter station said first unit of programming;
- (2) receiving at said broadcast or cablecast transmitter station said code or datum which designates at least a portion of said first unit of programming;
- (3) receiving and storing at said broadcast or cablecast transmitter station one or more control signals, said control signals designating or specifying one or more times or locations to transmit said code or datum; and
- (4) transmitting said first unit of programming and said code or datum to a transmitter in accordance with said one or more control signals.

Claim 50:

receiving at a subscriber station information that designates an instruction to be processed or an output to be delivered;
receiving a user reaction to an output at said subscriber station;
processing an instruct signal which is effective to decrypt or enable at said subscriber station in response to said user reaction at said subscriber station, said step of processing directed by instructions from said instruct signal;

generating an indicia that said instruct signal was delivered or was effective to decrypt or enable;

transferring said indicia from said step of generating from said subscriber station to one or more remote data collection stations.

Claim 54:

receiving said mass medium programming at said at least one origination station and delivering said mass medium programming to at least one origination transmitter, said mass medium programming to have an associated instruct signal which is effective to enable decryption of at least a portion of said mass medium programming;

receiving said at least one control signal which at said remote intermediate mass medium programming transmitter station operates to control communication of said unit of mass medium programming and said instruct signal to said one of a broadcast and a cablecast transmitter; and

transmitting said at least one control signal from said at least one origination transmitter before a specific time.

Claim 59:

(1) receiving a television program to be transmitted at a transmitter station and delivering said television program to a transmitter, said television program including audio and an encrypted portion of video to be displayed;

(2) receiving and storing said at least one instruct signal at said transmitter station, said at least one instruct signal operative to enable decryption of said encrypted portion of video of said television program at the receiver station;

(3) transferring said at least one instruct signal to said transmitter; and

(4) transmitting from said transmitter station an information transmission containing said television program and said at least one instruct signal.

Claim 64:

storing enabling information at said remote enabling source;
receiving at said remote enabling source a query from said receiver station;
transmitting an enabling signal which is effective to enable decryption from said remote enabling source to said receiver station in response to said step of receiving said query, said receiver station storing at least some of said transmitted enabling signal;
transmitting from a second remote source to said receiver station an encrypted mass medium presentation signal which is decrypted on the basis of said stored at least some of said enabling signal and enables said receiver station to present mass medium programming.

Claim 65:

displaying a television program that promotes mass medium programming, said interactive television viewing apparatus having an input device to receive input from a subscriber;
prompting said subscriber during said television program whether said subscriber wants said mass medium programming promoted in said step of displaying, said interactive television viewing apparatus having a memory for storing an identifier ;
receiving a reply from said subscriber at said input device in response to said step of prompting said subscriber, said interactive television viewing apparatus having a processor for processing said subscriber reply and said identifier;
processing said reply from said step of receiving a reply and selecting said identifier , said interactive television viewing apparatus having a transmitter for communicating said identifier to at least one remote station;

communicating said selected identifier to said at least one remote station, said interactive mass medium output apparatus and said remote station comprising a network having a plurality of transmitter stations;

assembling, in said network, code which is effective at said interactive television viewing apparatus to identify and decrypt said mass medium programming, said interactive television viewing apparatus having a receiver for receiving at least a portion of said code from said at least one remote station;

delivering said code at said interactive television viewing apparatus; and
delivering said mass medium programming on the basis of said code.

Claim 70:

- (a) receiving a signal containing executable processor code;
- (b) controlling said processor to extract said executable processor code from said signal; and
- (c) controlling said decryptor to enable communication of at least one encrypted portion of a television signal based on said step of controlling said processor.

Claim 72:

- (1) receiving, at a transmitter station, said downloadable code, said downloadable code having at each of said plurality of receiver stations a target processor to process data;
- (2) transferring said downloadable code from said transmitter station to a transmitter;
- (3) receiving said at least one control signal at said transmitter station;
- (4) transferring said at least one control signal from said transmitter station to said transmitter; and

(5) transmitting an information transmission comprising the downloadable code and said at least one control signal.

Claim 80:

- (1) inputting a subscriber reaction at said subscriber station;
- (2) receiving at said subscriber station an instruct signal that designates at least one of (i) at least one of code and data to process and (ii) an output to deliver;
- (3) determining the presence of said subscriber reaction at said subscriber station in response to said instruct signal;
- (4) processing said at least one of code and data to at least one of decrypt and enable delivery of said output at said subscriber station in consequence of said step of determining; and
- (5) transferring from said subscriber station to said at least one remote data collection station an indicium confirming at least one of (i) said processing of said at least one of said code and said data and (ii) delivery of said output.

Claim 84:

receiving a programming signal containing mass medium programming, at least a portion of said programming signal being encrypted;

communicating said programming signal to a storage device;

receiving at least one processor instruction which is effective at a user station to instruct one of a processor and a computer to control a decryptor to decrypt said at least a portion of said mass medium programming;

communicating said at least one processor instruction to said storage device; and

storing said at least one processor instruction at said storage device in association with said mass medium programming.

Claim 89:

- (a) receiving at least one information transmission;
- (b) detecting a plurality of signals in said at least one information transmission, at least one first signal of said plurality of signals including downloadable code;
- (c) passing said downloadable code to a processor;
- (d) controlling one of a decryptor and an enabling device to one of decrypt and enable communication in a specific fashion on the basis of said downloadable code;
- (e) doing, in accordance with said controlling, one of decrypting and enabling communication of at least one second signal of said plurality of signals in said specific fashion;
- (f) passing said at least one second signal to one of said processor and an output device; and
- (g) storing information evidencing the passing of one of said downloadable code and said passed at least one second signal.

Claim 90:

- a receiver section to receive a multichannel signal, said multichannel signal having a plurality of television programs and audio programs encoded in said multichannel signal;
- a processor operatively connected to said receiver section to route at least two channels from said multichannel signal;
- a first decoder operatively connected to said processor for receiving a first channel from said multichannel signal routed by said processor, said decoder having an output;
- a second decoder operatively connected to said processor for receiving a second channel from said multichannel signal routed by said processor said decoder having an output;

a first decryption circuit operatively connected to said first decoder and said processor, said processor authorizing said first decryption circuit to decrypt the output from said first decoder;

a first receiver station operatively connected to a first decryptor for receiving a decrypted signal from said first decryptor and generating a first receiver station output;

a second decryption circuit operatively connected to said second decoder and said processor, said processor authorizing said second decryption circuit to decrypt the output from said second decoder; and

a second receiving station operatively connected to a second decryptor for receiving a decrypted signal from said second decryptor and generating a second receiver station output.

Claim 91:

receiving a signal containing programming and a sequence of signal words and inputting at least a portion of said signal to said digital detector;

detecting said sequence of signal words based on a varying pattern of location or timing;

controlling said decryptor to decrypt one of said signal words; and

providing said programming based on said decrypted signal word and said step of detecting.

Claim 92:

receiving a plurality of signals containing programming and inputting at least some of said signals to said digital detector;

detecting digital data in said signals in accordance with a varying pattern of timing or location and passing some detected data to said decryptor and said controller;

controlling said decryptor to alter its decryption pattern or technique on the basis of information contained in said detected data; and

decrypting some portion of said detected and passed digital data using a selected decryption pattern or technique based on said step of detecting in order to provide a decrypted output of programming to a viewer or listener.

Claim 93:

- (1) receiving programming and delivering said programming to a transmitter;
- (2) receiving digital data comprising at least an instruct signal and communicating said digital data to a signal embedder, said instruct signal operative at said receiver station to control said decryptor;
- (3) controlling said signal embedder to embed said digital data in an information transmission in a varying pattern of timing, or locations;
- (4) communicating said information transmission to said transmitter; and
- (5) transmitting said programming and said information transmission including said digital data.

Claim 94:

- (a) receiving one or more information transmissions;
- (b) detecting a plurality of signals on said one or more information transmissions;
- (c) decrypting at least one of said plurality of signals selectively on the basis of information in said plurality of signals;
- (d) passing said decrypted at least one signal to a controllable device;
- (e) controlling said controllable device on the basis of said passed decrypted at least one signal; and

(f) storing information evidencing the passing of said passed decrypted at least one signal.

Claim 98:

(1) receiving data to be transmitted by the remote intermediate data transmitter station and delivering said data to a transmitter, said data comprising an instruct signal which is effective at the receiver station to decrypt or enable data selectively;

(2) receiving one or more control signals which at the remote intermediate data transmitter station operate to control the communication of said data; and

(3) transmitting said one or more control signals to said transmitter before a specific time.

Claim 102:

receiving a television signal containing television programming and communicating said television signal to a storage device;

receiving a first instruct signal which is effective to instruct a processor in a manner of decrypting or enabling;

selecting one of:

(1) a time at which to communicate said first instruct signal; and

(2) a location to which to communicate said first instruct signal;

communicating said first instruct signal at said selected time or to said selected location; and

storing said television signal and said first instruct signal at said storage device.

Claim 106:

receiving data to be transmitted and delivering said data to a transmitter;

receiving said at least one instruct signal, said at least one instruct signal being effective at said receiver station to decrypt or enable data selectively;
transferring said at least one instruct signal to a transmitter; and
transmitting an information transmission comprising said data and said at least one instruct signal.

Claim 109:

- (a) receiving at least one information transmission;
- (b) detecting a plurality of signals on said at least one information transmission, at least one of said detected plurality of signals being effective at said receiver station to instruct;
- (c) decrypting at least one of said plurality of signals, said at least one decrypted signal including at least one instruct signal which is effective to instruct;
- (d) passing each decrypted instruct signal to a controllable device;
- (e) controlling said controllable device on the basis of decrypted information contained in said at least one decrypted signal including at least one instruct signal; and
- (f) storing information evidencing the passing of said decrypted at least one instruct signal.

Claim 110:

- (a) receiving at least one information transmission;
- (b) detecting a plurality of signals on said at least one information transmission, at least one of said detected plurality of signals being signals which are effective at said receiver station to instruct;
- (c) decrypting at least one of said plurality of signals, said at least one decrypted signal including at least one instruct signal which is effective to instruct;

- (d) passing said decrypted at least one instruct signal to a controllable device on the basis of decrypted information in said decrypted at least one instruct signal;
- (e) controlling said controllable device on the basis of passed said decrypted at least one instruct signal; and
- (f) storing information evidencing the passing of said passed decrypted at least one instruct signal.

Claim 111:

receiving a transmission comprising encrypted materials;
decrypting under first processor control a first portion of said encrypted materials in said transmission;
inputting said first portion of said encrypted materials to a decryptor;
decrypting under second processor control a second portion of said encrypted materials based on said step of decrypting said first portion of said encrypted materials.

Claim 129:

receiving a multichannel television signal, said multichannel television signal having at least one television program, said television program having an associated embedded encrypted control signal,
detecting said embedded control signal;
passing said embedded control signal to said decryptor apparatus;
decrypting said embedded control signal;
controlling decryption of information based on said embedded control signal from said step of decrypting to change a decrypting technique or pattern of said decryptor apparatus.

Claim 130:

receiving a first signal and delivering said first signal from a transmitter;
receiving an instruct signal which is effective to cause a portion of decryptor apparatus to decrypt and communicating said instruct signal from said transmitter;
receiving a control signal which operates to control the communication of said first signal and said instruct signal;
causing said control signal to be communicated from said transmitter before a specific time;
transmitting an information transmission including said first signal, said instruct signal, and said control signal;
routing portions of the information transmission selectively to a plurality of processors in response to one or more of said instruct signal and said control signal;
communicating information from each of said plurality of processors selectively to said decryptor apparatus based on said step of routing; and
causing said decryptor apparatus to output a specific sequence of information based on said step of communicating.

Claim 131:

storing at the remote data source one or more control signals for enabling a decryptor to decrypt a video;
receiving at the remote data source from the receiver station a communication to get specific enabling information;
communicating, from the remote data source to the receiver station in response to said communication from the receiver station, a control signal,
whereby the receiver station inputs said control signal to a decryptor.

Claim 132:

receiving at least one first instruct signal at a transmitter station and delivering said at least one first instruct signal to at least one transmitter, said at least one first instruct signal being effective at said one or more receiver stations to at least one of generate output and control the presentation of output;

receiving a code or datum at said transmitter station, said code or datum designating said first instruct signal or said viewer reaction;

receiving at least one second instruct signal at said transmitter station, said at least one second instruct signal at the one or more receiver stations being operative to decrypt or enable said at least one first instruct signal;

transferring at least one of said code or datum and said at least one second instruct signal to said at least one transmitter; and

transmitting one or more information transmission containing said at least one first instruct signal, said code or datum, and said at least one second instruct signal.

Claim 133:

receiving at a broadcast or cablecast transmitter station said at least one instruct signal which is effective at said at least one of said plurality of receiver stations to decrypt or enable, and delivering said at least one instruct signal to a transmitter;

receiving at said broadcast or cablecast transmitter station at least one control signal which at said at least one of said plurality of receiver stations operates to communicate said at least one instruct signal to a specific processor; and

transferring said at least one control signal to the transmitter, said transmitter transmitting said at least one instruct signal and said at least one control signal.

Claim 134:

receiving one or more information transmissions at said receiver station;

detecting a plurality of signals on said one or more information transmissions, at least a first of one of said plurality of signals including downloadable code;

controlling a decryptor or enabling device in response to said downloadable code;

decrypting or enabling communication of at least a second of said plurality of signals on the basis of said step of controlling said decryptor or enabling device;

passing said decrypted or enabled at least said second of said plurality of signals to a controllable device;

controlling said controllable device on the basis of said passed decrypted or enabled at least said second of said plurality of signals; and

storing information evidencing the passing of said at least said second of said plurality of signals or the controlling of said controllable device based on said step of controlling.

Claim 135:

selecting data at said storage device;

transferring at least some of said selected data from said step of selecting from said storage device to said decryptor;

identifying information in said selected data from said step of selecting; and

decrypting said at least some selected data from said step of transferring in response to the information in said selected data from said step of identifying.

Claim 138:

receiving a plurality of kinds of programming;

detecting a plurality of code or data in said plurality of kinds of programming, one of said detected plurality of code or data comprising a signal which is effective at said receiver station to control decryption;

communicating a portion of each kind of programming, including each detected code or datum, to a decryptor;
controlling said decryptor in response to said signal;
decrypting each kind of programming;
storing information evidencing the communication of one or more of said detected and communicated code or datum.

Claim 142:

identifying said at least one of a resource and a control signal;
monitoring said at least one of a resource and a control signal;
storing a record of use of said at least one of a resource and a control signal from said step of monitoring; and
communicating information on said use of said at least one of a resource and a control signal from said step of storing a record from said receiver station to a remote station.

Claim 145:

receiving, at the remote transmitter station, one or more instruct signals which operate at the receiver station (i) to decrypt and (ii) to assemble said one or more receiver specific data or communicate said one or more receiver specific data to said remote data collection station ;
receiving, at said remote transmitter station, a control signal which operates at the remote transmitter station to control the communication of said one or more instruct signals to said receiver station ;
receiving, at said remote transmitter station, a code or datum designating a specific instruct signal of said one or more instruct signals, said specific instruct signal to be transmitted by the remote transmitter station;

transferring said designated specific instruct signal to a transmitter; and
transmitting, from said remote transmitter station, an information transmission comprising said designated specific instruct signal and said one or more instruct signals, at one or more specific times or on one or more specific channels in accordance with said control signal.

Claim 148:

receiving at least some of a program, said at least some of said program containing audio information;

receiving an instruction that (i) designates additional program material that at least one of completes and supplements said at least some of said program and (ii) directs an ancillary processor of a receiver station to decrypt at least a portion of one of said program and said additional program material;

encoding said instruction; and

storing said encoded instruction in conjunction with said at least some of said program and said additional program material.

Claim 152:

displaying a television program that demonstrates a technique for preparing a product, performing a service, or generating an output, said interactive viewing apparatus having an input device to receive input from a viewer;

prompting said viewer during said television program whether said viewer wants a performance of said technique demonstrated in said step of displaying, said interactive television viewing apparatus having at least one output device for outputting said product, service, or performance;

receiving a reply from said viewer at said input device in response to said step of prompting said viewer, said interactive television viewing apparatus having a processor

for processing said viewer reply and generating or controlling output of said product, service, or performance in response to instructions;

delivering said instructions at said interactive television viewing apparatus in response to said step of receiving a reply, said instructions controlling said interactive television viewing apparatus;

detecting a code or datum which is effective to enable said interactive television viewing apparatus having a decoder or decryptor for enabling one of said instructions and said interactive television viewing apparatus; and

generating or controlling output of said product, service, or performance on the basis of said instructions.

Claim 154:

storing enabling information at said remote enabling source;

receiving at said remote enabling source a query from said receiver station;

transmitting a code or instruct signal which is effective to decrypt from said remote enabling source to said receiver station in response to said step of receiving said query, wherein at least some of said transmitted code or instruct signal is stored at said receiver station; and

transmitting from a television signal source to said receiver station a signal which controls said receiver station to select and process said stored at least some of said code or instruct signal and to decrypt at least part of a signal communicated from said television signal source.

Claim 155:

receiving a video signal, said video signal having a plurality of embedded signals at least one of which is an instruct-to-decrypt signal;

synchronizing a line receiver to said video signal from said step of receiving, to isolate said plurality of embedded signals from the display portions of said video signal; detecting an instruct-to-decrypt signal from said plurality of embedded signals from said step of synchronizing; decrypting at least a portion of said video signal in response to said instruct-to-decrypt signal from said step of detecting; and controlling one of said line receiver and said detector to detect said instruct-to-decrypt signal in a different location in said video signal.

Claim 156:

storing information of the composition of a plurality of instruct-to-decrypt signals or storing a procedure for locating or identifying a specific instruct-to-decrypt signal in a plurality of signal types; receiving an information transmission that contains a plurality of signal types and at least one unit of television or computer programming; passing at least some of said information transmission to said detector; detecting data of said plurality of signal types and transferring said detected data to said processor; identifying or locating a specific instruct-to-decrypt signal by processing said detected data in accordance with said stored information; and decrypting at least some of said unit of television or computer programming on the basis of said identified or located specific instruct-to-decrypt signal.

Claim 166:

storing information of a procedure for locating or identifying an instruct-to-enable signal which is transmitted in varying locations or in a varying pattern of timing;

receiving an information transmission that contains a unit of television or computer programming and one or more instruct-to-enable signals transmitted in varying locations or in a varying pattern of timing;

passing at least some of said information transmission to said control signal detector;

detecting one or more control signals in said information transmission and transferring said detected one or more control signals to said processor;

identifying or locating an instruct-to-enable signal by processing said detected one or more control signals in accordance with said stored information; and

controlling said selective transfer device to communicate at least some of said unit of television or computer programming on the basis of said identified or located instruct-to-enable signal.

Claim 167:

(1) receiving at a broadcast or cablecast transmitter station an instruct signal, said instruct signal instructing a selective transfer device at each of said plurality of receiver stations to communicate at least some of a specific unit of television or computer programming to a processor or computer;

(2) receiving one or more control signals at said broadcast or cablecast transmitter station, said control signals identifying one or more specific receiver stations to which said instruct signal is addressed; and

(3) transferring said instruct signal and said one or more control signals from said transmitter station to a transmitter at one or more specific times, said transmitter broadcasting or cablecasting said instruct signal and said one or more control signals to said plurality of receiver stations.

Claim 179:

(1) receiving at a broadcast or cablecast transmitter station a unit of television or computer programming and transferring said unit of television programming to a transmitter;

(2) receiving at said broadcast or cablecast transmitter station an instruct-to-decrypt signal which designates or identifies said unit of television or computer programming;

(3) receiving and storing at said broadcast or cablecast transmitter station one or more control signals, said control signals designating or specifying one or more times or locations to transmit said instruct signal; and

(4) transferring said instruct signal to said transmitter in accordance with said control signal, said transmitter broadcasting or cablecasting unit of television or computer programming and said instruct signal to said one or more receiver stations.

Claim 180:

(1) inputting an instruct signal which is effective at said subscriber station to decrypt or enable;

(2) detecting the presence of an instruction, code or datum, associated with said instruct signal, which is effective at the subscriber station to generate one or more subscriber station specific data or to select and assemble a plurality of specific subscriber station specific data into a record;

(3) processing at the subscriber station one or more inputted data and performing, in response to said detected instruction, one of:

(a) generating one or more subscriber station specific data and communicating said generated one or more subscriber station specific data to a transmitter; and

(b) selecting and assembling into a record a specific plurality of subscriber specific data and communicating said record and said selected specific plurality of subscriber specific data to a transmitter; and

(4) transmitting said communicated one or more generated subscriber station specific data or said communicated record and specific plurality of subscriber specific data to said one or more remote collection stations.

Claim 181:

receiving on said receiver identification signals that identify specific signal content for at least one of a plurality of concurrent broadcast or cablecast signal transmissions;

providing a comparison signal to said processor;

comparing said comparison signal to said identification signals and generating a control signal identifying a desired one of said plurality of broadcast or cablecast signal transmissions;

tuning the receiver, based on the generated control signal, to receive said desired one of said plurality of broadcast or cablecast signal transmissions;

performing one of:

(1) responding to a control signal in respect of an instruct signal which is effective to decrypt or enable, detected in said desired signal transmission;

(2) selecting and storing one or more data in or associated with an instruct signal which is effective to decrypt or enable, received in said desired signal transmission; and

(3) controlling a receiver or selective transfer device to communicate to an output device or a storage device some mass medium program material received in said desired said transmission, on the basis of an instruct signal which is effective to decrypt or enable.

Claim 182:

storing user data of interest;

receiving mass medium programming from a programming source and outputting the mass medium programming at said output device;

receiving a broadcast or cablecast information transmission including an instruct signal which is effective to decrypt or enable;

detecting said instruct signal in the information transmission and passing said detected instruct signal to said computer; and

controlling said computer based on said detected instruct signal, said step of controlling comprising:

- (1) selecting a specific portion of said stored user data of interest;
- (2) communicating said selected specific portion of said stored user data of interest to said output device; and subsequently
- (3) ceasing to communicate said specific portion to said output device;
- (4) delivering at said output device the combined or sequential output of said received mass medium programming and said selected specific portion of said stored user data of interest in the period of time between said step of communicating said selected specific portion to said output device and said step of ceasing to communicate said selected specific portion to said output device.

