EXHIBIT G

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Application Number:	90011576
International Application Number:	
Confirmation Number:	1567
Title of Invention:	Attention Manager for Occupying the Peripheral Attention of a Person in the Vicinity of a Display Device
First Named Inventor/Applicant Name:	Paul A. FREIBERGER
Customer Number:	26111
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1		2988002REX0.pdf	482674 5fcc9b729276ffd14cb6a6bfaad5204505f2cd49	yes	4

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Reexam Miscellaneous Incoming Letter	1	2
	Reexam Miscellaneous Incoming Letter	3	4

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2	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	2988002REX0_EXHIBITB1.pdf	135947 0040819f498c08e3826b245a39b067a84021d6a7	no	1

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3	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	2988002REX0_EXHIBITB2.pdf	113218 95fc520290b6a2ea08f5126f6ce10a871a0f4459	no	1

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4	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	ExhibitC_EXPLORING_MICROSOFT_POWERPOINT.pdf	17168699 ee40a011998459e239577de82ee78472612dae5b	no	141

Warnings:

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5	Reexam - Info Disclosure Statement Filed by 3rd Party	2988002REX0_PTOSBO8A_B.pdf	361763 ece9a1477f0004950ceb7ad98d46c581f9f6cf1d	no	2

Warnings:

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6	NPL Documents	NPL1a.pdf	13306957 52584abf8eef8e064bbc125084badf444a635947	no	250

Warnings:

Information:

7	NPL Documents	NPL1b.pdf	15810162 6208de6fb2a36da0279d240a725bb9e3b3cbce68	no	250

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Information:

8	NPL Documents	NPL1c.pdf	8579226 78fc4ee5336814ccd5fc9e3e80338a4735758da4	no	291

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9		UPS6034652exparterequest.pdf	4467062 cfc38e671b5326cfc6f197c7e61c5ec97cb026e0	yes	299

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Receipt of Orig. Ex Parte Request by Third Party	1	297
Reexam Certificate of Service	298	298
Receipt of Orig. Ex Parte Request by Third Party	299	299

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10	Copy of patent for which reexamination is requested	ExhibitA_6034652_Freiberger_w_COC.pdf	696524 a4696d490ecd64fdd04fa2fd5ed72a29a4e451bf	no	29
Warnings:					
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11	Fee Worksheet (PTO-875)	fee-info.pdf	29699 48b33f33547b9ec68003f2311590cd5e64c6386c	no	2
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of:	Confirmation No.: TBD
Paul A. FREIBERGER, *et al*	Art Unit: TBD
U.S. Patent No. 6,034,652 (*issued from Appl. No. 08/620,641*)	Examiner: TBD
Issued: March 7, 2000	Atty. Docket: 2988.002REX0
For: **Attention Manager for Occupying the Peripheral Attention of a Person in the Vicinity of a Display Device**	

Request for *Ex Parte* Reexamination under 37 C.F.R. § 1.510

Sir:

Ex Parte reexamination under 35 U.S.C. § 302 and 37 C.F.R. § 1.510 is requested of United States Patent No. 6,034,652 to Freiberger, *et al*, entitled "Attention Manager for Occupying the Peripheral Attention of a Person in the Vicinity of a Display" (hereinafter "the '652 Patent"). A copy of the '652 patent and its certificate of correction are attached hereto as Exhibit A.

This request is brought on behalf of Google Inc. and Yahoo! Inc. ("Requesters").

I. INTRODUCTION

On August 27, 2010, Interval Licensing LLC, filed a lawsuit in the U.S. District Court for the Western District of Washington alleging infringement of the '652 patent by AOL, Inc.; Apple, Inc.; Ebay, Inc.; Facebook, Inc.; Google Inc.; Netflix, Inc.; Office Depot, Inc.; Officemax Inc.; Staples, Inc.; Yahoo! Inc.; and Youtube, LLC (see Civ. Case No. 2:10-Cv-01385). The asserted claims appear to be claims 4-8, 11 and 15-18. These are the same claims for which reexamination is being requested.

The subject matter of these claims includes very basic techniques for displaying content on a computer display that were well known and used in the prior art before the '652 patent application was filed. As is explained in detail in this Request for Reexamination, this claimed subject matter was published in the prior art before the '652 patent application was filed – making the claims unpatentable to the persons listed as inventors on the '652 patent.

In the co-pending lawsuit, the apparent owner of the '652 patent is attempting to stop a number of major U.S. companies, including Google, Yahoo and Apple, from using this basic technology -- a technology for which the United States Patent and Trademark Office ("the Office") would never have issued a patent if better prior art had been provided to the examiner for review during the original examination. Through this Request, the Office is, for the first time, being given the opportunity to review this prior art. It is respectfully submitted that a careful review of this prior art will lead the office to the conclusion that these claims are unpatentable and should never have been issued.

II. IDENTIFICATION OF CLAIMS FOR WHICH REEXAMINATION IS REQUESTED (37 C.F.R. § 1.510(b)(2))

In accordance with 35 U.S.C. § 302 and 37 C.F.R. § 1.510(b)(2), reexamination of claims 4-8, 11, and 15-18 of the '652 patent is respectfully requested. These claims may be referred to herein individually, or collectively as the claims subject to reexamination.

III. CITATION OF PRIOR ART POINTING OUT SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY

Reexamination of the '652 patent is requested in view of the following documents, which are also listed on the attached Form PTO/SB/08A. In accordance with 37 C.F.R. § 1.510(b)(3), a copy of each of the following documents is attached.

1. U.S. Patent No. 5,748,190 to Kjorsvik ("Kjorsvik") [US1]
2. U.S. Patent No. 5,781,894 to Petrecca, *et al* ("Petrecca") [US2]
3. U.S. Patent No. 5,913,040 to Rakavy, *et al* ("Rakavy") [US3]
4. Roberts, Jason, "Director Demystified" ("Macromedia Director") [NPL1]
5. U.S. Patent No. 5,740,549 to Reilly, *et al* ("Reilly") [US4]
6. U.S. Patent No. 5,796,945 to Tarabella ("Tarabella") [US5]

IV. BACKGROUND

A. General Statement on Patentability

As will be fully explained and supported below, claims 4-8, 11, 15-18 of the '652 patent are rendered unpatentable under 35 U.S.C. § 102 and/or § 103 in view of the prior art references provided herewith and cited in the accompanying PTO Form PTO/SB/08A. None of the prior art references presented to raise substantial new questions of

patentability was applied by the Office in a rejection of the prosecution claims[1] during the original prosecution of the '652 patent. U.S. Patent No. 5,740,549 to Reilly, *et al* was cited during original prosecution. However, the "existence of a substantial new question of patentability is not precluded by the fact that a patent or printed publication was previously cited by or to the Office or considered by the Office." 35 U.S.C. § 303(a). The prior art references presented herein as basis for substantial new questions of patentability are closer to the subject matter claimed in the '652 patent than the prior art that was applied by the Examiner during the original prosecution of the '652 patent. Therefore, a substantial new question of patentability is raised by each of these new references, as described in detail in Section V.

The prior art presented as raising substantial new questions of patentability alone or in combination teaches each and every limitation of the claims subject to reexamination. Therefore, the cited prior art establishes a prima facie case of unpatentability for each and every claim as described in detail in Section VI.

B. Overview of Anticipation

A patent claim may be found to be unpatentable under 35 U.S.C. §102 as being anticipated by a prior art reference. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). A feature may be inherent if "the prior art necessarily functions in accordance with, or includes, the limitations." *Telemac Cellular Corp. v. Top Telecom,*

[1] In the present reexamination request, claims presented during original prosecution are referred to as "original prosecution claims" or "prosecution claims." The claims that issued in the '652 patent are referred to as "patent claims" or "issued claims" herein.

Inc., 247 F.3d 1316, 1328 (Fed. Cir. 2001). Extrinsic evidence may be used to show that the missing descriptive matter is inherently present in the reference and would be recognized by one skilled in the art. *Continental Can Co. v. Monsanto Co.,* 948 F.2d 1264, 1268 (Fed. Cir. 1991).

C. Overview of Obviousness

Section 103 forbids issuance of a patent when "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." 35 U.S.C. § 103(a). In making an obviousness determination, "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1740 (2007). In *KSR*, the Supreme Court rejected the "rigid approach" of the former "teaching-suggestion-motivation to combine" or "TSM" test. *Id.* at 1739. At the same time, the Court reaffirmed the principles of obviousness set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). *Id.* at 1734.

The obviousness analysis involves the comparison of the broadly construed claim to the prior art. In comparing the claim to the prior art, three factual inquiries must be addressed: (1) the scope and content of the prior art must be ascertained; (2) the differences between the claimed invention and the prior art must be determined; and (3) the level of ordinary skill in the pertinent art at the time the invention was made must be evaluated. *Graham*, 383 U.S. at 17-18. As stated by the Supreme Court in *KSR*, "[w]hile

the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls." *KSR*, 127 S.Ct. at 1734.

In view of the Supreme Court's decision in *KSR*, the Office issued "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*" *See* 72 Fed. Reg. 57,526 (Oct. 10, 2007) [hereinafter Examination Guidelines]. According to the Examination Guidelines, "the Supreme Court particularly emphasized 'the need for caution in granting a patent based on the combination of elements found in the prior art.'" 72 Fed. Reg. at 57,526 (citing to *KSR*). After examining the role of the Office, the guidelines state that "the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of the invention, and on what such a person would have reasonably expected to have been able to do in view of that knowledge." *Id*. at 57,527. As articulated by the Supreme Court in *KSR*, the "person of ordinary skill" should be viewed as "a person of ordinary creativity, not an automaton." *KSR*, 127 S.Ct at 1742.

When determining obviousness of an invention, the Examination Guidelines instruct Examiners to "first obtain a thorough understanding of the invention disclosed and claimed in the application under examination by reading the specification, including the claims, to understand what the applicant has invented. The scope of the claimed invention must be clearly determined by giving the claims the 'broadest reasonable interpretation consistent with the specification.'" 72 Fed. Reg. at 57,527. Any obviousness rejection then made by the Examiner "should include, either explicitly or implicitly in view of the prior art applied, an indication of the level of ordinary skill [in the art]." *Id.* at 57,528.

For these reasons, Requesters have included Sections IV.C.1 and C.2 below, which set forth Requesters' view of the "Scope of Alleged Invention Claimed in the '652 Patent" and "Level of Ordinary Skill in the Art."

1. Scope of Alleged Invention Claimed in '652 Patent

The '652 patent relates generally to "the engagement of the peripheral attention of a person in the vicinity of a display device." ('652 patent, 1:8-10.) The '652 patent issued on March 7, 2000 from an application filed on March 22, 1996.[2] The '652 patent issued with 18 claims, 9 of which are independent claims. Fifteen dependent claims were added in a certificate of correction (claims 19-33.). Reexamination is requested for claims 4-8, 11, and 15-18.

a. Background of the '652 Patent

The Background of the Invention section in the '652 patent describes the prevalent use of "screensavers" and "'wallpaper' (i.e., a pattern generated in the background portions on a computer display screen)" by computer systems prior to the filing date of the '652 patent. ('652 patent, 1:39-55.) The background further describes that prior to the filing date of the '652 patent "information providers have used public computer networks (e.g., the Internet) and private computer networks (e.g., commercial online services such as America Online, Prodigy and CompuServe) to disseminate their information" to users. ('652 patent, 1:28-35.) However, according to the '652 patent, "screen savers and wallpaper have not heretofore been used as a means to convey information from information providers to computer users." ('652 patent, 1:57-59.) "In

[2] The application that matured into the '652 patent is Application No. 08/620,641. For ease of discussion, this application is referred to herein as "the '652 patent application."

particular, screen saver and wallpaper application programs have not been constructed to enable retrieval of display content from a remote location via a computer network." ('652 patent, 1:64-67.)

b. Specification of the '652 Patent

To address the need to couple the existing information dissemination from information providers to a computer user with existing screensaver and wallpaper functionality, the '652 patent discloses "present[ing] information to a person in the vicinity of a display device in a manner that engages the peripheral attention of the person." ('652 patent, 2:3-5.) ('652 patent, 2:6-19.) As explained in the '652 patent, the peripheral attention of a person in the vicinity of a display device is engaged "by acquiring one or more sets of content data from a content providing system and selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data." ('652 patent, 3:11-18.) For example, "the selective display of the image or images begins automatically after detection of an idle period of predetermined duration (the 'screen saver embodiment'). This aspect can be implemented, for example, using the screen saver API (application program interface) that is part of many operating systems." ('652 patent, 3:19-22.)

FIG. 2 of the '652 patent (reproduced below) is a block diagram of a "system for implementing an attention manager." ('652 patent, 5:55-56.) "The system 200 includes an application manager 201, a multiplicity of content providing systems, shown as Content Providers 1 through n … and a multiplicity of content display systems, shown as Users 1 through n." ('652 patent, 13:63-14:1.) According to the '652 patent, these elements can be implemented using conventional digital computers:

> The application manager 201, content providing systems 202 and content display systems 203 can be implemented using appropriately programmed digital computers. Generally, the computers can be any conventional digital computers including an input device (such as a keyboard, mouse or touch screen), an output device (such as a conventional computer display monitor and/or one or more audio speakers), a processing device (such as a conventional microprocessor), a memory (such as a hard disk and/or random access memory), additional conventional devices necessary to interconnect and enable communication between the above-listed devices, and communications devices (e.g., a modem) for enabling communication with other computers of the system.

('652 patent, 14:12-25.)

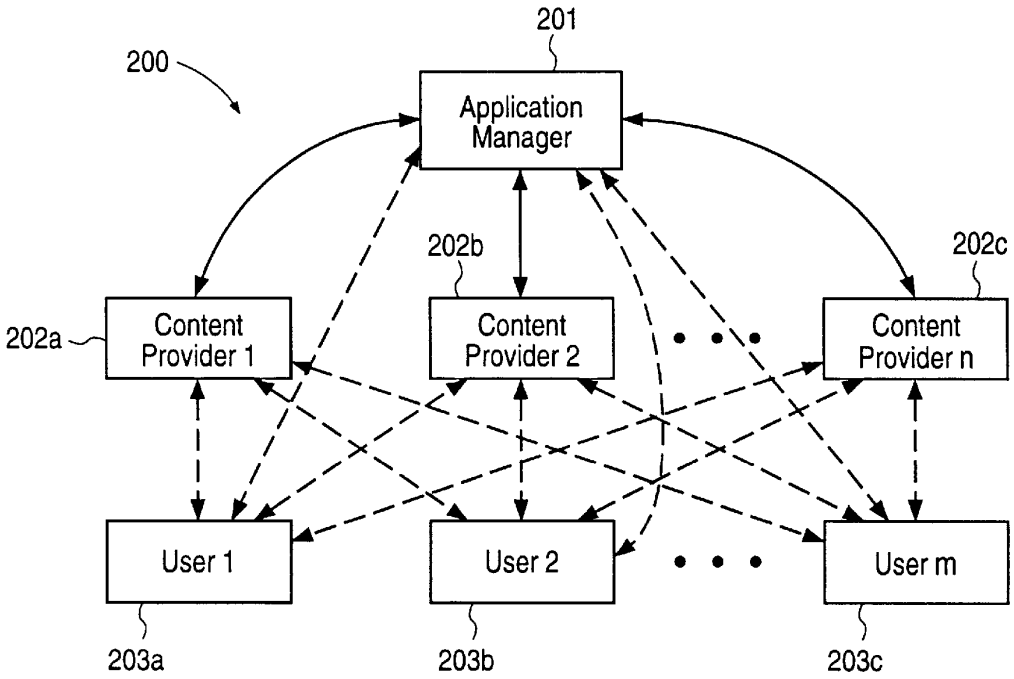


FIG. 2

The "application manager 201 stores application instructions 310, control instructions 320, and content data acquisition instructions 330 that can be disseminated to the content display systems 203 and content providing systems 202 as necessary or appropriate." ('652 patent, 15:1-5.) The "content providing systems 202 store one or

more sets of content data 350 that can be disseminated to content display systems 203 as requested." ('652 patent, 16:16-19.)

A content provider may provide scheduling instructions for the content data. As described in the '652 specification, the data scheduling instructions include, for example, duration instructions, sequencing instructions, timing instructions, and saturation instructions:

> *duration instructions*
>
> The content provider can tailor the content data scheduling instructions 322 to indicate the duration of time that a particular set of content data can be displayed ("duration instructions"). Generally, the duration instructions can be arbitrarily complex and can vary in accordance with a variety of factors, including, for example, the particular time at which the set of content data 350 is displayed after the attention manager begins operating, or the number of previous times that the set of content data 350 has been displayed during a continuous operation of the attention manager.
>
> *sequencing instructions*
>
> The content provider can also tailor the content data scheduling instructions 322 to indicate an order in which the clips of a set of content data 350 are displayed, as well as the duration of the display for each clip ("sequencing instructions").
>
> *timing instructions*
>
> The content provider can also tailor the content data scheduling instructions 322 to indicate particular times or ranges of times at which a set of content data 350 can or cannot be displayed ("timing instructions") These times can be absolute (e.g., a particular clock time on a particular day, a particular day or days during a week, after or before a specified date) or relative (e.g., not before or after a specified duration of time since the attention manager began operation, first or not first among the sets of content data 350 to be displayed, not after a particular kind or set of content data 350).

> *saturation instructions*
>
> The content provider can also tailor the content data scheduling instructions 322 to specify a maximum number of times that the set of content data 350 can be displayed after the attention manager begins operating or a maximum number of times that the set of content data 350 can be displayed over any number of operations of the attention manager ("saturation instructions").

('652 patent, 16:65-17:28.)

Finally, the content display systems are responsible for displaying content:

> The content display systems 203 store the application instructions 310, control instructions 320, and content data acquisition instructions 330 described above. The application instructions 310 use the control instructions 320 to display sets of content data 350 that are obtained (and updated, if appropriate) by the content data acquisition instructions 330.

('652 patent, 18:21-27.)

c. Prosecution History

The application that matured into the '652 patent was originally filed with 67 claims, original prosecution claims 1, 19, 46, 49, and 66 being the independent claims. In the Office Action mailed February 3, 1998 ("First Office Action"), the Examiner rejected all the original prosecution claims (claims 1-67) as being anticipated by Judson, U.S. Patent No. 5,572,643 ("Judson"), Pirani, U.S. Patent No. 5,105,184 ("Pirani"), Joan E. Rigdon, "Screen Savers Go Beyond Fish, Flying Toasters," Wall Street Journal, February 13, 1996 ("the PointCast article"), and/or WO 96/30864 to Schena, *et al* ("Schena"). The Patent Owner responded by filing declarations under 37 C.F.R. § 1.131 by three inventors (Phillipe P. Piernot, Paul. A. Freiberger, and Giles N. Goodhead) attempting to swear behind the rejections based on the Judson and PointCast article prior art. The Examiner found all three declarations to be ineffective and maintained all the rejections in a final

Office Action dated February 10, 1999. In response to the final Office Action, the Patent Owner filed a declaration under 37 C.F.R. § 1.131 from only one of the inventors (Phillipe P. Piernot) to again attempt to swear behind the Judson and PointCast article rejections. In the July 1999 Advisory Action, the Examiner found the second Piernot declaration to be effective to remove the rejections of original prosecution claims 19, 20, 25-28, 32, and 41-47 based on the PointCast article prior art.[3] (Advisory Action, p. 7.)

However, in the Advisory Action, the Examiner maintained the rejection of original prosecution claims 1-12, 14-19, 21-31, 41-46, 48-50, 54-57, 59-64, 66, and 67 as being anticipated by Judson and the rejection of original prosecution claims 19, 21, 22, 46, and 48 as being anticipated by Pirani. (Advisory Action, pp. 2-3.) Additionally, the Examiner found dependent claims 13, 20, 32-40, 47, 51-53, 58, and 65 to be allowable. (Advisory Action, p.2.)

By not traversing the Examiner's rejection, the Patent Owner accepted the Examiner's position that original patent claims 1-12, 14-19, 21-31, 41-46, 48-50, 54-57, 59-64, 66, and 67 were unpatentable. The Patent Owner instead opted to incorporate the subject matter of independent claim 19[4] into allowable dependent claim 33 and the subject matter of independent claim 49 (and any intervening claims) into allowable dependent claims 53, 58, and 65. These original prosecution claims (33, 53, 58, and 65)

[3] Because the Patent Owner admitted that Freiberger, Piernot, and Goodhead were co-inventors of the subject matter of original prosecution claims 19, 20, 25-28, 32, and 41-47, the Office erred in finding a second declaration from only one of the inventors (Piernot) effective to remove the PointCast article as prior art. Note, however, that Requester does not herein challenge the patentability of any claims that issued from these specific original prosecution claims.

[4] Requester is not presently seeking reexamination of the patent claims that issued from dependent prosecution claims 13, 20, 32, 47, 51 and 52. Therefore, these original prosecution claims and their corresponding parent claims are not addressed in the present request.

correspond to independent patent claims 4, 15, 17, and 18. By accepting the allowable subject matter, the Patent Owner acquiesced that the following limitations of independent patent claims 4, 15, 17, and 18 were known in the prior art prior to the filing date of the '652 patent:

INDEPENDENT PATENT CLAIM 4

1) A system for engaging the peripheral attention of a person in the vicinity of a display device of an apparatus, comprising:

2) means for acquiring a set of content data from a content providing system

3) means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data

INDEPENDENT PATENT CLAIMS 15, 17, AND 18

4) A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:

5) acquisition instructions for enabling acquisition of a set of content data from a specified information source;

6) user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source

7) content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data

8) display instructions for enabling display of the image or images generated from the set of content data.

Further, during prosecution, the Patent Owner made explicit admissions regarding several limitations of the claims. For example, as illustrated in the following table, the Patent Owner admitted that various aspects of the "control options" limitations of patent

claims 4-8 were known prior to the filing date of the '652 patent and explicitly admitted that various limitations of patent claims 15, 17, and 18 were known prior to the filing date of the '652 patent.