Claim 183:

(1) receiving a code or datum at a transmitter station, wherein said code or datum designates a product or service offered in a mass medium program or a viewer reaction to an offer communicated in a mass medium program;

(2) receiving one or more control signals at said transmitter station, wherein said one or more control signals at the one or more receiver stations operate to decrypt or enable;

(3) transferring said code or datum and said one or more control signals to a transmitter at said transmitter station; and

(4) transmitting said code or datum and said one or more control signal from said transmitter station.

Claim 184:

displaying a mass medium program that promotes data, said interactive mass medium program output apparatus having input device to receive input from a subscriber;

prompting said subscriber during said mass medium program whether said subscriber wants said data promoted in said step of displaying, said interactive mass medium program output apparatus having an output device for outputting said data;

receiving a reply from said subscriber at said input device in response to said step of prompting said subscriber, said interactive mass medium program output apparatus having a processor for processing said subscriber reply and controlling delivery of said data in response to instructions;

delivering instructions at said interactive mass medium program output apparatus in response to said step of receiving a reply, said instructions controlling said interactive mass medium program output apparatus;

processing said instructions from said step of delivering, said instructions being effective to decrypt or enable; and

delivering said data on the basis of said instructions.

D. Response to Allegation of Defective Oath/Declaration

The Examiner asserts that the oath or declaration is defective (Office Action at 167-169.) The Examiner asserts that the instant application is a continuation-in-part of Application No. 113,329, filed August 30, 1993. Thus, the Examiner requires a new oath or declaration that acknowledges the duty to disclose to the Office all information known to Applicants to be material to patentability which occurred between the filing date of the

Applicants respectfully request that the requirement be held in abeyance until allowable subject matter is indicated as provided under 37 C.F.R. § 1.111.

The Examiner addresses the preliminary amendment filed May 24, 1995, which substituted on page 1 a paragraph under 35 U.S.C. § 120 including references to related applications. This amendment included the statement: “This is a continuation of application serial no. 08/113,329, filed August 30, 1993, herein incorporated by reference in its entirety.” The Examiner apparently believes this statement introduced new matter into the specification. As the document attempted to be incorporated by reference is an *identical* specification to the specification of the instant application, the Examiner’s basis for this position is not entirely clear to Applicants. However to advance the prosecution of this application Applicants request that any alleged new matter by canceling the phrase “herein incorporated by reference in its entirety” from page 1.

E. Response to Objection to the Specification

The Office Action states, “The instant specification is objected to because applicants are changing, some +18 years after making the ‘81 disclosure, the original written description.” (Office Action at 8 & 166.) Applicants note for the record that the amendment to the specification that the Office Action refers to is non-existent in the instant application. Applicants believe that the Office Action was referring to another one of Applicants’ co-pending amendments to the specification. However, the instant amendment to the specification at page 37 corresponds to the allegations raised by the Office Action and will be addressed below.

The amendment changes page 37, lines 23-25, of the specification to read:

Controller, 39, 44, or 47, is preprogrammed to receive [units] words of signal information, to assemble said [units] words into signal [words] units that subscriber station apparatus can receive and process, and to transfer said [words] units to said apparatus.

(Additions underlined, deletions bracketed.)

Applicants submit that this amendment corrects an inadvertent error made in preparation of the specification as filed. The amendment includes no new matter. Applicants respectfully request that the Examiner withdraw the objection for the following reasons.

The amended language describes that aspect of the invention in which signal words are received and assembled into signal units. The assembly of signal words into signal units is described consistently throughout the specification in the manner effected by the amendment. As the amendment merely clarifies the disclosure, the amendment introduces no new matter.

The specification as filed, on page 14, lines 23-25, describes, “discrete words . . . that receiver apparatus must assemble in order to receive one complete instruction.” A signal unit is defined as “one complete signal instruction.” (Spec. at 14 ll. 26-27.) Thus, words must be assembled to create a signal unit. The specification consistently discloses that signal words are received and assembled into signal units.

Further, the specification consistently refers to signal words as the basic information block from which other information units are formed. The specification at page 65, lines 34-35, states; “Each message is composed in a whole number of signal words.” “Said information consists of a series of discrete signal words.” (Spec. at 70 ll. 28-29.) “[S]aid given signal word is an EOFS WORD and may be part of an end of file signal.” (Spec. at 71 ll. 5-7.) “[T]o detect those particular uninterrupted series of EOFS WORDs that constitute end of file signals.” (Spec. at 74 ll. 11-12.) “For example, end of file signals could include the signal word preceding said uninterrupted sequence.” (Spec. at 82 ll. 23-25.) Signal words are formed into commands and other signals throughout the specification.

In the recent Office Action, the sentence on page 15, lines 4-6, of the specification is relied upon as evidence that the amendment is new matter. (Office Action at 8 & 166.) The sentence reads, “Signal words may contain parts of signal units, whole signal units,

or groups of partial or whole signal units or combinations.” This statement simply describes the circumstance in which a higher level word could contain a lower level unit. Obviously, this statement does not contradict the prior statement that discrete *words must* be assembled to obtain a signal *unit*. As signal words are disclosed as being assembled into signal units, the amendment cannot contain new matter, regardless of the other variations disclosed in the specification. The statement relied upon by the Examiner actually supports the conclusion that the amendment does not introduce new matter.

In *Personalized Media Communications, L.L.C. v. International Trade Commission*, No. 97-1532 (Fed. Cir. Jan. 7, 1999), the U.S. Court of Appeals for the Federal Circuit construed claim 35 in U.S. Patent No. 5,335,277 (the ‘277 patent). The ‘277 patent issued to Applicants on August 2, 1994, from a specification identical to the specification filed in the instant application. In construing the claims of the ‘277 patent, the Court concluded that the prosecution history of the ‘277 patent did not prevent the term “information of a selected television unit” from reading on channel and time information. The Court thus addressed the meaning of the term “selected television program unit.” The Court noted that “a selected program unit” is a particular television program, such as Wall Street Week. The Court did not address the meaning of the terms “signal unit” or “signal word.” No reasoning set forth by the Court conflicts with Applicants’ assertion that the specification discloses that signal units are assembled from signal words.

The amended language describes the assembly of signal words into signal units. The assembly of signal words into signal unit is described at page 14, lines 23-27, of the specification. Therefore, the amendment does not include new matter. Accordingly, Applicants request that the objection to the specification be withdrawn.

F. Response to Rejections under 35 U.S.C. § 112

1. Response to Rejections under §112, first paragraph

a) Response to Written Description Rejections

(1) The Office Action Fails to Establish a Prima Facie Rejection Under the Written Description Requirement of 35 U.S.C. § 112

In the Office Action, the Examiner rejects claims 2-117, 120, 124, 129-139 & 141-198 under 35 U.S.C. § 112, first paragraph for incorporating subject matter not described in the specification as filed in such a manner as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, were possessed of the claimed invention. (Office Action at 8.) Applicants firmly believe that the instant specification and respective priority documents, all of which are substantially identical, each describe the subject matter of the pending claims. Thus, in Applicants' view, the pending claims fully comply with the requirements of the first paragraph of 35 U.S.C. § 112. Accordingly, Applicants respectfully request the withdrawal of the rejections of claims 2-117, 120, 124, 129-139 & 141-198 under 35 U.S.C. § 112, first paragraph.

The Examiner notes that the instant specification does not include the exact words and phrases of the disclosure of Applicants' parent Application No. 317,510 (the '81 disclosure.) (Office Action at 3.) The Examiner argues that since Applicants successfully assert that the '81 disclosure supports the pending claims and the '81 disclosure is not duplicated verbatim in the instant specification then it follows that the instant specification does not support the pending claims. The Examiner assumes that the subject matter in the '81 disclosure that is not duplicated verbatim within the instant specification is omitted from the instant specification. This assumption is incorrect. Applicants maintain that, although the '81 disclosure is not included in identical words in

the instant specification, the subject matter of the '81 disclosure is specifically included in the instant specification.

“The function of the description requirement is to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him.” *In re Wertheim*, 541 F.2d 257, 262, 191 U.S.P.Q. 90, 96 (C.C.P.A. 1976). Applicants rely on the filing date of November 3, 1981. On this date, Applicants filed Application No. 317,510, now issued as U.S. Patent No. 4,694,490 (the '490 patent). The specification of the '490 patent (the '81 disclosure) clearly demonstrates that Applicants had possession of the subject matter presently claimed.

“[T]he PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” *Id.* at 263, 191 U.S.P.Q. at 97. The Examiner has failed to meet this burden. The record of the prosecution of the instant application fails to include any reasons why persons skilled in the art would not recognize from the specification that Applicants invented the invention defined by the pending claims. The Examiner merely states, at page 15 of the Office Action, that the “instant '571 disclosure has not been found to describe the alleged '81 support ‘ . . . in such full, clear, concise, and exact terms . . . ’ as is required under the law of 35 U.S.C. 112 1st paragraph.” The Examiner also provides a list of claim phrases that are deemed to lack support (Office Action at 8-93). This list includes practically all phrases from nearly all the pending claims and amounts to an unsubstantiated assertion that the pending claims as a whole are unsupported under the written description requirement of 35 U.S.C. § 112, first paragraph. The Examiner has failed to present evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.

The outstanding rejection under the written description requirement is merely a blanket, unsupported statement that the pending claims fail to meet the requirements of 35 U.S.C. § 112, first paragraph. Because the Examiner includes no reasons for the

rejection, the only manner for Applicants to respond is to exhaustively demonstrate where each and every limitation in the pending claims is found in the specification without regard to how clearly the specification may show each limitation to those skilled in the art. However in order to advance the prosecution of the instant application, Applicants submit herewith, Appendix A, reciting specification support for each claim limitation to the instant specification at to the parent 1981 priority application.

(2) Applicants' Summary and Description of Integration of the Instant Specification

Each manifestation of Applicants' claimed invention, regardless of how the manifestation may be described in the specification, is a single embodiment of the invention. Thus, the specific support provided for each claim is by definition from within a single embodiment.

Applicants acknowledge that there are numerous embodiments of the presently claimed invention described in the specification. Applicants' specification is a single cohesive document with each successive section and example extending and developing the preceding disclosure. The various disclosures, examples, and subsystems disclosed within the specification are clearly intended to be integrated into general working systems, methods and apparatus. Applicants' specification is very carefully constructed to provide clear and unequivocal contextual relationship between the various inventive concepts, processes and apparatus that Applicants disclose.

At the outset, Applicants focus on the importance of *integrating* functionalities and state:

It is the object of this invention to unlock this great potential in the fullest measure by means of an *integrated system* of programming communication that joins together all these capacities most efficiently.

(Spec. at 3 ll. 30-33)(emphasis added).

In "Background of the Invention" (Spec. at 1-11), Applicants list a multitude of problems and limitations in the prior art for which this integrated system provides valuable solutions. Applicants *also introduce focal opportunity*:

Today great potential exists for combining the capacity of broadcast communications media to convey ideas with the capacity of computers to process and output user specific information. One such combination would provide a new radio-based or broadcast print medium with the capacity for conveying general information to large audiences--e.g., "Stock prices rose today in heavy trading,"--with information of specific relevance to each particular user in the audience--e.g., "but the value of your stock portfolio went down." (Hereinafter, the new media that result from such combinations are called "combined" media.)

Unlocking this potential is desirable because these new media will add substantial richness and variety to the communication of ideas, information and entertainment. Understanding complex subjects and making informed decisions will become easier.

(Spec. at 2 ll. 8-24.)

Applicants explicitly acknowledge that to succeed in the fullest measure means solving many technical problems as well as providing for a broad spectrum of subscriber information demands and equipment capacities:

To unlock this potential fully requires means and methods for combining and controlling receiver systems that are now separate--television and computers, radio and computers, broadcast print and computers, television and computers and broadcast print, etc.

But it requires much more.

To unlock this potential fully requires *a system with efficient capacity* for satisfying the demands of subscribers who have *little receiver apparatus and simple information demands* as well as subscribers who have *extensive apparatus and complex demands*. It requires capacity for transmitting and organizing vastly more information and programming than any one-channel transmission system can possibly convey at one time. It requires capacity for controlling intermediate transmission stations that receive information and programming from many sources and for organizing the information and programming and retransmitting the information and programming so as to make the use of the information and programming at ultimate receiver stations as efficient as possible.

(Spec. at 2 l. 25 through p. 3 l. 8)(emphasis added).

To disclose how the integrated system overcomes the identified limitations, solves the problems, and realizes this potential fully, requires *step-by-step teaching* of separate elements – methods as well as apparatus – of Applicants’ disclosed system. At each new step, the *contextual relationship* of the new teaching to earlier teachings *is explicitly stated*. Applicants highlight below how this step-by-step teaching carries the relationships of the various separate elements throughout the disclosure.

(a) **“One Combined Medium” (pages 19-28)**

In a section, (Spec. at 19-28), entitled “One Combined Medium,” (Spec. at i l. 16 and p. 19 l. 5), which focuses on the subscriber station of Fig. 1, Applicants begin by teaching “a *video/computer* combined medium,” (Spec. at 19 l. 6)(emphasis added). A local image – Fig. 1A (*See* Spec. at 25 ll. 9-14) – is provided at the subscriber station and combined with a remotely supplied video image – Fig. 1B (*See* Spec. at 25 ll. 30-33) – in order to deliver a combined image of Fig 1C (*See* Spec. at 26 ll. 8-15). (Simultaneously, user specific local images are provided at other subscriber station and combined with the remotely supplied video image – (*see*, specification at page 26 lines 16-19.)

(As an example of Applicants’ step-by-step teaching approach, not until a section entitled “Audio Overlays and Other Overlays,” which begins on page 463, are Applicants prepared to focus on Fig. 7D and teach “a *radio/computer* combined medium,” (Spec. at 464 l. 6), or teach “a *broadcast print and computer* combined medium,” (Spec. at 466 l. 20), or focus on Fig. 7E and teach “the *full combined medium of television and computers*,” (Spec. at 468 ll. 10-11).

In the “One Combined Medium” section, Applicants disclose concepts of “a combining operation” and “synchronization”. For example: “subscriber station apparatus ... execute *a combining operation in synchronization...*” (Spec. at 26 ll. 21-22)(emphasis added).

Applicants also teach *order* of operations. For example, one operation. (Spec. at 24 ll. 5-27), may provide the local image—Fig. 1A—at the subscriber station; a different operation, (Spec. at 26 ll. 4-11), may deliver the combined image—Fig. 1C. (“One Combined Medium” also discloses that a third operation, (Spec. at 27 ll. 3-7), may terminate delivery of the combined image.)

More broadly, in “One Combined Medium” Applicants teach *important concepts regarding instructions* and, *most importantly, timing*. For example:

Decoder, 203, is **preprogrammed** to detect digital information Microcomputer, 205, is **preprogrammed** ... to respond ... to *instruction signals* embedded in the ... programming transmission.

(Spec. at 21 ll. 14-24)(emphasis added).

In said series in full--and in any one or more subsequent series of instructions--*particular instructions are separated*, as may be required, *by time periods when no instruction* that controls the microcomputer, 205, of any station *is transmitted* which periods allow sufficient time for the microcomputer, 205, of each and every subscriber station *to complete functions* controlled by previously transmitted instructions and commence waiting for a subsequent instruction, in a waiting fashion well known in the art, before receiving a *subsequent instruction*.

(Spec. at 22 ll. 9-18)(emphasis added).

... an instruction ... causes subscriber station apparatus to execute a combining operation in *synchronization*

(Spec. at 26 ll. 21-22)(emphasis added).

In addition, personalized programming is displayed *only when* it is of specific relevance to the conventional television programming of said combined medium. In the example, each subscriber views a graphic presentation of his own portfolio performance information *as soon as* it becomes specifically relevant to graphic information of the performance of the market as a whole. Prior to its time of specific relevance, no personalized information is displayed (despite the fact that said graphic information of the performance of the market as a whole is displayed). And said personalized information is displayed *only for so long as* it remains specifically relevant. *As soon as* its specific relevance terminates, its display terminates.

(Spec. at 27 ll. 21-33)(emphasis added).

In the “One Combined Medium” section, Applicants demarcate a critical type of instruction with a definition.

Hereinafter, an instruction ... that causes subscriber station apparatus to execute a combining operation ... is called a “combining synch command.”

(Spec. at 26 ll. 20-23)(emphasis added).

Furthermore, in “One Combined Medium,” Applicants teach a temporal relationship of combining synch commands that have specific functionalities. A *first combining synch command*, (See Spec. at 24 ll. 5-27 and p. 26 ll. 23-28), causes the local image—Fig. 1A—to be provided at the subscriber station. A *second combining synch command*, (See Spec. at 26 ll. 1-8 and 20-23), causes display of the combined image—Fig 1C. (Furthermore, a *third combining synch command*, (See Spec. at 27 ll. 3-7), terminates display of the combined image.) In their step-by-step teachings, Applicants *provide clear contextual pertinence of subsequent teachings by making explicit reference to* the “One Combined Medium” disclosure, and especially by *establishing the temporal relationships of subsequent teachings* to the Fig.1C combining and the functionalities provided by these combining synch commands.

(b) **“The Signal Processor” through “The Normal Transmission Location” (pages 28-86) and “The Preferred Configuration of Controller, 39, and SPAM-Controller, 205C.” (pages 156-162)**

In the specification at pages 28-86 and pages 156-162, Applicants teach apparatus and signaling techniques that are *used throughout the remainder of Applicants’ disclosure*. Applicants teach Signal Processor, (Spec. at 28-34 and Fig.1); Signal Decoder, (Spec. at 34-38 and Figs.2A-2C); and Signal Processor System, (Fig.2D), apparatus. *Applicants also teach in detail the controller* (Spec. at 156-162 and Fig.3A) *apparatus of Signal Decoders* (e.g., controller, 39, in Fig. 2A). Applicants teach signaling techniques in sections entitled “The Composition of Signal Information ... Commands, Information Segments, and Padding Bits,” (Spec. at 43-49), The

Organization of Message Streams ... Messages, Cadence Information, and End of File Signals,” (Spec. at 59-69), “Detecting End of File Signals,” (Spec. at 69-84), and “The Normal Transmission Location,” (Spec. at 84-86).

**(c) “Operating Signal Processor Systems ... Introduction”
through “Operating Signal Processor Systems ... Signal
Record Transfer” (pages 86-278)**

At specification pages 86-278, Applicants teach methods of operating the signal processing apparatus of pages 28-86 and 156-162 explicitly within the context of the “One Combined Medium” disclosure. For example:

Five examples illustrate methods of operating signal processing system apparatus. Each focuses on subscriber stations where the signal processor system of Fig. 2D and *the combined medium apparatus of Fig. 1* share apparatus and operate in common. Fig. 3 shows one such subscriber station.

(Spec. at 86 l. 32 through p. 87 l. 2)(emphasis added).

All five examples describe signal processing variations that relate to *the Fig. 1C combining of “One Combined Medium.”*

(Spec. 87 ll. 30-32)(emphasis added).

Each example focuses on the processing of the three signal messages of the *Fig. 1C combining*. The information of said messages include three combining synch commands and one program instruction set. The first message is of the information associated with the *first combining synch command*. Said first command has a “01” header, an execution segment, and a meter-monitor segment of six fields. Said command is followed by an information segment that contains said program instruction set, and said information segment is followed by an end of file signal. Said first command addresses URS microcomputers, 205, and causes said computers, 205, to load and run the program instruction set transmitted in the information segment.

(Spec. at 89 ll. 3-16)(emphasis added).

The second message is of the information associated with the *second combining synch command*.

(Spec. at 90 ll. 4-5)(emphasis added).

The third message is of the information associated with the *third combining synch command*.

(Spec. at 90 ll. 28-29)(emphasis added).

Repeatedly throughout each of the five examples, reference is made to pertinent “One Combined Medium” disclosures. For example, in Example #1, (Spec. at 93-143), Applicants state:

OPERATING SIGNAL PROCESSOR SYSTEMS ... EXAMPLE #1.

The first example elaborates on the Fig. 1C combining described above in “One Combined Medium” and focuses on the operation of decoder, 203, SPAM-controller, 205C, and microcomputer, 205, on the execution of controlled functions, and on the use of cadence information to organize signal processing. The example begins as divider, 4, starts to transfer to decoder, 203, in its outputted composite video transmission, the embedded binary information of the first message.

(Spec. at 93 ll. 20-29.)

As described in “One Combined Medium” above, loading and running said program instruction set causes microcomputer, 205, (and URS microcomputers, 205, at other subscriber stations) to place appropriate Fig. 1A image information at particular video RAM.

(Spec. at 107 ll. 20-24.)

In the foregoing fashion and as described in “One Combined Medium” above, said transferred information of the second combining synch command causes microcomputer, 205, to combine the programming of Fig. 1A and of Fig. 1B and transmit said combined programming to monitor, 202M, where Fig. 1C is displayed.

(Spec. at 125 l. 31 through p. 126 l. 1.)

Fig. 3 (which is the combination of the apparatus of Figs. 1 and 2D (*See Spec. at 86 l. 32 et seq.*)) and Fig. 3A (the controller in the decoders 30 and 203 in Fig. 3, (*See Spec. at 156 l. 18 et seq.*)) depict the receiver station at which all five examples occur. Example #1 discloses in detail transfer of SPAM messages to addressed apparatus at the receiver station as well as the execution of controlled functions in response to the messages. Example #2 discloses selective decryption of content of the SPAM message stream at decryptor 10 of signal processor 200. Example #3 discloses the creation of signal records at signal processor 200 based on monitoring information contained in the

message stream that delivers the Fig. 1C image. Example #4 discloses functioning of the Fig. 3A controller 39 in decoder 203, including selective decryption at decryptor 39K and additional processing of the message stream content to create signal records. Example #5 discloses the functioning of signal processor 200 components (e.g., 6, 1, 2, 3, 30 and 40) to gather data on the availability of programming (see, for example, page 269 line 6).

Pages of the specification 271-278, state: “In examples #3, #4, and #5, the transmission of SPAM signal information causes signal processor, 200, to transfer signal record information by telephone to remote station computers,” (Spec. at 271 l. 33 *et seq.*) and teach this process in detail.