RELEVANT ADMISSIONS MADE BY PATENT OWNER	
means for displaying one or more control options with the display device while means for selectively displaying is operating	"A *'means for displaying one or more control options with the display device while the means for selectively displaying is operating*,' as recited in Claim 33, was embodied by the content display computer operating in accordance with the computer program shown in Exhibit 2 (see lines 4, 33, and 37 - especially the last - on page 2 of exhibit 2 and the accompanying description in paragraphs 5 and 6 of the second Piernot Declaration) and ***conventional software for controlling operation of a computer display device (as known to those skilled in the art) to produce a display as shown in Exhibit 3.***" (Reply to Final Office Action, p.25)(emphasis added)
means for selecting a displayed control option	"A '*means for selecting a displayed control option*,' as recited in Claim 33, was embodied by the ***content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art).***" (Reply to Final Office Action, p. 25)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of an image or images generated from a particular set of content data	"*content data scheduling instructions for providing temporal constraints on the display of an image or images generated from a particular set of content data*," as recited in Claim 5, were embodied by the capability of the DeskPicture computer program (which as executed as part of the execution of the computer program shown in Exhibit 1, see line 32 of Exhibit 1 and the accompanying description in paragraph 2 of the second Piernot Declaration) that enabled specification of how long each set of content data was to be used to generate a display of an image (see paragraph 2 of the second Piernot Declaration." (Reply to Final Office Action, pp.

	10-11.)(emphasis added)
installation instructions for installing the operating instructions and content display system scheduling instructions on the content display system	" … '*[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on the content display system*," as recited in Claim 64, were embodied by conventional software present on the content display computer (see paragraph 3 of the second Piernot Declaration)" (Reply to Final Office Action, p. 32)
display instructions for enabling display of the image or images generated from the set of content data	"… Lines 31-33 caused the retrieved content data to be used to generate a display of the corresponding image or images: in particular, line 32 caused execution of a computer program called DeskPicture (a commercially available shareware computer program, produced by Peirce Software, that generated a display of an image as 'wallpaper' on a computer display screen) that accessed a set of content data from the appropriate (previously identified; see line 5, discussed above) location on the non-volatile data storage device and produced the corresponding image display … (the ***DeskPicture computer program included capabilities for displaying images generated from multiple sets of content data and specifying how long each set of content data was to be used to generate a display of an image***)." (Second Piernot Declaration, ¶[2)(emphasis added)

d. Claim Construction

In presenting what it believes are substantial new questions of patentability relating to the claims under reexamination, the Requesters have adopted—and, indeed are legally obligated to adopt—the broadest reasonable interpretation of the claims. This is despite the fact that during the concurrent district court litigation, the Requesters may take a narrower claim construction position than it advanced in the present reexamination request. Requesters assert that this presents no inconsistency, and in no way implicates Requesters' obligation to deal with the Office in good faith. As explained more fully

below, the Office and the district court are charged with different public functions. Neither is bound by the other's claim interpretations; indeed, they are legally obligated to adopt different claim construction standards.

Specifically, the Office is legally bound to construe the claims in accordance with their "broadest reasonable interpretation." *In re Reuter*, 651 F.2d 751 (CCPA 1981). This is equally true in reexamination proceedings as it is during original prosecution. *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984). The Office broadly interprets claims during examination of a patent application because the applicant may "amend his claims to obtain protection commensurate with his actual contribution to the art." *In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. (BNA) 541, 550 (1969). According to the Federal Circuit, "[t]his approach serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified. Applicants' interests are not impaired since they are not foreclosed from obtaining appropriate coverage for their invention with express claim language." *In re Yamamoto*, 740 F.2d at 1571 (*citing In re Prater*, 415 F.2d at 1405 n.31).

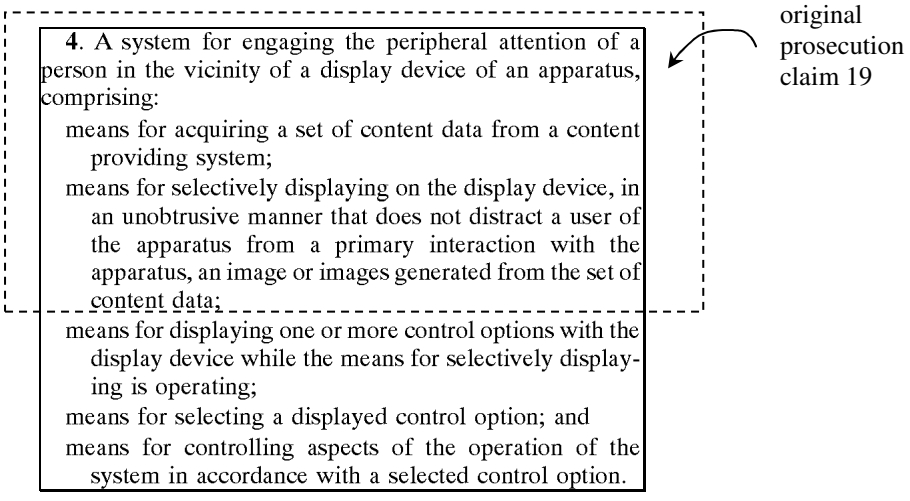
An applicant's ability to amend his claims to avoid cited prior art distinguishes proceedings before the Office from proceedings in federal district courts on issued patents. During district court litigation, claims should be construed, if possible, to sustain their presumptive validity under 35 U.S.C. § 282. *ACS Hosp. Systems, Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984). When an application is pending in the Office, however, the applicant has the ability to correct errors in claim language and adjust the scope of claim protection as needed. This opportunity is not available in an infringement action in district court. For this reason, "[d]istrict courts may find it necessary to interpret claims to protect only that which constitutes patentable subject

matter to do justice between the parties." *In re Yamamoto*, 740 F.2d at 1572 (*citing In re Praeter*, 415 F.2d at 1404, 162 U.S.P.Q. at 550).

In sum, the Office acts as an independent tribunal for assessing patent validity. While the positions of the parties taken in the concurrent litigation may to some extent inform the Office's claim interpretation, they are not binding on the Office and should be weighed with a clear eye towards the different nature of the proceedings.

(i) Independent Claim 4

Independent claim 4, reproduced below, is unambiguously written in means-plus-function format under 35 U.S.C. §112, ¶6. Thus, the scope of the claim is defined by both the function of the recited claim elements and by structures that are identical or equivalent to the structures disclosed in the '652 patent. The broadest reasonable interpretation that an Examiner may give means-plus-function language is that statutorily mandated in 35 U.S.C. §112, ¶6. *M.P.E.P.* § 2181. Accordingly, the limitations of claim 4 should be construed to cover "the corresponding structure, material or acts described in the specification and equivalents therefore." 35 U.S.C. § 112, ¶6.



The underlying structure of each of these limitations is only generically and functionally described in the '652 patent. For example, the specification states that

conventional computers are "appropriately programmed … to perform the functions of the application manager 201, content providing systems 202 and content display systems 203, as appropriate." Accordingly, for purposes of this reexamination request, references need only teach similarly generic and functional structures.[5]

Claim 4 corresponds to original prosecution claim 33. Original prosecution claim 33 depended from original prosecution claim 19. As discussed above, during prosecution, the Patent Owner acquiesced that the limitations of original prosecution claim 19 (highlighted above) were disclosed in both Judson and Pirani. Therefore, the final three limitations relating to "control options" were deemed by the Examiner to be the basis for patentability of claim 4.

MEANS FOR SELECTIVELY DISPLAYING ON THE DISPLAY DEVICE, IN AN UNOBTRUSIVE MANNER THAT DOES NOT DISTRACT A USER OF THE APPARATUS FROM A PRIMARY INTERACTION WITH THE APPARATUS, AN IMAGE OR IMAGES GENERATED FROM THE SET OF CONTENT DATA

As admitted by the Patent Owner during prosecution, the construction of the phrase "selectively display[s], in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with an apparatus, an image or images generated from a set of content data" (referred to herein as "the *selectively display, unobtrusive manner*" limitation for ease of discussion) encompasses screensaver and wallpaper embodiments. Specifically, the Patent Owner stated during prosecution:

> … In contrast, in the system recited in Claim 1, a content display system "selectively display[s], in an unobtrusive manner that does not

[5] While this generic disclosure may render the claims of the '652 patent invalid for the separate reasons that they are indefinite because no adequate supporting disclosure exists, Requesters understand that such arguments based on 35 U.S.C. § 112 relative to the original unamended patent claims cannot be raised or considered in a reexamination proceedings. However, when assessing the teachings of the prior art, the prior art should not be held to any higher standard of disclosure than the '652 patent.

> distract a user of [an] apparatus from a primary interaction with the apparatus, an image or images generated from a set of content data" (emphasis added). This is neither taught nor suggested by Judson. The display of images in an unobtrusive manner in a system as recited in ***Claim 1 can be implemented*** by, for example, displaying images during an inactive period (e.g., when the user has not interacted with the apparatus for a predetermined period of time) of a primary interaction with the apparatus (the "***screensaver embodiment***"), as described, for example, at page 3, lines 16-20, page 5, lines 30-33, and page 12, lines 16-20 of Applicants' specification. The display of images in an unobtrusive manner in a system as recited in ***Claim 1 can also be implemented*** by displaying images during an active period of a primary interaction with the apparatus, but in a manner that does not distract the user from the primary interaction (the "***wallpaper embodiment***"), as described, for example, at page 3, lines 20-27, page 6, lines 2-8, and page 12, lines 20-28 of Applicants' specification. This aspect of the invention makes use of "unused capacity" of a display device (see, e.g., page 12, lines 28-30 of Applicants' specification) and of the attention of a person in the vicinity of the display device (see, e.g., page 10, lines 11-14 of Applicants' specification).

(Reply to 2/3/98 Office Action, pp. 13-14.)(underlining in original, bold/italics added)

The excerpts from the specification, cited by the Patent Owner during prosecution, also support the interpretation that the "*selectively display, unobtrusive manner*" limitation encompasses screensavers and wallpaper embodiments.

> An attention manager according to the invention presents information to a person in the vicinity of a display device in a manner that engages the peripheral attention of the person. Often, the display device is part of a broader apparatus (e.g., the display device of a computer). Generally, the attention manager makes use of "unused capacity" of the display device. For example, the information can be presented to the person while the apparatus (e.g., computer) is operating, but during inactive periods (i.e., when a user is not engaged in an intensive interaction with the apparatus). Or, the information can be presented to the person during active periods (i.e., when a user is engaged in an intensive interaction with the apparatus), but in an unobtrusive manner that does not distract the user from the primary interaction with the apparatus (e.g., the information is presented in areas of a display screen that are not used by displayed information associated with the primary interaction with the apparatus).

('652 patent, 2:3-19.) Accordingly, for purposes of the present reexamination, any prior art presenting screensaver or wallpaper embodiments should be considered as disclosing the "*selectively display, unobtrusive manner*" limitation.

MEANS FOR DISPLAYING ONE OR MORE CONTROL OPTIONS WITH THE DISPLAY DEVICE WHILE THE MEANS FOR SELECTIVELY DISPLAYING IS OPERATING

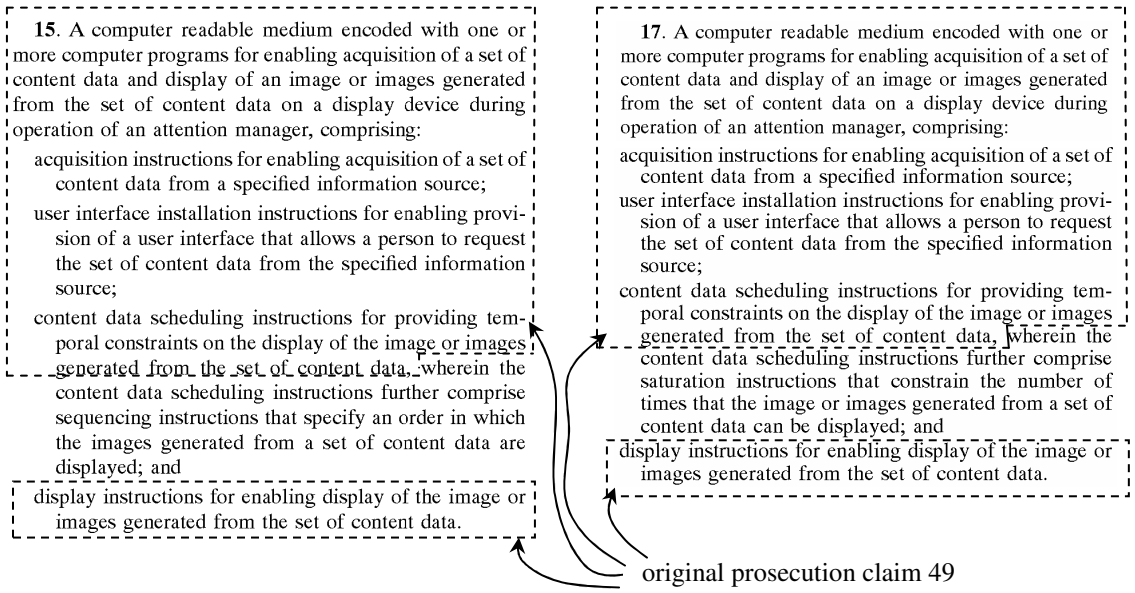
Based upon the generic disclosure in the specification and the Patent Owner's broad position in the concurrent litigation, it appears that the Patent Owner contends that the "*displaying one or more control options with the display device while the means for selectively displaying is operating*" limitation is any conventional software that displays one or more control options while the functionality provided by the means for selectively displaying is operating. (*See,* e.g., Exhibit B1, Patent Owner Infringement Contentions Against GoogleTalk[6].) Moreover, in the concurrent litigation, the Patent Owner appears to contend that this limitation covers control options that are only displayed in response to a user action, such as a right-mouse click. (*See* Exhibit B2, Patent Owner Infringement Contentions Against Gmail Notifier) (Patent owner contends this limitation is allegedly met by "processor configured to execute instructions that cause the computer to display one or more control options while the means for selectively displaying is operating.")

(ii) Independent Claims 15, 17, and 18

During prosecution, the Patent Owner acquiesced that the limitations of independent computer-readable media patent claims 15, 17, and 18 which correspond to original prosecution claims 53, 58, and 65 respectively were disclosed by Judson.

[6] Exhibits B1 and B2 are excerpts from Infringement Contents made by Patent Owner against Requester Google's GoogleTalk and Gmail Notifier products in the concurrent litigation styled *Interval Licensing LLC v. AOL, Inc., W.D. Wash.,* 2:10cv01385. These slides represent Patent Owner's view as to the scope of the term "*means for displaying one or more control options*."

Original prosecution claims 53 and 58 depended directly from original prosecution claim 49, and original prosecution claim 65 depended from original prosecution claims 49, 61, and 64. As discussed above, during prosecution, the Patent Owner acquiesced that the limitations of original prosecution claims 49, 61, and 64 (highlighted below) were disclosed in Judson.



Thus, in patent claim 15, the "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed*" limitation was deemed by the Examiner to provide the allegedly patentable feature of patent claim 15. However, during prosecution, Philippe Piernot admitted in his second 37 C.F.R. § 1.131 declaration that a prior art software product, DeskPicture, had capabilities to sequence images for display:

> Lines 31-33 caused the retrieved content data to be used to generate a display of the corresponding image or images: in particular, line 32 caused execution of a computer program called DeskPicture (a commercially available shareware computer program, produced by

> Peirce Software, that generated a display of an image as 'wallpaper' on a computer display screen) that accessed a set of content data from the appropriate (previously identified; see line 5, discussed above) location on the non-volatile data storage device and produced the corresponding image display … (***the DeskPicture computer program included capabilities for displaying images generated from multiple sets of content data and specifying how long each set of content data was to be used to generate a display of an image***)

(Second Piernot Declaration, ¶2.)(emphasis added.) Based on Patent Owner's admission, therefore, original prosecution claim 53 (which corresponds to issued claim 15) was unpatentable.

In patent claim 17, the "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times the image or images generated from a set of content data can be displayed*" limitation was deemed by the Examiner to provide the allegedly patentable feature of patent claim 17.

In patent claim 18, the "*audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*" limitation was deemed by the Examiner to provide the allegedly patentable feature of claim 18.

USER INTERFACE INSTALLATION INSTRUCTIONS

Patent claims 15, 17, and 18 include the limitation "*user interface installation instructions for enabling provision of a user interface …*" In the specification, the Patent Owner admitted that "*user interface installation instructions*" are "conventional and readily available for use with the attention manager of the invention." ('652 patent, 16:14-16.)

CONTENT DATA SCHEDULING INSTRUCTIONS FOR PROVIDING TEMPORAL CONSTRAINTS ON THE DISPLAY OF THE IMAGE OR IMAGES

Patent claims 15, 17 and 18 each include the limitation "*content data scheduling instructions for providing temporal constraints on the display of the image or images*."

The prosecution history provides examples of instructions that meet this limitation:

> Judson also does not appear to teach or suggest "*content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data*," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display.

(Reply to 2/3/98 Office Action, pp. 18-19.) (emphasis added). Furthermore, the Patent Owner admitted that the prior art software product, DeskPicture, included this limitation:

> … "*content data scheduling instructions for providing temporal constraints on the display of an image or images generated from a particular set of content data*," as recited in Claim 5, were embodied by the capability of the DeskPicture computer program (which as executed as part of the execution of the computer program shown in Exhibit 1, see line 32 of Exhibit 1 and the accompanying description in paragraph 2 of the second Piernot Declaration) that enabled specification of how long each set of content data was to be used to generate a display of an image (see paragraph 2 of the second Piernot Declaration.

(Reply to Final Office Action, pp. 10-11.) (emphasis added).

CONTENT DATA UPDATING INSTRUCTIONS FOR ENABLING ACQUISITION OF AN UPDATED SET OF CONTENT DATA FROM AN INFORMATION SOURCE THAT CORRESPONDS TO A PREVIOUSLY ACQUIRED SET OF CONTENT DATA

During prosecution, the Patent Owner took the position that the "*content data updating instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data*" does not require that the acquired set of content data be updated or different in any way than the set of content data previously acquired. ((Second Piernot Declaration, ¶2.) ("An updated set of content data could be the same as the corresponding previously retrieved set of content data.")

2. Level of Ordinary Skill in the Art

In its revised examination guidelines for determining obviousness, the Office stated that "any obviousness rejection should include, either explicitly or implicitly in view of the prior art applied, an indication of the level of ordinary skill [in the art]." 72 Fed. Reg. 57,528. A person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. *Id.* When considering the appropriate level of skill to apply in this reexamination request, it is important to consider that a person of ordinary skill in the art has "ordinary creativity" and is "not an automaton." *KSR*, 127 S.Ct. at 1742.

A person of ordinary skill in the art would have therefore been familiar with software programs available prior to the earliest possible priority date of the '652 patent related to generating content and/or displaying content to a user of a computer system. For example, a person of ordinary skill in the art would have been familiar with the

inherent capabilities of the Powerpoint application developed by Microsoft[7] as well as the Director product developed by Macromedia. Additionally, a person of ordinary skill in the art would have been familiar with the capabilities of the DeskPicture computer program, which one of the inventors of the '652 patent admitted in a 37 C.F.R. § 1.131 declaration "included capabilities for displaying images generated from multiple sets of content data and specifying how long each set of content data was to be used to generate a display of an image." ('652 prosecution, Second Piernot Declaration, ¶2.) Furthermore, a person of ordinary skill in the art would have been familiar with the screensaver and wallpaper software available prior to the earliest possible priority date of the '652 patent. (*See* '652 patent background, 1:39-67.)

In addition, a person of ordinary skill would have been familiar with conventional computer hardware, control and operating system functionality available prior to the filing date of the '652 patent. For example, a person of ordinary skill in the art would have been familiar with the conventional hardware and software referenced by the Patent Owner during original prosecution including "conventional software for controlling operation of a computer display device (as known to those skilled in the art) to produce a display …", "conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art)", and the conventional software providing installation instructions for installing the operating instructions and content display system scheduling instructions. (Reply to Final Office Action in '652 patent, pp. 10-11, 25, and 32.)

[7] *See* Exhibit C describing the inherent capabilities of the Powerpoint application.

V. STATEMENT POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY (37 C.F.R. § 1.510(b)(1))

As noted above, the '652 patent was filed on March 22, 1996. Therefore, printed references with a publication date preceding March 22, 1996, qualify as prior art at least under 35 U.S.C. § 102(a), while printed references with a publication date prior to March 22, 1995, qualify as prior art under 35 U.S.C. § 102(b). Likewise, patents and published patent applications with an effective filing date prior to March 22, 1996, qualify as prior art at least under 35 U.S.C. § 102(e). Accordingly, references published or having an effective filing date prior to March 22, 1996, may be used to present new information about technology in existence ("pre-existing technology") prior to the filing of the '652 patent.

A. U.S. Patent No. 5,748,190 to Kjorsvik ("Kjorsvik")

Kjorsvik discloses all of the limitations of claims 4-8, 11, and 15-18, including the limitations deemed by the Examiner to provide the allegedly patentable features of the claims: for independent claim 4, "*means for displaying one or more control options with the display device while the means for selectively displaying is operating; means for selecting a displayed control options; and means for controlling aspects of the operation of the system in accordance with a selected control option*"; for independent claim 15, "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a plurality of sets of content data are displayed*"; and for independent claim 18, "*further comprising audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data.*" Kjorsvik was not considered or discussed on the record, alone or in combination with another reference, during the initial

examination of the '652 patent. Accordingly, Kjorsvik presents new and non-cumulative information about preexisting technology sufficient to form the basis of a substantial new question of patentability.

Kjorsvik was filed on September 5, 1995, which is prior to the filing date of the '652 patent (March 22, 1996). Therefore, Kjorsvik qualifies as prior art at least under 35 U.S.C. § 102(e).

The technical teachings of Kjorsvik relative to the limitations of claims 4-8, 11, and 15-18 are described below. The manner of applying the teachings of Kjorsvik in prior art rejections of claims 4-8, 11, and 15-18 of '652 patent are described in Sections VI.A-B below.

Kjorsvik is directed to the same problem as the '652 patent —providing content on a display screen utilizing unused capacity of a device (e.g., when the computer is not being used). As described in Kjorsvik, "[w]hen a personal computer is in its 'ON' state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. 'Screen saver' techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose." (Kjorsvik, 1:26-31.) Kjorsvik is therefore directed to a system that provides "useful information or other presentation material … to the user on his/her computer screen at selected times when the computer is not being used," as an alternative to these conventional screen saver images. (Kjorsvik, 1:32-36.) Further, as discussed in more detail below (and in Kjorsvik), Kjorsvik discloses that the user of the device "has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation." (Kjorsvik, Abstract.)

ACQUIRING A SET OF CONTENT DATA

FIG. 1 (reproduced below) depicts the basic system architecture of Kjorsvik. The system 10 includes a plurality of individual network personal computers 12, 14, and 16 and a network server PC 18. Each network PC 12, 14, and 16 includes a messenger module responsible for the display of presentations on a screen of the network PC as well as control of the display of images in the presentations. (Kjorsvik, Abstract.) The system of Kjorsvik further includes at least one administration module. The administration module "can be loaded into and executed from any PC in the network." (Kjorsvik, 2:51-52.) That is, a network PC in Kjorsvik may have both a messenger module and an administration module. Therefore, instructions associated with the messenger module and the administration module would be encoded on a computer readable medium of the network PC.