(d) “Regulating the Reception and Use of Programming ... including Example #6” and “... Example #7” (pages 278-312) as well as “... More on Example #7 ... Combining ... Automatically to the Computer System ...” (pages 427-447)

At pages 278-312 of the specification, Applicants teach methods of governing the reception and use of programming and relate to, for example, “digital ... television transmissions,” (See Spec. at 279 l. 14). Example #6 discloses a variant of the type of decryption techniques disclosed in examples #2 and #4 to regulate the use of control signal, in particular. Focusing on the receiver station of Fig. 4, (See Spec. at 286 l. 6 through p. 288 l. 20), example #7 discloses a multistage process of selectively decrypting digital components (video and audio) of a “television signal,” (See Spec. at 288 ll. 32-33). The multistage process includes selective transfer, *e.g.*, by tuning or switching, (Spec. at 295 ll. 6-30). At pages 427-447, additional regulating concepts are taught which are variants to the disclosure of pages 287-312, and which rely on disclosures (e.g., intermediate transmitter station automation, (Spec. at 324-390)) which occur in the specification between pages 312 and 427.

Just like every one of examples #1-#5, examples #6 and #7 (Spec. at 287-312 and 427-447) are disclosed within the context of the “Wall Street Week” program. With

respect to example #6, see, for example, page 281 lines 7-9. With respect to example #7, see, for example, page 289 lines 12-27 and page 429 lines 26-33. The examples also disclosed functionally and temporally with respect to earlier disclosures such as in “One Combined Medium” at pages 19-28 (e.g., Spec. at 311 ll. 10-16 and p. 447 ll. 8-14).

(e) “Monitoring Receiver Station Reception and Operation” (pages 312-324)

At pages 312-324 of the specification, Applicants teach methods of monitoring the reception and operation of a receiver station using Fig. 5. Fig. 5 shows an extended system of monitoring decoder, controlled by signal processor 200, each monitoring an associated device and communicating monitor information to signal processor 200. This disclosure is also set within the context of the “Wall Street Week” program (See Spec. at 322 ll. 26-27), references Fig.1B (Spec. at 322 l. 35), and cites previously defined portions of example #3, which concern monitoring (see Spec. at 322 ll. 30-35, p. 174 ll. 21-23, and p. 190 ll. 14-16).

(f) “Automating Intermediate Transmission Stations” (pages 324-390) including “Example #8” (pages 340-354)

At pages 324-390 of the specification, Applicants teach automation of intermediate stations. The teachings relate to forms of programming that include, but are not limited to, television, radio, and data and that apply to all manner of broadcast and cablecast operations (see Spec. at 324 ll. 11-17, p. 339 l. 9 through p. 340 l. 10, and p. 389 l. 14 through p. 390 l. 11). Figs. 6A-B illustrate Applicants’ teachings in the setting of a cable television system. Generally speaking, apparatus of Figs. 6A-B are described at page 324 line 18 through page 328 line 17 and page 337 lines 1-24, and the basic methods of operation of the station (e.g., operating according to a complete programming schedule) are disclosed at page 325 line 17 through page 326 line 18 and page 328 line 8 through page 331 line 16. Organizing units of prerecorded programming (e.g., to play

according to schedule) is disclosed at page 331 line 17 through page 334 line 6. Playing according to schedule is disclosed at page 334 line 7 through page 336 line 35. Monitoring station operations is disclosed, *inter alia*, (e.g., to provide auditable proof-of-performance) at page 337 line 25 through page 339 line 8. In their teachings of organizing, playing and monitoring, Applicants introduce exemplary programming, including **program unit Q** which is a specific focus of later disclosures in Applicants' specification. Applicants teach the subject matter of pages 324-390 following pages 86-324 to make clear that the earlier teachings apply at intermediate transmission stations as well as end user stations, (e.g., Spec. at 339 l. 29 through p. 340 l. 10 and p. 389 l. 31 through p. 390 l. 11).

In example #8, Applicants teach a distribution station, such as a satellite uplink, which transmits control signals and units of programming, such as television spot commercials, to a plurality of automated intermediate transmission stations as taught at pages 324-340 (Spec. at 340 l. 13 through p. 345 l. 28). The intermediate transmission stations receive the control signals, (e.g., Spec. at 342 l. 18 through p. 343 l. 17 and p. 344 ll. 28-32), and the programming, and store and retransmit selected exemplary television spot commercials – **most focally program unit Q**, (e.g., Spec. at 343 ll. 5-17, p. 351 l. 27 through p. 352 l. 30, and p. 353 ll. 6-28), with each intermediate station operating independently and retransmitting its selected exemplary commercial(s) at different times and in different channels (Spec. at 343 l. 5 through p. 344 l. 22 and p. 345 l. 29 through p. 354 l. 3). The intermediate stations automatically retain and communicate proof-of-performance records to one or more remote auditing stations, (*see* Spec. at 341 ll. 11-15 and p. 352 l. 18 through p. 354 l. 3).

(g) **Examples #9 and #10 (pages 354-390 & 469-516):
“Automating Intermediate ... Station Combined
Medium Operations” (pages 354-374 of Example #9)
and “Network Control of Intermediate Generating and
Embedding” (pages 374-390 of Example #10)**

In examples #9 and #10, at pages 354-374 of the specification for example #9 and pages 374-390 for example #10, Applicants teach automation of an intermediate station in creation and transmission of combined medium programming (“of the same sort as ‘Wall Street Week’” at page 355 lines 1-2). At pages 469-516, Applicants teach the corresponding operations of a plurality of end user stations to which the intermediate station transmits the programming so created. Both examples focus on **Program unit Q** (see Spec. at 354 l. 35 through p. 355 l. 14, p. 374 l. 29 through p. 375 l. 12, p. 469 ll. 1-2, and p. 478 ll. 23-26). In each example, Applicants teach a sequence of messages and carefully **name each message in the sequence with a name that ties together the transmitter functions of pages 354-390 and the corresponding end user station functions of pages 469-516 unambiguously.** (Appendix D, a Glossary of Defined Terms, is included herewith identifying certain terms and defined by their use in the instant specification.) For example, the “program-instruction-set message (#9)” is defined at page 371 lines 17-19 and transmitted at page 372 lines 4-6; the “program-instruction-set message (#10)” is defined at page 385 lines 14-16 and transmitted at page 386 lines 12-14; the “program-instruction-set message (#10)” is received at the end user station(s) at page 484 lines 5-14; and at page 514 lines 8-13, 17 and 23-24 Applicants teach that the “program-instruction-set message (#9)” “[causes] the same functioning” at the end user station(s) as the “program-instruction-set message (#10)”. Some of the other messages in the sequence are named at page 372 lines 20-35, page 387 lines 19-31, page 490 lines 24-34, page 492 lines 1-11, page 495 lines 1-10, etc., and page 514 lines 8-31.

At pages 354-374 in example #9, Applicants teach local **origination**, (Spec. at 374 l. 6 and p. 368 ll. 3-4), of combined medium programming at an automated transmitter station (which is also an intermediate transmission station). **Program unit Q**,

which is delivered to and handled at the intermediate station according to the teachings of pages 324-354, (Spec. at 355 ll. 15-17), is disclosed as television-based combined medium programming, (Spec. at 354 l. 35 through p. 355 l. 14), that contains embedded signals, (e.g., Spec. at 356 l. 9 through p. 358 l. 21, p. 367 ll. 30-33, p. 369 ll. 4-6, and p. 372 ll. 22-35). As one example of the creation of programming, at pages 359 line 14 through page 365 line 21, Applicants teach automation of the intermediate station to create a set of instructions (called "PROGRAM.EXE" at page 365 line 8 and defined as the "program-instruction-set of Q" at page 365 lines 18-21) and to transmit the instructions, (Spec. at 371 l. 11 through p. 372 l. 6), in a "program-instruction-set message," (Spec. at 371 ll. 17-19 and p. 372 ll. 4-6).

At pages 374-390 in example #10, Applicants teach **network origination** (Spec. at 374 ll. 20-31) of combined medium programming and focus especially on the creation of programming *in the network* at automated intermediate stations as well as at an origination station. **Program unit Q** in example #10 is the same program unit Q as in example #10 (Spec. at 375 ll. 7-8). In example #10 Applicants disclose the same creation of programming as in example #9. For example, page 377 line 4 through page 382 line 14 corresponds to page 358 line 26 through page 366 line 18; "PROGRAM.EXE" appears at page 379 line 24, page 380 line 18, and page 382 line 3; definitions of the "program-instruction-set of Q.1" and "program-instruction-set of Q.2" occur at page 378 lines 23-28 and at page 380 lines 20-24 respectively; and generated instructions are transmitted at page 385 line 9 through page 386 line 14 in a "program-instruction-set message." But in contrast to example #9 which focuses on origination at just one transmitter station, in example #10 Applicants teach a plurality of automated intermediate station operating in parallel under control of a network origination station to generate and transmit control instructions messages (*see* Spec. at 59 ll. 29-33) to different end user stations. Furthermore, Applicants teach that the control instructions differ from each

other (e.g., the PROGRAM.EXE files in the messages (Spec. at 484 ll. 9-10 and 17-18) differ (Spec. at 379 ll. 5-31 and p. 380 ll. 7-20)).

The end user station functionalities of examples #9 and #10 are disclosed at pages 469-516. Applicants teach a series of combined medium outputs (e.g., Spec. at 491 ll. 10-16 and p. 506 ll. 17-21) in response to the transmitted control instructions or “messages” (Spec. at 484 ll. 5-18, p. 485 ll. 14-18, p. 490 l. 24 through p. 491 l. 16, and p. 505 l. 32 through p. 506 l. 21). Furthermore, the information outputted in the combined medium outputs differs from end user station end user station (Spec. at 491 ll. 10-29 and p. 506 ll. 17-31). Applicants also teach in examples #9 and #10 *other functionalities, such a viewer interactivity and interactivity with stations remote from the end user stations*, that are discussed more fully below.

**(h) Automating Ultimate Receiver Stations (pages 390-427)
... Regulating Station Environment (pages 396-406) ...
Coordinating a Stereo Simulcast (pages 406-419) ...
Receiving Selected Programming (419-427)**

Focusing on Fig. 7, Applicants teach, at pages 390-396 of the specification, apparatus and functionalities of an end user station including computing, signal processing (e.g. Figs. 2-2D), switching, decrypting, etc., in addition to receivers, storage devices, and various speaker and display devices. On page 396 is additional disclosure associated with the preferred controller, 39, taught at pages 156-162. At pages 396-406, Applicants disclosure concepts associated with broadcast/cablecast control of end receiver station heating/cooling and mechanical systems as well as interactivity associated with, for example, utilities meter reading. At pages 406-419, Applicants teach coordinating separate systems under broadcast/cablecast control – in this case, controlling devices associated with television and radio to present a stereo simulcast – as well as monitoring the devices in order to provide records of the performance of the stereo simulcast and of other presentations at the end user station to a remote data collection

station. At pages 419-427, Applicants teach storing identifiers (e.g., of the stocks in a stock portfolio) and controlling the receiver station (e.g., tuning cable converter 222 at page 423 lines 11-13) to receive identified news at to process the news (e.g., Spec. at 425 ll. 30-34) according to pre-entered instructions of a user.

**(i) More Disclosure in the Context of “Wall Street Week”
(pages 427-469)**

Having taught basic concepts of apparatus and automation of ultimate receiver stations, Applicants teach more advanced concepts within the context of “Wall Street Week” and its many attendant earlier teachings. Applicants’ objective, in so doing, is to **teach how the various teachings, attendant to “Wall Street Week”, relate to each other.**

(j) More on Example #7 (pages 427-447)

At pages 427-447 of the specification, Applicants elaborate on the earlier “Regulating Systems” (Spec. at 288 l. 22) teachings of example #7 (Spec at 288-312), which are summarized in section (d) above. Applicants teach the network described in “One Combined Medium” (Spec. at 20 l. 28 through p. 21 l. 4) as a **self structuring, parallel processing computing system.** This teaching follows Applicants teaching of “Automating Intermediate Transmission Stations” (Spec. at 324 l. 7 and pp. 324-390) in order to **elaborate on intermediate transmission station** (e.g., see references to Fig. 6 at page 429 line 29 and page 325 lines 15-16) **automation** within the context of example #7 (e.g., Spec. at 429 l. 26 through p. 435 l. 15) and the teachings attendant to “Wall Street Week” generally. Applicants teach the selective processing of incoming programming in accordance pre-stored “program-unit-of-interest information” (e.g., Spec. at 428 ll. 21-26) that enables different viewer stations to handle differently (e.g., store/display, automatically authorize purchase of) the “Wall Street Week” programming. Applicants teach storage of programming (Spec. at 445 ll. 27-32) that includes (e.g., Fig. 1C) the

locally provided information (e.g., Fig. 1A) combined with the remotely supplied information (e.g., Fig. 1B).

(k) Controlling Combined Medium Operations (pages 447-457)

At pages 447-457 of the specification, Applicants teach the functioning of “One Combined Medium” (Spec. at 19-28) within the context (e.g., Spec. at 451 ll. 1-3) of functions that (i) precede (Spec. at 447 l. 26 through p. 451 l. 11) the beginning of the “One Combined Medium” programming (i.e., “Wall Street Week”) and (ii) follow (Spec. at 451 l. 4 through p. 457 l. 10) the display of Fig. 1C. Applicants teach **providing and updating viewer data (e.g., stock portfolio data) before** the start of, for example, “Wall Street Week” and controlling viewer stations to generate and combine into the “One Combined Medium” programming **a series of local images with each image combined within its specific time interval of relevance**. Applicants also teach **error correction techniques for controlling viewer station computers that function incorrectly or inefficiently**.

(l) Transmitting Program Instructions Sets (pages 457-463)

Having taught generation of more than one image, inefficiency, and error correction, Applicants teach methods, at pages 457-463, for timely provision of software for controlling the generating and combining of local images (e.g., Fig. 1A) into the “One Combined Medium” programming. These include varying size of the bandwidth in which the software is located, as well as the location(s) and the timing pattern(s) in which the software is transmitted.

(m) Audio Overlays and Other Overlays (pages 463-468)

Focusing on Fig. 7D, Applicants teach a radio combined medium at pages 464-466 of the specification, including local selection at a radio receiver station of user specific audio and insertion of the selected audio into radio programming supplied from a

remote radio transmitter. Applicants teach a broadcast print combined medium at pages 466-468, including local selection at a broadcast print receiver station of user specific text and insertion of the selected text into broadcast print programming supplied from a remote transmitter. Focusing on Fig. 7E, Applicants teach at page 468 a television combined medium that includes customized audio as well as customized video.

(n) Examples #9 and #10 Continued – Viewer/Listener Station Functionalities (pages 469-516)

To teach the viewer/listener station processing of **program unit Q** in examples #9 and #10 (*see* section (g) above), Applicants focus on the “ultimate receiver station” (defined at page 40 line 35 through page 41 line 1) of Fig. 7 (*e.g.*, Spec. at 390 ll. 30-31 and p. 470 l. 9). Having taught the concepts summarized in section (m) above, Applicants can teach receiver stations interconnecting “apparatus ... in the fashion of Fig. 7E” (Spec. at 480 ll. 16-17). In this environment, Applicants teach local interactions (*e.g.*, by humans at page 471 lines 6-18 and page 508 line 19 through page 509 line, and by equipment at, for example, page 484 lines 7-18 and page 509 line 35 through page 511 line 22) result in interaction between local station and remote station equipment (*see* Spec. at 509 l. 35 through p. 510 l. 4). Drawing on virtually every previous teaching, Applicants disclose at pages 469-516 generation of a series of outputs (*e.g.*, Spec. at 485 ll. 14-18) that include video (*e.g.*, Spec. at 491 ll. 10-29), audio (Spec. at 491 l. 30 through p. 493 l. 22), and print (Spec. at 496 l. 3 through p. 499 l. 3). Applicants also disclose error correction, as summarized in the section above, at page 514 line 32 through page 516 line 13. Furthermore, Applicants disclose at page 514 lines 8-31 that the viewer/listener stations perform substantively identically in examples #9 and #10.

**(o) Preprogramming Receiver Station Operating Systems
(pages 516-532) and The Preferred SPAM Header
(pages 532-533)**

At pages 516-532 of the specification, Applicants teach one master control station (*e.g.*, Spec. at 518 ll. 17-26) transmitting operating system instructions to and programming transmitter and receiver station widely dispersed over a geographic area with the operating systems. Each station to be programmed selects those operating system instructions that apply to its particular type and version of reprogrammable device(s) (*e.g.*, Spec. at 522-524), routes the instructions to memory of the reprogrammable device(s), and commences operating under control of the operating system instructions. At pages 532-533, Applicants further focus on the desirability of flexibility for system expansion and teach that the preferred SPAM header is one byte in length.

(p) The General Case ... Summary Example #11 (pages 533-557)

While Applicants could summarize their disclosure by simply stating that each method and feature of their disclosed “unified system” (Spec. at 533 l. 24) could be combined with every other method and feature (on its face an apparent tautology), they choose, instead, to provide one final example which explicitly relies on the entirety of foregoing disclosure. In example #11, programming is distributed in a time cycling fashion (*e.g.*, Spec. at 536 l. 11 *et seq.* and p. 556 ll. 12-14) from a European master control station via satellite (Spec. at 536 ll. 4-6) to national intermediate transmission stations (Spec. at 534 ll. 26-31) which transmit to local intermediate transmission station (Spec. at 535 ll. 18-22) which, in turn, transmit to ultimate receiver stations (Spec. at 534 ll. 1-4) where programming is displayed (*e.g.*, Spec. at 552 ll. 20-30) and information is communicated responsively (*e.g.*, Spec. at 555 ll. 14-29) back to the European master control station and the national and local intermediate stations (Spec. at 555 l. 26 through p. 556 l. 9).

The European master control station controls the national intermediate stations (*e.g.*, Spec. at 541 l. 29 through p. 542 l. 2 and p. 543 ll. 20-29) to control the local intermediate stations (*e.g.*, Spec. at 544 l. 23 through p. 545 l. 11) to control the ultimate receiver stations (*e.g.*, Spec. at 547 ll. 19-26 and p. 548 ll. 1-6). User specific information is generated at each ultimate receiver station (*e.g.*, Spec. at 548 ll. 18-22 and p. 550 ll. 30-31), stored at each ultimate receiver station (*e.g.*, Spec. at 551 ll. 11-14), explained in combined medium output (Spec. at 552 ll. 17-30), and communicated to the European master control station and the national and local intermediate stations (Spec. at 555 l. 26 through p. 556 l. 9). At points in the disclosed example #11 cycle where functions are described in general, reference is made to earlier sections of the specification that teach the detail of how the function is performed. For example, at page 537 lines 6-17, the European master control station is explicitly disclosed as preprogramming the national and local intermediate stations and the ultimate receiver stations in the fashion summarized in the above section.

(q) Conclusion

As demonstrated above, within the specification, many embodiments of the claimed invention are disclosed. Each manifestation of an apparatus or method that includes the subject matter defined by the instant claims is a *single* embodiment of Applicants' invention. Such a single embodiment of Applicants' invention may have elements or steps that are described in detail in various separate sections of the instant specification. Every embodiment of the instant invention that is described by the specification as a whole is a *single* embodiment of the instant invention that provides support under the written description requirement.

It appears, however, that what the Examiner intends to request is that Applicants provide support for every limitation of an individual claim from within a single one of the detailed enumerated examples listed in the specification. In other words, the Examiner

requests that the support provided for all the limitations of an individual claim be contiguous or proximate within *only a portion* of the specification, rather than the specification as a whole. The written description requirement of 35 U.S.C. § 112 does not mandate such contiguous or proximate descriptions of each element or step of every individual claim.

“To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that the ‘inventor invented the claimed invention.’” *Regents of University of California v. Eli Lilly and Co.*, 119 F.3d 1559, 43 U.S.P.Q.2d 1398, 1404 (Fed. Cir. 1997)(quoting *Lockwood v. American Airlines*, 107 F.3d 1565, 41 U.S.P.Q.2d 1398, 1405 (Fed. Cir. 1997)). Applicants submit that one of ordinary skill in the art would determine that the inventors possessed the claimed invention by recognizing that the embodiments indicated in Appendix A are described in the specification. Since, for the reasons discussed above, one of ordinary skill in the art would recognize that the specification is a single cohesive document containing many descriptions of methods and apparatus included in general integrated systems, there is no reason that the entire support for each individual claim must come from within a single detailed enumerated example described in the specification. However in order to advance the prosecution of the instant application, Applicants have selected embodiments for inclusion in Appendix A that include elements and steps described primarily in a single enumerated example of the specification.

(r) The Subject Matter in the ‘81 Disclosure is Specifically Included In the Instant Specification

Applicants recognize that they must convey that they were in possession of the invention as of the effective filing date of November 3, 1981. Applicants also recognize that the claim of priority under 35 U.S.C. § 120 requires that the previously filed application disclose the invention in the manner provided by the first paragraph of 35

U.S.C. § 112. Accordingly, throughout the prosecution of the pending claims, Applicants have provided support based on the application filed November 3, 1981. Applicants also submit herewith, in Appendix A, support for each claim limitation from the application filed November 3, 1981. Applicants respectfully submit that the detailed support provided in Appendix A demonstrates full compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, and the related requirement of 35 U.S.C. § 120. Additionally, Applicants submit Appendix C herewith, to provide a correlation between the 1981 priority specification (as referenced the column and line numbers of Applicants' U.S. Pat. No. 4,694,490) and the instant specification, and Appendix D containing a Glossary of Defined Terms with respect to the instant specification.

In the Office Action at page 5, the Examiner seeks an explanation for how the '81 disclosure can be considered the specification support. The subject matter in the '81 disclosure is clearly included in the instant specification as demonstrated by Appendix C. Applicants respectfully assert that one skilled in the art, upon recognizing a description of the invention in the '81 disclosure, would readily recognize a description of the invention in the instant specification. The Examiner merely states at page 3 of the Office Action that the previously provided support does not cite the sentences, paragraphs, or passages of the instant specification. Applicants submit that the support provided in Appendix A demonstrates that the instant specification describes the subject matter that is originally disclosed in the '81 application and is presently claimed.