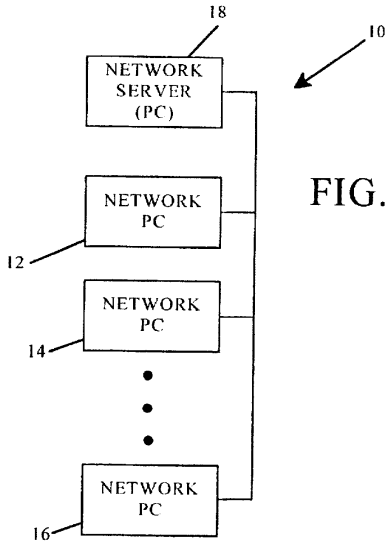


FIG.1

A presentation (script)[8] in Kjorsvik "consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) Kjorsvik discloses

[8] Kjorsvik uses the terms script and presentation interchangeably. (Kjorsvik,

that individual slides and presentations can be created using "Powerpoint in WINDOWS software from Microsoft, Inc."[9] (Kjorsvik, 3:61-62.) A presentation (script) and/or individual slides of a presentation of Kjorsvik are therefore "*a set of content data*" as recited in claims 4, 6, 7, 8, and 15-18 of the '652 patent.

Presentations for use by the Messenger Module of a network PC in Kjorsvik are created and/or acquired by an administration module. The administration module of Kjorsvik "has the basic responsibility of composing, adding to, or deleting" information and/or presentations from the database 24 on server 18. (Kjorsvik, 2:55-57.) In Kjorsvik, the administration module also "has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images" to acquire presentations and/or other content. (Kjorsvik, 2:58-62.) This "importing … of presentations (scripts)" is illustrated in FIG. 10 of Kjorsvik (reproduced below with annotations added)(*See* Kjorsvik, 4:57-60..) The external sources (e.g., network servers with databases having presentation information) disclose the "*content providing system*" limitation of claim 4 and the "*specified information source*" limitation of claims 15, 17 and 18. Specifically, Kjorsvik explains that using an administration module, "presentations may be obtained ***or provided to external systems and/or other outside sources*** over external communication lines." (Kjorsvik, 4:19-21)(emphasis added.) Kjorsvik therefore discloses the "*means for acquiring a set of content data from a content providing system*" limitation recited in

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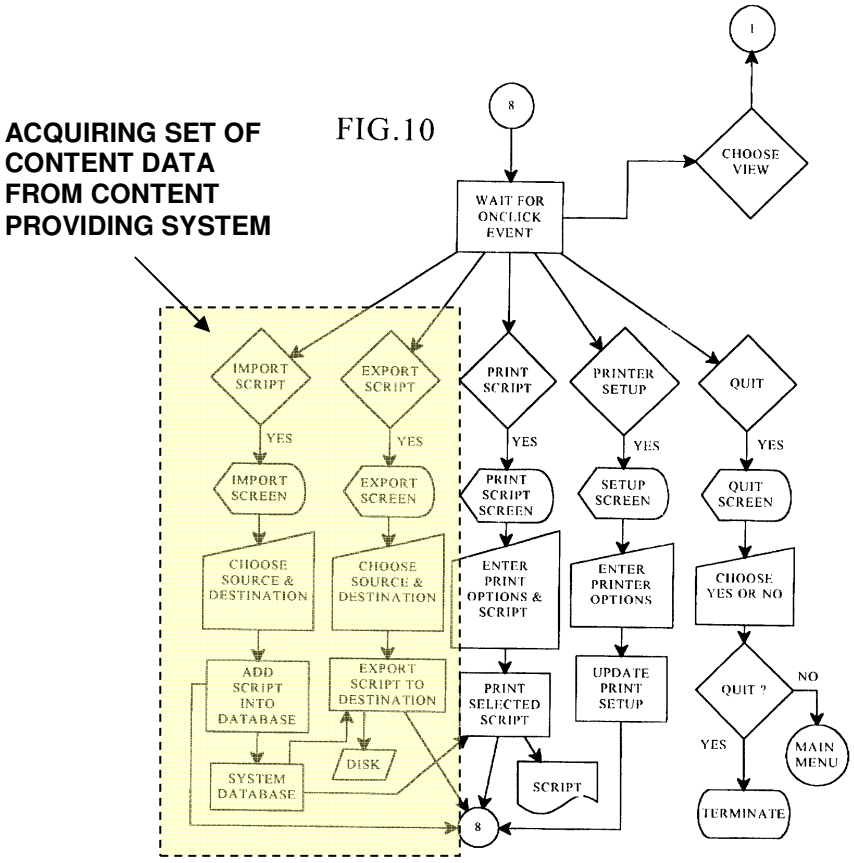
3:30-33.)

[9] Prior to the filing date of the '652 patent, Powerpoint included the inherent capabilities to sequence slides form a presentation and to specify the duration of time a slide was displayed prior to transition to the next slide. (*See* Exhibit C.) Kjorsvik refers generally to these capabilities. (*See e.g.,* Kjorsvik, 5:14-17.)

claim 4 and the "*acquisition instructions for enabling acquisition of a set of content data from a specified information source*" limitation recited in claims 15, 17, and 18.



SELECTIVELY DISPLAY … IN AN UNOBTRUSIVE MANNER

In Kjorsvik, a "presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC." (Kjorsvik, Abstract.) Presentations "are initiated for each PC [12, 14, and 16] in the network following a selected amount of time during which each PC has been in an 'on' state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18; *see also* 5:4-8.) As discussed in

detail above, during prosecution, the Patent Owner identified such "screen saver" embodiments as meeting the "selectively display, unobtrusive manner" limitation of the claims. Accordingly, the screen saver functionality provided by the messenger module of Kjorsvik therefore discloses the "*means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data*" limitation recited in claim 4 of the '652 patent and the "*display instructions for enabling display of the image or images generated from the set of content data*" limitation recited in claims 15, 17, and 18 of the '652 patent.

CONTROL OPTIONS

In Kjorsvik, a messenger module of a network PC "is controlled to some extent by the individual PC with which it is associated." (Kjorsvik, 5:23-24.) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation." (Kjorsvik, 5:25-29.) Thus, in Kjorsvik, the control options are displayed to a viewer while the presentation is being displayed to the viewer by the screensaver functionality (the *means for selectively displaying is operating*). The software causing the control menu to appear therefore discloses the "*means for displaying one or more control options with the display device while the means for selectively displaying is operating*" limitation recited in claim 4.

In Kjorsvik, a control option is initiated by an "event" such as pushing a button or other designated key on a keyboard. (*See*, e.g., Kjorsvik, 3:6-10.) For example, "[b]y

pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module." (Kjorsvik, 5:33-36.) The network PC and the disclosed conventional mouse or keyboard of Kjorsvik therefore discloses the "*means for selecting a displayed control option*" limitation recited in claim 4.[10] Kjorsvik provides flow charts illustrating operations of various control options. *See* Kjorsvik, FIGs. 14-16. As explained in Kjorsvik, "[i]t is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:29-31.) The software carrying out these and other exemplary control options discloses the "*means for controlling aspects of the operation of the system in accordance with a selected control option*" limitation of claim 4.

FIG. 15 of Kjorsvik (reproduced below with annotations added) illustrates exemplary control options provided in the system of Kjorsvik.

[10] During prosecution, the Patent Owner provided an example of a structure meeting this limitation - the "'means for selecting a displayed control option,' as recited in Claim 33 [corresponding to issued claim 4], was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art.)." (Reply to 2/3/98 Office Action, p. 25.) This example structure provided by the Patent Owner is identical to the structure disclosed in Kjorsvik.

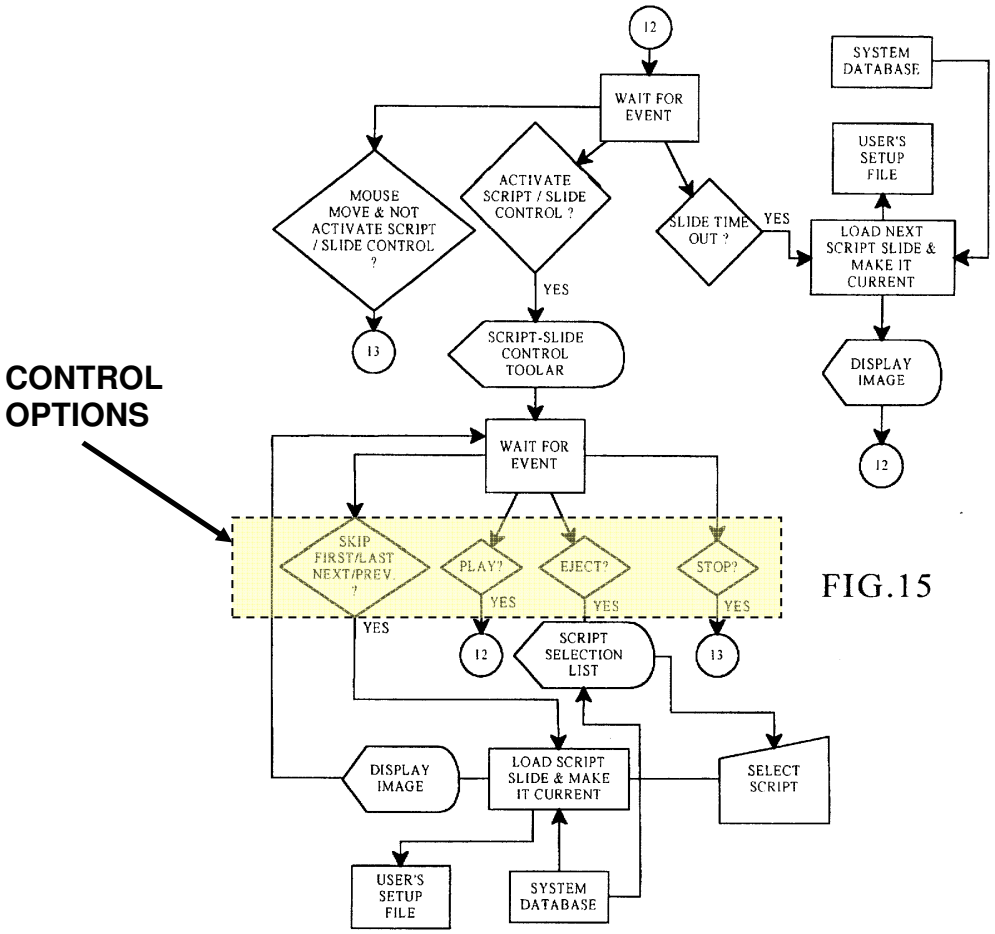


FIG.15

As shown in FIG. 15, the control options include SKIP, FIRST/LAST, NEXT/PREVIOUS, PLAY, EJECT, and STOP. When a user selects the "STOP" option, the "quit" sequence for the messenger module is initiated, terminating operation of the presentation and returning the PC to its primary interaction with the user. (*See*, e.g., 5:48-51; FIG. 16.) The "STOP" control option and associated functionality carrying out the "STOP" function as depicted in the flow charts of FIGs. 15 and 16 disclose the limitations "*the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system*," recited in claim 5.

The NEXT/PREVIOUS control option discloses the limitation "*the control option enables the user to request display of a next image or images generated from a next set of content data; and the means for controlling displays the next image*" recited in claim 6 and "*the control option enables the user to request display of a previous image generated from a previous set of content data; and means for controlling displays the previous image*" limitation recited in claim 7.

The control menu of Kjorsvik further provides the ability for a user to "eject" (remove) a presentation from the current display. As explained in Kjorsvik, "[b]y pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module." (Kjorsvik, 5:33-36.) The "eject" control option and the functionality carrying out the "eject" control option disclose the "*control option enables the user to remove a set of content data from the schedule*" and "*the means for controlling removes the set of content data from the schedule*" limitations recited in claim 8.

As depicted in FIG. 15, when a user selects one of the "SKIP, FIRST/LAST, NEXT/PREV," the messenger module will load another script slide and link to the user's setup file. Similarly, when a user selects the "EJECT" options, the messenger module must obtain a script selection list from a network system database and select a new script (presentation) from the network system database to display. In either case, the messenger module is linking to a network system database which is "*an information location*" as recited in claim 11.

Furthermore, in Kjorsvik, as explained above, "presentations may be obtained or provided to external systems and/or other outside sources over external communication lines." (Kjorsvik, 4:19-24.) To obtain a presentation from an external source, a user in

Kjorsvik can select an import script "control option" from the file menu and identify a destination. (*See* Kjorsvik, FIG. 10.) The external systems are also "*information location[s]*" as recited in claim 11.

Thus, in the system of Kjorsvik when performing the functionality of flow chart 15 or the importation of FIG. 10, the system must establish a link with "an information location," such as an internal or external source. Accordingly, Kjorsvik discloses "*the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location*," as recited in claim 11.

SCHEDULING

In Kjorsvik, scheduling may be provided both for a content display system by the administration module and at a presentation level (set of content data) by a content provider. For the content display system, the administration module 26 of Kjorsvik is further responsible for scheduling "the appearance of the individual presentations at each of the network PCs." (*See*, e.g., Kjorsvik, 4:9-18; FIGs. 7, 8.) As explained in Kjorsvik, "each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins." (Kjorsvik, 4:12-16.) The schedule is stored in the system database 24. (Kjorsvik, 4:16-18.) Therefore, Kjorsvik discloses that the administration module of the content display system provides "*content display system scheduling instructions for scheduling the display of the image or images on the display device*," as recited in claims 17 and 18.

As depicted in FIG. 8, the schedule established by the administration module of the content display system is calendar driven (calendar date). For example, the schedule of presentations for a user today may be different than the schedule of presentations for that same user yesterday. As explained above, during prosecution the Patent Owner stated that the term "*content data scheduling instructions for providing temporal constraints …*" includes constraints related to the "duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) Accordingly, the administration module of the content display system of Kjorsvik also discloses "*content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data* " as recited in claims 15, 17, and 18 and "*wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data*," as recited in claim 16.

In addition to scheduling for the content display system, scheduling in Kjorsvik may also be provided by a content provider on a per presentation (set of content data) basis. As discussed above, a network or external PC loaded with an administration module in Kjorsvik acts as a content provider and provides presentations to a separate content display system. Kjorsvik explains that an administration module "creates a particular presentation by arranging the individual slides in a selected sequence." (Kjorsvik, 3:42-44.) Additionally, as explained in Kjorsvik, the "messenger module maintains control of the presentation on the screen to the extent that it has stored in its

user's own setup file … the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted." (Kjorsvik, 5:8-13.) This control by the messenger module is a further example of the scheduling of images within in a presentation provided by Kjorsvik.

Kjorsvik further discloses that slides and presentations can be created using the Powerpoint software program, which can be interfaced with the administration module. (Kjorsvik, 3:58-67.) Prior to the filing date of the '652 patent, Powerpoint was well known to have the capability to set a duration for display of a slide prior to transition to the next slide in a presentation. (*See* Exhibit C.) This capability is referenced in Kjorsvik, which states "[e]ach slide is shown for ***a preselected period of time***, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18)(emphasis added.)

Accordingly, the administration module of the content display system of Kjorsvik also discloses "*content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data* " as recited in claims 15, 17, and 18 and "*wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data*," as recited in claim 16.

As explained in Kjorsvik, the "administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66; *see also* 4:9-18, 5:18-22.) FIG. 14 of Kjorsvik (reproduced below) illustrates the operation and control of the

messenger module regarding scheduling of presentations for a network PC for the content display system. As shown in FIG. 14, the messenger module obtains "today's broadcast schedule for this user," makes a "user" script from the current schedule, and stores the script in the user's setup file. The user's setup file is used by the messenger module to schedule the display of slides in the user's script. (*See* Kjorsvik, FIG. 14.) The scheduling capabilities of the messenger module for the content display system described in Kjorsvik therefore disclose the "*means for selectively displaying further comprises means for scheduling display of an image or images generated from a set of content data*" limitation recited in claims 6, 7, and 8.

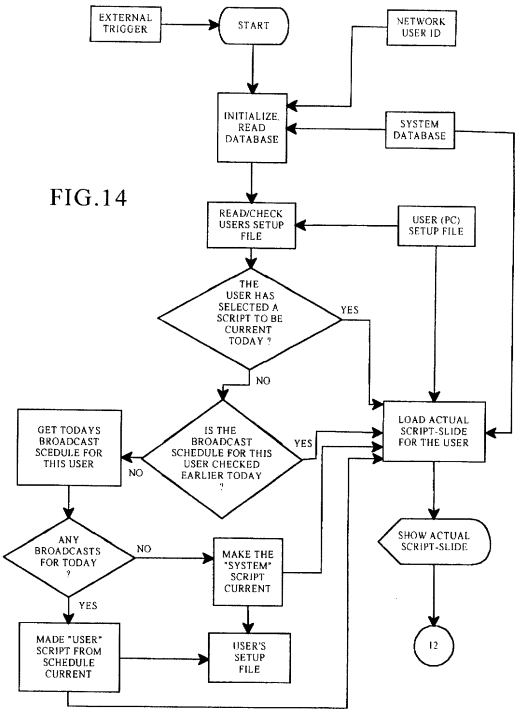


FIG.14

Additionally, as described above, the messenger module provides scheduling of images (or slides) within an individual presentation. For example, as explained by Kjorsvik, "[t]he messenger module maintains control over the presentation of the images in the particular sequence following interruptions of actual use by the PC." (Kjorsvik,

Abstract; *see also* claim 1.) The sequencing and scheduling capabilities of the messenger module performed at a presentation level in Kjorsvik therefore also disclose the "*means for selectively displaying further comprises means for scheduling display of an image or images generated from a set of content data*" limitation recited in claims 6, 7, and 8.

INSTALLATION, OPERATING, UPDATE, AND AUDITING INSTRUCTIONS

In Kjorsvik, a main pulldown menu is presented to a user. (*See* Kjorsvik, FIG. 3.) If a user selects the file menu (FIG. 9), the user can import or export scripts (presentations) from an external source. (*See* Kjorsvik, FIGs. 9, 10.) The menus of FIGs. 3, 8, and 9 therefore disclose a "*user interface that allows a person to request the set of content data from the specified information source*." At least the import/export functionality of FIG. 9 is performed by the administration module 26. (*See* Kjorsvik, 2:58-61.) The administration module 26 software "can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54.) Accordingly, the administration module 26 software performing the functionality of FIGs. 3, 8, and 9 (e.g., requesting presentations from the network server or external sources) discloses the limitation[11] "*user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source*" recited in claims 15, 17, and 18.

[11] The specification of the '652 patent itself admits that such instructions were known prior to the filing date of the '652 patent. ('652 patent, 16:9-15.) ("The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***.")(emphasis added)

Claim 18 also includes the limitation "*content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data*," which as explained here is disclosed in Kjorsvik. First, as discussed above, broadcast schedules for presentations at an individual network PC in Kjorsvik are set on a calendar basis (e.g., daily). (*see, e.g.,* Kjorsvik, FIG. 8.) Further, in Kjorsvik, the same presentation may be scheduled on different days for a network PC; thus the same presentation may be shown more than once. (*See*, e.g., 4:9-18; FIG. 14.) Additionally, as explained in Kjorsvik, slides in a presentation may be updated and thereby affect existing presentations (a "particular slide may be edited at any time for presentation flexibility. The system database 24 is updated immediately upon such editing so as to impact presentations in effect on-line." (Kjorsvik, 4:34-37.)) Thus, Kjorsvik discloses that presentations may be "updated." Further, since presentations may be scheduled for more than one day, when the messenger module (operations shown in FIG. 14 below) checks for the user's daily presentations at the network server database (the "*information source*"), it will acquire updated content that corresponds to the previously acquired presentation (now updated). Therefore, the software implementing the retrieval of presentations discloses the "*content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data*" limitation recited in claim 18.

Kjorsvik describes that the messenger module includes operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data. Specifically, Kjorsvik states "[w]hen a network PC has not been in use . . . the messenger module . . . will automatically ***begin the assigned***

presentation on the PC's screen. The messenger module ***maintains control of the presentation*** on the screen to the extent that it has stored in its user's own setup file … the last slide which has been shown in the particular presentation then being used, even if the presentation has been ***interrupted by use of the PC***. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:4-15.)(emphasis added.) FIGs. 14-16 show software control of the data and the operating process for beginning, managing, and terminating the display of an image in Kjorsvik. "The operation sequence begins each time the PC has not been used for a selected period of time. This is initiated by a trigger signal, which could originate at the PC or from the network server." (Kjorsvik, 5:43-46.) FIG. 15 depicts a flow chart of the "functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48.) The process of terminating the display is illustrated in FIG. 16 of Kjorsvik. "FIG. 16 shows the 'quit' sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence permits the PCs to return to their previous tasks." (Kjorsvik, 5:48-51.) Accordingly, Kjorsvik discloses "*operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data*," as recited in claim 18.

As explained in Kjorsvik, the "administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory," and the "messenger module can be loaded into a network PC from any external source, including the hard disk on the server." (Kjorsvik, 2:52-54; 2:48-50.) During prosecution, the Patent Owner admitted that "'installation instructions for installing the operating instructions and content display system scheduling instructions on a content display system,' as recited in

claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) The system of Kjorsvik works with conventional software, such as "WINDOWS software from Microsoft, Inc., of Redmond, Washington." (Kjorsvik, 3:60-67.) Accordingly, Kjorsvik discloses "*installation instructions for installing the operating instructions and content display system scheduling instructions on a content display system*," as recited in claim 18.

As depicted in FIGs. 14 and 15 (reproduced above), the system of Kjorsvik routinely updates a user's setup file during operation of the system. For example, the "messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC." (Kjorsvik, 5:8-13.) The presentation can then begin "at the same point at which it was interrupted by use of the PC." (Kjorsvik, 5:13-14.) Kjorsvik also explains that "[t]he appearance of the successive slides on the PC screen is monitored by the messenger module to ensure that the individual slides in the presentation are presented in sequential order, even if there is a break in the immediate presentation, such as caused by a user operating the PC." (Kjorsvik, 3:1-6.) The functionality of monitoring the appearance and/or recording the last slide presented to a user is an example of "*audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*," as recited in claim 18.