Applicants clarify that the instant specification does not included a verbatim duplication of the '81 disclosure. However, Applicants maintain that the subject matter in the '81 disclosure is specifically included in the instant specification. Neither 35 U.S.C. § 112 nor 35 U.S.C. § 120 requires that the parent application be incorporated into the pending application either by reference or by verbatim repetition. "In order to determine whether a prior application meets the 'written description' requirement with respect to later-filed claims, the prior application need not describe the claimed subject

matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the earlier date the applicant had invented the what is now claimed.” *Eiselstein v. Frank*, 52 F.3d 1035, 34 U.S.P.Q.2d 1467, 1470 (Fed. Cir. 1995)(citation omitted)(quoting *Vas-Cath v. Mahurkar*, 935 F.2d 1555, 1561, 19 U.S.P.Q.2d 1111, 1116 (Fed. Cir. 1991)). Applicants respectfully submit that the support cited in Appendix A demonstrates that the ‘81 disclosure indicates to persons skilled in the art that as of November 3, 1981, Applicants had invented what is now claimed.

(3) 35 U.S.C. § 112 Includes No Requirement That Identical Embodiments of the Invention be Described in Both a Parent Application and a Subsequent Application Claiming Priority Therefrom

As discussed above, there are many embodiments of the claimed invention disclosed in the specification in such full, clear, concise, and exact terms that one skilled in the art would clearly conclude that Applicants invented the claimed invention as of the effective filing date of the application. There is no conflict or discrepancy for Applicants to refer to one embodiment at one point during the prosecution of the instant application and to refer to another embodiment at a different point. Applicants may independently rely on various embodiments of the claimed invention to demonstrate support under the written description requirement. Likewise, there is no requirement in either 35 U.S.C. § 112 or 35 U.S.C. § 120 that identical embodiments of the invention be described in both a parent application and subsequent application claiming priority therefrom. As noted above, “the prior application need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the earlier date the applicant had invented the what is now claimed.” *Eiselstein v. Frank*, 52 F.3d 1035, 34 U.S.P.Q.2d 1467, 1470 (Fed. Cir. 1995)(citation omitted)(quoting *Vas-Cath v. Mahurkar*, 935 F.2d 1555, 1561, 19 U.S.P.Q.2d 1111, 1116 (Fed. Cir. 1991)). “[I]psis verbis disclosure is not necessary to satisfy the written

description requirement of section 112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question.” *Fujikawa v. Wattonasin*, 39 U.S.P.Q.2d 1895, 1904 (Fed. Cir. 1996)(quoting *In re Edwards*, 568 F.2d 1349, 1351-52, 196 U.S.P.Q 465, 467 (C.C.P.A. 1978)). Applicants may rely on different embodiments at different times to show that the disclosure conveys to those skilled in the art that Applicants had possession of the claimed subject matter. Applicants respectfully submit that such use of multiple embodiments is permissible to demonstrate compliance with the written description requirement of 35 U.S.C. § 112. However, where clarity permits, Applicants have selected similar embodiments from both the ‘81 disclosure and the instant specification for inclusion in Appendix A to demonstrate compliance with the written description requirement.

(4) Conclusion

The Examiner has failed to establish a *prima facie* rejection under the written description requirement of 35 U.S.C. § 112, first paragraph, because no reasons are given as to why one skilled in the art would not consider the description sufficient. The Examiner also asserts that there is a lack of continuity between the disclosure in the application filed November 3, 1981 and the instant specification. Applicants maintain that, although the ‘81 disclosure is not included in identical words in the instant specification, the subject matter of the ‘81 disclosure is included in the instant specification. Furthermore to demonstrate support for the instant claims, submitted herewith, in Appendix A, are tables demonstrating support for each claim from both the ‘81 disclosure and the instant specification. In view of the above arguments and Appendices A, C & D, Applicants respectfully request that the rejection under the written description requirement of 35 U.S.C. § 112, first paragraph be withdrawn.

b) The Specification Enables One Skilled in the Art to Make and Use the Invention

The Examiner rejects claims 2-117, 120, 124, 129-139 & 141-198 under the enablement requirement of 35 U.S.C. § 112, first paragraph. (Office Action at 5.) The Examiner concludes that the handling/transmission of “digital television signals” is not enabled by the specification. (Office Action at 93.) The Examiner also concludes that “data” could not be processed in the same manner as television and radio programming units. (Office Action at 99.) However, these conclusions are not directed specifically to the invention claimed by the presently pending claims.

The test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosure in the application coupled with information known in the art without undue experimentation. *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988). The invention is defined by the claims presented in the instant application. The Examiner concludes that the terms “digital” and “data” are not enabled. The Examiner fails to consider how these terms define Applicants’ invention in the instant claims. The Examiner has failed to include any analysis of whether any particular claim is supported by the disclosure. The PTO bears the initial burden of setting forth a reasonable explanation as to why it believes that the scope of protection provided by each claim is not adequately enabled by the description of the invention provided in the specification of the application. *In re Wright*, 999 F.2d 1557, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993) The Examiner has failed to consider the scope of protection provided by the claims in his analysis under the enablement requirement. Therefore, the Examiner has failed to establish a *prima facie* rejection under the enablement requirement of 35 U.S.C. § 112, first paragraph.

The Examiner suggests Applicants enumerate which claim trees are directed toward an ‘81 embodiment and which are directed toward an ‘87 embodiment. In Part a)(2)(r) above, Applicants have fully addressed this ground of rejection in the context of

the written description requirement. Applicants maintain that each pending claim defines an invention that has embodiments described in both the application originally filed November 3, 1981, and the instant specification. The Examiner has failed to determine that one reasonably skilled in the art could not make or use the invention by the conclusion that the claims “seem to mix and match ‘81 and ‘87 disclosed embodiments.” Therefore, the Examiner has failed to establish a proper rejection under the enablement requirement of 35 U.S.C. § 112, first paragraph.

(1) “Digital” is Enabled by the Specification

Claims 2-117, 120, 124, 129-139 & 141-198 stand rejected under 35 U.S.C. § 112, first paragraph, because the Examiner alleges these claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. (Office Action at 125.) The Examiner asserts the specification fails to disclose the manner in which digital television signals are formatted and processed. The Examiner acknowledges that the transmission of digital television signals was known in the art. The rejection is based on the assertion that the transmission of digital television signals was not interchangeable with the transmission of analog television signals and the Examiner’s conclusion that Applicants’ disclosure assumes that they are interchangeable. This reasoning is an insufficient basis for the rejection of claims 2-117, 120, 124, 129-139 & 141-198 for at least two reasons. First, the Examiner’s discussion of the transmission and formatting of digital television signals is not directed to the scope of claims 2-117, 120, 124, 129-139 & 141-198. Second, the means needed to format and transmit digital television signals in a manner compatible with all the methods and apparatus disclosed in the specification was known by those skilled in the art.

Claims 2-117, 120, 124, 129-139 & 141-198 are fully enabled by the specification. Claims 39, 45, 91-93, 119 & 164-165 are the only claims in the instant application that specify “digital”, i.e.,

Claim 39, “digital television signal which is separately defined from standard analog television,”

Claim 45, “digital information in a mass medium programming transmission,”

Claims 91-93, “digital data,”

Claim 119, “digital data signal,” and

Claim 164-165, “digital television signal.”

See Appendix A for specification support for claim 70.

Notwithstanding the above arguments, Applicants recognize that the invention defined by claims 39, 45, 91-93, 119 & 164-165 is compatible with the use of digital television signals. The handling and transmission of digital television signals in a manner compatible with the methods described in the specification were well known to those skilled in the art as of the filing date of the instant application. The Examiner requests Applicants to submit references which show that the means needed to format and transmit “digital television signals” were known to those skilled in the art. Applicants submit that U.S. Patent No. 3,906,480 issued on September 16, 1975 to Schwartz et al. discloses the means needed to format and transmit “digital television signals” in a manner compatible with the methods described in the specification. Schwartz et al. discloses decomposing vectors to be displayed into elemental vector segments that are *encoded* as vector symbols. Schwartz et al. further discloses that the system has the capability of storing each vector in a compacted (i.e. compressed) form while retaining its attributes and identity in storage. Applicants contend that the specification discloses the usage of digital data in a television signal similar to that which is disclosed in Schwartz et al. The means needed to format and transmit digital television signals in this manner were well known to those skilled in the art as of the filing date of this application.

The Examiner has failed to construe the claims in his analysis under the enablement requirement. The Examiner directs his analysis to the term “digital television signals,” but fails to demonstrate how this analysis applies to claims 39, 45, 91-93, 119 & 164-165. Furthermore, means compatible with Applicants’ disclosure of formatting and transmitting digital television signals were well known in the art, contrary to the Examiner’s assertion. For at least these reasons, Applicants respectfully request the withdrawal of the rejection of claims 39, 45, 91-93, 119 & 164-165 under the enablement requirement of 35 U.S.C. § 112, first paragraph.

(2) “Data” is Enabled by the Specification

Claims 2-117, 120, 124, 129-139 & 141-198 and all claims depending therefrom stand rejected under 35 U.S.C. § 112, first paragraph, because the Examiner alleges these claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. (Office Action at 99.) The Examiner notes that the specification discloses that SPAM messages can be embedded within the “normal locations” of “other media” such as broadcast data or print. The Examiner also notes that the specification discloses that print or data information is transmitted within SPAM messages. Applicants acknowledge the disclosure from line 6 of page 85 through line 11 of page 86 of the instant specification, which describes that SPAM signals may accompany conventional print or data programming. It is unclear to what specific disclosure the Examiner refers by the specific citations recited on pages 102-103, and in the footnote on page 102 of the Office Action. The Examiner asserts that these disclosures are so contradictory that one of ordinary skill in the art would need to resort to undue experimentation to practice the invention. (Office Action at 101.) Applicants firmly assert that a thorough reading of the specification shows that the disclosure is in no way contradictory with respect to the term “data.”

Applicants disclose the use of SPAM signals to control and coordinate a wide variety of subscriber stations. (Spec. at 40.) The information of SPAM signals includes data, computer program instructions, and commands. (Spec. at 41 ll. 20-21.) One typical example of the composition of a SPAM signal is shown in Figure 2E. (Spec. at 44.) The specification clearly discloses that SPAM signals may included information segments. (Spec. at 44 l. 11.) Program instruction sets, intermediate generation sets, other computer information, and data may all be transmitted in information segments. (Spec. at 53 l. 34 through p. 54 l. 2.) Applicants disclose that SPAM signals can be embedded in many different locations in electronic transmissions. (Spec. at 85 ll. 6-7.) In broadcast and data communications transmissions, SPAM signals can accompany conventional print or data programming in the conventional transmission stream. (Spec. at 85 ll. 20-23.) More precisely, the conventional print or data information may be transmitted in an information segment of a SPAM signal. (Spec. at 86 ll. 1-11.) Thus, SPAM signals can be included in broadcast print and data communication transmissions. Also, conventional data information can be transmitted in an information segment of a SPAM signal. There is no conflict in this disclosure. Any person skilled in the art would be enabled to use SPAM signals to control and coordinate a subscriber station through a broadcast data communication transmission by reading the instant specification. After thoroughly reading the specification any person skilled in the art would require no undue experimentation to practice Applicants' claimed invention.

The Examiner asserts that Applicants' disclosure did not describe a system or method which formatted, transmitted, received, processed, or displayed data program units under control of associated SPAM messages because data program units were actually transmitted with the SPAM messages. (Office Action at 101.) The Examiner extends this conclusion to hold that the disclosure fails to set forth the means or steps needed to make or use systems in which data is manipulated in the same manner as described for television and radio television program units. (Office Action at 102.) The

Examiner's conclusion fails to follow from the stated facts. Data program units transmitted with SPAM signals can be manipulated under the control of the associated SPAM signal. The fact that data are disclosed as transmitted in the information segment of SPAM signals in no way conflicts with disclosed control of such transmissions through the use of the SPAM signals.

Furthermore, at most the Examiner's conclusion applies to data communication transmissions that are controlled through the use of SPAM signals accompanying data programming. However, the Examiner makes no attempt to construe the claims to determine how this rejection applies to the scope of each claim. Assuming *arguendo* that the Examiner's reasoning is correct, every use of the term data does not violate the enablement requirement of 35 U.S.C. § 112. Applicants recognize that the pending claims set forth an invention that may be used with broadcast print or data communications transmissions. However, Applicants submit that the instant rejection does not directly apply to the following claim limitations:

Claim 10, "computer data,"

Claim 18, "electronic data,"

Claims 26, 28, 33-35, 45, 47, 51-53, 74, 80-82, 98, 106, 135-138, 156, 178, 181, 184 & 188-190, "data,"

Claim 27, 36, 67, 86, 97, 103, 141, 144 & 190, "a source or supplier of data,"

Claim 32, "data evidencing said viewer reply,"

Claim 63, "data stored in a computer,"

Claims 79 & 108, "identification data,"

Claim 83, "data source,"

Claims 91-93, "digital data,"

Claim 107, "television data,"

Claims 115-116, "local data source,"

Claim 119, "digital data signal,"

Claims 145-146 & 180, "receiver specific data," and
Claim 182, "user data."

For at least the above reasons, Applicants submit that the subject matter defined by claims listed above is described in the specification in such a way to enable any person skilled the art to make or use Applicants' invention. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn.

**c) The Best Mode of Practicing the Claimed Invention
Contemplated by Applicants is Disclosed in the Specification**

Claims 2-117, 120, 124, 129-139 & 141-198 stand rejected under 35 U.S.C. § 112, first paragraph, because it is asserted that the best mode contemplated by the inventor has not been disclosed. (Office Action at 103.) The first paragraph of 35 U.S.C. § 112 provides that the specification "shall set forth the best mode contemplated by the inventor of carrying out his invention." A two step inquiry is used to determine if the best mode requirement is met. *Chemcast Corp. v. Arco Industries Corp.*, 913 F.2d 923, 16 U.S.P.Q.2d 1033,1036 (Fed. Cir. 1990) First, the Examiner must determine whether, at the time Applicants filed their patent application, they knew of a mode of practicing the claimed invention that they considered to be better than any other. *Id.* Second, the Examiner must determine whether the disclosure is adequate to enable one skilled in the art to practice the best mode, if one was known to Applicants. *Id.* This inquiry is designed to preclude applicants from concealing preferred embodiments of their inventions which they have conceived. *Id.* The Examiner has failed to apply this test in rejecting the pending claims under the best mode requirement. The Examiner has failed to present evidence that Applicants concealed any embodiment of their invention which they considered to be better than the embodiments disclosed in the instant specification. Therefore, Applicants respectfully request the withdrawal of the rejection of claims 2-117, 120, 124, 129-139 & 141-198 under the best mode requirement of 35 U.S.C. § 112, first paragraph.

The Examiner compares the present case to *In re Ruschig*, 379 F.2d 990, 154 U.S.P.Q. 118 (C.C.P.A. 1967). The misapplication of *Ruschig* by the Examiner cannot substitute for the two step inquiry to be applied under a proper best mode analysis. The reasoning applied in *Ruschig* is inapplicable to the best mode rejection made by the Examiner in the instant case. First, the issue in *Ruschig* was whether a claim was supported by the disclosure of the appellants' application. *Id.* 154 U.S.P.Q. at 119. The analysis in *Ruschig* by the United States Court of Customs and Patent Appeals does not address the best mode requirement. Second, the *Ruschig* analysis is inapplicable to the facts in the instant case. In *Ruschig*, a claimed specific species of a genus of chemical compounds was not named or identified by formula in the specification. *Id.* 154 U.S.P.Q. at 121. The issue was whether the disclosure of the genus along with teachings of a number of other species would lead one skilled in the art to the claimed species. The Court held that the disclosure in *Ruschig* failed to include guides directing the selections required to arrive at the claimed compound rather than any of the many other compounds that could also be made within the genus. *Id.* 154 U.S.P.Q. at 123. The Court employed the analogy of travel through a forest. The Court found that the appellants were pointing to trees, but that there were no blaze marks to single out the trees that led to the unnamed compound. *Id.* 154 U.S.P.Q. at 122. The facts in *Ruschig* are in direct contrast to the present case. In *Ruschig* the claim limitation was *not* named or identified in the specification. In the instant case the Examiner acknowledges that Applicants' disclosure addresses the variety of claim limitations included in the claims. (Office Action at 104.) As the claim limitations are addressed by the instant specification, no blaze marks are required to lead a skilled artisan through a forest of possibilities to find them.

The Examiner asserts that he cannot recognize the pending claimed processes within the "woods." (Office Action at 107.) In response, Applicants have provided detailed support for each claim limitation. Applicants find it disingenuous for the Examiner to now assert that somehow Applicants have erred by describing numerous

specific claim limitation details (*i.e.* pointing to the trees that make up the Examiner's woods.)

The Examiner asserts that there is a scattering of teachings across the multiple applications in the chain of continuity of the ancestor applications relied upon by the claim of priority in the instant application. (Office Action at 107.) The Examiner concludes that this scattering constitutes either (1) concealment of the best mode, or (2) a failure to meet the written description requirement. For the reasons set forth above in Part a), Applicants have fully complied with the written description requirement. Also as explained above in Part a), there is no scattering of teachings across applications. The instant application is a proper continuation application of Application No. 096,096, filed September 11, 1987, which in turn is a proper continuation-in-part of Application No. 317,510, filed November 3, 1981. The instant disclosure is substantially identical to the disclosure of Application No. 096,096 (the '87 disclosure.) The instant disclosure includes substantially all the subject matter in the disclosure of Application No. 317,510 (the '81 disclosure) and adds considerable details and improvements to the methods and apparatus disclosed therein. There is no scattering of teachings across these disclosures as asserted by the Examiner.

The Examiner confusingly questions whether Applicants disclosed their best mode in relation to the terms "data," "pending claim processes as a whole," and "digital." In accordance with M.P.E.P. § 2165.03, the Examiner should assume that the best mode is disclosed unless there is evidence to the contrary. The Examiner points to no evidence indicating Applicants contemplated a best mode of carrying out the claimed invention that they have failed to disclose. That the Examiner questions whether the best mode is disclosed with respect to the "pending claim processes as a whole" is not evidence that Applicants concealed the best mode. With respect to the terms "data" and "digital," the Examiner has utterly failed to apply the first step of the proper best mode analysis. The Examiner has failed to determine that Applicants knew that one mode was better than

another. Therefore, the Examiner has failed to establish a proper best mode rejection. Applicants note that this best mode rejection appears to be a repetition of the enablement rejection, which asserts that no embodiment of Applicants invention claimed using the terms “data” or “digital” is adequately disclosed. The enablement rejection is fully addressed in Part b) above.

The Examiner has failed to apply the proper analysis in rejecting claims 2-117, 120, 124, 129-139 & 141-198 under the best mode requirement of 35 U.S.C. § 112. The Examiner has failed to determine whether Applicants knew that one mode was better than another at the time the application was filed. Thus, the Examiner cannot determine whether the disclosure is adequate to enable one of ordinary skill in the art to practice the best mode. As the Examiner has failed to establish a proper rejection under the best mode requirement, Applicants respectfully request that these rejections under 35 U.S.C. § 112, first paragraph, be withdrawn.

2. The Claims Comply With 35 U.S.C. § 112, second paragraph

Claims 2-117, 120, 124, 129-139 & 141-198 stand rejected under 35 U.S.C. § 112, second paragraph. (Office Action at 5 & 108.) The second paragraph of 35 U.S.C. § 112 mandates that the specification conclude with claims that meet two requirements. First, the claims must set forth the subject matter that Applicants regard as their invention. Second, the claims must be definite. The legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope. *In re Warmerdam*, 33 F.3d 1354, 31 U.S.P.Q.2d 1754, 1759 (Fed. Cir. 1994). When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Applicants submit that the Office Action fails to demonstrate that any claim is directed to subject

matter that Applicants do not regard as their invention. The Office Action also fails to demonstrate that any claim fails to reasonably apprise those of skill in the art of its scope. Applicants, therefore, respectfully request the withdrawal of these rejections under 35 U.S.C. § 112, second paragraph.

Claims 2-117, 120, 124, 129-139 & 141-198 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection is directed to the terms “programming” and “programming.” No further reasons are given to support this rejection. The Examiner utterly fails to indicate why any claim fails to reasonably apprise those of skill in the art of its scope. This rejection is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection and is therefore invalid under 35 U.S.C. § 132. Accordingly, Applicants respectfully request that this rejection be withdrawn. The claim language “programming” and is address below in Part b).

a) The Claims Define That Which Applicants Regard as Their Invention

Claims 2-117, 120, 124, 129-139 & 141-198 stand rejected under 35 U.S.C. § 112, second paragraph, because the Examiner asserts that the claims fail to set forth the subject matter which Applicants regard as their invention. (Office Action at 108.) The Examiner requests “to remove all claim terms from pending claims when [their] conceptual meanings are not identical.” This logic is incorrect for the reasons given in Part 1.a)(2)(r) above, in which Applicants maintain that the subject matter in the ‘81 disclosure is specifically included in the instant specification.

Furthermore, the Examiner has merely pointed to evidence that Applicants believe that the claims are supported by the ‘81 disclosure. The conclusion that the claims fail to set forth subject matter which Applicants regard as their invention simply does not follow from the fact that Applicants believe that the claims are supported by the ‘81 disclosure. Applicants believe that the claims define an invention that is fully disclosed in both the

'81 disclosure and the instant specification. The Examiner has failed to point to any evidence indicating that Applicants regard the invention to be something other than what is defined by the claims. As Applicants have consistently regarded the subject matter defined by the instant claims to be their invention, Applicants respectfully request the withdrawal of this rejection of claims 2-117, 120, 124, 129-139 & 141-198 under 35 U.S.C. § 112, second paragraph.

**b) There is no discrepancy in the use of the term
"Programming"**

In considering claims, the Examiner suggests that the Applicants' use of the term "programming" in the pending claims is "repugnant to the normal/usual use of said terminology." (Office Action at 96.) The Examiner further suggests that, in the '81 disclosure (in the Parent Application No. 317,510 filed November 3, 1981), the Applicants defined the term "programming" as "everything transmitted over television or radio intended for communication of entertainment or to instruct or inform." The Examiner relies on the definition of programming set forth in the abstract of the disclosure. "The purpose of the Abstract is to enable the Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. The abstract shall not be used for interpreting the scope of the claims." 37 C.F.R. § 1.72(b). By properly making reference to the whole specification, the Examiner will get a more complete understanding of Applicants' meaning of the term "programming".