B. U.S. Patent No. 5,781,894 to Petrecca, et al ("Petrecca")

Petrecca discloses at least the limitation "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times*

that the image or images generated from a set of content data can be displayed" (independent claim 17) deemed by the Examiner during original prosecution to provide the basis for patentability of claim 17. Petrecca was not considered and discussed on the record, alone or in combination with another reference, during the initial examination of the '652 patent. Accordingly, Petrecca presents new and non-cumulative information about preexisting technology sufficient to form the basis of a substantial new question of patentability.

Petrecca was filed on August 11, 1995, which is prior to the filing date of the '652 patent (March 22, 1996). Therefore, Petrecca qualifies as prior art at least under 35 U.S.C. § 102(e).

The technical teachings of Petrecca relative to the limitations of claim 17 are described below. The manner of applying the teachings of Petrecca in prior art rejections of claim 17 of the '652 patent are described in Section VI.B below.

Petrecca describes an "advertising system to be used with personal computers which enables sponsors to present advertisements or commercials to a user during periods of waiting-time which are inherent in normal computer use." (Petrecca, Abstract.) The advertising system of Petrecca "may also be configured so that it controls the number of presentations of a certain advertising message. For example, if a movie studio chooses to advertise several upcoming movies on game software and expects these movies to be released on a series of separate dates, the advertising program begins to present the advertisement of a particular movie starting 1 month before it is released and terminates the presentation of that particular advertisement 2 months later." (Petrecca, 3:4-13.) "Alternatively, the advertising system could keep track of the number of times that it presents a particular advertisement and be configured to stop presenting an advertisement

after a certain number of presentations." (Petrecca, 3:14-17.) Accordingly, Petrecca discloses "*saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed*" as recited in claim 17.

C. U.S. Patent No. 5,913,040 to Rakavy, et al ("Rakavy") in combination with Roberts, "Director Demystified" ("Macromedia Director")

The combination of Rakavy and Macromedia Director discloses all of the limitations of claims 4-8, 11 and 15-18, including the limitations "*means for displaying one or more control options with the display device while the means for selectively displaying is operating; means for selecting a displayed control options; and means for controlling aspects of the operation of the system in accordance with a selected control option*" (independent claim 4); "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a plurality of sets of content data are displayed*," (independent claim 15); "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed*" (independent claim 17), and "*further comprising audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*" (independent claim 18) alleged by the Examiner to be missing from the prior art during original prosecution. Rakavy was not considered or discussed on the record, alone or in combination with another reference, during the initial examination of the '652 patent. Accordingly, Rakavy presents new and non-cumulative information about preexisting technology sufficient to form the basis of a substantial new question of patentability.

Rakavy was filed on August 22, 1995, which is prior to the filing date of the '652 patent (March 22, 1996). Therefore, Rakavy qualifies as prior art at least under 35 U.S.C. § 102(e).

Macromedia Director was published in March 1995, which is prior to the filing date of the '652 patent (March 22, 1996) by approximately one year. Therefore, Macromedia Director qualifies as prior art at least under 35 U.S.C. § 102(a) and possibly under 35 U.S.C. § 102(b).

The technical teachings of Rakavy and Macromedia Director relative to the limitations of claims 4-8, 11, and 15-18 are described below. The manner of applying the teachings of Rakavy and Macromedia Director in prior art rejections of claims 4-8, 11, and 15-18 of the '652 patent are described in Sections VI.C below.

1. Rakavy

Rakavy "relates generally to advertisement computer display systems." (Rakavy, 1:7-8.) The system of Rakavy (illustrated in FIG. 1, reproduced below) includes a local computer 500 coupled to Advertising System Server 600 via a communications network 700. The "Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.)

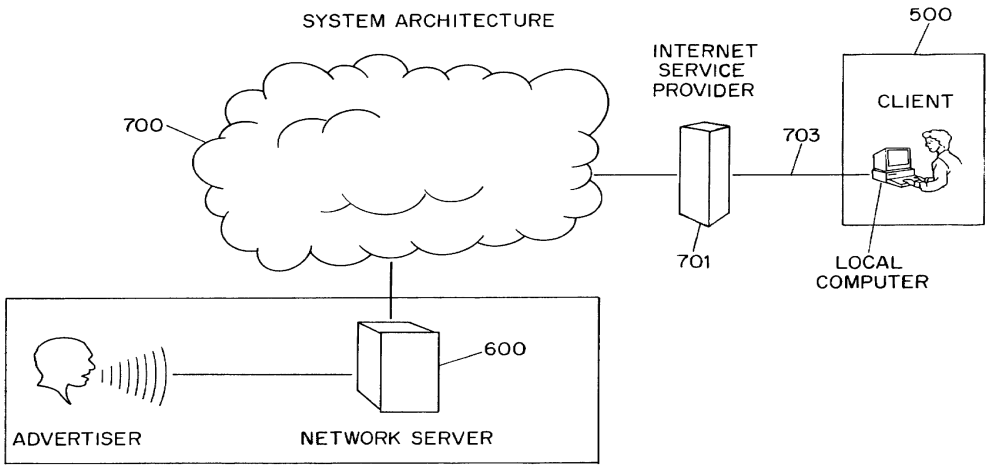


FIG. 1

Rakavy also describes the "Local Computer Software Modules" in connection with FIG. 4 (reproduced below) and explains that the local computer software modules include the Advertisements Feeder **250** and Internet Ad Feeder **270**. (Rakavy 7:30-38.) Rakavy explains that a plurality of servers (e.g., network server 600) may store advertisements. (Rakavy 5:54-57.)

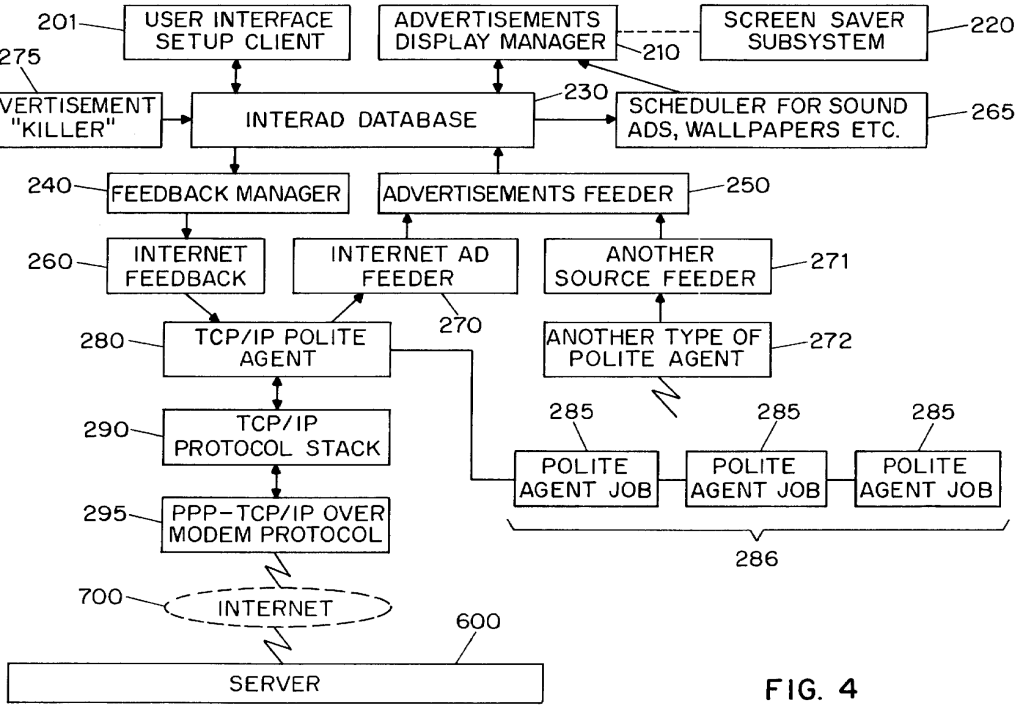


FIG. 4

The specification of the '652 patent describes that "content providing systems 202 and content display systems 203 can be implemented using appropriately programmed digital computers." ('652 patent, 14:12-14.) Thus, the Local Computer 500 with the Local Computer Software Modules of Rakavy have the same structure as the "*content display system*" described in the specification of the '652 patent.

ACQUIRING A SET OF CONTENT DATA

The Advertisement Feeder 250 of Rakavy "is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15.) The commercial on-line services as well as the network servers 600 of Rakavy disclose the "*content providing system*" limitation of claim 4 and the "*specified information source*" limitation of claims 15, 17 and 18. The Advertisement Feeder 250 in combination with local computer 500 hardware therefore disclose the "*means for acquiring a set of content data from a content providing system*" limitation recited in claim 4 and the "*acquisition instructions for enabling acquisition of a set of content data from a specified information source*" limitation recited in claims 15, 17, and 18.

"[A]dvertisement information (including executable code modules, bitmaps, video clips and sound clips)" for use by the Local Computer 500 are stored in the User Preference and Advertisement Database. (Rakavy, 8:62-67.)

SELECTIVELY DISPLAYING … IN AN UNOBTRUSIVE MANNER

The Advertisement Display Manager 210 of Rakavy "is responsible for selecting and displaying Advertisements 50 from the User Preference and Advertisement Database 230." (Rakavy, 7:44-46.) As discussed in detail above, during prosecution, the Patent Owner identified "screen saver" and wallpaper embodiments as meeting the "*selectively display, unobtrusive manner*" limitation of the claims. Rakavy discloses both "screen saver" and wallpaper embodiments. In the Screen Saver embodiment of Rakavy, "Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3.) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230." (Rakavy, 10:43-45.) "By utilizing on-line communications, the screen saver [of Rakavy] provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13.) In addition to screen savers, other techniques disclosed in Rakavy for displaying advertisements include screen background wallpaper and display in a window on the user's computer display. (Rakavy, 3:30-33.)

Accordingly, the screen saver and wallpaper embodiments provided by the Screen Saver and Advertisement Display Manager of Rakavy disclose the "*means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user*

of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data" limitation recited in claim 4 and the "*display instructions for enabling display of the image or images generated from the set of content data*" limitation recited in claims 15, 17, and 18.

SCHEDULING

In Rakavy, scheduling can be provided by components of the Local Computer 500 as well as by information provided by the content provider with an advertisement. The Scheduler and the Advertisement Display Manager of Local Computer 500 provide scheduling for advertisements. "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis." (Rakavy, 10:57-62.) The Scheduler 265 of the Local Computer 500 "keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy, 11:66-12:4.) These timing-dependent advertisements that are initiated when the system of Rakavy has been idle for a predefined period therefore have "*temporal constraints*." Thus, the Scheduler of the Local Computer that enforces these temporal constraints discloses the limitation "*content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data*," as recited in claims 15, 17, and 18.

One technique disclosed in Rakavy for sequencing of advertisements in the Local Computer is via user defined priorities. As described in Rakavy, a user defines certain preferences related to advertisements:

> User preference information typically includes:
>
> a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical advertisement categories are "SCUBA diving equipment," "Fast food vendors," "Toys for ages 8-14," or "Cigarettes" and the like. The actual list of categories will be provided by the Advertising System Server 600.
>
> b) Time periods during which sound-only advertisement are to be played.

(Rakavy, 9:34-50.) "Advertisements 50 matching the user's high priority categories and platform capabilities are selected for downloading." (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50" from these downloaded advertisements. (Rakavy, 10:62-65.) The sequencing of downloads and selection based on priority discloses the "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed*" limitation recited in claim 15.

Additionally, an individual advertisement in Rakavy can include self-contained scheduling information provided by a content provider. As described in Rakavy, each advertisement "comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55), its category, its size, and the

hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements." (Rakavy, 7:13-21.)

FIG. 5 (reproduced below) is a schematic representation of an Advertisement. As can be seen in FIG. 5, an advertisement record includes an "Ad expiration date." (Rakavy, FIG. 5.) The "ad expiration date" defines the duration of time during which an advertisement can be displayed before expiring. Rakavy also discloses advertisement files that are "animated" or contain "executable code" and thus necessarily include duration, sequencing or timing information. (*See* e.g, Rakavy 7:21-23.) In addition, Rakavy explains that advertisements may be presented in "scripted code such as that used in Hot Java," (Rakavy 11:7-9), and also explains that "Hot Java, available from Sun Microsystems, supports execution of small applications" (applets) to allow for richer content, such as animations, which would include a sequence in which images are displayed. (Rakavy 1:46-51.) Accordingly, an advertisement record included in an advertisement 50 discloses the limitations "*content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data*" recited in claims 15, 17, and 18" and "*wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data*" recited in claim 16.

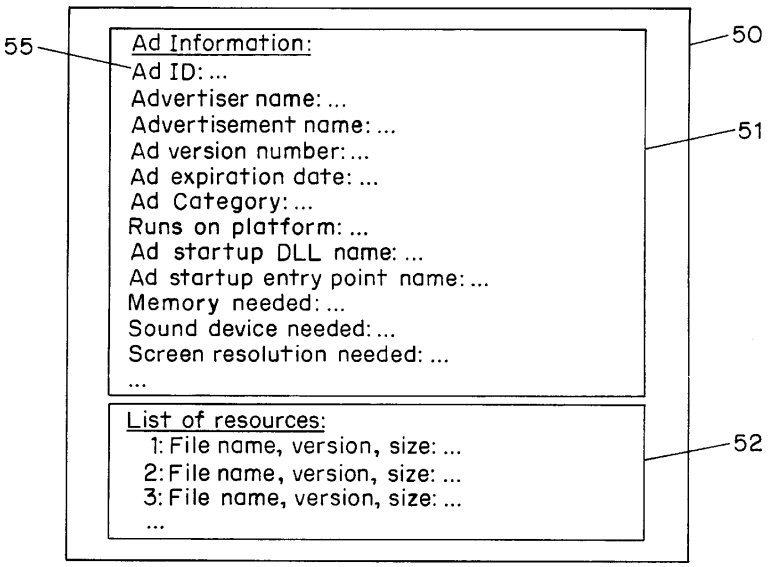


FIG. 5

An advertisement 50 may be associated with a "collection of bitmaps, animation, and sound clips." (Rakavy, 10:52-54.) An animation consists of a set of images arranged in a specific sequence. (*See, e.g.,* Macromedia Director, p. 27)(depicting an animation comprised of a sequence of frames.) Rakavy therefore discloses "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed*" as recited in claim 15.

Additionally, the Local Computer 500 includes an Advertisement Killer 275. The Advertisement Killer 275 "periodically scans the User Preference and Advertisements Database 230, and purges Advertisements 50 that satisfy its purge criteria. Typical criterion include the total time the advertisement has been stored and the number of times displayed." (Rakavy, 12:52-59.) Thus, Rakavy discloses "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the*

number of times that the image or images generated from a set of content data can be displayed," as recited in claim 17.

CONTROL OPTIONS

The system of Rakavy provides control options that permit a user to directly interact with a displayed advertisement. For example, "[w]hen the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50." (Rakavy,11:33-36.) "User interaction with the Advertisement Display Manager 210 is preferably initiated by pressing a predesignated key." (Rakavy, 11:31-32.) "The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:39-44.)

The Advertisement Display Manager 210 also "selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210." (Rakavy, 11:36-39.) Thus, Rakavy further discloses that "*the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system*," as recited in claim 5.

Advertising Display Manager 210 further "allows users to respond to Advertisements 50 being presented by selecting a user grading box which allows users to judge the Advertisements 50 on a scale from 'do not show me this advertisement again' to 'excellent.'" (Rakavy, 10:12-17.) Rakavy also explains that through the use of the "Advertisement Killer," described in detailed above, "Advertisements 50 are purged on

user demand through user interaction with the Advertisements . . . ." (Rakavy, 12:56-58.) Rakavy therefore further discloses "*the control option enables the user to remove a set of content data from the schedule; and the means for controlling removes the set of content data from the schedule*," as recited in claim 8.

Several of the control options discussed above, such as the user grading box and web browser for connecting, are displayed to the user while the screensaver is being displayed. Thus, Rakavy discloses "*means for displaying one or more control options with the display device while the means for selectively displaying is operating … means for controlling aspects of the operation of the system in accordance with a selected control option*," as recited in claim 4.

The control option functionality of initiating a WEB browser to connect directly to an advertiser (Rakavy, 11:39-44) discloses the limitation "*the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location*," as recited in claim 11.

Rakavy discloses that the "Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, ***input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device***), and a Mass Storage Device 516." (Rakavy, 4:47-52.) (emphasis added). During prosecution, the Patent Owner admitted that the "'*means for selecting a displayed control option*,' … was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art)." (Reply to Final Office Action, p. 25.) Therefore, the

keyboard and/or pointing device of the local computer 500 discloses the limitation "*means for selecting a displayed control option*" recited in claim 4.

Rakavy discloses a set of control options displayed to the viewer of an advertisement (such as an animated advertisement) while the advertisement is being displayed. Rakavy also discloses that "[m]any platforms, including the preferred Windows-95 platform, include a multi-media subsystem that provides APIS for playing animation, sound clips, video clips, etc. . . . Alternatively, there are a wide variety of stand-alone tools suitable for providing such functions on Windows, Macintosh and other platforms." (Rakavy 11:16-22.) Macromedia Director, described in detail below, provides a platform for creating such self-contained animations that can run on other platforms (including the Windows platforms of Rakavy) and further discloses that sophisticated control options to allow interactivity with a viewer can be integrated into these animations.

INSTALLATION, OPERATING, AND AUDITING INSTRUCTIONS

The Local Computer 500 of Rakavy further includes a "User Interface Setup Process 201 [that] allows the user to configure the behavior of the system on their desktops." (Rakavy, 7:43-44.) "This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:18-20.) Rakavy explains that user preference information typically includes, among other items, "[l]istings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed.." (Rakavy , 9:34-37.) Rakavy discloses that "Typical advertisement categories are 'SCUBA diving equipment,' 'Fast food vendors,' 'Toys for ages 8-14,' or

'Cigarettes' and the like. The actual list of categories will be provided by the Advertising System Server 600. (Rakavy, 9:37-50.) "The Advertisement Feeder 250 will incorporate the advertising preference information, the Local Computer's platform capabilities, disk space limitations, and other configuration data into its request for new advertisements. The Advertising System Server 600 uses this information in selecting the next advertisement to be transmitted." (Rakavy, 9:55-58.) Rakavy therefore discloses a "*user interface that allows a person to request the set of content data from the specified information source*."

In the specification, the Patent Owner admitted that that "*user interface installation instructions*" are "conventional and readily available for use with the attention manager of the invention." ('652 patent, 16:13-15.) Because Rakavy uses the same conventional computer technology disclosed in the '652 patent, Rakavy discloses "*user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source*" recited in claims 15, 17, and 18.

In Rakavy, "[t]he Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-13.) The commercial on-line services as well as network servers 600 disclose the "*information source*" limitation of claim 18.

In Rakavy, advertisements are acquired from an advertisement system server:

> An advertisement in Rakavy "may be stored on any one of the plurality of advertising system servers connected to the Network 700. In this embodiment, the Local Computer 500 initiates communication with a predetermined advertising system server. The predetermined advertising system server will select the next Advertisement 50 to be downloaded and transmit the network address of the advertising system server storing the Advertisement 50. The Local Computer 500 uses the transmitted network address to request the selected Advertisement 50 from the appropriate advertising system server.

(Rakavy, 5:54-65.) The advertising system servers are also "*information sources*." The software implementing the retrieval of advertisements discloses the "*content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data*" limitation recited in claim 18.

As discussed above, Rakavy includes operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data. Specifically, Rakavy states that "the Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3).

Rakavy further discloses managing and terminating the display of an image generated from a set of content data:

> User interaction with the Advertisement Display Manager 210 is preferably initiated by pressing a predesignated key, for example F10. When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys

> to the default operating system routine, which will typically terminate the Advertisement Display Manager 210.

(Rakavy, 11:31-39.) Accordingly, Rakavy discloses "*operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data*," as recited in claim 18.

During prosecution, the Patent Owner admitted that "'[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system,' as recited in original prosecution claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) The system of Rakavy works with conventional software and computer technology. (*See* e.g, Rakavy 4:47-52.) Accordingly, Rakavy discloses "*installation instructions for installing the operating instructions and content display system scheduling instructions on a content display system*," as recited in claim 18.

In Rakavy, the Feedback Manager of Local Computer 500 compiles and sends feedback information, including "statistics on displayed Advertisements 50, [and] including user ratings of specific advertisements and the time and length an advertisement was displayed." (Rakavy, 12:61-65; *see also* Rakavy, 3:44-49) ("The system monitors a user's interaction with the advertisements and produces raw data on how many times a particular advertisement was accessed as well as the user's response to advertisements. All pertinent information is stored and sent back to a network server where it is made available to the advertisers."); 5:39-41 ("This user-ID is used by the Advertising System Server 600 to track each user's activity including which Advertisements 50 have been downloaded by the user."); 6:55-59 ("The Server Database

730 contains the system information, including . . . audit logs and statistics.").) Thus, Rakavy discloses "*audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*," as recited in claim 18.

2. Roberts, "Director Demystified" (Macromedia Director)

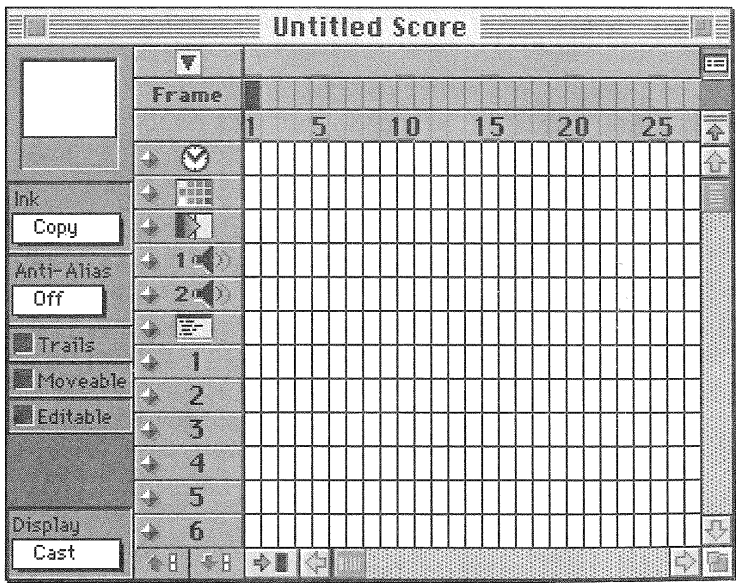
Macromedia Director is a book about "Director, the multimedia authoring software created and marketed by Macromedia." (Macromedia Director, p. xx.) One of the inventors of the '652, Philippe Piernot, admitted that he utilized Macromedia Director in the alleged reduction to practice of the subject matter of at least claims 4-8, 11, and 15-18. (Second Piernot Declaration, ¶5.) Macromedia Director allows a user to create animations by scheduling a series of frames using a Score. (Macromedia Director, pp. 53-86.)