"It is the object of this invention to unlock this potential [for a significant increase in the scope and scale of multi-media and multi-channel presentations] by the development of means and methods which permit progra[m]ming to communicate with equipment that is external to television and radio receivers, particularly computers and computer peripherals such as printers." "It is the further purpose of this invention to provide means and methods to process and monitor such transmissions and presentations

at individual receiver sites and to control, in certain ways, the use of transmitted progra[m]ming and the operation of certain associated equipment. Such receiver sites may be stations or systems that intend to retransmit the progra[m]ming, or they may be end users of the progra[m]ming. The present invention contemplates that certain data may be encrypted and that certain data collected from such processing and monitoring will automatically be transfer[r]ed to a remote geographic location or locations.” U.S. Patent No. 4,694,490, col. 1, ll. 22-24, 36-53.

Applicants contend that the definition of “programming”, to include television and radio entertainment information, computer programming and data to control execution of a processor, in the present application is clearly supported by the definition of the term “programming” in the ‘81 disclosure.

Applicants assert that their use of the term “programming” in the present application is both consistent with normal/usual usage and with the parent application. *Webster’s Seventh New Collegiate Dictionary* (1977) gives separate definitions for the noun and verb forms of “programming”. The noun form of “programming” is defined with a series of gerunds:

“programming or programing ... n : the planning, scheduling, or performing of a program.”

And the noun form of “program”, which includes the word “programming” in its definition, is:

“program or programme ... n ... 1 ... : a public notice 2 a : a brief usu. printed outline of the order to be followed, of the feature or features to be presented, and the persons participating (as in a public exercise, performance, or entertainment) b : the performance of a program; esp : a performance broadcast on radio or television 3 : a plan or system under which action may be taken toward a goal 4 : CURRICULUM 5 : PROSPECTUS, SYLLABUS 6 a : a plan for the programming of a mechanism (as a computer) b : a sequence of coded instructions that can be inserted into a mechanism (as a computer) or that is part of an organism 7 : matter for programmed instruction”

The verb form of “programming” is defined with the verb form of “program” and is:

“program also programme vt -grammed or -gramed; -gramming or -graming 1 a : to arrange or furnish a program of or for : BILL b : to enter in a program 2 : to work out a sequence of operations to be performed by (a mechanism) : provide with a program 3 : to insert a program for (a particular action) into or as if into a mechanism”

Applicants assert that these definitions are entirely consistent with Applicants’ present and parent application. For example, the ‘81 disclosure describes a well known television program, “Wall Street Week”, at U.S. Patent No. 4,694,490 (hereinafter ‘490) col. 19 l. 5 through col. 20 l. 7. At ‘490 col. 19 l. 48-53 and col. 19 l. 63 through col. 20 l. 7, Applicants disclose a sequence of operations performed by a mechanism (a computer) which includes a first output (‘490 col. 19 l. 65 through col. 20 l. 2) and a second output (‘490 col. 20 l. 6). This sequence of operations is performed in response to “several instruction signals” (‘490 col. 19 l. 46) followed by “an instruction signal” (‘490 col. 19 l. 60). (That Applicants’ “signals” are coded is disclosed at ‘490 col. 11 lines 12-14 where a code reader passes the signals to a computer.) Applicants assert that these disclosed instruction signals (‘490 col. 19 l. 48-53 and 60-67) clearly meet the dictionary definition of a program--“a sequence of coded instructions that can be inserted into a mechanism (as a computer)”--and are, in fact, what is now, and was in 1981, widely known among those of considerably less than ordinary skill in the art as “a computer program” and as “computer programming”.

Applicants also assert that the first output (‘490 col. 19 l. 65 through col. 20 l. 2) and a second output (‘490 col. 20 l. 6), *by themselves*, also meet the dictionary definition of a program--“the performance of a program”. Furthermore, Applicants contend that they constitute both computer programming *and television programming*. Being generated and outputted by a computer qualifies them as computer programming. Being displayed as an integral part of a television program--“Wall Street Week” (‘490 col. 19 l.

45, 54-60, and col. 19 l. 67 through col. 20 l. 2)--qualifies them as television programming.

Finally, Applicants assert that this disclosure is in no way inconsistent with the meaning given to “programing” in the Abstract of Applicants’ parent disclosure-- “everything transmitted over television or radio intended for communication of entertainment or to instruct or inform.” Applicants clearly disclose that the signals are “instruction signals embedded in the ‘Wall Street Week’ programing transmission” (‘490 col. 19 l. 43-44) and that “These signals instruct” (‘490 col. 19 l. 48) and “This signal instructs” (‘490 col. 19 l. 64-65).

For the reasons set forth above, Applicants assert that the term “programming” as used throughout the instant application to include what are commonly known as television, radio and computer programming is clearly and unambiguously supported by the specification as filed and withdrawal of the corresponding rejection is respectfully requested.

G. Response to Rejections under 35 U.S.C. § 102

1. Rejection under 102 (b) over Applicants’ U.S. Pat. Nos. ‘490 & ‘725

Claims 2-117, 120, 124, 129-139 & 141-198 stand rejected under 35 U.S.C. § 102(b). The Examiner asserts that claims are clearly anticipated by Applicants’ own U.S. Patent Nos. 4,694,490 and 4,704,725. (Office Action at 115.) The instant application claims the benefit under 35 U.S.C. § 120 of the filing date of both the previous applications that matured into the patents relied upon by the Examiner. Accordingly, neither of the patents relied upon by the Examiner is available as a reference under 35 U.S.C. § 102(b). The Examiner asserts that the instant specification fails to adequately support the instant claims. This assertion is incorrect and irrelevant to Applicants’ claim of priority under 35 U.S.C. § 120.

Under 35 U.S.C. § 120, an application obtains the benefit of the filing date of a previously filed patent application if (a) the invention is disclosed in the manner provided by the first paragraph of section 112 in the previously filed application, (b) the application is filed by inventors named in the previously filed application, (c) the application is filed before the patenting or abandonment of or termination of proceedings on an application similarly entitled to the benefit of the filing date of the first application, and (d) the application contains a specific reference to the earlier filed application. The instant application meets each of these requirements with respect to Applicants' previous Application No. 317,510 filed November 3, 1981. The Examiner acknowledges that Application No. 317,510, discloses the subject matter of the instant claims. The same inventors as filed the instant application filed application No. 317,510. The instant application was filed before the termination of proceedings of Application No. 113,329, filed August 30, 1993, (currently pending) which is similarly entitled to the benefit of the filing date of Application No. 317,510. The instant application contains a specific reference to the entire chain of Applicants' applications extending back to Application No. 317,510. As the instant application meets all the requirements of 35 U.S.C. § 120, the instant application is entitled the benefit of the effective filing date of November 3, 1981. Accordingly, neither U.S. Patent No. 4,694,490 nor No. 4,704,725 are available as prior art under 35 U.S.C. § 102(b) as neither was patented or published more than one year prior to November 3, 1981.

Furthermore, the Examiner asserts, "this rejection, under 35 U.S.C. § 102(b), is caused by Applicants choice to cite passages that did not exist in the original '87 C.I.P. disclosure." Applicants respectfully assert that the showing that the instant claims are supported by the '81 disclosure cannot form the basis for this rejection under 35 U.S.C. § 102(b). To the contrary, the showing establishes that the instant claims are entitled to an effective filing date of November 3, 1981. Additionally, Applicants assert that the

instant claims are fully supported by the instant specification as discussed above in Part F.1.a) above.

For at least the above reasons, Applicants respectfully submit that U.S. Patents Nos. 4,694,490 and 4,704,725 are not available as prior art with respect to the presently pending claims. Applicants, therefore, request the withdrawal of the rejection of claims 2-117, 120, 124, 129-139 & 141-198 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patents 4,694,490 and 4,704,725.

H. Response to Rejections under 35 U.S.C. § 103

1. *Prima Facie* Case of Obviousness

To establish a *prima facie* case of obviousness, 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 the claim recitations. 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 Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). M.P.E.P. 706.02(j).

2. Rejection under 103 (a, b & e) over Applicants WO 89/02682.

Claims 2-117, 120, 124, 129-139 & 141-198 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' WO 89/02682.

The Examiner asserts that all the instant claims are unpatentable over WO 89/02682 to the extent that applicants can satisfy the support enablement requirement of Section 112, first paragraph, but not the support requirement. WO 89/02682 is the international publication number of the Applicants' own international application

published March 23, 1989. The specification of this international application substantially corresponds to the specification of the instant application and the specification of the parent application filed September 11, 1987. Claims 2 to 303 are entitled to the effective filing date of November 3, 1981. However, assuming *arguendo* that the claim of priority to the 1981 application is flawed, then the claims are entitled to an effective filing date of September 11, 1987. In either case, this international application published March 23, 1989, is unavailable as prior art. Accordingly, Applicants request the withdrawal of this rejection of claims 2-117, 120, 124, 129-139 & 141-198 under 35 U.S.C. § 103(a).

3. Rejection over Greenberg, U.S. Pat. No. 4,547,804 in view of Galumbeck et al., U.S. Pat. No. 4,725,886.

Claims 2-117, 120, 124, 129-139 & 141-198, that are directed to processes of controlling cable head end processes and monitoring of those processes and combined medium presentation, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greenberg, U.S. Pat. No. 4,547,804 in view of Galumbeck et al., U.S. Pat. No. 4,725,886.

The Office Action states that “considering pending claims of the group 2-117, 120, 124, 129-139 & 141-198, that cover, *inter alia*, processes of controlling cable head end processes and monitoring of those processes and combined medium presentation are suggested by [Greenberg].”

First, Applicants traverse this rejection on the grounds that Greenberg is an unavailable reference in that it was filed on March 21, 1983, subsequent to Applicants’ priority date of November 3, 1981. Additionally, Galumbeck et al. is an unavailable reference in that it was filed on April 21, 1983, again subsequent to Applicants’ priority date of November 3, 1981.

Secondly, the Office Action fails to analyze any of Applicants’ claim language in the rejection but rather chooses to summarize the specific contents of the instant 186 claims (numbers 2-117, 120, 124, 129-139 & 141-198) with the statement, “processes of

controlling cable head end processes and monitoring of those processes and combined medium presentation.” The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected.” This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified*.” (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, “In every letter, each pending claim should be mentioned by number, and its treatment or status given.” Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

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. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. "Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language." M.P.E.P. § 2141.02. The Examiner makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather, the Examiner merely asserts what he feels the applied references teach. The Office Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner's characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

4. Rejection over over Jeffers et al., U.S. Pat. No. 4,739,510.

Claims 2-117, 120, 124, 129-139 & 141-198, that are directed to, *inter alia*, processes of controlling broadcast subscriber stations, including decrypting, processing, storing, generation and monitoring to those processes and combined medium presentation, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jeffers et al., U.S. Pat. No. 4,739,510.

The Office Action states that “considering pending claims of the group 2-117, 120, 124, 129-139 & 141-198, that cover, *inter alia*, processes of controlling broadcast subscriber stations, including decrypting, processing, storing, generation and monitoring to those processes and combined medium presentation they cover what [Jeffers et al.] suggests...broadcast programming including, *inter alia*, audio and control signals that are digitized and inserted into the horizontal blanking interval of distributed television programming.”

First, Applicants traverse this rejection on the grounds that Jeffers et al. is an unavailable reference in that it was filed on April 2, 1987, subsequent to Applicants’ priority date of November 3, 1981. Therefore, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

Secondly, the Office Action fails to analyze any of Applicants’ claim language in the rejection but rather chooses to summarize the specific contents of the instant 186 claims (numbers 2-117, 120, 124, 129-139 & 141-198) with the statement, “processes of controlling broadcast subscriber stations, including decrypting, processing, storing, generation and monitoring to those processes and combined medium presentation ...broadcast programming including, *inter alia*, audio and control signals that are digitized and inserted into the horizontal blanking interval of distributed television programming.” The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected.” This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter

the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified*.” (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, “In every letter, each pending claim should be mentioned by number, and its treatment or status given.” Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

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. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. “Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language.” M.P.E.P. § 2141.02. The Examiner makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather,

the Examiner merely asserts what he feels the applied references teach. The Office Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner's characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

5. Rejection over Hazelwood et al., U.S. Pat. No. 4,025,851 in view of the publication "System and Apparatus for Automatic Monitoring Control of Broadcast Circuits" by Yaname et al. and Hetrich, Australian Patent No. 74,619.

Claims 2-117, 120, 124, 129-139 & 141-198, that are directed to, *inter alia*, processes of controlling cable head end processes and monitoring of those processes and combined medium presentation are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hazelwood et al., U.S. Pat. No. 4,025,851 in view of the publication "System and Apparatus for Automatic Monitoring Control of Broadcast Circuits" by Yaname et al. and Hetrich, Australian Patent No. 74,619.

a) Characterization of References

(1) Hazelwood et al.

Hazelwood et al. states,

In accordance with a preferred embodiment of the invention, each network originated program is coded with a data signal from which each program may be identified. This coded data signal may take the form of a code identifying the program itself, or the code may identify the source of the program and the time that the program originated to permit the program to be identified from the station logs. The encoding is done by placing binary data on line 20 or any other unused line in the vertical interval. The coded signal is applied to the network where it is received by the network affiliated stations for immediate or delayed broadcast.

A plurality of monitoring sites are disposed about the network coverage area to monitor the programs broadcast by the network affiliates. The monitoring may be done remotely by means of a monitor receiver that receives the programs broadcast by the network affiliates and recovers the data encoded on line 20. Alternatively, the monitoring unit may be installed on the premises of the network affiliate to monitor the program material applied to the transmitter. In the latter case, there is no need to transmit the data encoded on line 20, and the data may be stripped off by the monitoring unit before the signal is applied to the transmitter.

In either case, the data recovered from line 20 is stored at the remote location in a change format, that is, a format wherein the data is stored once, and new data is stored only when there is a change in the data. In addition, data indicative of the time interval between changes in data is stored. The time information permits delayed broadcasts to be identified since the real-time data will not correspond to the network time data in a delayed broadcast.

Each remote unit is periodically interrogated (usually once per day) via telephone line by a centrally located computer that controls a mini-computer located in each of the remotely located monitor units. Upon interrogation, the mini-computer causes the stored data to be transmitted in blocks to the central computer together with error checking data to permit the central computer to request the remotely located mini-computer to retransmit the data in the event that an error is found. In addition, each remotely located mini-computer may be reprogrammed by the central computer in the event that a modification of the data handling is desired. This is accomplished by providing each remotely located mini-computer with a hard-wired read-only memory (ROM) that initiates the data processing and transmission and a random-access memory (RAM) which may be reprogrammed by the central computer upon completion of the read-only memory routine. (Column 2, lines 8-59.)

In response to the Office Action's characterization of Hazelwood et al., on page 120, the Office Action states that "the embedded codes ... identify the programming being broadcast by *title*,..." (emphasis added). Hazelwood et al. fails to teach identification by "title," but rather, "identified by the source identification code ... and the time of origin ... serving to identify the program. Alternatively, a unique program identifying code can be generated for identifying each program, and used instead of or in addition to the time and source identification code;..." (column 5 lines 61-66).

The Office Action on page 121 characterizes Hazelwood et al. as teaching "the embedded monitoring *instruction* codes..." and, "means for performing communication

programming to a storage device,” (emphasis added). Hazelwood et al. fails to teach “instruction codes,” and “performing communication *programming* to a storage device,” but rather “a data signal from which each program may be identified,” (column 2 line 11), is “transmitted in blocks to a central computer...,” (column 2 lines 46-47).

Additionally, the Office Action on page 122 states, “At the encoder 12 of Fig. 1, has to have (sic) been controlled so as to communicate the monitoring codes to the summing circuit 14 at “selected” times in view that the monitoring codes were carried through the line at the selected time in which they were provided to summing circuit 14.” Applicants’ best understanding of the Office Action’s characterization may apply to Applicants’ following claim language:

Claims 14-15, 54-56, 98-100, 107, 130, 145 & 167, “specific time,”

Claims 27, 36, 67, 86, 97, 103, 141, 144 & 190, “time of transmission,”

Claim 32, “particular time,” and

Claim 56 & 100, “scheduled time.”

However, Hazelwood et al. mere teaches that “the video information from the camera 10 is combined with the coding information from the encoder 12 at a mixing point 14 before the signal applied to a network feed line 16 which feeds all of the local network affiliates such as the network outlet 18 shown in Fig. 1,” (column 3 lines 23-28). There is no teaching in Hazelwood et al. of “selected times” of embedding identification codes other than when programming is being feed from camera 10 to mixing point 14.

(2) Yaname et al.

Yaname et al. teaches at page 15 “transmitting by multiplexing a control signal together with the identification signal on the program signal,” wherein the control signal is characterized by a “ Q_E signal transmitted from Station Line ...[when Q_E is] received by Station M, Station M switches its circuit toward Station Line, and each lower station thereafter switches its circuit toward the next transmitting station in turn.” This switching

function as initiated by the control signal (Q_E) at the transmitter stations initiates communication to confirm “that the trouble did not occur between itself and the next higher station, troubleshooting can effect rational recovery action without damaging stations unnecessarily.”

(3) Hetrich

Hetrich teaches control signals “are preferably sent over the network lines during non-programming periods such as the normal one minute station breaks between programs,” (page 11). “These control signals may be used to start and stop audio recorders to record special programs for later broadcast, to accomplish the switching of local and network programs, to interrupt programming for emergency announcements, etc.,” (page 10).

In response to the Office Action’s characterization of Hetrich, the Office Action on page 123 states that, “Hetrich discloses ... embedding control signals used for *identifying* the portions of the network programming which are to be recorded by the storage device of the affiliate stations for delayed re-broadcast,” (emphasis added). However, Hetrich fails to teach or suggest the control signals “identifying the portions of the network programming.” All Hetrich teaches the control signals are operative to do is to “start and stop audio recorders to record special programs for later broadcast, to accomplish the switching of local and network programs, to interrupt programming for emergency announcements,” (at page 10).

Additionally, the Office Action’s characterization of Hetrich on page 124 states that, “the control codes are effective to instruct the affiliate station to delay the network programming for some selected period of time.” Applicants traverse this interpretation of Hetrich’s disclosure since all that the control signals are disclosed to accomplish is to “start and stop audio recorders to record special programs for later broadcast, to accomplish the switching of local and network programs, to interrupt programming for

emergency announcements,” (at page 10). There is no teaching or suggestion that the control signals “instruct” the network station to delay the network programming, but merely to start and stop a recording device at the network station. The disclosure anticipates the subsequent broadcasting of the special recorded programs, but fails to indicate that the record start/stop control signal additionally “instructs” the subsequent rebroadcasting.

b) Absence of Comparison of Cited References with Applicants’ Claim Language

The Office Action states that “considering pending claims of the group 2-117, 120, 124, 129-139 & 141-198, that cover, *inter alia*, processes of controlling cable head end processes and monitoring of those processes and combined medium presentation [Hazelwood] suggests the term ‘processor’ wherein the network station, the affiliate station, and the individual circuits which make up the network and affiliate stations, all function to process signals and hence are considered processors of a kind.”

The Office Action fails to analyze any of Applicants’ claim language in the rejection but rather chooses to summarize the specific contents of the instant 186 claims (numbers 2-117, 120, 124, 129-139 & 141-198) with the statement, “processes of controlling cable head end processes and monitoring of those processes and combined medium presentation... wherein the network station, the affiliate station, and the individual circuits which make up the network and affiliate stations, all function to process signals and hence are considered processors of a kind.” The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected.” This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified*.” (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, “In every letter, each pending claim should be mentioned by number, and its treatment or status given.” Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

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. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. “Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language.” M.P.E.P. § 2141.02. The Examiner

makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather, the Examiner merely asserts what he feels the applied references teach. The Office Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner's characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

c) Office Actions Improper Motivation for Combining References

The Office Action on page 122 states, "pending claims of the 2-117, 120, 124, 129-139 & 141-198, directed to, *inter alia*, processes of controlling cable head end processes and combined medium presentation, not suggested by [Hazelwood et al.], are further suggested [by] Yaname et al. and [Hetrich]." However, the Examiner never states what elements of Applicants' claims were not suggested by the base reference Hazelwood et al. Applicants traverse this rejection as being improper and request withdrawal of the rejection.

(1) Improper Combination of Hazelwood et al. in view of Yaname et al.

Applicants contend that the Office Action improperly combined the switching control codes of Yaname et al. with Hazelwood et al. The disclosure of Hazelwood et al. is directed toward the storing of embedded program identifiers at either network affiliate stations or at viewer receiver stations. Hazelwood fails to teach or suggest any anticipation of transmitted control codes that alter transmitter stations' circuits to switch

output toward upline transmitter stations as taught by Yaname et al. The only disclosure in Hazelwood et al. regarding altering the functionality of a station is the reprogramming of the data collecting monitoring devices by a central data collection station via telephone lines. The Examiner cannot assume it is obvious to modify Hazelwood et al. in view of the control codes of Yaname et al. simply due to the fact that both disclosures have “identification codes” in common, when the base reference Hazelwood et al. fails to anticipate any need for the alleged modifying multiplexed control signal of Yaname et al. that changes the functionality of switching output at a transmitter station. Applicants traverse the rejection combining Hazelwood et al. and Yaname et al. for failing to provide proper motivation for combining the references since 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. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). M.P.E.P. 706.02(j).

(2) Improper Combination of Hazelwood et al. and Yaname et al., further in view of Hetrich.

Assuming *arguendo*, that it would have been obvious to modify Hazelwood et al. in view of Yaname et al., Applicants traverse the combination of Hetrich with the two mentioned references. Applicants contend that there was no motivation provided and that it would be improper to combine the recording start and stop control signals transmitted at station breaks of Hetrich with the transmitting station circuit switch control signals of Yaname et al. The Examiner cannot assume it would have been obvious to modify Hazelwood et al. and Yaname et al. further in view of Hetrich due to the fact that both disclosures have “control signals” in common. Yaname et al. discloses transmitting control codes for the purpose of switching output circuits at transmitter stations for the purpose of confirming that the transmission trouble (errors) did not occur between itself and the next higher transmitter station. There is no teaching or suggestion in Yaname et al. that the disclosed Q_E signal could be modified to anticipate and other function

including the starting and stopping of recorders during non-program periods as disclosed by Hetrich. Applicants traverse the rejection combining Hetrich with Hazelwood et al. and Yaname et al. for failing to provide proper motivation for combining the references since 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. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). M.P.E.P. 706.02(j).