As explained in Macromedia Director, a "movie can be converted into an application in its own right, called a ***projector***. Such a projector doesn't invoke Director to operate." (Macromedia Director, p. 144.) Thus, a Macromedia Director animation (movie) can be ported and played on a platform that does not have Director software. Similarly, in Rakavy, "the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques." (Rakavy, 10:66-11:3.) Thus, as would be readily appreciated by a person of ordinary skill in the art, the animated self-contained advertisements discussed in Rakavy could be created by a program such as Director.

SCHEDULING

An animation in Macromedia Director is created by sequencing frames into a movie. Users create Macromedia Director animations (referred to as movies) in a Score window. "The Score window is the spreadsheet-like environment which Director "reads" while paying back a movie." (Macromedia Director, p. 27.) An exemplary Score window is reproduced below.

What's the Score?
The Score window is the spreadsheet-like environment which Director "reads" while playing back a movie.



Macromedia Director discloses that the frames (e.g., images in an animation) are sequenced in the Score. Accordingly, Macromedia Director discloses "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed*" as recited in claim 15.

The rows of the spreadsheet in a Macromedia Director score window are called "***channels***, while the columns are called ***frames***." (Macromedia Director, p. 27.) One of the channels defined in Macromedia Director is a "Tempo Channel" that allows a user to "specify the rate at which Director zips through frames (i.e., the tempo)…" (Macromedia

Director, p. 33.) For example, "[y]ou can set the playback tempo to any rate from 1 to 60 frames per second (FPS)" and "[y]ou can have playback pause entirely, for a period of 1 to 60 seconds." (Macromedia Director, p. 33.)

Thus, Macromedia Director discloses that an animation having multiple frames created using Macromedia Director (such as, e.g., an animated advertisement as described by Rakavy) may include "*the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data*" as recited in claims 6, 7, and 8 and "*content data scheduling instructions for provided temporal constraints on the display of the image or images generated from the set of content data, wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed"* as recited in claim 15 and "*wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data*" as recited in claim 16.

CONTROL OPTIONS

As explained in Director, "animation is only a part of what Director has to offer. Another big part is ***interactivity***, the ability to provide the viewer with at least some measure of control." (Macromedia Director, p. 144.) One technique disclosed in Macromedia Director to provide control options is through buttons displayed to the viewer of the presentation. Using an example of a "play button," Macromedia Director describes how these buttons may be created for a presentation and how the creator may define how the buttons will be activated and work:

Building the Play button

...

The physical button

But, we have to make a home for this second script before we write it, since it doesn't belong in the script channel. Make sure the playback head is in the first frame, then:

1. ***Open the Tools window.***
2. ***Select the "pushbutton" tool (the rightmost one).***
3. ***Use the tool to draw a box in the lower left-hand corner of the Stage***

A cursor appears, flashing in the middle of the button box.

4. ***Type in the word "Play"***
5. ***Use the handles, on the selection border to resize the box to suit***
6. ***Click on the Score to make it active.***

Director has automatically placed the new cast member in a new channel (and turned on that red light next to the channel to notify you of this).

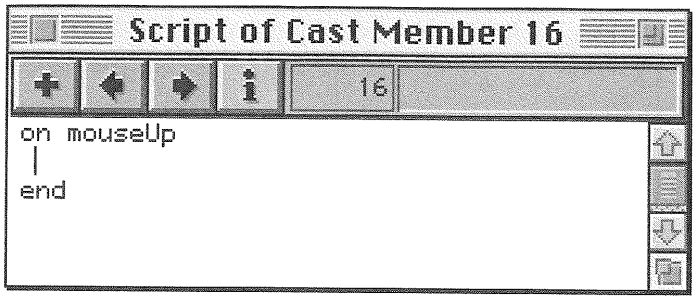
…

The button script

8. ***Click on the button's icon in the Cast window to select.***
9. ***Click on the script button in the Cast window.***

A new Script window appears. But unlike the previous one, which read "Score Script," this has a different heading.

The Cast/ the script: Lingo can be attached to cast members directly, following them wherever they go in the movie.



Before, we were writing a script that became a cast member itself. This time we're attaching a script to another cast member, in this case a button (as already noted, there are a lot of nooks and crannies in Director for Lingo to live in).

Notice how the event handler has changed too: it now reads `on mouseUp` rather than on `exitFrame`. The event of `mouseUp` is the last half

of a mouse click, when the mouse button returns to its original position (`mouseDown`, the first half, is considered a separate event). Director knows to execute this script when the user finishes a mouse click … and since the script belongs to a cast member, it runs the script only when the mouse click is over that cast member.

9. Type the command `continue`

That's our second script. In Lingo, `continue` is the opposite of pause.

10. Close the Script window

(Marcomedia Director, pp. 147-48.)

Although the example above describes a play button script using the "continue" command, a person of ordinary skill in the art would recognize that any applicable Macromedia Director command could be used in a button script as illustrated in the examples below. For example, Macromedia Director defines the following commands:

go next

Elements: `go next`

Purpose: When paced in a score script, this command causes the playback head to move to the next frame possessing a marker.

In context

```
go next
```

go previous

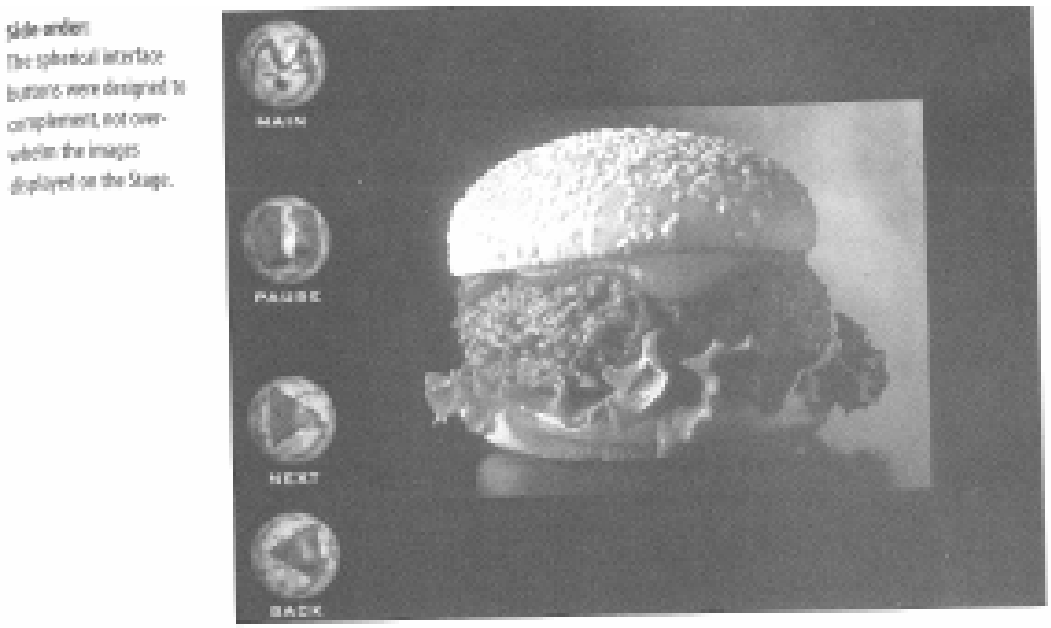
Elements: `go previous`

Purpose: When placed in a score script, this command causes the playback head to move to the previous frame possessing a marker.

In context:

```
go previous
```

(Macromedia Director, pp. 546-47.) Macromedia Director illustrates an image including a "next" and a "previous" control option button created using a button script.



(Macromedia Director, p. 297.) Thus, Macromedia Director discloses that an animation (or image) created using Macromedia Director (such as, e.g., an animated advertisement of Rakavy) may include "*means for displaying one or more control options with the display device while the means for selectively displaying is operating; means for selecting a displayed control option; and means for controlling aspects of the operation of the system in accordance with a selected control option"* as recited in claim 4 and "*the control option enables the user to request display of a next image or images generated from a next set of content data*" limitation recited in claim 6 and "*the control option enables the user to request display of a previous image generated from a previous set of content data*" limitation recited in claim 7.

Macromedia also includes a "Quit" command that "[c]auses Director to not only close the current movie but the application as well, and return to the Finder." (Macromedia Director, p. 565.) Macromedia Director describes how to create a "Quit" control option button:

Creating a Quit button

> We have one last button to add before we turn this movie into a freestanding projector. Unless we *want* to introduce frustration, we need to give the end user some means of exiting the program …

(Macromedia Director, pp. 155-56.) Macromedia Director therefore discloses that an animation (or image) created using Macromedia Director (such as, e.g., an animated advertisement of Rakavy) may include "*the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system"* as recited in claim 5.

D. U.S. Patent No. 5,740,549 to Reilly, et al ("Reilly")

Reilly discloses all of the limitations of claims 4-7, 11, 15, 16, and 18, including the limitations "*means for displaying one or more control options with the display device while the means for selectively displaying is operating; means for selecting a displayed control options; and means for controlling aspects of the operation of the system in accordance with a selected control option*" (independent claim 4); "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a plurality of sets of content data are displayed*," (independent claim 15); and "*further comprising audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*" (independent claim 18) alleged to be patentable by the Examiner during original prosecution. Reilly was not considered or discussed on the record, alone or in combination with another reference, during the initial examination of the '652 patent. Accordingly, Reilly presents new and non-cumulative information about preexisting technology sufficient to form the basis of a substantial new question of patentability.

Reilly was filed on June 12, 1995, which is prior to the filing date of the '652 patent (March 22, 1996). Therefore, Reilly qualifies as prior art at least under 35 U.S.C. § 102(e).

The technical teachings of Reilly relative to the limitations of claims 4-8, 11, and 15-18 are described below. The manner of applying the teachings of Reilly in prior art rejections of claims 4-8, 11, and 15-18 of '652 patent are described in Sections VI.F-H below.

Similar to the '652 patent, Reilly is directed to "a system for distributing to a set of subscribers' computers information matching each subscriber's interests as well as advertising, and for distributing the information and advertising to each subscriber's computer during time periods in which the subscriber's computer is otherwise inactive." (Reilly, 1:5-10.) For example, a goal of Reilly is "to disseminate information and advertisements to subscribers' computers in a system where the information and advertisements are automatically displayed when the subscriber's computer is on but discloses predefined idleness criteria. For example, the predefined idleness criteria could be the failure to receive any input for a period of at least five minutes." (Reilly, 2:28-34.) Like the '652 patent, Reilly uses "screen saver procedures for displaying" this information and advertisements. (Reilly, 11:40-41.)

ACQUIRING A SET OF CONTENT DATA

FIG. 2 of Reilly (reproduced below) depicts a subscriber workstation. The subscriber workstation 102 "includes a central processing unit 170, primary memory 172 (i.e., fast random access memory) and secondary memory 174 (typically disk storage), a user interface 176, and an Internet interface 178 for communication with the information

server 104 via the Internet 119." (Reilly, 6:26-30.) The information server of Reilly includes an information database that stores "selected and edited news stories" (Reilly, 4:36-37) as well as advertisements (Reilly, 4:66-67). As explained by Reilly, the information database also stores "a set of images 140 used during the display of news items and advertisements." (Reilly, 5:8-10.) The news items, advertisements, and associated images are each "*a set of content data*" as recited in claim 4, 6, 7, 8, and 15-18 of the '652 patent.

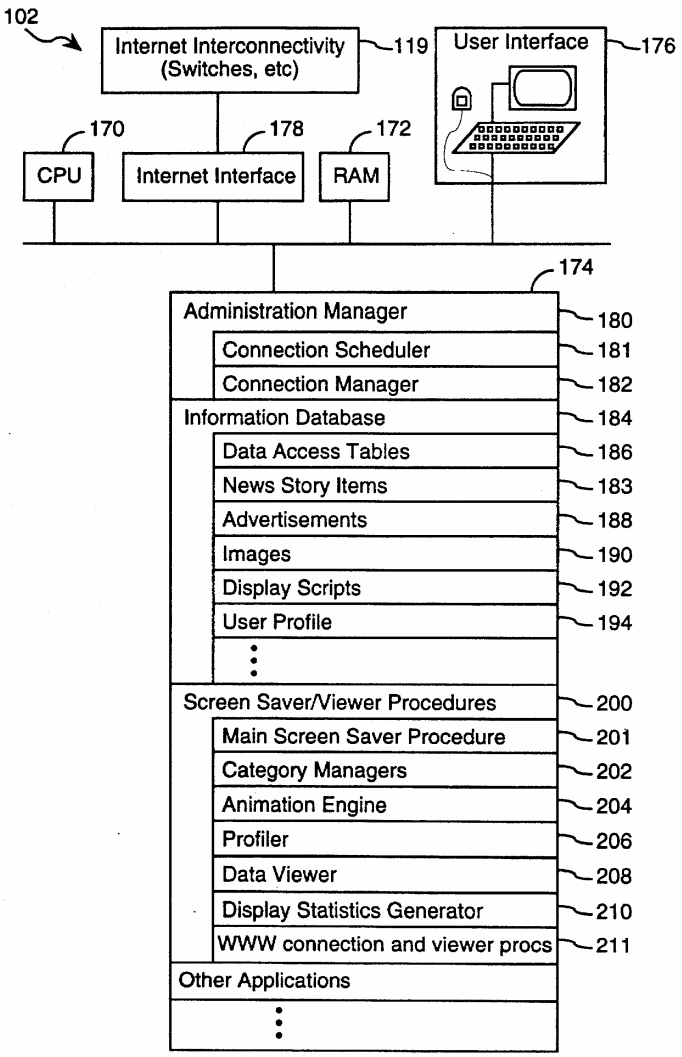


FIGURE 2

A subscriber computer communicates with the information server to obtain news items, advertisements, and images through "administrative updates" and "news story updates." (Reilly, 8:19-35.) As explained in Reilly, the "client computer sends a portion of its user profile to the assigned application server …. Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted." (Reilly, 14:57-15:1.) The news stories, advertisements, and images downloaded from the information server are stored in a local information database in the subscriber workstation. (Reilly, 6:46-49.)

The information (application) server of Reilly therefore discloses the "*content providing system*" limitation of claim 4 and the "*specified information source*" limitation of claims 15, 17 and 18. The administration manager 180 of Reilly that "schedules and controls all communications with the information server 104," (Reilly, 6:37-38), including handling the administrative and news story update connections discloses the "*means for acquiring a set of content data from a content providing system*" limitation recited in claim 4 and the "*acquisition instructions for enabling acquisition of a set of content data from a specified information source*" limitation recited in claims 15, 17, and 18.

SELECTIVELY DISPLAYING … IN AN UNOBTRUSIVE MANNER

The Screen Saver and Viewer Procedures of Reilly "are a set of procedures for controlling the display of news stories and advertisements." (Reilly, 6:62-64.) The

screen saver procedures in Reilly "are invoked using the same types of criteria as are used by other types of screen saver procedures. Generally, whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database." (Reilly, 11:40-49.)

As discussed in detail above, during prosecution, the Patent Owner identified such "screen saver" embodiments as meeting the "selectively display, unobtrusive manner" limitation of the claims. Accordingly, the screen saver functionality provided by the Screen Saver and Viewer Procedures of Reilly discloses the "*means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data*" limitation recited in claim 4 of the '652 patent and the "*display instructions for enabling display of the image or images generated from the set of content data*" limitation recited in claims 15, 17, and 18 of the '652 patent.

CONTROL OPTIONS

In Reilly, a user sets a "screen saver exit mode indicator 220, indicating what actions cause the screen saver procedure to terminate and what actions cause the data viewer 208 to be executed." (Reilly, 8:15-18.) As explained by Reilly, a user can "select one of at least two exit modes." (Reilly, 12:61-62.) The exit modes include:

> in a first mode, the Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface keyboard or by moving the user interface's mouse or trackball; in a second mode, the Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface keyboard, but movement of the mouse or trackball does not cause the Screen Saver procedure to terminate.

> ***Rather, in the second screen saver exit mode, the subscriber can use the mouse or trackball to point to any of the news items being displayed and upon clicking one of the mouse or trackball's buttons, the data viewer 208 is executed*** with the news item selected by the subscriber being displayed.

(Reilly, 12:63-13:8.)(emphasis added). The data viewer 208 launched from the screen saver by "clicking" the mouse or trackball on a news item "is a program for viewing news items that the subscriber specifically wants to read." (Reilly, 13:28-30.) FIG. 10 (reproduced below) illustrates the data view of Reilly.

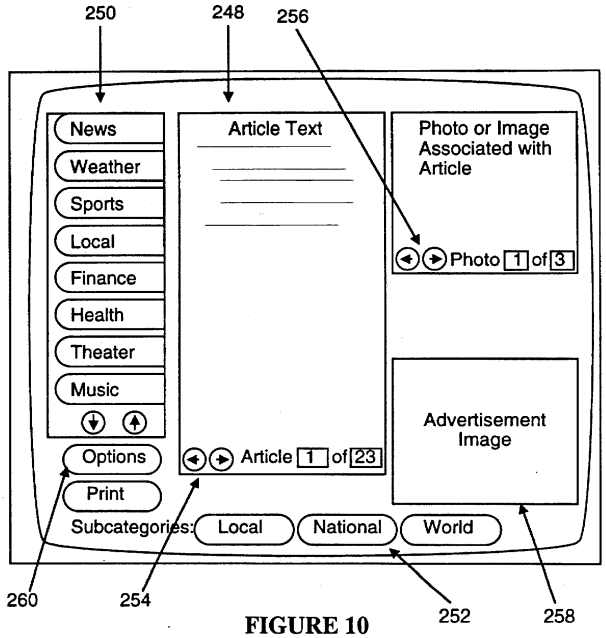


FIGURE 10

In Reilly, a news item is displayed in the center section 248 of the data viewer's display. (Reilly, 13:49-50). By "clicking on the article advance backward and forward buttons 254," the user can "scroll through the news items in the selected information category." (Reilly, 13:43-45.) "When a news item has more than one photo image associated with it, the subscriber can click on the photo advance backward and forward buttons 256 to scroll through the photos." (Reilly, 13:45-48.)

Thus, the software of Reilly that causes the data viewer and its associated control options to be displayed to the user — e.g., the advance backward and forward buttons 254 and 256 — during the display of images by the display control software (the *means for selectively displaying*) discloses the "*means for displaying one or more control options with the display device while the means for selectively displaying is operating*" limitation recited in claim 4.

In Reilly, the data viewer is initiated by "clicking one of the mouse or trackball's buttons" (Reilly, 13:5-6) and the control options of the data viewer are similar controlled by the user clicking a mouse or trackball button. (*See*, e.g., Reilly, FIG. 10; 13:38-48.) Therefore, the computer and the disclosed conventional mouse and trackball of Reilly disclose the "*means for selecting a displayed control option*" limitation recited in claim 4.[12] The software carrying out the control options discussed above discloses the "*means for controlling aspects of the operation of the system in accordance with a selected control option*" limitation of claim 4.

The advance backward and forward buttons 254 and 256 of Reilly disclose "*the control option enables the user to request display of a next image or images generated from a next set of content data*" limitation recited in claim 6 and "*the control option enables the user to request display of a previous image generated from a previous set of content data*" limitation recited in claim 7.

[12] During prosecution, the Patent Owner provided an example of a structure meeting this limitation - the "'means for selecting a displayed control option,' as recited in Claim 33 [corresponding to issued claim 4], was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art.)" (Reply to 2/3/98 Office Action, p. 25.) This example structure provided by the Patent Owner is identical to the structure disclosed in Reilly

In Reilly, the "Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface." (Reilly, 12:61-13:1.) Reilly therefore discloses "*the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system*," recited in claim 5.

"When using the second screen saver exit mode, if subscriber user clicks on an advertisement, the subscriber's computer is automatically connected to the an [sic] associated World Wide Web page on the Internet that provides additional information from the advertiser." (Reilly, 13:9-13.) The connection to the World Wide Web page "is accomplished by World Wide Web connection and viewer procedures 211 (see FIG. 2) stored on subscriber's computer." (Reilly, 13:13-15.) The World Wide Web pages accessed by the World Wide Web connection and viewer procedures disclose the limitation of "*information location[s]*" as recited in claim 11. Accordingly, the World Wide Web connection and viewer procedures of Reilly and the functionality carrying out this control option disclose the limitation of "*the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location*," as recited in claim 11.

SCHEDULING

In Reilly, "the screen saver procedures display news items and advertisements for a sequence of information categories in a sequence of 30 second time slots." (Reilly, 11:49-52.) In Reilly, the news stories and advertisements are sequenced using series of display scripts:

> More specifically, under the control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script for 30 seconds, then news stories and an advertisement assigned to a second information category are displayed

> using a second display script for the next 30 seconds, and so on until news stories and an advertisement have been displayed in all the information categories indicated in the subscriber's user profile 194 as being of interest to the subscriber, at which point the process repeats with the first information category.

(Reilly, 11:53-63.) As illustrated in FIG. 8 (reproduced below), "advertisements assigned to each information category are organized, through the use of a set of data access tables 186, in a separate linked list so as to create a separate 'queue' of advertisements for each information category." (Reilly, 12:6-14.)

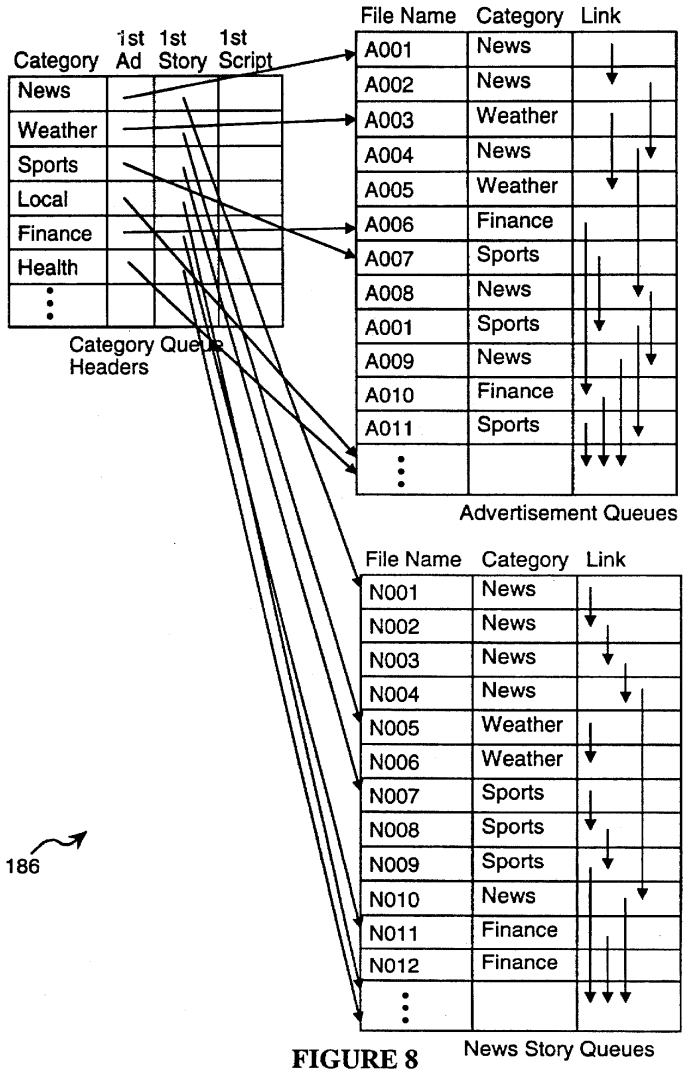


FIGURE 8

Therefore, the linked lists of Reilly and the functionality for using the linked lists by the screen saver procedures disclose the limitation of "*content display system*

scheduling instructions for scheduling the display of the image or images on the display device," as recited in claim 18 and the "*means for selectively displaying further comprises means for scheduling display of an image or images generated from a set of content data*" limitation recited in claims 6, 7, and 8.

A display script in Reilly "controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds." (Reilly, 5:25-29.) Reilly describes in detail the creation of display scripts that control the position, motion and sequence of the display of certain items. (Reilly 9:64-11:36 ("Display Script Definition Procedure").) For example, FIG. 7A (reproduced below) "provides an easy to use dialog 234 for display script definition." (Reilly, 10:19-20.) As illustrated in FIG. 7A, the user can define the position and size of an actor in one second intervals. (Reilly, 10:56-58.) "Each 'actor' represents a sprite, which is a displayable image, that can move around the screen …." (Reilly, 10:23-24.)

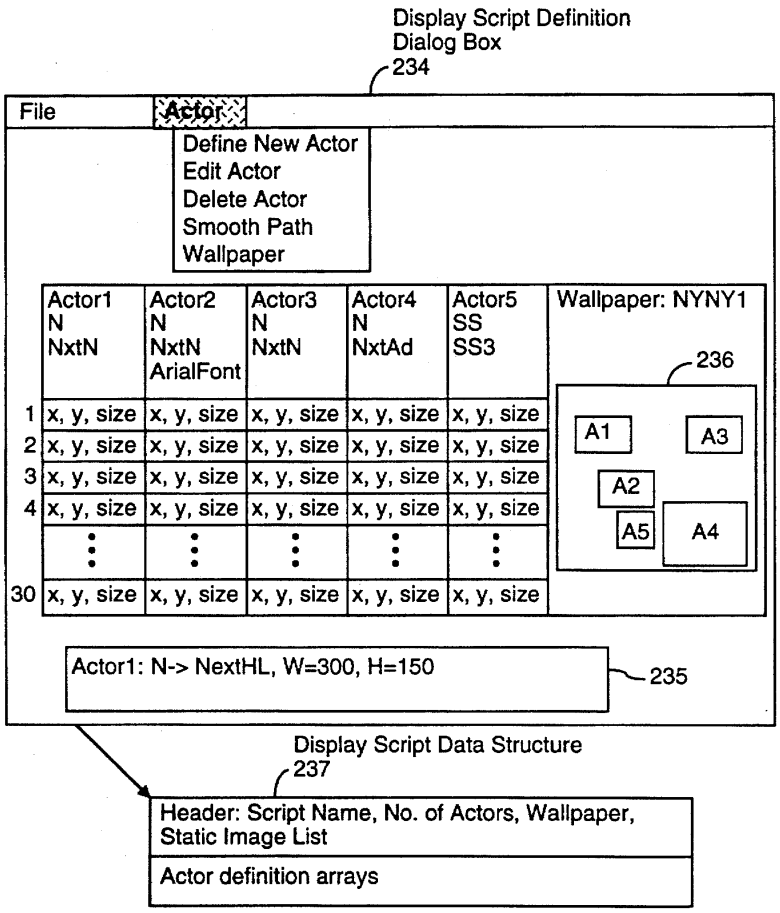


FIGURE 7A

Accordingly, Reilly discloses "*content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data, wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed*" as recited in claim 15 and "*wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data*," as recited in claim 16.

INSTALLATION, OPERATING, AND AUDITING INSTRUCTIONS

The subscriber workstation of Reilly further includes a category manager 202 that "includes a category profiler 202A, a category profile data structure 202B, one or more display drivers 202C for viewing items in the corresponding information category with the data viewer … [and] an update manager 202E." (Reilly, 7:7-12.) FIG. 5 (reproduced below) illustrates an example of a profile definition dialog generated by a category profiler, for the Sports category. (Reilly, 9:40-42.) "The update manager in each category handles the process of updating the local information database with new items from the information server for that information category as well as the deletion of all items and the rebuilding of the portion of the data access tables used to control access to the information items, advertisements and display scripts in that information category." (Reilly, 7:22-28.)

Therefore, the instructions associated with the category manager disclose the limitation[13] "*user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source*" recited in claims 15, 17, and 18.

As discussed above, the subscriber computer in Reilly communicates with the information server to obtain news items, advertisements, and images through "administrative updates" and "news story updates." (Reilly, 8:19-35.) As explained in

[13] The specification of the '652 patent itself admits that such instructions were known prior to the filing date of the '652 patent. ('652 patent, 16:9-15) ("The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention.")

Reilly, the "client computer sends a portion of its user profile to the assigned application server …Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted." (Reilly, 14:57-15:1.) Therefore, the software implementing the updating functionality discloses the "*content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data*" limitation recited in claim 18.

As discussed above, Reilly includes operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data. Specifically, Reilly states that "whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database." (Reilly, 11:43-49.) Under the "control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script …" (Reilly, 11:53-56.) Reilly further discloses that the screen saver procedure may be "terminated by hitting any key on the subscriber computer's user interface keyboard." (Reilly, 12:66-13:1.) Accordingly, Reilly discloses "*operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data*," as recited in claim 18.

The subscriber workstation of Reilly includes a "central processing unit 170, primary memory 172 (i.e., fast random access memory) and secondary memory 174 (typically disk storage)." (Reilly, 6:25-27.) During prosecution, the Patent Owner admitted that "[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system," as recited in claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) Accordingly, Reilly discloses "*installation instructions for installing the operating instructions and content display system scheduling instructions on a content display system*," as recited in claim 18.

The subscriber workstations of Reilly monitor the usage of the system to display images:

> The display statistics generator 210 keeps tracks of how many times each advertisement in the local information database has been displayed since the last time advertisement display statistics have been transferred to the information server. The display statistics generator 210 also keeps track of how many times each news item has been displayed in the same time period. These display statistics are stored in the user profile 194 at 218. In the preferred embodiment, the advertisement display statistics, and news items display statistics, are transferred to the information server once per day during a connection also used to update the subscriber computer's information database. In alternate embodiments, the advertisement display statistics could be transferred more often (e.g., every time the subscriber's computer connects to the information server) or less often (e.g., once per week).

(Reilly, 9:18-33) Reilly's display statistics generator is an example of "*audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*," as recited in claim 18.

D. U.S. Patent No. 5,796,945 to Tarabella ("Tarabella")

Tarabella discloses all of the limitations of claims 4, 5, 8, 11, 15, 16, and 18, including the limitations "*means for displaying one or more control options with the*

display device while the means for selectively displaying is operating; means for selecting a displayed control options; and means for controlling aspects of the operation of the system in accordance with a selected control option" (independent claim 4); "*wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a plurality of sets of content data are displayed*" (independent claim 15); and "*further comprising audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*" (independent claim 18) alleged to be patentable by the Examiner during original prosecution. Moreover, Tarabella combined with Kjorsvik disclose all limitations of claims 6 and 7, and Tarabella combined with Petrecca disclose all limitations of claim 17. Tarabella was not considered or discussed on the record, alone or in combination with another reference, during the initial examination of the '652 patent. Accordingly, Tarabella presents new and non-cumulative information about preexisting technology sufficient to form the basis of a substantial new question of patentability.

Tarabella was filed on June 7, 1995, which is prior to the filing date of the '652 patent (March 22, 1996). Therefore, Tarabella qualifies as prior art at least under 35 U.S.C. § 102(e).

The technical teachings of Tarabella relative to the limitations of claims 4-8, 11, and 15-18 are described below. The manner of applying the teachings of Tarabella in prior art rejections of claims 4-8, 11, and 15-18 of '652 patent are described in Sections VI.I-K below.

Tarabella is directed to the same problem as the '652 patent — providing content on a display screen utilizing unused capacity of a device (e.g., when the computer is not

being used). Tarabella is directed to a system that "collects a series of image collections according to user-defined indicia of images to collect for display on a video terminal at a user-selected idle time and sequence" and displays "representative portions of each of the sets of image collections on the video terminal during idle time of the computer," as an alternative to conventional screen savers. (Tarabella, 2:21-24, 2:35-42.) As described in Tarabella, "the burn-in problem gave rise to development of software computer programs known as 'screen savers' for preventing burn-in. These screen saver programs generally operated in the background of the computer and sensed periods of non-use of the computer." (Tarabella, 1:54-60.) Tarabella further explains that in addition to preventing the "burn-in" of monitors, its disclosed system provides a "mechanism for making productive use of [the] idle time" of computers. (Tarabella, 2:5-8.)

ACQUIRING A SET OF CONTENT DATA

FIG. 1 (reproduced below) depicts the display apparatus of Tarabella. The display apparatus 10 "comprises at least one library 12 having collections of images and at least one computer 14 such as a commercially available personal computer operable by a user to access the library." (Tarabella, 3:12-15.) The computer 14 of Tarabella is a PC that "comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24, a signalling [sic] device such as a mouse 26, and a printing device 28, which communicate conventionally with the microprocessor 20." (Tarabella, 3:18-23.) Tarabella further discloses that "the computer 14 is remotely located from the library 12" and that "[t]he computer 14 communicates with the library 12 through a communications device 18, such as a modem." (Tarabella, 3:15-18.) Moveover, "[t]he microprocessor 20 operates the image

selection, collection, and display software represented graphically as block 29." (Tarabella, 3:23-25.)

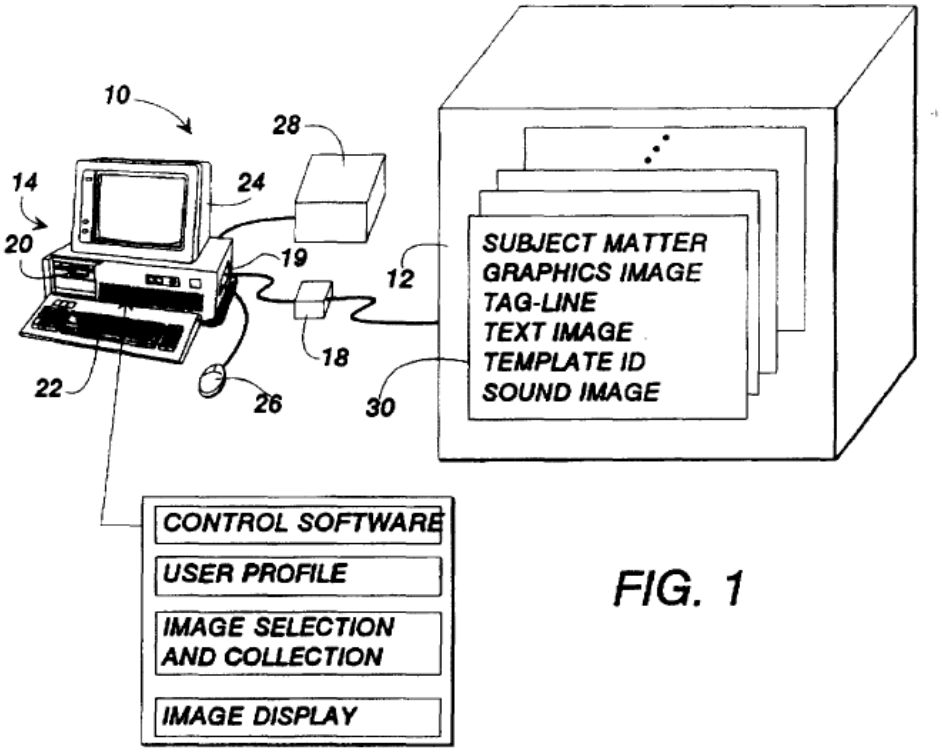


FIG. 1

The collection control software 38 of computer 14 "uses the selected 52 subject matters 54 in the user profile 50 as criteria for selecting and collecting images from the library 12." (Tarabella, 8:14-17.) Tarabella explains a process of collecting images from the library 12 to the computer 14: "The collected images are transferred from the library 12 to the hard disk 19 of the computer 14. Preferably, the collected images are sent as a single package of data. This minimizes the on-line connect time associated with accessing such services by modem. After downloading the package, the collection control software 38 breaks the package apart into the separate series of image collections according to the selected 52 subject matters 54 in the play list 50. The separated series of image collections are then available for display by the image display control software 40." (Tarabella, 8:20-29.) Therefore, the "single package of data" of Tarabella, which is

sent from the library 12 to the computer 14 and contains series of image collections, is "*a set of content data*" as recited in claims 4, 6, 7, 8, and 15-18 of the '652 patent.

Since "the computer 14 is remotely located from the library 12" (Tarabella, 3:15-18), the library or the system that hosts the library discloses the "*content providing system*" limitation of claim 4 and the "*specified information source*" limitation of claims 15, 17 and 18. Moreover, the collection control software 38, which collects images from the library 12 to the computer 14, discloses the "*means for acquiring a set of content data from a content providing system*" limitation recited in claim 4 and the "*acquisition instructions for enabling acquisition of a set of content data from a specified information source*" limitation recited in claims 15, 17, and 18.

SELECTIVELY DISPLAY … IN AN UNOBTRUSIVE MANNER

The display control software of Tarabella is responsible for "displaying the series of collected images as set forth in the user profile." (Tarabella, 9:61-63.) Images are displayed by the display control software "[a]fter a predetermined period of idleness," which is detected by "monitoring the activity of the serial input and output buses of the computer." (Tarabella, 9:54-63.) Thus, the display of images by the display control software of Tarabella in effect replaces the conventional screen saver: "After the predetermined period of computer idleness (no activity on the serial ports), the display software 40 dims the screen and begins to display the image collections selected and collected previously." (Tarabella, 8:45-48.)

As discussed in detail above, during prosecution, the Patent Owner identified such "screen saver" embodiments as meeting the "selectively display, unobtrusive manner" limitation of the claims. Accordingly, the screen saver functionality provided by the

display control software of Tarabella discloses the "*means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data*" limitation recited in claim 4 of the '652 patent and the "*display instructions for enabling display of the image or images generated from the set of content data*" limitation recited in claims 15, 17, and 18 of the '652 patent.

CONTROL OPTIONS

User of Tarabella's computer interacts with the display control software "through the keyboard 22 and mouse 26." (Tarabella, 5:64-66.) In particular, "[a] selected keyboard key can be defined by the user as a hotkey switch for directing the display control software to perform selected functions." (Tarabella, 8:66-9:1.) For example, Tarabella's display control software can be triggered by a "hotkey for immediate activation of the idle time made [sic] (i.e. 'computer sleep')," which causes the computer to "enter a 'sleep' mode in which the idle-time display commences." (Tarabella, 6:13-22.)

FIG. 5 of Tarabella (reproduced below), illustrates another function that can be controlled using a "hotkey": "One such function is to display in a magazine-style format the graphic image and its associated text, as illustrated in FIG. 5. The graphics image 50 is displayed with its associated tagline 160 that functions as a brief description of the graphics image. A header 162 is positioned over the graphics image 60 to identify the source subject matter 54 of the images. A text window 164 displays the associated text 166 for the graphics image 60." (Tarabella, 9:1-8.) Moreover, Tarabella discloses that, while the display control software is operating in this magazine-style format, various control options are displayed: "The text window 164 includes directional arrows 168 for

scrolling through the text image. A close button 169 causes the control software 40 to end the display of the images and return the display on the video terminal to the previous graphic, for example, to the control window from which the image was selected." (Tarabella, 9:8-14.)

FIG. 5

Another function can be activated with "[a] 'connect now' switch 150 [that] selectively displays a button on the idle time image display"; when a user clicks this button with a mouse, it causes the computer "to open or 'launch' a connection with conventional on-line browsing software" such that the user can be directed to a website linked to the displayed information. (Tarabella, 7:46-54.)

Thus, the software of Tarabella that causes the control options to be displayed to the user — e.g., the display of the "button" for the "connect now" switch (*see,* e.g., Tarabella, 7:46-54) — during the display of images by the display control software (the *means for selectively displaying*) discloses the "*means for displaying one or more control*

options with the display device while the means for selectively displaying is operating" limitation recited in claim 4.

In Tarabella, a control option is controlled by the user pressing a key on the keyboard (i.e., a "hotkey") or clicking a mouse. (*See*, e.g., Tarabella, 7:46-54, 9:1-14.) Therefore, the computer and the disclosed conventional mouse and keyboard of Tarabella disclose the "*means for selecting a displayed control option*" limitation recited in claim 4.[14] The software carrying out the control options discussed above discloses the "*means for controlling aspects of the operation of the system in accordance with a selected control option*" limitation of claim 4.

During setup of the Tarabella system, a user can set a "toggle switch 86," which "permits movement of the mouse 26 to awaken the microprocessor 20, i.e., stop the idle-time display of the collected images." (Tarabella, 6:22-25.) This control option and its associated functionality disclose the limitations "*the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system*," recited in claim 5.

Tarabella also discloses that the user can "deselect" images to remove them from display: "The user can also 'deselect' graphic images if only a portion of the graphics images are to be displayed. The user first activates switch 70a. This highlights all of the graphics images 60 with a colored border. The user then deselects for display those

[14] During prosecution, the Patent Owner provided an example of a structure meeting this limitation - the "'means for selecting a displayed control option,' as recited in Claim 33 [corresponding to issued claim 4], was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art.)" (Reply to 2/3/98 Office Action, p. 25.) This example structure provided by the Patent Owner is identical to the structure disclosed in Tarabella.

images which are not be [sic] displayed." The "deselect" control option and the functionality carrying out the "deselect" control option disclose the "*control option enables the user to remove a set of content data from the schedule*" and "*the means for controlling removes the set of content data from the schedule*" limitations recited in claim 8.

As discussed above, Tarabella provides a "connect now" control option that causes the computer "to open or 'launch' a connection with conventional on-line browsing software, such as that used to access commercial information networking systems." (Tarabella, 7:46-54.) The commercial networking systems accessed by the "connect now" option disclose the limitation of "*information location[s]*" as recited in claim 11. Accordingly, the "connect now" control option of Tarabella and the functionality carrying out the "connect now" control option disclose the limitation of "*the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location*," as recited in claim 11.

SCHEDULING

Tarabella discloses "[a]n apparatus for collecting a series of image collections for display on a video terminal at a user-selected time and sequence . . . ." (Tarabella, Abstract.) For example, the scheduling of the display of content by the Tarabella system may be controlled through a "display-when button," which defines "how long a period occurs before the display control software switches from displaying the image of one subject matter 54 selected in the play list to the next." (Tarabella, 5:55-58.) Therefore, the "display-when button" of Tarabella and the functionality carrying it out disclose the

limitation of "*content display system scheduling instructions for scheduling the display of the image or images on the display device*," as recited in claim 18.

Tarabella provides a user interface for controlling the display of content. (Tarabella, 2:57-59.) As depicted in FIG. 4B, reproduced below, the user interface of Tarabella can be used to control the sequence of the displayed images (i.e., "Shuffle 102" or "In Order 104") and the duration of display for each image (i.e., "Pause before next image: 5 seconds" shown as element 108). Accordingly, the "collection controls (FIG. 4B)" (*see* Tarabella at 6:5) of Tarabella disclose "*content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data, wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed*" as recited in claim 15 and "*wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data*," as recited in claim 16.

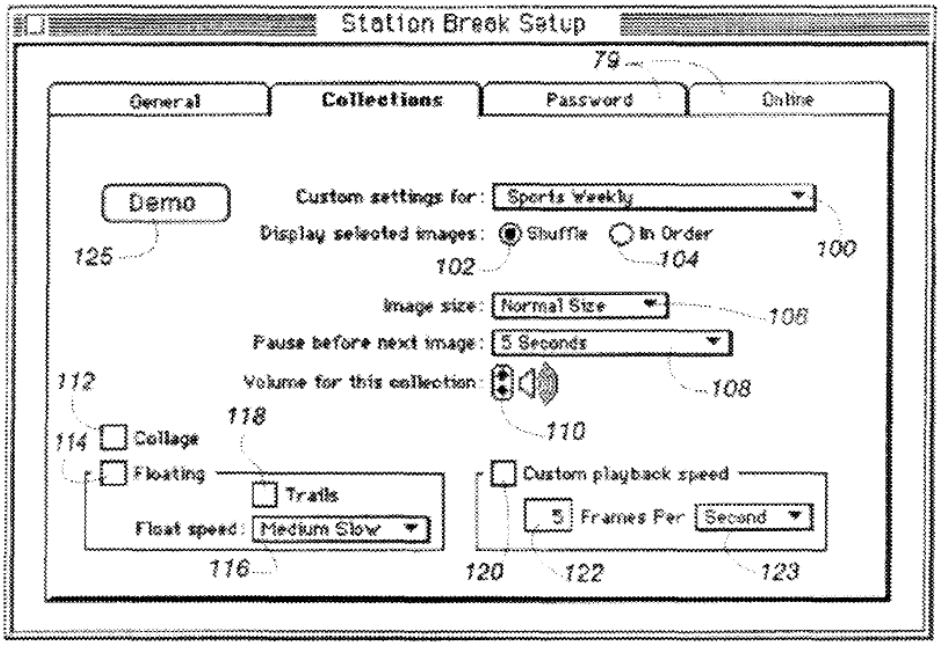


FIG. 4B

Additionally, Tarabella discloses a "playlist" that can control the "sequential display of the series of image collections." (Tarabella, 6:9-13.) Accordingly, the "display-when button," the user interface depicted in FIG. 4B, the "playlist," and the functionality implementing these features, disclose the "*means for selectively displaying further comprises means for scheduling display of an image or images generated from a set of content data*" limitation recited in claims 6, 7, and 8.