6. **Rejection over either one of the common subject matter suggested by Campbell et al., (WO 81/02961, abandoned parent application no. 135,987, and U.S. Pat. No. 4,536,791), in view of at least one or more of: Breeze “Television Line 21 Encoded Information and It’s Impact on Receiver Station Design”; Schnee, U.S. Pat. No. 4,290,142; and Zaboklicki, DE 2,904,891.**

Claims 2-117, 120, 124, 129-139 & 141-198, that are directed to, *inter alia*, processes of controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes, are rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of the common subject matter suggested by Campbell et al., (WO 81/02961, abandoned parent application no. 135,987, and U.S. Pat. No. 4,536,791), in view of at least one or more of: Breeze “Television Line 21 Encoded Information and It’s Impact on Receiver Station Design”; Schnee, U.S. Pat. No. 4,290,142; and Zaboklicki, DE 2,904,891.

- a) **Office Action’s Failure to Identify Applicants Claim in the Rejection**

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected.” This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

Applicants summarize the rejection:

- 1) The Office Action states, “Campbell et al. suggest (sic) the claims that cover an addressable cable television control system controlling television program and data signal transmission from the cable head end to the subscriber stations,” (at page 125).
- 2) The Office Action then characterizes the Campbell et al. reference with no specific mention to any claims at issue in the instant application.
- 3) The Office Action then states, “Claims that cover processes of controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes that are not suggested by Campbell et al. are suggested by Breeze,” (at page 127).
- 4) The Office Action then characterizes the Breeze reference with no specific mention to any claims at issue in the instant application.
- 5) The Office Action then states, “Claims that cover processes of controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes that are not suggested by Campbell et al. and are not suggested by Breeze, are suggested by [Schnee],” (at page 128).
- 6) The Office Action then characterizes the Schnee reference with no specific mention to any claims at issue in the instant application.
- 7) The Office Action then states, “Claims that cover processes of controlling subscriber station processes and monitoring of those processes and of combined medium presentation and processes that are not suggested by Campbell et al. and are not suggested by Breeze, are not suggested by [Schnee], are suggested by [Zaboklicki],” (at page 128-129).
- 8) The Office Action then characterizes the Zaboklicki reference with no specific mention to any claims at issue in the instant application.

9) The Office Action states that “it would have been obvious ... for providing cable subscribers with enhanced interactive processes including enhanced conventional entertainment, providing useful information, and offering greater control to the cable head end operators.” Applicants note that in the entire rejection, not one word of Applicants’ instant claim language was addressed. It seems that the Examiner uses broad characterizations of general concepts found in the instant application and elsewhere in Applicants’ co-pending applications to make this rejection.

Applicants traverse this grounds of this rejection as being improper for failing to identify Applicants’ specific claim language that allegedly reads on the prior art.

When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified*.” (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, “In every letter, each pending claim should be mentioned by number, and its treatment or status given.” Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

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. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. “Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language.” M.P.E.P. § 2141.02. The Examiner makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather, the Examiner merely asserts what he feels the applied references teach. The Office Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner’s characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

b) Rejection further in view of Zaboklicki.

Zaboklicki discusses in general terms (as best understood by Applicants) an “interactive television system” (i) wherein “a local central unit is provided in the home television receivers on the receiver side; that central unit switches the data selection systems on the basis of the television viewer’s answer and on the basis of the centrally transmitted digital processing program for the television segments (transmission fragments)” (English language translation of DE 29 04 981 A 1 at 10 ll. 13 - 18); (ii)

with “individual variants of ... additional information ... passed on in the form of acoustic or sound signals in the television receiver in the infrared band to the individual infrared receivers” (*id.* at 11 ll. 2 - 7); (iii) with “participation of the television viewer in the centrally transmitted telecast in such a way that the output signals of the local central unit in the viewfinder of the television camera turn on the contours of the person is provided for by the director [whereby the shape of the viewer contained in these contours is blended into the main content” (*id.* at page 12, lines 8 - 13); and (iv) wherein, “[i]n the case of telecasts where an answer or the opinion of the television viewers is desired... the viewer’s answer is put out parallel and converted into telephone signals... introduced into the subscriber telephone line... [and] supplied to the monitor in the television studio after statistical processing” (*id.* at 12, l. 13 through p. 13 l. 3).

In fact, Zaboklicki is so vague and indefinite in its description of the technology that virtually any reliance on the publication as prior art in the instant application can only be based on speculation and conjecture about the functionalities alleged to be provided by, or the method of operation of, the Zaboklicki system. Zaboklicki is not an enabling publication.

Applicants note the PTO has supplied and relies on a translation of German Patent publication No. DE 2904981 A 1 in formulating the rejections of the subject claims. Applicants have found that the applied German Patent publication is based on an earlier Polish patent application No. PL 204525 A filed February 9, 1978. In addition to the German publication, the earlier Polish application also forms the basis for French patent publication FR 2417226 A published October 12, 1979 and British patent publication GB 2016874 A published September 26, 1979.

After careful review of the Polish application and British publication, it is self evident that neither the translation provided by the PTO nor the British patent publication (presumably prepared or approved by Zaboklicki) indicates or suggests any method of operation of, or relationship between, the blocks shown in the various figures. In fact, it

is difficult or impossible to determine what functions are being performed by the blocks shown in the various figures because many of the labels are not descriptive, failing to articulate or indicate the intended function. The written description does not cure this defect of the disclosure, failing to describe the functions or the interactions between the blocks. Examples of labels inadequately describing the structure of and function performed by the corresponding blocks are included in the following table.

Ref. No	Label	Description	
		English Language Translation of German Patent Publication	British Patent Publication
4	The circuit for the prescreening of information items for television viewers	preliminary screening of the information items for the television viewer	distributes the information for viewers
5	The control circuit	None	output of control system 5 is additionally fed to the circuits 8 and 10 and is also applied to a circuit 11 for restoring the music signal
6	The central unit (the processor, for example, integrated microprocessor)	the output signals of the central unit 6 control a data selection circuit 8; energizes a sound signal switching unit 20 in at least one additional sound channel	output of circuit 3 is fed to a processor 6 ... [which] is also fed with signals representing the viewer's answer from the circuit 2 [and] transmits a digital programme of manipulation, viewers' answers and the successive identification data of ... individual fragments of the broadcast to a store or memory (RAM) 7; keyboard 12 feed into the processor 6 and the latter output to a transmitter of infra-red signals 13 which produces a remote control signal at 14; Digital data and audio signals with different variants of additional information are applied at 15 to the input of a receiver 16 of infra-red signals having an output in the form of digital data fed over line 17 to processor 6; switching-on of the selected audio channel as determined by the processor 6
10	The circuit for video signal conversion and image illumination	used to convert video signals and for image illumination	for converting video signals and displaying a picture
11	The circuit for sound signal restitution	circuit for sound signal restitution	for restoring
15	The digital data and the phonics with the different variants of additional information	None	input of receiver 16

Ref. No	Label	Description	
		English Language Translation of German Patent Publication	British Patent Publication
19	The command for sound turn-on in the corresponding channel	command for a sound signal of a corresponding channel that is supplied to a circuit 20 for turning on the selected sound channel	commands to switch-on the audio signal from a specific channel are fed over the command line 19 from the processor 6 to the receiver 20
27	The switchover of the television channels for the prescreening of the corresponding fragments of a telecast	line for switching over television channels for preliminary screening of the corresponding fragments of a telecast	television receiver 54 is fed over line 53 with control signals from the remote control signal receiver 52 and over the one 27 from the output system 49 of the processor
28	The short term of call signal transmission during which the answer is delayed	control signal for the delay of the answer, which represent the short span of time during which call signal transmission takes place and during that time span, the answer is delayed.	[Control system 32] is also fed via 28 with a short delay signal for sending the dialing signals when the answer is postponed
29	The prefix generator for transmission announcement of the television viewer's answer	for a transmission announcement of the television viewer's answer with a subscriber generator 30 and with a circuit 31 to generate the television viewer's answer	prefix generator for announcing the transmission of the televiewer's answer
35	The circuit for the introduction of the initial data of the television viewers	serves to put in initial data from the television viewers	circuit for introducing the televiewer's answers
36	The circuit for the prescreening of the digital data from the video signal	causes the preliminary screening of the digital data of the video signal	system for distributing the digital data from the video signals
38	The multiplexer circuit	supplies a signal for the subscriber telephone line 33.	Output from the units 29 and 30, 31 and 32 are applied to a multiplexer 38 whose output 46 is in turn fed to a subscriber telephone line
40	The circuit for the prescreening of the digital handling program (telesoftware) and the identification data of the individual fragments of the telecast	for the prescreening of digital processing programs and the identification data of the individual transmission fragments with the input circuits 39	system for separation of the telesoftware and the identification data of the individual fragments of the broadcast
41	The data selection circuit of the circuit for the comparison of the addresses of the teletext information items	constitutes a data selection circuit or a circuit for the comparison of the addresses of text information, for example, page numbers. Local central unit 6 switches over the data selection circuits 41 as a result of the answers from a television viewer and the digital processing programs which are supplied to the central unit 39 by the output circuit	information selections system or a system for comparing the address of the teletext information, for example the page number, in conjunction with the local processor 6 for switching over the information selection system depending upon the televiewers answer and on the telesoftware

Ref. No	Label	Description	
		English Language Translation of German Patent Publication	British Patent Publication
42	generator of the alphanumeric and graphic symbols	generator for alphanumeric and graphic symbols	alphanumeric and graphic character generator
43	circuit for turning on one of the additional sound channels in the television receiver (54)	switch-on or for the operation of additional sound channels of a television receiver 54	audio channel switch for switching on the sound signal in the television receiver
45	multiplexer circuit	multiplexer circuit	multiplexer of the receiver
46	signal output for the subscriber telephone line	None	none
47	circuit for the prescreening of the symbols for the control of the image illumination function	prefiltering or prescreening of the symbols for the control of image illumination	system for distributing characters to the display control
48	output circuit for symbols	output circuit	character output system
51	multiplexer circuit in the viewfinder of the television camera for the application of the graphic symbols on the image	multiplexer circuit 51 in the viewfinder of a television camera is used to project the graphic symbols into the image of receiver 54 of the television camera that furthermore is connected to a receiver 52 for a remote-control signal	multiplexer system
54	television receiver with at least one additional sound channel	Receiver	television receiver including an audio channel switch 43 for switching on the sound signal I the television receive and an output circuit 55 for the video signal
56	teletext decoder with the additional data output after hamming decoder	a video text decoder 56 with an additional data output (hamming decoder)	teletex decoder having an additional data output behind the Hamming decoder comprising a control system 26, a system 36 for distributing the digital data from the video signals, a system 40 for separation of the telesoftware and the identification data of the individual fragments of the broadcast, an information selection system 41, (or a system for comparing the address of the teletex information, for example the page number, in conjunction with the local processor 6 for switching over the information selection system depending upon the viewers answer and upon the telesoftware), an RAM memory 44, a system 57 for distributing control characters, (for example no display), an alphanumeric and graphic character generator 42, a system 47 for distributing characters to the display control and a character output system 48.

Ref. No	Label	Description	
		English Language Translation of German Patent Publication	British Patent Publication
57	circuit for the prescreening of the control symbols, for example, a command: do not illuminate	A circuit 57 in decoder 56 is used for the prefiltering of control signals or control commands (For example, do not illuminate.)	system for distributing control characters, (for example no display)

It is established that prior art must be enabling. *Rockwell Int'l. Corp. v. United States*, 147 F.3d 1358, 1365, 27 U.S.P.Q.2d 1027 (Fed. Cir. 1998). "In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method." *Beckman Industries, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551, 13 U.S.P.Q.2d 1301, 1304 (Fed. Cir. 1989) (citing *In re Payne*, 606 F.2d 303, 314, 203 U.S.P.Q. 245, 255 (CCPA 1979)). Accordingly, in *Beckman*, held as a correct statement of the law were jury instructions that stated, "References relied upon to support a rejection for obviousness must provide an enabling disclosure. That is to say, they must place the claimed invention in the possession of the public." *Id.* at 1550-51, 13 U.S.P.Q.2d at 1303-4. The Federal Circuit has observed that "even if the claimed invention is disclosed in a printed publication, that disclosure will not suffice as prior art if it was not enabling." *In re Donohue*, 766 F.2d 531, 533, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985) (citing *In re Borst*, 345 F.2d 851, 855, 145 U.S.P.Q. 554, 557 (C.C.P.A. 1965), cert. denied, 382 U.S. 973, 148 U.S.P.Q. 771 (1966) ("the disclosure must be such as will give possession of the invention to the person of ordinary skill")). See also *In re Epstein*, 32 F.3d 1559, 1568, 31 U.S.P.Q.2d 1817, 1823 (Fed. Cir. 1994); *Reading & Bates Construction Co. v. Baker Energy Resources Corp.*, 748 F.2d 645, 651-52, 223 U.S.P.Q. 1168, 1173 (Fed. Cir. 1984); *Preemption Devices, Inc. v. Minnesota Mining & Manufacturing Co.*, 732 F.2d 903, 906, 221 U.S.P.Q. 841, 843 (Fed. Cir. 1984).

If anything is clear, it is that Zaboklicki does not place the technology of Applicants' invention into the hands of the public. The reference to Zaboklicki at most presents some block diagrams which, as best understood, are directed to the four

functions previously outlined. The details of these functionalities or how they are accomplished are not described in sufficient detail or with sufficient clarity to constitute an enabling disclosure.

Therefore, Applicants respectfully request the withdrawal of this rejection of claims 2-117, 120, 124, 129-139 & 141-198 under 35 U.S.C. § 103(a).

7. **Rejection further in view of one or more of: Hazelwood et al., Yaname et al., Hetrich, Marsden, Young et al., "Journal of SMPTE" Oct. 1971, U.S. Pat. No. 3,761,888 to Flynn, U.S. Pat. No. 3,627,914 to Davis, Tunmann et al., U.K. Pat. No. 959,374 to Germany, Byloff, Chiddix, Skilton, Schiller et al., Zettl, Vikene, U.S. Pat. No. 4,547,804 to Greenberg, Jeffers et al., Diederich, Campbell et al. (WO 81/02961, abandoned U.S. application no. 135,987, and U.S. Pat. No. 4,536,791), Kazama et al., Gosch, Stern, Breeze, Barlow, Millar, U.S. Pat. No. 4,725,886 to Galumbeck et al., "CBS/CCETT North American Broadcast Teletext Specification," Zaboklicki, U.S. Pat. No. 4,064,490 to Nagel, U.S. Pat. No. 4,251,691 to Kakihara, Hedger et al., Anderson, Gunn, Gaucher, U.S. Pat. No. 4,290,142 to Schnee et al.**

Claims 2-117, 120, 124, 129-139 & 141-198, that are directed to, *inter alia*, either processes of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation or processes of controlling subscriber stations and method and process for monitoring and providing combined medium presentations, that fall out each particular determining group members of the group of claims described in rejection above, the groups are rejected further in view of one or more of: Hazelwood et al., Yaname et al., Hetrich, Marsden, Young et al., "Journal of SMPTE" Oct. 1971, U.S. Pat. No. 3,761,888 to Flynn, U.S. Pat. No. 3,627,914 to Davis, Tunmann et al., U.K. Pat. No. 959,374 to Germany, Byloff, Chiddix, Skilton, Schiller et al., Zettl, Vikene, U.S. Pat. No. 4,547,804 to Greenberg, Jeffers et al., Diederich, Campbell et al. (WO 81/02961, abandoned U.S. application no. 135,987, and U.S. Pat. No. 4,536,791), Kazama et al., Gosch, Stern, Breeze, Barlow, Millar, U.S. Pat. No. 4,725,886 to Galumbeck et al.,

“CBS/CCETT North American Broadcast Teletext Specification,” Zaboklicki, U.S. Pat. No. 4,064,490 to Nagel, U.S. Pat. No. 4,251,691 to Kakiyama, Hedger et al., Anderson, Gunn, Gaucher, U.S. Pat. No. 4,290,142 to Schnee et al.

a) The Provisional Rejection over Numerous References is Improper

Paragraph 19 of the Office Action it is stated: “Pending claims of the group 2-117, 120, 124, 129-139 & 141-198 that are directed to, *inter alia*, either process of controlling affiliate stations and processes and monitoring of those processes and combined medium presentation or processes of controlling subscriber stations and method and process for monitoring and providing combined medium presentations, or both, that fall out each particular determined group members of the group of claims described in rejection above, the groups are provisionally rejected further in view of one or more of [some thirty-six listed references].” This statement clearly fails to state a proper rejection. This statement fails to provide reasons for a rejection and is clearly so uninformative that it prevents the applicant from recognizing and seeking to counter any potential grounds for rejection. Applicants cannot determine to what claims this statement is applicable. The Examiner has failed to cite to the best references and avoid merely cumulative references. The references cited include at least some that cannot be relied upon as prior art against the pending claims. The Examiner has failed to explain the pertinence of each reference and to specify each rejected claim. The Office Action includes an explanation of the Examiner’s understanding of the level of skill in the art in terms of some of the cited references. However, this explanation fails to include the elements of a proper rejection under 35 U.S.C. § 103(a). Furthermore, the statement does not purport to be a rejection, but rather states that groups are *provisionally* rejected. Applicants find no rejection in this statement by the Examiner to which a response from Applicants is required.

The Examiner has no authority to “provisionally” reject claims in view of one or more of a large group of generally cumulative references. The Office Action includes no

reference to any authority for this “provisional” rejection. The M.P.E.P. provides for a provisional rejection only in the situation where a pending application upon issuance will become valid prior art, against provisionally rejected claims, under 35 U.S.C. § 102(e), 35 U.S.C. § 101 (statutory double patenting), or the judicially created doctrine of obvious type double patenting. The pending application used in the provisional rejection must have a common assignee or common inventor with the application containing the provisionally rejected claims. *See*, M.P.E.P §§ 706.02(f), 706.02(k), and 804. The provisional rejection is permitted to alert applicants that they should expect an actual rejection on the merits if and when the applied pending application issues. There is no authority nor is there any good reason to issue a provisional rejection over references that are issued patents or have been published. The Examiner appears to attempt to alert Applicants to potential rejections that will be made once the Examiner has fully reviewed and analyzed the instant application to determine whether the claims define a useful, novel, non-obvious, and enabled invention that has been clearly described in the specification. However, the Examiner should clearly articulate any rejection early in the prosecution process so Applicants have the opportunity to provide evidence of patentability and otherwise respond completely at the earliest opportunity. M.P.E.P. § 706. The Examiner may not reserve rejections for future actions. “The examiner’s action will be complete as to all matters.” 37 C.F.R. § 1.104(b). “If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable *will* be rejected.” 37 C.F.R. § 1.104(c)(1)(emphasis added). As this purported “provisional” rejection is asserted under no authority and fails to clearly articulate any rejection, Applicants respectfully submit that this “provisional” rejection has no effect on the instant application.

b) Rejection under 35 U.S.C. § 103 is Improper

Additionally, this statement fails to provide reasons for a rejection and is clearly so uninformative that it prevents the applicant from recognizing and seeking to counter any potential grounds for rejection. Applicants cannot determine to what claims this statement is applicable. The Examiner has failed to cite to the best references and avoid merely cumulative references. The references cited include at least some that cannot be relied upon as prior art against the pending claims. The Examiner has failed to explain the pertinence of each reference and to specify each rejected claim. The Office Action includes an explanation of the Examiner's understanding of the level of skill in the art in terms of some of the cited references. However, this explanation fails to include the elements of a proper rejection under 35 U.S.C. § 103(a).

The Examiner has failed to identify which, if any, claims actually fall into the group that stands rejected. Under 37 C.F.R. § 1.104(c), "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected." This rule requires that the Examiner at a minimum identify the claims subject to each ground of rejection.

When rejecting any claim, the Examiner is required to state the reason for such rejection. 35 U.S.C. § 132. Section 132 is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection. *Chester v. Miller*, 906 F.2d 1574, 1578, 15 U.S.P.Q.2d 1333, 1337 (Fed. Cir. 1990). Under 37 C.F.R. § 1.104(c), "If the invention is not considered patentable, or not considered patentable as claimed, the claims, or those considered unpatentable will be rejected. . . . The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified*." (emphasis added) Section 707.07(i) of the M.P.E.P. sets forth, "In every letter, each pending claim should be mentioned by number, and its treatment or status given." Accordingly, to state a valid rejection the Examiner must, at a minimum, specify by number the claims subject to each ground of rejection. The failure

of the Examiner to identify by number the claims that may stand rejected results in a statement that is so uninformative that it prevents Applicants from recognizing and seeking to counter the grounds for rejection. As the purported rejection fails to identify the claims rejected by number, the purported rejection fails to comply with the requirements of 35 U.S.C. § 132, 37 C.F.R. § 1.104(c) and M.P.E.P § 707.07(i).

The Examiner has failed to provide information on which a *prima facie* case of obviousness could be based under 35 U.S.C. § 103(a).

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. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459, 467 (1966).

The Examiner has utterly failed to conduct the second inquiry set forth in *Graham v. Deere*. The Office Action includes no inquiry into the differences between the prior art and the claims at issue. "Ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language." M.P.E.P. § 2141.02. The Examiner makes no attempt to interpret the claim language. The Examiner makes no attempt to determine whether *the pending claims* are obvious in view of the cited prior art. Rather, the Examiner merely asserts what he feels the applied references teach. The Office Action includes no showing that applied references teach all of the limitations of any of the pending claims. Thus, the Office Action provides insufficient information on which to base a *prima facie* case of obviousness.

Applicants respectfully submit that, notwithstanding the accuracy of the Examiner's characterization of the applied references or applicability of any of these references against the pending claims, for the above reasons the Office Action fails to state a *prima facie* case of obviousness. Therefore, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

I. Response to Examiner's Administrative Requirement

Applicants respectfully traverse the requirements imposed by the Examiner in the Office Action at page 155.

The Examiner requires Applicants to either:

- (1) file terminal disclaimers in each of the related 329 applications terminally disclaiming each of the other 329 applications; or
- (2) provide an affidavit attesting to the fact that all claims in the 329 applications have been reviewed by applicant and that no conflicting claims exist between the applications; or
- (3) resolve all conflicts between claims in the related 329 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 329 applications.