INSTALLATION, OPERATING, AND AUDITING INSTRUCTIONS

FIGS. 4A-4D of Tarabella, reproduced below, provide "a sequence of interface screens for configuring the collection and display apparatus of" Tarabella. (Tarabella, 2:57-59.)

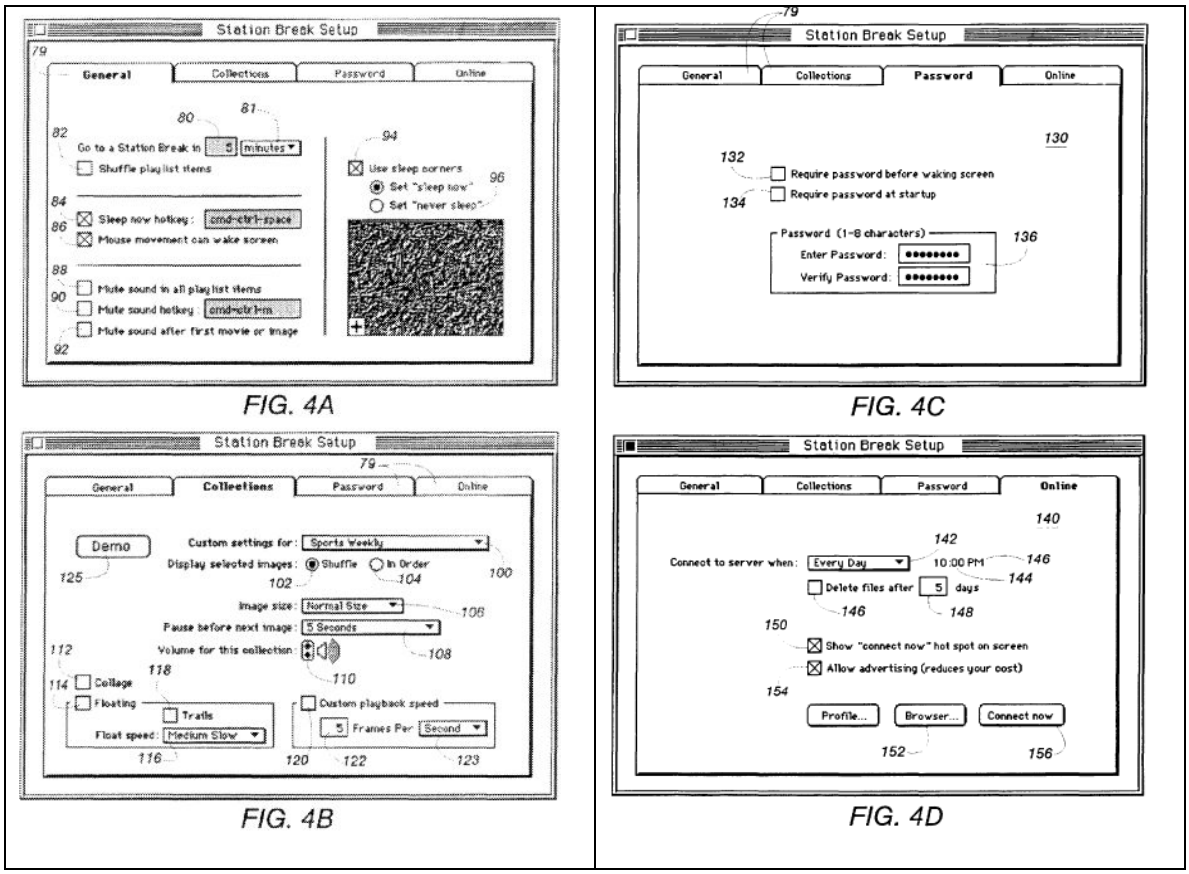


FIG. 4A

FIG. 4C

FIG. 4B

FIG. 4D

For example, "FIG. 4B illustrates a configuration screen for the image collections." (Tarabella, 6:48-49.) The user interface screen depicted in FIG. 4B displays "[a] pop-up window 100 [that] lists the selected 52 subject matters 54 for image collection." (Tarabella, 6:50-52.) Using a mouse, the user may select "the particular subject matter 54" for image collection. (Tarabella, 6:54-56.) For example, FIG. 4B depicts that a user can select "Sports Weekly" as a content source. Therefore, the instructions associated with the user interface screen of FIG. 4B disclose the limitation[15]

[15] The specification of the '652 patent itself admits that such instructions were known prior to the filing date of the '652 patent. ('652 patent, 16:9-15) ("The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. Such user interface installation instructions are conventional

"*user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source*" recited in claims 15, 17, and 18.

FIG. 4D discloses "a connectivity screen 140 for setting the time for the microprocessor 20 to access the library 12 to update the images for the selected 52 subject matters 54." (Tarabella, 7:28-30) Furthermore, Tarabella discloses that "[a] connection occurrence window 142 defines the frequency with which the apparatus 10 automatically accesses the library 12 to obtain updated images for the selected 52 subject matters 54" and "[a] clock 144 defines the time for the automatic update on the selected days." (Tarabella, 7:31-35.) Therefore, the software implementing the updating functionality shown in FIG. 4D discloses the "*content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data*" limitation recited in claim 18.

As discussed above, Tarabella's control software includes operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data. Specifically, Tarabella states that the control software "monitor[s] the activity of the serial input and output buses of the computer" and begins display when it "determines that the computer is idle." (Tarabella, 9:54-63.) Moreover, Tarabella discloses that "[a] toggle switch 86 permits movement of the mouse 26 to awaken the microprocessor 20, i.e., stop the idle-time display of the collected images." (Tarabella, 6:22-25.) The control software also manages the display of images — it presents "another representative image" for display after a previous image is

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and readily available for use with the attention manager of the invention.")

displayed for a "preselected display period." (Tarabella, 8:48-53.) Accordingly, Tarabella discloses "*operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data*," as recited in claim 18.

The display apparatus of Tarabella operates on a "computer 14 such as a commercially available personal computer operable by a user." (Tarabella, 3:12-15.) During prosecution, the Patent Owner admitted that "[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system," as recited in claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) Accordingly, Tarabella discloses "*installation instructions for installing the operating instructions and content display system scheduling instructions on a content display system*," as recited in claim 18.

Tarabella discloses that "[a] log is maintained of the downloaded collections of images" for the display apparatus. (Tarabella, 8:30-31.) Moreover, "[t]he log includes the subject matters 54, the date, and the time of collection," and is used by the control software to determine new "images then-available in the library 12 for collection." (Tarabella, 8:31-35.) Tarabella's functionality of maintaining a "log" is an example of "*audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data*," as recited in claim 18.

VI. DETAILED EXPLANATION OF PERTINENCE AND MANNER OF APPLYING CITED PRIOR ART TO EVERY CLAIM FOR WHICH REEXAMINATION IS REQUESTED

The following rejections, based on the prior art cited in Section V, are presented in this section:

REJECTIONS		CLAIMS
§102(e)	Kjorsvik	4-8, 11, 15, 16 and 18
§103	Kjorsvik and Petrecca	17
§103	Rakavy and Macromedia Director	4-8, 11, 15, 16, and 18
§102(e)	Rakavy	17
§103	Rakavy and Kjorsvik	4-8, 11, 15-18
§102(e)	Reilly	4-7, 11, 15, 16, and 18
§103	Reilly and Kjorsvik	8
§103	Reilly and Petrecca	17
§102(e)	Tarabella	4, 5, 8, 11, 15, 16, and 18
§103	Tarabella and Kjorsvik	6, 7
§103	Tarabella and Petrecca	17

A. *U.S. Patent No. 5,748,190 to Kjorsvik*

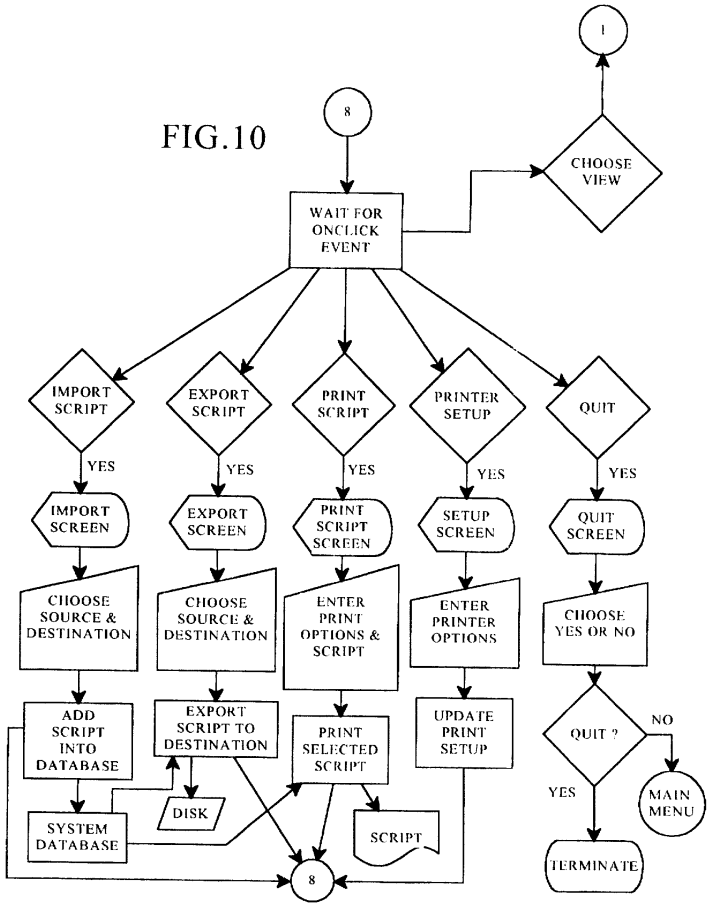
Claims 4-8, 11, 15, 16, and 18 are unpatentable under 35 U.S.C. §102(e) as being anticipated by Kjorsvik as discussed below.

1. *Claim 4*

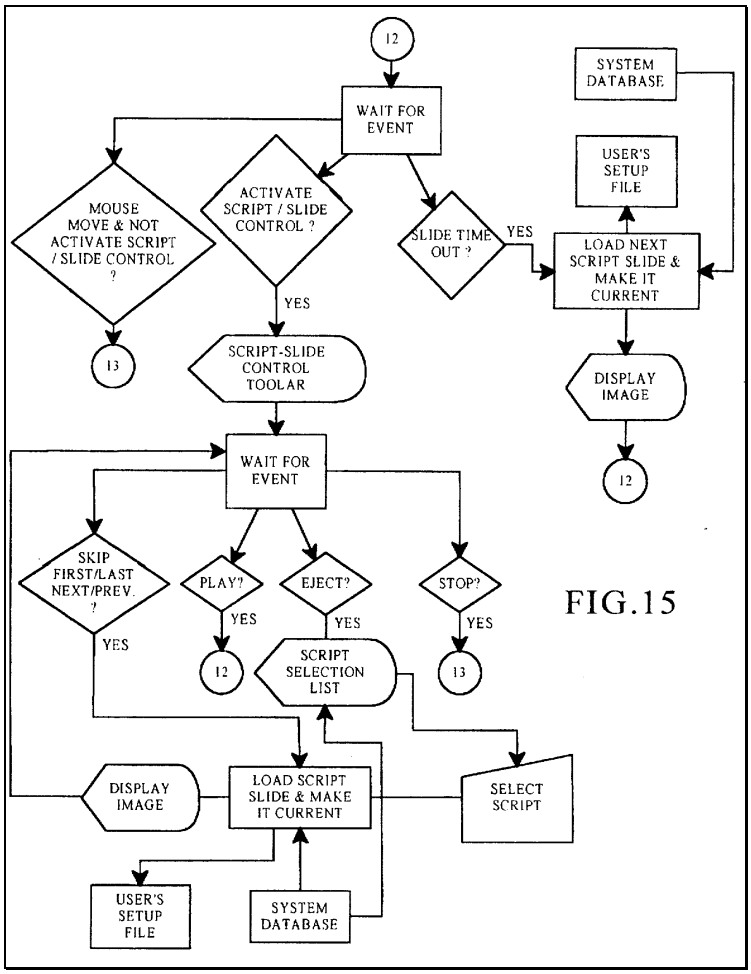
Claim 4 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 4	U.S. Patent No. 5,748,190 to Kjorsvik
4. A system for engaging the peripheral attention of a	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger

Claim 4	U.S. Patent No. 5,748,190 to Kjorsvik
person in the vicinity of a display device of an apparatus, comprising:	software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract) "The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC. A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract)
means for acquiring a set of content data from a content providing system;	"Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60)

Claim 4	U.S. Patent No. 5,748,190 to Kjorsvik
	
means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data;	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "The messenger modules 22--22 communicate with system database 24 on the network server 18 and provide a certain amount of local control over the presentation at its associated PC. The messenger module can be loaded into a network PC from any external source, including the hard disk on the server." (Kjorsvik, 2:45-50) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen

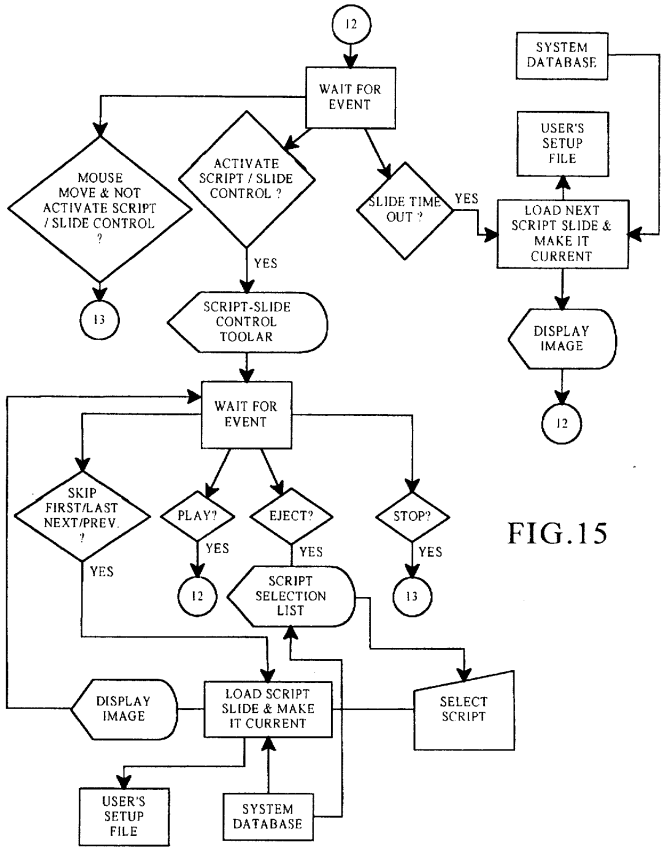
Claim 4	U.S. Patent No. 5,748,190 to Kjorsvik
	saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)
means for displaying one or more control options with the display device while the means for selectively displaying is operating;	"For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32) FIG. 15 illustrates exemplary control options.

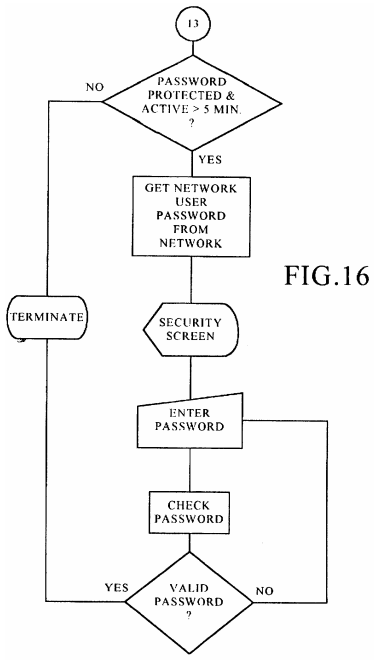
Claim 4	U.S. Patent No. 5,748,190 to Kjorsvik
	 FIG.15
means for selecting a displayed control option; and	During prosecution, the Patent Owner provided an example of a structure meeting this limitation - the "'means for selecting a displayed control option,' as recited in Claim 33 [corresponding to issued claim 4], was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art.)." (Reply to 2/3/98 Office Action, p. 25.) "At any point in the presentation, the user may begin use of the PC, such as for work-in-progress, by simply pushing any key on the PC keyboard except for a designated key which is for manual control of the presentation." (Kjorsvik, 3:6-10) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a

Claim 4	U.S. Patent No. 5,748,190 to Kjorsvik
	presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32) "By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the "current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)
means for controlling aspects of the operation of the system in accordance with a selected control option.	"A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "Each messenger module is controlled to some extent by the individual PC with which it is associated." (Kjorsvik, 5:23-24) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32) "FIG. 16 shows the 'quit' sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence permits the PCs to return to their previous tasks." (Kjorsvik, 5:48-51) *See also* FIGs. 14-16

2. *Claim 5*

Claim 5 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 5	U.S. Patent No. 5,748,190 to Kjorsvik
A system as in claim 4, wherein:	
the control option enables the user to request termination of operation of the system; and	"FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48) Note the blocks in FIG. 15 labeled "WAIT FOR EVENT" and "STOP?." A STOP event leads the method flow of FIG. 15 to FIG. 16 where operation is terminated (as discussed below).  FIG.15
the means for controlling terminates operation of the system.	"A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which

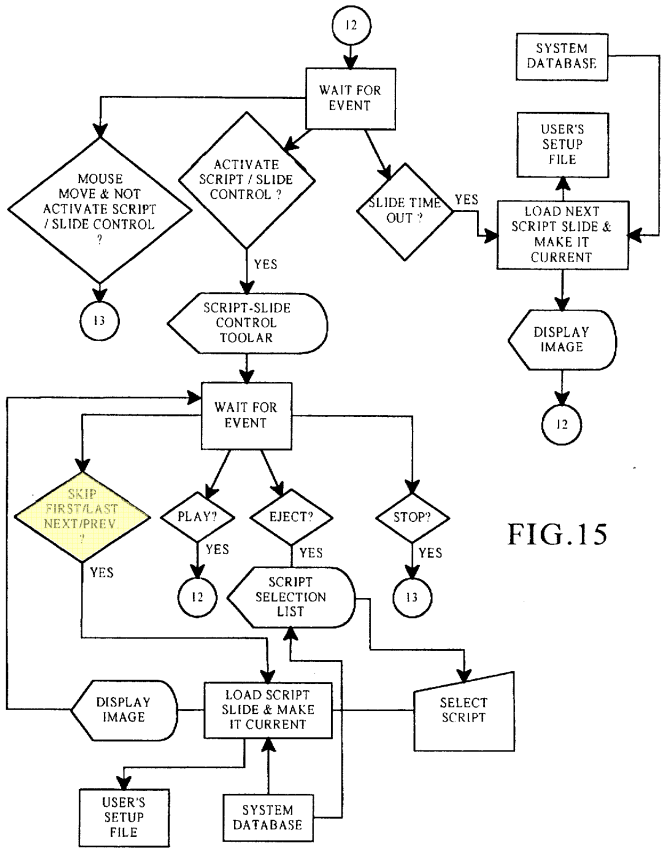
Claim 5	U.S. Patent No. 5,748,190 to Kjorsvik
	may be available to that specific user." (Kjorsvik, Abstract) "FIG. 16 shows the 'quit' sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence permits the PCs to return to their previous tasks." (Kjorsvik, 5:48-51)  FIG.16

3. *Claim 6*

Claim 6 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 6	U.S. Patent No. 5,748,190 to Kjorsvik
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is

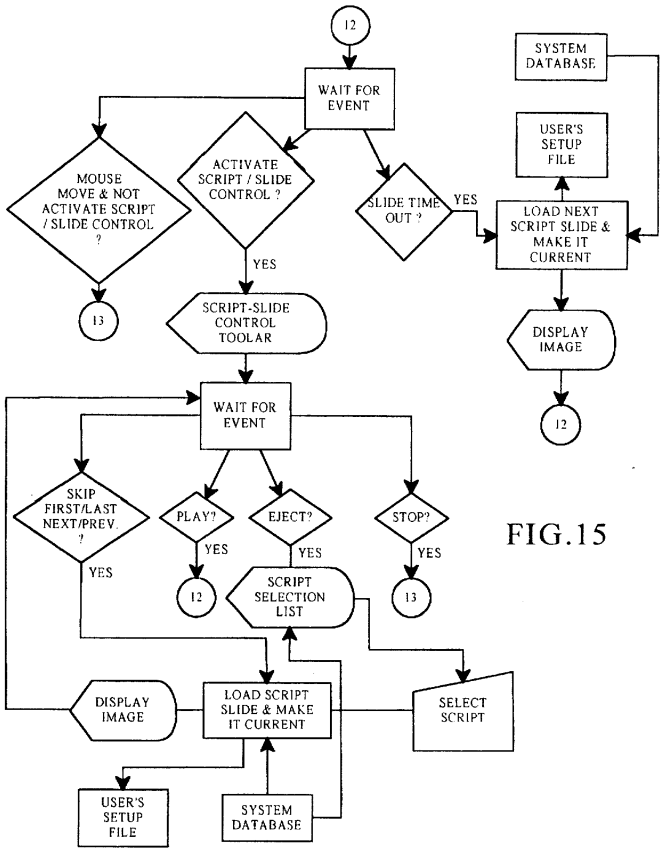
Claim 6	U.S. Patent No. 5,748,190 to Kjorsvik
image or images generated from a set of content data;	not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "messenger module means in each personal computer in the network … for controlling the display of said presentation sequence on the screen of the messenger module's associated personal computer, wherein the presentation sequence is displayed on the screen only when said associated personal computer has been on but unused for a pre-selected period of time" (Kjorsvik, claim 1) "The administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18) "As discussed briefly above, the administration module has the capability of scheduling a sequence of different scripts for each user. When one script is completed at a particular PC, the messenger module for that PC may either repeat that script or go to the next presentation in the schedule." (Kjorsvik, 5:18-22)
the control option enables the user to request display of a next image or images generated from a next set of content data; and	"For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)
the means for controlling displays the next image.	"A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an

Claim 6	U.S. Patent No. 5,748,190 to Kjorsvik
	entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48)  FIG.15 "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

4. ***Claim 7***

Claim 7 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 7	U.S. Patent No. 5,748,190 to Kjorsvik
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "messenger module means in each personal computer in the network … for controlling the display of said presentation sequence on the screen of the messenger module's associated personal computer, wherein the presentation sequence is displayed on the screen only when said associated personal computer has been on but unused for a pre-selected period of time" (Kjorsvik, claim 1) "The administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18) "As discussed briefly above, the administration module has the capability of scheduling a sequence of different scripts for each user. When one script is completed at a particular