In addition, Examiner states that failure to comply with any one of these requirements will result in abandonment of the application.

Applicants traverse this requirement for the reasons stated in Section II C of the Amendment and Request for Reconsideration filed September 18, 1998 in application number 08/470,571. Further, Applicants have fully responded to the re-imposition of this requirement in the Petition To The Commissioner Under 37 C.F.R. § 1.181 filed March 7, 2000, which requests, *inter alia*, that this improper requirement be withdrawn.

J. Response to Obviousness-Type Double Patenting Rejection

Applicants respectfully request that the Examiner reconsider and withdraw his rejection based on obviousness-type double patenting on two separate grounds.

1. The Examiner has totally confused and misapplied the established law of double patenting and, further, has failed to follow the mandates of the Manual of Patent Examining Procedure as to double patenting rejections.

2. The Examiner has also failed to analyze the pending claims on a limitation-by-limitation basis to demonstrate that no patentable distinctions exist between the pending claims and those in the issued Harvey patents.

1. PTO Assertions in Office Action mailed January 7, 2000

The Examiner has rejected claims 2-117, 120, 124, 129-139 & 141-198 of the application under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 4,684,490 (Harvey I); claims 1-5 of U.S. Patent No. 4,704,725 (Harvey II); claims 1-25 of U.S. Patent No. 4,965,825 (Harvey III); claims 1-26 of U.S. Patent No. 5,109,414 (Harvey IV); claims 1-71 of U.S. Patent No. 5,233,654 (Harvey V); and claims 1-56 of U.S. Patent No. 5,335,277 (Harvey VI), in view of at least one or more of a list of over 30 prior art references from pages 157-165.

In the Office Action at page 166, the Examiner rejects 2-117, 120, 124, 129-139 & 141-198 under obviousness-type double patenting as being unpatentable over any single claim or combination of claims are “no more than an obvious variation of the patented claims when the teachings discussed throughout this action are considered.” (Office Action at 166.) The Examiner attempts to assert a catch-all rejection by incorporating all arguments and allegations discussed throughout the pages of the Office Action. Again, the Examiner provides no authority for this sweeping new ground for rejecting claims under obviousness-type double patenting.

The Examiner’s application of obviousness-type double patenting standard represents an erroneous and misapplied interpretation of existing case law and is contrary to patent examining procedure. First, the Examiner has confused and misapplied the established law of double patenting and has failed to follow the mandates of the M.P.E.P. as to double patenting rejections. Secondly, the Examiner has also failed to analyze the pending claims on a limitation-by-limitation basis to demonstrate that no patentable

distinctions exist between the pending claimed and those issued in the Harvey patents as required by the M.P.E.P.

Based on the following discussion, Applicants respectfully request the withdrawal of these rejections.

2. The Scope of the Double Patenting Doctrine

The prohibition against double patenting is a judicial doctrine based on the language of 35 U.S.C. § 101, which specifies that an inventor who invents “any new and useful process, machine, manufacture, or composition of matter...may obtain a patent therefor.” In *Miller*¹, the U.S. Supreme Court held the term “a patent” to mean, “two valid patents for the same invention cannot be granted either to the same or to a different party.”² Therefore, the claims in a second patent must be patentably distinct from the claims in a first patent or the second patent would be an improper extension of the first.

As the preclusion is to obtaining two patents on the same invention or an obvious modification of the same invention, the sole question is whether by examining the scope of the claims, one has attempted to claim the same subject matter twice, or an obvious variation. No prohibition exists against a second patent on subject matter that is disclosed but not claimed in the first patent.

Under 35 U.S.C. § 120, a patent applicant may submit additional claims in a subsequent application which are supported by the disclosure in the original applications' specification. A proper continuation application and its original application are considered “parts of the same transaction, and both as constituting one continuous application, within the meaning of the law.”³ Furthermore, 35 U.S.C. § 120 does not place a definite time limit on filing a continuing application. Rather, all that is required

¹ *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894).

² *Id.* at 197.

³ *In re Hogan*, 449 F.2d 595, 603 (CCPA 1977)(quoting *Godfrey v. Earnes*, 68 U.S. 317, 325-6 (1864)).

to preserve an earlier effective filing date as to common subject matter is copendency or a continuous chain of copendency.

The double patenting doctrine prevents an extension of a patent term which would occur if successive patents were allowed on the same invention or obvious variants. However, if two patents contain the same disclosure, but claim different inventions or nonobvious variations, double patenting does not exist.

3. Patent Office Procedure

The U.S. Patent and Trademark Office (“PTO”) has specified a procedure in the Manual of Patent Examining Procedure (M.P.E.P.) for Examiners to follow in establishing a *prime facie* case of double patenting. In determining whether a proper basis exists for a double patenting rejection, the Examiner must determine whether:

1. A double patenting rejection is prohibited by the third sentence of 35 U.S.C. § 121 related to divisional applications,
2. A statutory basis exists (i.e., whether same-invention double patenting is present), or
3. A non-statutory basis exists (i.e., whether obviousness-type double patenting is present).⁴

Assuming the application is not a divisional application, the Examiner must establish in step 2 that the same invention is being claimed twice. The Court specified in *In re Vogel*, 422 F.2d 438, 164 U.S.P.Q. 619 (C.C.P.A. 1970), that in determining same-invention double patenting analysis, one must ask “is the same invention being claimed twice?...[The] “invention” here means what is defined by the claims, whether new or old, obvious or unobvious....By the “same invention” we mean identical subject matter.”⁵ The court stated “that claims may be differently worded and still define the same

⁴ M.P.E.P. § 804.

⁵ *In re Vogel*, 422 F.2d at 441.

invention.”⁶ In conclusion, the court found “the only objective test” for same-invention double patenting as,

whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention.⁷

If there is no same-invention double patenting, then the Examiner must establish in step 3 obviousness-type double patenting wherein the grant of a patent with the claims in the application would unjustly extend the rights granted by the first patent.

4. Nonstatutory Double Patenting

In defining nonstatutory double patenting, the M.P.E.P. provides three types of nonstatutory-type double patenting based on the judicial doctrine, which include one-way obviousness, two-way obviousness⁸, and nonobviousness rejections.⁹

Under the M.P.E.P. requirements, if the application at issue is the later filed application, only a one-way determination of obviousness is needed to resolve the issue of double patenting. The issue to be determined is whether the invention defined in a claim in the application is an obvious variation of the invention defined in a claim of the patent. *See, e.g., In re Berg*, 46 U.S.P.Q.2d 1226 (Fed. Cir. 1998). The M.P.E.P. mandates that unless a claimed invention in the application is obvious over a claimed invention in the

⁶ *Id.*

⁷ *Id.*

⁸ A two-way obviousness double patenting rejection arises in the specific instance where the claims of a patent application are being compared with the claims of a later filed but earlier issued patent. This is not the case with respect to the present double patenting rejection.

⁹ M.P.E.P. § 804. Nonobviousness-type double patenting rejections arise in circumstances as described in *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). With respect to the instant application, a nonobviousness-type double patenting rejection was made on February 6, 1997, and withdrawn in the Office Action mailed on March 31, 1998.

patent, an Examiner should make no double patenting rejection of the obviousness-type. Thus, the sole issue is the scope of the inventions as defined by the claim language in the patent and later filed application.

a) Standard for Determining One-Way Obviousness-Type Double Patenting

*In re Kaplan*¹⁰, the Federal Circuit specified that an obviousness-type double patenting rejection rests on the prohibition against issuance of a second patent that would continue protection, beyond the expiration date of the first patent, or a mere variation of the previous patented invention that would have been obvious to those of ordinary skill in the relevant art.

Thus, in establishing a *prima facie* case of obviousness-type double patenting, the Examiner must,

1. Identify the inventions claimed in the claims under consideration and in the patent claims,
2. Establish that any variation(s) between the inventions claimed in the claims under consideration and the earlier-issued patent claims would have been obvious to person of ordinary skill in the art, and
3. Establish a *prima facie* case of obviousness.¹¹

To summarize, the Examiner must show that (1) the inventions claimed (2) are not patentably distinct based on (3) a *prima facie* showing of obviousness. Instead, the Examiner has provided bald statements that obvious variations exist. The mere finding that the claims themselves are obvious variations, without establishing that the alleged

¹⁰ *In re Kaplan*, 789 F.2d 1574, 229 USPQ 678 (Fed. Cir. 1986).

¹¹ See *In re Longi*, 759 F.2d 887, 225 USPQ 645, 651 (Fed. Cir. 1985) (Examiner must provide *prima facie* case of obviousness for obviousness-type double patenting rejection. The burden then shifts to the Applicant to rebut the *prima facie* case).

variations would have been obvious, cannot properly support an obviousness-type double patenting rejection.

In the Office Action under paragraphs 22-23, the Examiner has failed to establish a *prima facie* showing of obviousness-type double patenting in the rejection of 2-117, 120, 124, 129-139 & 141-198. In particular, the Examiner has not identified the scope of the inventions of the instant application and the patents as determined by the claims. Secondly, the Examiner has not positively identified any variations in the claims of the instant application and the claims of the patent. Examiner has provided broad allegations that obvious variants exist, but fail to specifically state these allegedly obvious variants. Thirdly, the Examiner has not shown a *prima facie* case of obviousness under the requirements of 35 U.S.C. § 103. The Examiner has not indicated proper motivation in making the alleged obvious modifications. Since no motivation is provided, it may follow that the variations are not obvious. Moreover, monopolies would not be extended on the same claimed invention.

(1) Identifying the Inventions Claimed

(a) Scope of the Inventions as Defined by the Claim Language

The C.C.P.A. in *In re Vogel*¹² summarized this step by asking, “does any claim in the application define merely an obvious variation of an invention disclosed and claimed in the patent?”¹³ The analysis is based on what the claim defines, and not merely the claim language itself. This first step in the analysis should not focus on what the claim language *discloses*, but on rather what the claim language *defines*.¹⁴ As noted by the Federal Circuit,

¹² *In re Vogel*, 422 F.2d 438, 164 USPQ 619.

¹³ *Id.*, 164 USPQ at 622.

¹⁴ *General Foods Corp. v. Studiengesellschaft Kohle mbh*, 972 F.2d 1272, 23 USPQ 1893, 1845 (Fed. Cir. 1992).

it is important to bear in mind that comparison can be made only with what invention is *claimed* in the earlier patent, paying careful attention to the rules of claim interpretation to determine what invention a claim *defines* and not looking to the claim for anything that happens to be mentioned in it *as though it were a prior art reference*.¹⁵

...

[T]he fundamental rule of claim construction, that what is claimed is what is *defined by the claim taken as a whole*, every claim limitation...being material¹⁶

...

[P]atent claims are looked to only see what *has been patented*, the subject matter which *has been protected*, not for something one may find to be disclosed by reading them¹⁷

Rather than identifying the scope of the inventions as defined by the claims, the Examiner has assumed an obviousness-type double rejection based on two claims in separate applications supported by the same embodiment of the applications' common specification, as set forth in paragraph 23. The basis for the Examiner's obviousness-type double patenting rejection is premised on a common embodiment. There is no statutory basis for this improper interpretation of obviousness-type double patenting.

The Examiner's "same embodiment" basis for obviousness-type double patenting is erroneous for at least the following reasons. First, two claims in two separate applications may find support in the same embodiment while claiming inventions that are patently distinct. An embodiment as described by a common specification and drawings may fully disclose a wide range of details and limitations. However, it may not follow

¹⁵ *Id.*, 972 F.2d at 1280.

¹⁶ *Id.*

¹⁷ *Id.* citing *In re Aldrich*, 398 F.2d 855, 859, 158 USPQ 311, 314 (CCPA 1968).

that separate claims, which are supported by a common embodiment, are also identical in scope, as assumed by the Examiner. Second, by relying on a common embodiment, the Examiner has improperly treated the specification as prior art. Finding a claimed invention to be an obvious variation of patented claims by treating the patent disclosure as though it is prior art has been repeatedly held as impermissible.¹⁸ The use of an applicant's invention disclosure as prior art against him is improper.¹⁹ By broadly rejecting pending claims under obviousness-type double patenting without analyzing the claims of the inventions, the Examiner has misapplied and confused the law of obviousness-type double patenting.

(b) Proper Use of Specification

Because the obviousness-type double patenting rejection requires claim interpretation, the Examiner may use the specification in a limited capacity to assist in interpreting what the claim language defines. The patent disclosure cannot be used as prior art, but the disclosure can be used to (1) determine the meaning of terms in a claim and may also be used as required to (2) answer the above question, "whether the claim in the application defines merely an obvious variation of the invention disclosed and claimed in the patent."²⁰ With respect to "the invention disclosed and claimed in the patent," the Federal Circuit stated in *Vogel*,

We recognize that it is difficult, if not meaningless, to try to say what is or is not an obvious variation of a claim. A claim is a group of words defining only the boundary of the patent monopoly....The disclosure, however, sets forth at least one tangible embodiment within the claim, and it is less difficult and more meaningful to judge whether that thing has

¹⁸ *In re Kaplan*, 229 USPQ at 683.

¹⁹ *Id.*

²⁰ *In re Vogel*, 422 F.2d at 441.

been modified in an obvious manner. It must be noted that this use of the disclosure is not in contravention of the cases forbidding its use as prior art, nor is it applying the patent as a reference under 35 U.S.C. § 103, since only the disclosure of the invention claimed in the patent may be examined.²¹

Therefore, it is proper to identify the invention claimed in the patent by using *exclusively only the portion(s) of the disclosure supporting the claimed invention*. Alternately, it is improper to make a double patenting rejection when the rejection relies on specification support other than the specific portion(s) of the disclosure supporting the claimed invention.

It has been repeatedly held that use of disclosure of a patent cited in support of a double patenting rejection cannot be used as through it were prior art, even where the disclosure is found in the claims. *See, e.g., Braat*, 937 F.2d at 594 n.5, 19 U.S.P.Q. at 1293 n.5 (“The patent disclosure must not be used as prior art”); *Vogel*, 422 F.2d at 442, 164 USPQ at 622 (in considering obviousness-type double patenting, “the patent disclosure may not be used as prior art”); *In re Plank*, 399 F.2d 241, 242, 158 U.S.P.Q. 328, 329 (C.C.P.A. 1968) (“Its claims are used as the basis for a double patenting rejection. It is not a prior art reference”); *In re Aldrich*, 398 F.2d 855, 859, 158 U.S.P.Q. 311, 314 (C.C.P.A. 1968) (“[P]atent claims are looked to only to see what has been patented, the subject matter which has been protected, not for something one may find to be disclosed by reading them.”)

In the instant case, the Examiner has improperly relied on the specification in making the obviousness-type double patenting rejection. Whether support is provided for

²¹ *Id.*, 422 F.2d at 442.

the claim language is an issue separate from the scope of the claims in the determination of a double patenting rejection. The Examiner has confused the issue of claim support with the issue of claim interpretation in determining whether obviousness-type double patenting exists. Claim interpretation is limited to what the claim language defines as the scope of the invention. By doing so, the Examiner has relied on specification support other than the specific portions of the disclosure supporting the claimed invention. Applicants have failed to follow the mandates as expressed in the M.P.E.P. thereby failing to establish a *prima facie* case of double patenting of the obviousness-type.

According to *In re Vogel*, one must first “determine how much of the patent disclosure pertains to the invention claimed in the patent” because only “[t]his portion of the specification supports the patent claims and may be considered.” The Examiner has disregarded this critical step in his analysis of the obviousness-type double patenting rejection.

(c) Best Mode

The scope of the invention is determined by the claim language. The best mode disclosed in the specification as interpreted by the Examiner does not define the boundaries of the claims when determining double patenting of the obviousness-type. Examiner has again improperly relied on the specification to interpret the scope of the invention while failing to analyze the pending claims on a limitation-by-limitation basis to demonstrate that no patentable distinctions exist between the pending claims and those in the issued Harvey patents.

In *In re Schneller*, 397 F.2d 350, 158 U.S.P.Q. 210 (C.C.P.A. 1968), the Schneller patent disclosed elements A, B, C, X, and Y as the best mode and claimed A, B, C, and X which covered other features incorporated in the claim because of the term “comprising”,

thus effectively covering the combination A, B, C, X, and Y. The later filed application claimed elements A, B, C, and Y and elements A, B, C, X, and Y. Thus, making the new combination would merely exercise skill or ingenuity expected of a person with ordinary skill in the art because X and Y were both known in the art.

The court in *In re Schneller* noted the uniqueness of the factual circumstances surrounding the element composition of the application which involved the substitution of element X for element Y, rather than the addition or subtraction of an element from the patent's claims.²² The court went on to state that "[this] is not a case of an improvement or modification invented after filing . . . Hence it is not the usual 'obviousness-type' double patenting case."²³ Thus, the court limited the applicability of this holding. The Examiner has not offered any proof that *Schneller's* use of the disclosed best mode may be properly applied to the facts of the instant application. More specifically, the instant case does not involve the substitution of one element (X) for another element (Y) where the rest of the claimed subject matter (ABC) is well known and where the two elements (X and Y) are also known in the art.

While *In re Schneller* relied on a disclosed best mode of ABCXY in finding a non-statutory double patenting rejection, the Examiner's use of a best mode to find all variations obvious is unwarranted. An allegation of an improper extension of a unified system monopoly cannot be supported without examining the scope of the claims. In *In re Schneller*, the court specifically cited and analyzed both the claims in the patent and the elements in the claims in the *Schneller* application. The court then clearly demonstrated how the claims in the patent read on the claims in the application to support the double patenting rejection. The Office Action fails to provide such an analysis.

²² 397 F.2d at 353-54.

²³ *Id.*

(d) Means Plus Function

In interpreting “means plus function” language, the Federal Circuit held *In re Lonardo*, 119 F.3d 960, 43 U.S.P.Q.2d 1262 (Fed. Cir. 1997) that under 35 U.S.C. § 112, sixth paragraph²⁴, correct interpretation of the means plus function element must be in light of the disclosed structure for implementing the function, and in a manner that is expressly recited in the claim.²⁵ The PTO must apply 35 U.S.C. §112, sixth paragraph, in appropriate cases, and give claims their broadest reasonable interpretation in light of and consistent with the written description of the invention in the application.²⁶

(2) Establishing Variations between the Invention Claimed and the Invention Defined in the Patent Claims

Based on the proper identification of each of the inventions, *supra*, the Examiner then must identify the variation(s) between the inventions being claimed in the application and the invention as defined by the claims in the patent.

As discussed above, the Examiner has not properly identified the inventions. In fact, the Examiner has failed to analyze and interpret the claims on a limitation-by-limitation basis to demonstrate that no patentable distinctions exist between the pending claims and those in the issued Harvey patents. Rather, in an attempt to address the variations between the inventions, the Examiner provides broad allegations that “no pending claim is more than an obvious variation...” (Office Action at 165.) However, the Examiner has failed to specifically identify these variations. Such blanket assertions do not fulfill the requirement of identifying variations between the invention claimed and the invention defined by the patent claims, as mandated by the M.P.E.P.

As to paragraph 23, the Examiner presents a weak attempt at establishing variations between the invention claimed and the invention defined in the patent claims.

²⁴ See *In re Donaldson*, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1849 (Fed. Cir. 1994).

²⁵ *In re Lonardo*, 43 USPQ2d at 1267.

²⁶ *In re Donaldson*, 16 F.3d at 1194.

More specifically, the Examiner states that “[t]he differences ... [are] suggested by the prior art.” (Office Action at 166.) The Examiner erroneously believes that incorporating any differences merely **suggested** (and not necessarily explicitly stated) by any and all prior art discussed throughout entire Office Action is proper. The Examiner is required to identify the variations between the inventions being claimed and the invention as defined by the patent claims. Placing the burden on Applicants to sift through the Office Action to locate any and all discussions of the differences suggested, explicitly and/or implicitly, by the prior art is contrary to law. There is no statutory basis for Examiner’s version of identifying variations between the sets of claims at issue.

Applicants provide Appendix B herewith, which identify Applicants’ patentable subject matter of the instant claims over specific Applicants’ patented claims in response to Appendix A of the Office Action.

(3) Variations Would Have Been Obvious to a Person of Ordinary Skill in the Art

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966) that establish a background for determining obviousness under 35 U.S.C. § 103 are employed when making an obviousness-type double patenting analysis. However, the “patent principally underlying the double patenting rejection is not considered prior art.”²⁷ The factual inquiries are summarized as follows:

- (A) Determine the scope and content of the patent claim and the prior art relative to the claim in the application at issue;
- (B) Determine the differences between the scope and content of the patent claim and the prior art as determined in (A) and the claim in the application at issue;
- (C) Determine the level of ordinary skill in the pertinent art; and

²⁷ *In re Longi*, 759 F.2d at 892, n.4 (citing *In re Braithwaite*, 379 F.2d 594, 600 n.4, 54 CCPA 1589, 154 USPQ 29 (CCPA 1967)).

(D) Evaluate any objective indicia of nonobviousness.²⁸

Additionally, the Federal Circuit held in *Kaplan* that obviousness-type double patenting rejections must include clear evidence to establish why an alleged variation of an invention claimed in a prior patent would have been obvious.

[T]here must be some clear evidence to establish why the variation would have been obvious which can properly qualify as “prior art.” Even if obviousness of the variation is predicated on the level of skill in the art, prior art evidence is needed to show what the level of skill was.²⁹

Otherwise, if no clear prior art evidence establishes that the variation(s) in the application claims are obvious over the invention defined by the claims of the patent, one can assume that the characteristic of the claims including the variation(s),

appear that the invention covered by the later patent was a separate invention, distinctly different and independent from that covered by the first patent; in other words, it must be something substantially different from that comprehended in the first patent. It must consist in something more than a mere distinction of the breadth or scope of the claims of each patent.³⁰

As discussed above, the Examiner has failed to properly identify the inventions as claimed and has further failed to identify the variations as required for a proper obviousness-type double patenting rejection. Nonstatutory double patenting is intended to prevent prolongation of the patent term by prohibiting the extension of patent monopolies in successive patents. While the prohibition of extending patent monopolies is a policy concern, a statement of motivation for establishing obviousness under 35 U.S.C. § 103 is nevertheless lacking. Because Examiner has not provided any evidence that establishes

²⁸ M.P.E.P. § 804 (II) B (1).

²⁹ *Id.* at 683.

³⁰ *Miller v. Eagle Mfg. Co.*, 151 U.S. at 198.

that the variations are obvious over the invention as defined by the claims, the claims of the instant application may be assumed to be a separate and distinct invention.

Under paragraph 30, in an attempt to address the obviousness of the variations, the Examiner states that “[t]he provision of any such differences would have been obvious for the benefit of providing greater functionality to the user” (Office Action at 144.) The Examiner provides a single statement of motivation to address any differences without positively identifying the differences.

This statement lacks the proper motivation for establishing obviousness under 35 U.S.C. § 103 for at least the following reasons. First, “for the benefit of providing greater functionality to the user” does not answer the question of whether the differences would have been obvious to one of ordinary skill in the art. This attempt at providing motivation fails to take into consideration the level of ordinary skill at the time of the invention. To determine whether greater functionality provides adequate motivation, the Examiner should take into consideration (among other things) the level of ordinary skill in the art, as expressly provided in M.P.E.P § 804 (II)B(1) and *Graham v. John Deere Co.*³¹ A proper motivation statement takes into consideration what would have been obvious to someone with ordinary skill in the art at the time of the invention. Without this determination, a modification cannot be deemed obvious for “greater functionality”. Examiner attempts to provide the level of ordinary skill in the art on pages 123-128. However, the Examiner nevertheless fails to provide a teaching as to how the differences would have been obvious. A variation may not be assumed to be obvious merely because greater functionality is alleged to be provided. The Examiner has failed to provide a proper statement of motivation.

Second, Examiner’s statement of motivation is overly broad. The statement of “greater functionality to the user” does not adequately provide a teaching to one of

³¹ 383 U.S.1, 148 USPQ 459 (1966).

ordinary skill in the art. According to the Examiner's reasoning, any and all differences between sets of claims, whether novel or not, will be considered obvious due to "greater functionality". The Examiner's version of motivation is improper and erroneous.

Third, while a variation provides "greater functionality", it may also be considered novel and non-obvious. For example, while an improvement on a widget provides "greater functionality", the improvement may just as well be novel and therefore merit patent protection. Non-obvious improvements provide "greater functionality" to the user. Likewise, a mere change in color may also provide greater functionality to the user. However, based on the level of ordinary skill in the art at the time of the invention, a mere color change may be considered to be an obvious variation. Because Examiner's version of motivation may be construed in two dynamically different ways, the motivation statement of providing "greater functionality to the user", as applied to "any such differences" is clearly deficient.

5. Conclusion

The Examiner's basis for the double patenting rejections is inconsistent with the Patent Office Procedures found in the M.P.E.P. The Examiner has fatally misapplied and confused the established law of double patenting. The belief that if two claims in separate applications are supported by the same embodiment in the application's common specification as being a *prima facie* basis for obviousness-type double patenting rejections is not supported by the rules and procedures as set forth in the M.P.E.P. Furthermore, the Examiner has not cited any case law or any other authority, for that matter, for this erroneous basis.

To establish a proper obviousness-type double patenting rejection, the PTO must show that (1) the inventions claimed (2) are not patentably distinct and (3) are based on a *prima facie* showing of obviousness. According to § 804 of the M.P.E.P., 'any

obviousness-type double patenting rejection should make clear the differences between the inventions defined by the conflicting claims; and 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. As discussed above, the Examiner has not identified the claimed inventions; established variations; or shown that variations would have been obvious to a person of ordinary skill in the art.

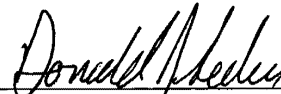
Therefore, the Examiner has failed to properly establish a *prima facie* basis for a double patenting rejection of the obviousness type. Applicants respectfully request withdrawal of the rejection of all pending claims.

III. CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,



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APPENDIX A

**SPECIFICATION SUPPORT
TO
PARENT 1981 APPLICATION
AND
INSTANT APPLICATION**

Claim Language	Support to parent application filed November 3, 1981.	Reference	Language	Support to instant specification.	Language
			requires broadcast station operators to maintain as station logs.		signal processor apparatus to monitor all programming transmitted by the cable television system head end station to field distribution system, 93, in the fashion of the signal processor, 200, of Fig. 3 in example #5. By recording all different received "program unit identification code" information in the fashion described above, said signal processor apparatus can automatically record, for each transmission channel of the station of Fig. 6, information, for example, that the U. S. Federal Communications Commission requires broadcast station operators to maintain as station logs.

<u>First Embodiment</u>	111. A method for decryptor activation in a broadband data network comprising:	Column 13 lines 17-20.	The signals that enable the decrypter/interrupter, 101, to decrypt and/or transfer programming uninterrupted may be embedded in the programming or may be elsewhere.	Page 291 lines 9-24	In the interval between said commencing time and said 8:30 PM time, said head end is caused, ... to transmit a particular enabling SPAM message that consists of ... enable-CC13 instructions and particular enable-WSW instructions that include particular enable-WSW-programming information, ... on the frequency of said master control channel. (Hereinafter said message is called the "local-cable-enabling-message (#7).") In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message, ...
				Page 289 lines 22-27	In example #7, the controller, 20, of the signal processor, 200, of Fig. 4 is preprogrammed at a particular time with particular information that indicates that the subscriber of said station wishes to

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Claim Language	Support to parent application filed November 3, 1981.	Support to instant specification.
Reference	Language	Reference
Language	Language	Language
		view said "Wall Street Week" program when transmission of said program on cable channel 13 commences.
	Page 290 lines 28-29	particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system
	Page 298 lines 17-21.	Executing said 1st-stage-enable-WSW-program instructions causes controller, 20, in the predetermined fashion of said instructions, to affect a first stage of decrypting the video information of the "Wall Street Week" program transmission.
	Page 299 lines 19-22.	Automatically, controller, 20, causes matrix switch, 258, to transfer the information of the aforementioned video output inputted from said tuner, 215, to the output that outputs to decryptor, 224, ...
	The devices, 100 and 101, may receive one channel of programming or multiple channels.	The subscriber station of Fig. 4 has capacity for receiving wireless television programming transmissions at a conventional antenna, 199, and a multi-channel cable transmission at converter boxes, 201 and 222.
receiving a transmission comprising encrypted materials;	Column 13 lines 16-17.	The subscriber station of Fig. 4 has capacity for receiving wireless television programming transmissions at a conventional antenna, 199, and a multi-channel cable transmission at converter boxes, 201 and 222.
	Column 13 lines 16-17.	Decryptor, 10, commences receiving said information, decrypting it using said key J information and transferring it to controller, 12, as quickly as controller, 12, accepts it. The process of decryption proceeds in a particular fashion. Said decrypt-a-00-header-message instructions cause controller, 20, to cause decryptor, 10, to transfer the first H bits without decrypting or
	Column 14 lines 1-4.	Page 149 line 27 to page 150 line 6.

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Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Reference	Language
decrypting under first processor control a first portion of said encrypted materials in said transmission;	Column 13 lines 20-21.	For example, only the video portion of the transmission may be encrypted. The audio portion may remain unencrypted.	Page 288 line 30 to page 289 line 4.	altering said bits in any fashion, to decrypt and transfer the next X bits, to transfer the next L bits without decrypting or altering said bits, to decrypt and transfer the next MMS-L bits, and finally, to transfer any bits remaining after the last of said MMS-L bits without decrypting or altering said bits. In this fashion, the cadence information in said message, which is not encrypted, is transferred by decryptor, 10, to controller, 12, without alteration. In example #7, the program originating studio that originates the "Wall Street Week" transmission transmits a television signal that consists of so-called "digital video" and "digital audio," well known in the art. Prior to being transmitted, the digital video information is doubly encrypted, The digital audio is transmitted in the clear.
inputting said first portion of said	Column 13 lines 24-25.	The signal or signals instruct decrypter/interrupter, 101, to decrypt the	Page 15 lines 7-31.	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, The scanners/switches, working in parallel or series or combinations, transfer the transmissions to receiver/decoder/detectors that identify signals encoded in programming transmissions and convert the encoded signals to digital information; decryptors that may ... and one or more processor/monitors and/or buffer/comparators that organize and transfer the information stream. The processors and buffers can have inputs from each of the receiver/detector lines and evaluate information continuously. From the processors and buffers, the signals may be transferred to external equipment such as computers,....
Receiving the	"1st-WSW-program-enabling-message (#7)		Page 298 lines 10-21.	

Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Language
Reference	Language	Reference	Language
encrypted materials to a decryptor;		transmission ...	causes controller, 20, to execute the aforementioned load- and-run-@20 instructions, to load the 1st-stage-enable-WSW-program instructions of the information segment at particular RAM of controller, 20, then to execute the information so loaded as the so-called machine language instructions of one so-called job. Executing said 1st-stage-enable-WSW-program instructions causes controller, 20, in the predetermined fashion of said instructions, to affect a first stage of decrypting the video information of the "Wall Street Week" program transmission.
decrypting under second processor control a second portion of said encrypted materials based on said step of decrypting said first portion of said encrypted materials.	Column 13 lines 17-20.	The signals that enable the decrypter/interrupter, 101, to decrypt and/or transfer programming uninterrupted may be embedded in the programming or may be elsewhere.	In the interval between said commence-enabling time and said 8:30 PM time, said head end is caused, ... to transmit a particular enabling SPAM message that consists of ... enable-CC13 instructions and particular enable-WSW instructions that include particular enable-WSW-programming information, ... on the frequency of said master control channel. (Hereinafter said message is called the "local-cable-enabling-message (#7).") In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message, ... In example #7, the controller, 20, of the signal processor, 200, of Fig. 4 is preprogrammed at a particular time with particular information that indicates that the subscriber of said station wishes to view said "Wall Street Week" program when transmission of said program on cable cable 13 commences.
		Page 291 lines 9-24	particular master cable control channel (that
		Page 289 lines 22-27	
			Page 290 lines 28-29

Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Reference	Language
			<p>Page 298 lines 17-21.</p> <p>Page 299 lines 19-22.</p>	<p><i>may or may not be cable channel 13</i>) from the multi-channel cable system</p> <p>Executing said 1st-stage-enable-WSW-program instructions causes controller, 20, in the predetermined fashion of said instructions, to affect a first stage of decrypting the video information of the "Wall Street Week" program transmission.</p> <p>Automatically, controller, 20, causes matrix switch, 258, to transfer the information of the aforementioned video output inputted from said tuner, 215, to the output that outputs to decryptor, 224, ...</p>
<p>Second Embodiment</p> <p>111. A method for decryptor activation in a broadband</p>	<p>Column 20 lines 37-42.</p>	<p>The signal transmission from processor, 204, also passes a signal word to signal processor, 200,</p>	<p>Page 477 lines 8-23.</p> <p>Page 281 lines 1-6.</p>	<p>In this alternate method, ... said first SPAM message causes controller, 20, of signal processor, 200, of each one of said stations ... to cause an instance of particular covert control information that is in said instruction to be placed at particular control-function-invoking information memory of the controller, 39, of said decoder, 290. In due course, said programming originating ...</p> <p>By themselves, the first and second features provide a technique whereby a message such as the second message of the "Wall Street Week" program can take affect at only selected stations (such as those stations preprogrammed with decryption key J) without being decrypted at said stations. (Hereinafter, this technique is called "covert control.")</p> <p>... the information of said segments is encrypted prior to transmission ... The ... program originating studio embeds and transmits the 1st supplementary message</p>

Claim Language	Support to parent application filed November 3, 1981	Support to instant specification	Language
Reference	Language	Reference	Language
	<p>to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.</p>	<p>Page 478 lines 1-5.</p>	<p>(#6) before transmitting said second message. Just as is the case with the first message of example #4, ... receiving the 1st supplementary message (#6) causes the apparatus of said station to decrypt said message (using key J) and execute any controlled functions that are invoked by the unencrypted execution segment of said message. ... Executing said information causes control processor, 39J, ... to locate the location of that particular instance of controlled-function-invoking information that is "100110" ... and modify the information at said location to be "111111".</p>
<p>Column 18 lines 48-51.</p>	<p>Several separate news services transmit news on different channels carried on the multi-channel cable transmission to converter boxes, 222 and 201, and to signal processor, 200.</p>	<p>Page 420 lines 21-29.</p>	<p>(Whichever transmission method is employed the information of said second message can be encrypted and caused to be decrypted in any of the methods described above--for example, in the method of the first message of example #4.)</p>
<p>Column 20 lines 46-49.</p>	<p>When the transmission of the recipe is received, box 222, transfers the transmission to decrypter, 224, for decryption and thence to printer, 221, for printing.</p>	<p>Page 473 lines 3-13.</p>	<p>The intermediate transmission station of Fig. 6 receives and retransmits information the transmissions of said remote stations on digital data channels A and B, respectively, that are inputted to converter boxes, 222 and 201, and to signal processor, 200.</p>
			<p>One minute later, said program originating studio embeds in the transmission of said "Exotic Meals of India" programming and transmits a particular second SPAM message that consists of ... generate-recipe-... instructions ...</p>

Claim Language		Support to parent application filed November 3, 1981.	Support to instant specification.
	Reference	Language	Language
			<p>... selected converter box, 222, to tune said box, 222, to receive said second transmission; to cause the matrix switch, 258, to ... link ... said selected converter box, 222, and said decoder, 290; ... said decoder, 290, to receive said transmission....</p> <p>... causes ... said decoder, 290, to detect and process properly the information of said second message.</p> <p>(Whichever transmission method is employed the information of said second message can be encrypted and caused to be decrypted in any of the methods described above--for example, in the method of the first message of example #4.)</p> <p>Receiving said output in information causes printer, 221, to print the information of said specific recipe and list.</p> <p>Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio.</p> <p>Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include:</p> <p>... origins of transmissions (eg., network so source stations, broadcast stations, cable head end stations); dates and times ...</p> <p>... transmits the programming transmission of a particular conventional television program on cooking techniques that is called "Exotic Meals of India."</p> <p>At the station of Fig. 7 and 7F (which station</p>
	Page 477 lines 12-17.		
	Page 477 lines 23-29.		
	Page 478 lines 1-5.		
	Page 475 lines 1-2.		
data	Column 3 lines 6-8.	Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio.	
network comprising:	Column 15 lines 60-62.	[The signals for which the decoders are monitoring] may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission.	
receiving a transmission comprising encrypted materials;	Column 20 lines 16-19.	Suppose a viewer watches a television program on cooking techniques that is received on TV set, 202, via box, 201. Julia Childs' "The French Chef" is one such program.	
	Page 470 lines 1-3 and		
	Page 470 lines 9-12.		

Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Reference	Language
	Column 20 lines 27- 31.	Five minutes later, a signal is identified in the incoming programming on TV set, 202, by decoder, 203, which is also transferred by processor, 204, to buffer/comparator, 8, of signal processor, 200. This signal instructs buffer/comparator, 8, that, if 567 ...	Page 470 lines 19-21.	... is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program that is to display the television information of said transmission (that is, information of said audio and video) at monitor, 202M.
	Column 20 lines 37-42.	The signal transmission from processor, 204, also passes a signal word to signal processor, 200,	Page 471 line 26 to page 472 line 17.	Five minutes later, said program originating studio embeds in the transmission of the "Exotic Meals of India" programming and transmits a particular first SPAM message that consists of ... check-for-entered-information-and-process instructions, ... At the station of Figs. 7 and 7F, said message is detected at TV signal decoder, 145, and said execution segment information invokes particular controlled function instructions that cause said message to be transferred to the controller, 20, of signal processor, 200. ... Receiving said message causes controller, 20, to load and execute said check-for-entered-information-and-process instructions, and executing said instructions causes controller, 20, to determine that TV567# information exists at said last-local-input-# memory ...
	Page 281 lines 1-6.	By themselves, the first and second features	Page 477 lines 8-23.	In this alternate method, ... said first SPAM message causes controller, 20, of signal processor, 200, of each one of said stations ... to cause an instance of particular covert control information that is in said instruction to be placed at particular control-function-invoking information memory of the controller, 39, of said decoder, 290. In due course, said programming originating ...

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Claim Language	Support to parent application filed November 3, 1981.	Reference	Language	Reference	Language
			<p>which, in a predetermined fashion, signal processor, 200, decrypts and transfers</p>		<p>provide a technique whereby a message such as the second message of the "Wall Street Week" program can take affect at only selected stations (such as those stations preprogrammed with decryption key J) without being decrypted at said stations. (Hereinafter, this technique is called "covert control.")</p> <p>... the information of said segments is encrypted prior to transmission ...</p> <p>The ... program originating studio embeds and transmits the 1st supplementary message (#6) before transmitting said second message. Just as is the case with the first message of example #4, ... receiving the 1st supplementary message (#6) causes the apparatus of said station to decrypt said message (using key J) and execute any controlled functions that are invoked by the unencrypted execution segment of said message. ...</p> <p>Executing said information causes control processor, 39J, ... to locate the location of that particular instance of controlled-function-invoking information that is "100110" ... and modify the information at said location to be "111111".</p> <p>(Whichever transmission method is employed the information of said second message can be encrypted and caused to be decrypted in any of the methods described above--for example, in the method of the first message of example #4.)</p>
		<p>Page 282 line 2 to page 283 line 33.</p>	<p>to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.</p>	<p>Page 478 lines 1-5.</p>	<p>... the information of said segments is encrypted prior to transmission ...</p> <p>The ... program originating studio embeds and transmits the 1st supplementary message (#6) before transmitting said second message. Just as is the case with the first message of</p>
<p>decrypting under first processor control a first portion of said encrypted materials in said transmission;</p>		<p>Column 20 lines 39-41.</p>	<p>[a signal word] ... which in a predetermined fashion, signal processor, 200, decrypts and transfers ...</p>	<p>Page 282 line 2 to page 283 line 33.</p>	<p>Just as is the case with the first message of</p>

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Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Reference	Language
inputting said first portion of said encrypted materials to a decryptor;	Column 20 lines 41-42.	... to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.	Page 478 lines 1-5.	example #4, ... receiving the 1st supplementary message (#6) causes the apparatus of said station to decrypt said message (using key J) and execute any controlled functions that are invoked by the unencrypted execution segment of said message. ... Executing said information causes control processor, 391, ... to locate the location of that particular instance of controlled-function-invoking information that is "100110" ... and modify the information at said location to be "111111"
decrypting under second processor control a second portion of said encrypted materials	Column 20 lines 46-49.	When the transmission of the recipe is received, box 222, transfers the transmission to decrypter, 224, for decryption and thence to printer, 221, for printing.	Page 473 lines 3-13. Page 477 lines 12-17. Page 477 lines 23-29. Page 478 lines 1-5.	(Whichever transmission method is employed the information of said second message can be encrypted and caused to be decrypted in any of the methods described above--for example, in the method of the first message of example #4.) One minute later, said program originating studio embeds in the transmission of said "Exotic Meals of India" programming and transmits a particular second SPAM message that consists of ... generate-recipe-... instructions selected converter box, 222, to tune said box, 222, to receive said second transmission; to cause the matrix switch, 258, to ... link ... said selected converter box, 222, and said decoder, 290; ... said decoder, 290, to receive said transmission.... ... causes ... said decoder, 290, to detect and process properly the information of said second message. (Whichever transmission method is employed the information of said second message can be encrypted and caused to be decrypted in any

Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Reference	Language
<p>based on said step of decrypting said first portion of said encrypted materials.</p>	<p>Column 20 lines 37-42.</p>	<p>The signal transmission from processor, 204, also passes a signal word to signal processor, 200,</p>	<p>Page 475 lines 1-2. Page 477 lines 8-23.</p>	<p>of the methods described above--for example, in the method of the first message of example #4.) Receiving said output information causes printer, 221, to print the information of said specific recipe and list. In this alternate method, ... said first SPAM message causes controller, 20, of signal processor, 200, of each one of said stations ... to cause an instance of particular covert control information that is in said instruction to be placed at particular control-function-invoking information memory of the controller, 39, of said decoder, 290. In due course, said programming originating ... By themselves, the first and second features provide a technique whereby a message such as the second message of the "Wall Street Week" program can take affect at only selected stations (such as those stations preprogrammed with decryption key J) without being decrypted at said stations. (Hereinafter, this technique is called "covert control.")</p>
		<p>which, in a predetermined fashion, signal processor, 200, decrypts and transfers</p>	<p>Page 281 lines 1-6. Page 282 line 2 to page 283 line 33.</p>	<p>... the information of said segments is encrypted prior to transmission ... The ... program originating studio embeds and transmits the 1st supplementary message (#6) before transmitting said second message. Just as is the case with the first message of example #4, ... receiving the 1st supplementary message (#6) causes the apparatus of said station to decrypt said message (using key J) and execute any controlled functions that are invoked by the unencrypted execution segment of said message. ... Executing said information causes control</p>

Claim Language	Support to parent application filed November 3, 1981. Reference	Language	Support to instant specification. Reference	Language
		to decrypter, 224, to serve as the code upon which decrypter, 224, will decrypt the incoming encrypted recipe.	Page 478 lines 1-5.	processor, 39], ... to locate the location of that particular instance of controlled-function-invoking information that is "100110" ... and modify the information at said location to be "111111". (Whichever transmission method is employed the information of said second message can be encrypted and caused to be decrypted in any of the methods described above--for example, in the method of the first message of example #4.)
112. The method of claim 111 wherein said transmission in said step of receiving a multichannel signal separated in the frequency domain.	Column 14 lines 39-41.	Signal processor, 112, receives, evaluates, and processes a multiple channel transmission from cable transmission facility, 113.	Page 15 lines 7-31.	In the present invention, particular signal processing apparatus (hereinafter called the "signal processor") detect signals and, ... The scanners/switches, working in parallel or series or combinations, transfer the transmissions to receiver/decoder/detectors that identify signals encoded in programming transmissions and convert the encoded signals to digital information; decryptors that may ... and one or more processor/monitors and/or buffer/comparators that organize and transfer the information stream. The processors and buffers can have inputs from each of the receiver/detector lines and evaluate information continuously. From the processors and buffers, the signals may be transferred to external equipment such as computers, ... In example #7, the intermediate station that retransmits "Wall Street Week" program information to the subscriber station of Fig. 4 is a cable television system head end (such as the head end of Fig. 6).
			289 lines 12-15.	