Claim 7	U.S. Patent No. 5,748,190 to Kjorsvik
	PC, the messenger module for that PC may either repeat that script or go to the next presentation in the schedule." (Kjorsvik, 5:18-22)
the control option enables the user to request display of a previous image generated from a previous set of content data; and	"For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)
the means for controlling displays the previous image.	"A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48)  FIG.15

Claim 7	U.S. Patent No. 5,748,190 to Kjorsvik
	"For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

5. ***Claim 8***

Claim 8 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 8	U.S. Patent No. 5,748,190 to Kjorsvik
8. A system as in claim 4, wherein:	
a plurality of sets of content data are acquired by the system;	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)
the means for selectively displaying further comprises means for scheduling the display of the image or images generated from the sets of content data;	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "messenger module means in each personal computer in the network … for controlling the display of said presentation

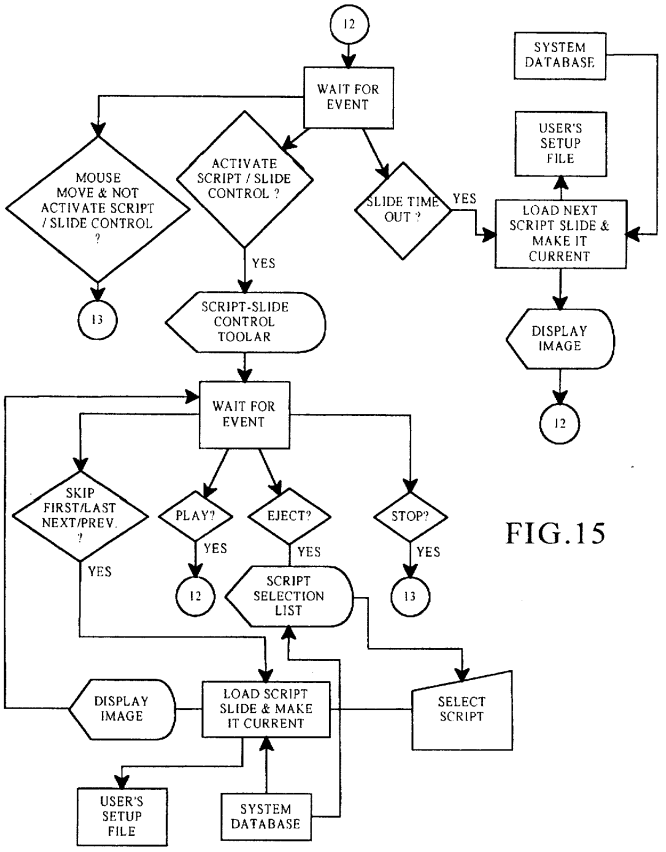
Claim 8	U.S. Patent No. 5,748,190 to Kjorsvik
	sequence on the screen of the messenger module's associated personal computer, wherein the presentation sequence is displayed on the screen only when said associated personal computer has been on but unused for a pre-selected period of time" (Kjorsvik, claim 1) "The administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18) "As discussed briefly above, the administration module has the capability of scheduling a sequence of different scripts for each user. When one script is completed at a particular PC, the messenger module for that PC may either repeat that script or go to the next presentation in the schedule." (Kjorsvik, 5:18-22)
the control option enables the user to remove a set of content data from the schedule; and	"By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the "current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)
the means for controlling removes the set of content data from the schedule.	"A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the

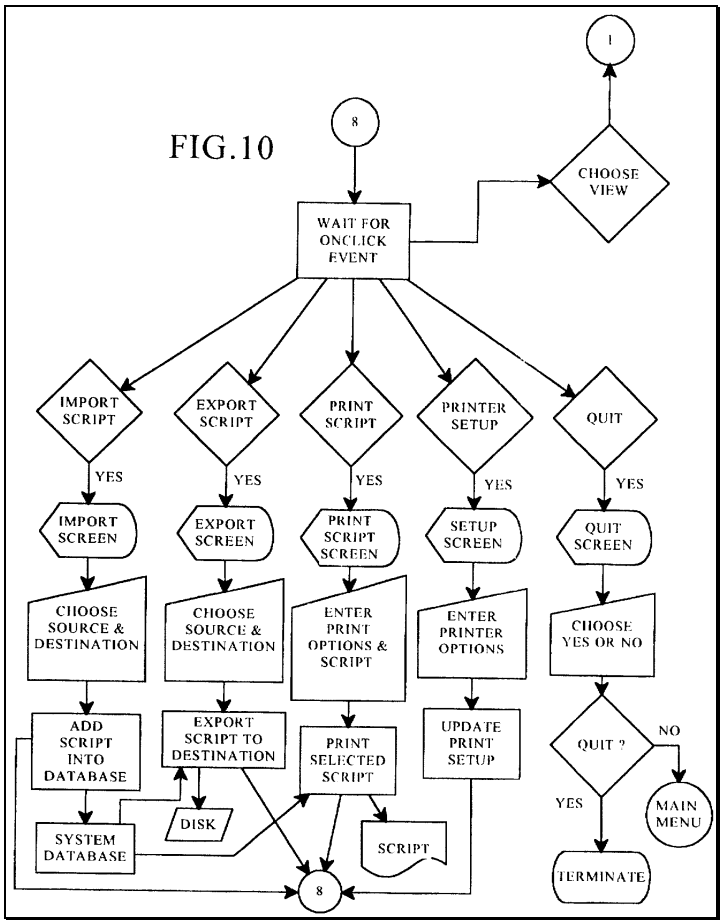
Claim 8	U.S. Patent No. 5,748,190 to Kjorsvik
	"current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)

6. ***Claim 11***

Claim 11 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 11	U.S. Patent No. 5,748,190 to Kjorsvik
A system as in claim 4, wherein:	
the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location.	Kjorsvik discloses two different control options that meet this claim limitation. *presentation control options* As depicted in FIG. 15, when a user selects one of the "SKIP, FIRST/LAST, NEXT/PREV" the messenger module links to the user's setup file and/or the system database to obtain the proper slide to display. Similarly, when a user selects the "EJECT" options, the messenger module also interacts with the system database to obtain the proper script (presentation) to display.

Claim 11	U.S. Patent No. 5,748,190 to Kjorsvik
	 FIG.15 *importing presentations from external sources* "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) To obtain a presentation from an external source, in Kjorsvik, a main pulldown menu is presented to a user. (*See* Kjorsvik, FIG. 3.) If a user selects the file menu (FIG. 9), the user can select a control option to import or export scripts (presentations) from an external source. (*See* Kjorsvik, FIGs. 9, 10.)

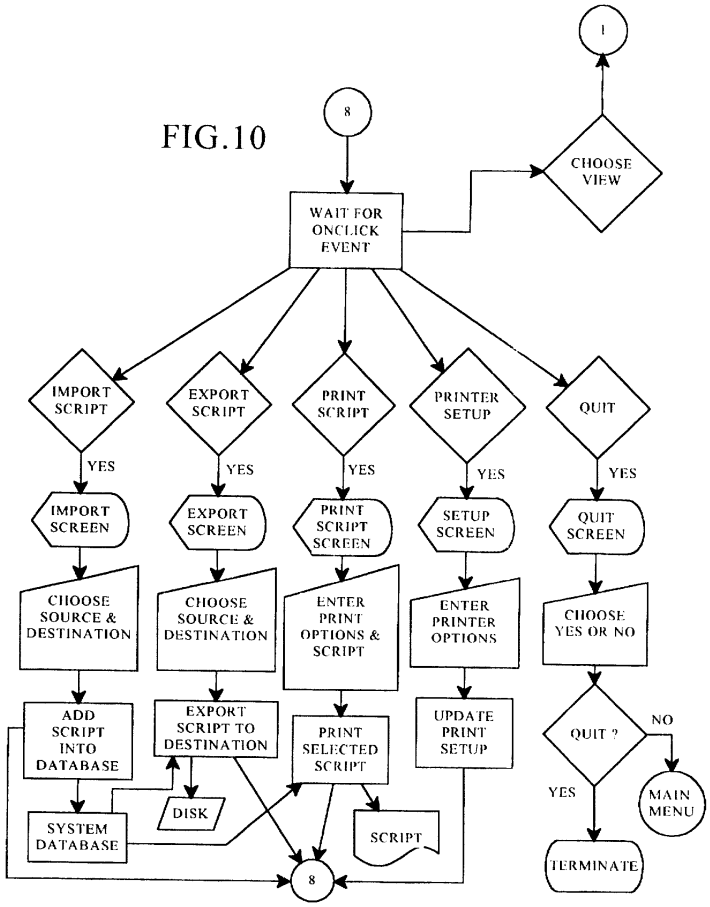
Claim 11	U.S. Patent No. 5,748,190 to Kjorsvik
	

7. *Claim 15*

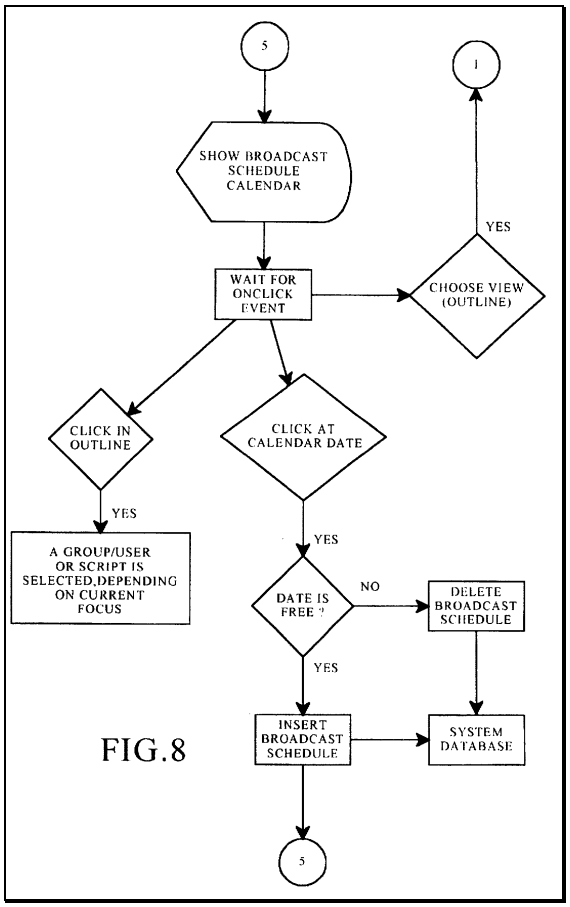
Claim 15 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
set of content data on a display device during operation of an attention manager, comprising:	external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60)

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
	
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	*See* FIGs. 3, 8, and 9 illustrating user menu options. "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-61.) "The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
	 FIG.8 "Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:42-44.) "The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:8-13.) "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
	Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed; and	"Another function of administration module 26 in the embodiment shown concerns the creation of the individual presentations, which may be alternatively referred to as scripts. Each presentation or script consists of one or more individual slides or screens composed around a particular topic. … In any event, each script comprises a series or sequence of slides … Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:30-43) "All of the above concerns the composition or creation of individual slides. The basic capability of creating such slides is available in standard PC operating systems. One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available. Administration module 26 is arranged to interface with such operating systems so that slides can be created and then arranged into presentations …" (Kjorsvik, 3:58-65)
display instructions for enabling display of the image or images generated from the set of content data.	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day,

Claim 15	U.S. Patent No. 5,748,190 to Kjorsvik
	even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)

8. ***Claim 16***

Claim 16 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

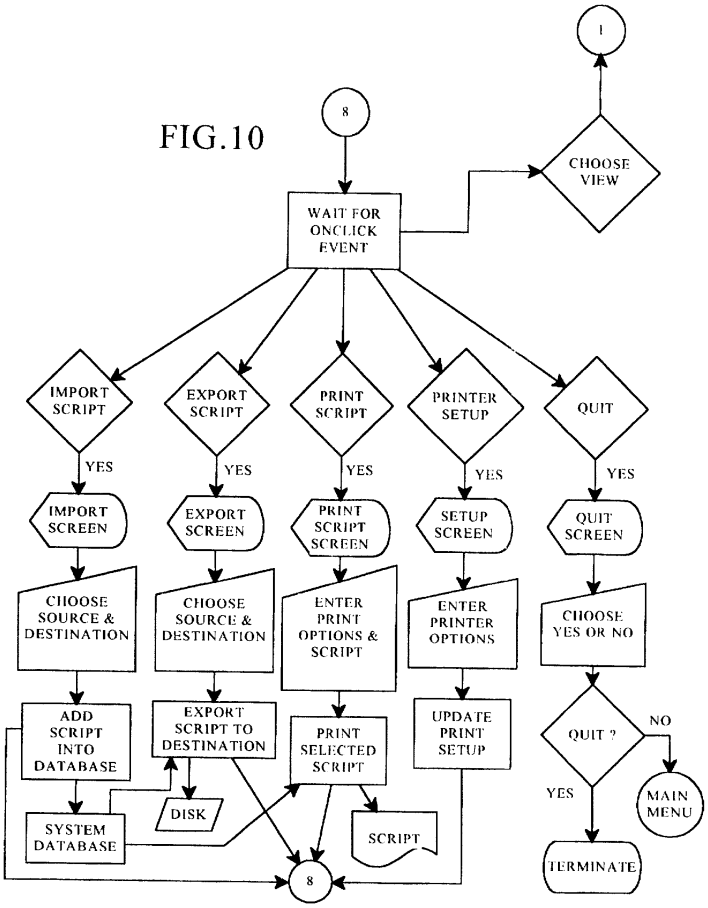
Claim 16	U.S. Patent No. 5,748,190 to Kjorsvik
A computer readable medium as in claim 15, wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data.	"Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:14-17) "All of the above concerns the composition or creation of individual slides. The basic capability of creating such slides is available in standard PC operating systems. One example is Powerpoint in WINDOWS software from

Claim 16	U.S. Patent No. 5,748,190 to Kjorsvik
	Microsoft, Inc., of Redmond, Washington, which is now widely available. Administration module 26 is arranged to interface with such operating systems so that slides can be created and then arranged into presentations …" (Kjorsvik, 3:58-65)

9. ***Claim 18***

Claim 18 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Kjorsvik.

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
18. A computer readable medium, for use by a content display system, encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60) FIG.10 

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	*See* FIGs. 3, 8, and 9 illustrating user menu options. "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-61.) "The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data;	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

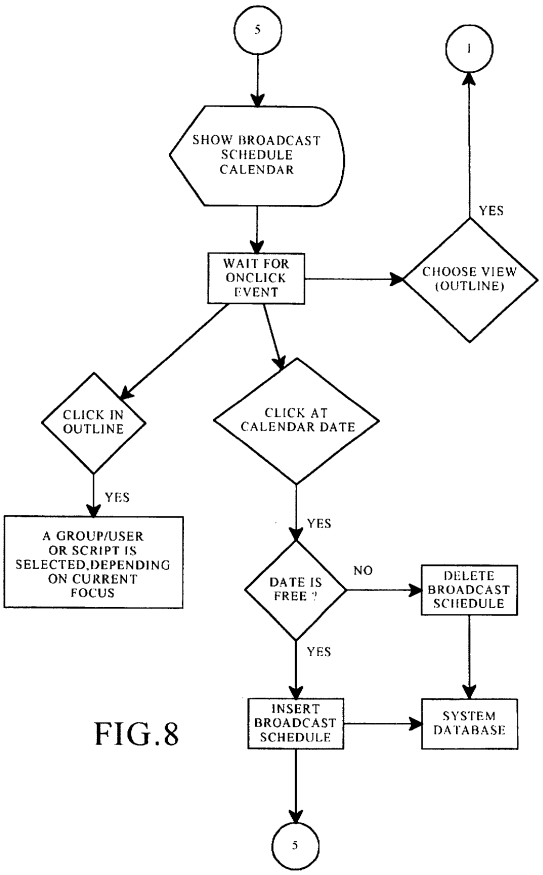


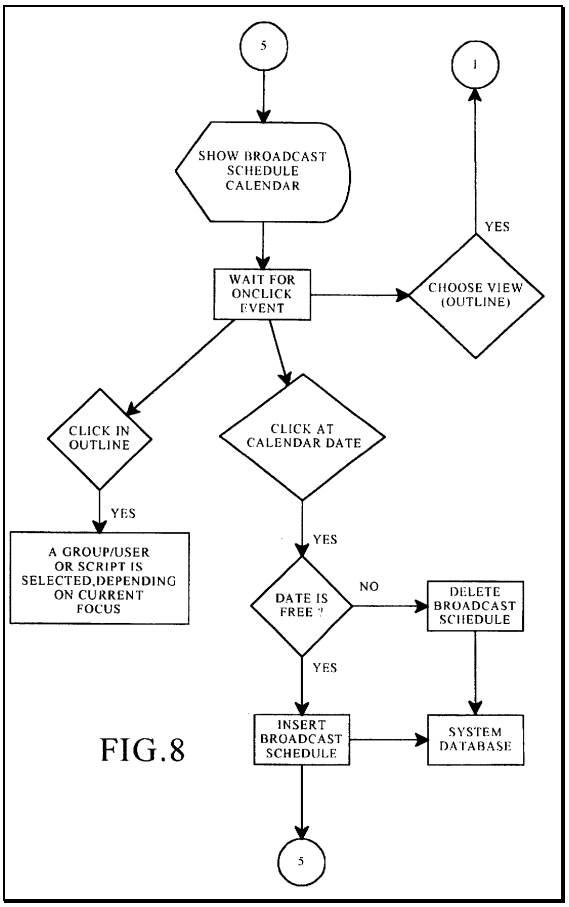
FIG.8

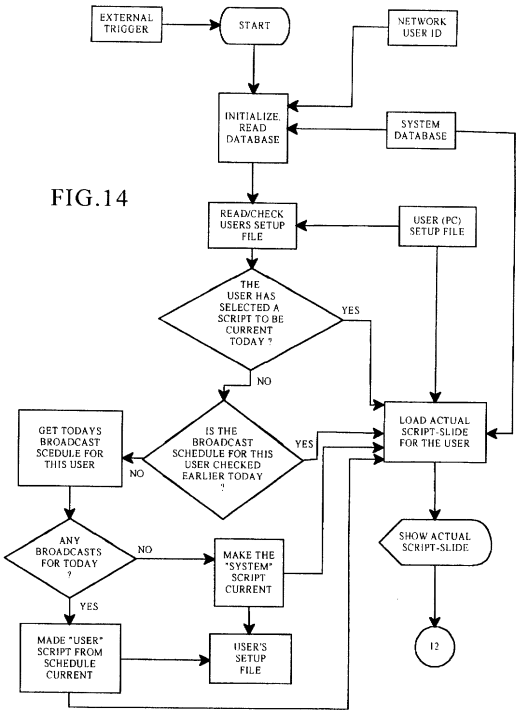
"Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:42-44.)

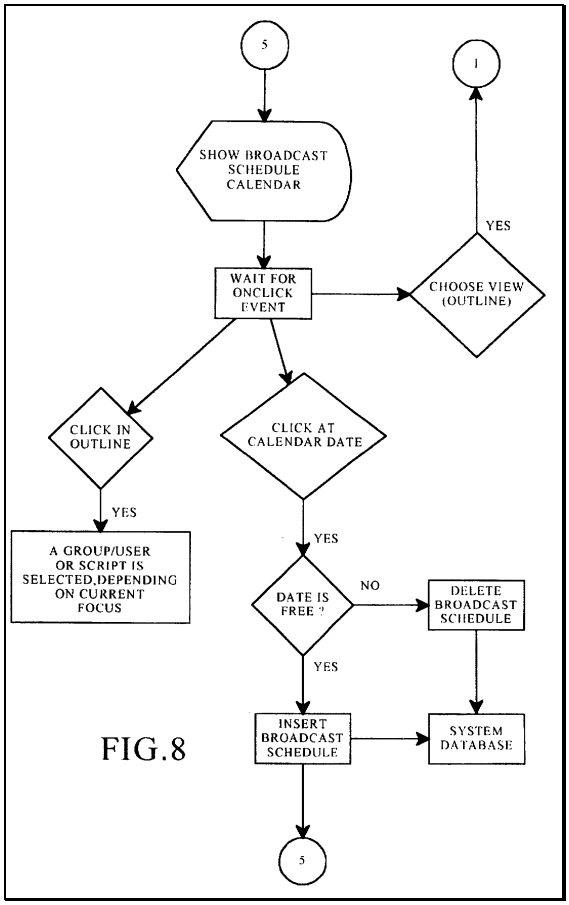
"The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:8-13.)

"Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
display instructions for enabling display of the image or images generated from the set of content data;	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)
content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data;	Broadcast schedules for presentations at an individual network PC are set on a calendar basis (e.g., daily). In Kjorsvik, the same presentation may be scheduled on different days for a network PC. In Kjorsvik, a "particular slide may be edited at any time for presentation flexibility. The system database 24 is updated immediately upon such editing so as to impact presentations in effect on-line." (Kjorsvik, 4:34-37.)  FIG.8 As depicted in FIG. 14, the messenger module may obtain scheduling information and presentations from the

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	network server database daily. "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)  FIG.14
operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data;	"FIGS. 14 and 15 show the software control of the flow of data and the operating process for the system of the present invention. FIG. 14 shows the sequence of messenger module operation, including reading of database 24. The operation sequence begins each time the PC has not been used for a selected period of time. This is initiated by a trigger signal, which could originate at the PC or from the network server. FIG. 15 shows the functional process steps for showing an actual slide at the user's PC. FIG. 16 shows the "quit" sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	permits the PCs to return to their previous tasks." (Kjorsvik, 5:40-51) *See also* Kjorsvik, FIGs. 14-16
content display system scheduling instructions for scheduling the display of the image or images on the display device;	"A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)  FIG.8 "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is

Claim 18	U.S. Patent No. 5,748,190 to Kjorsvik
	Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
installation instructions for installing the operating instructions and content display system scheduling instructions on the content display system; and	"The messenger module can be loaded into a network PC from any external source, including the hard disk on the server. The system also includes an administration software module 26 which can be loaded into and executed from any PC in the network. The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:48-54) "[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system," as recited in claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) The system of Kjorsvik works with conventional software, such as "WINDOWS software from Microsoft, Inc., of Redmond, Washington." (Kjorsvik, 3:60-67.)
audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data.	"The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The messenger module is responsible for this control." (Kjorsvik, 5:8-14.) "The appearance of the successive slides on the PC screen is monitored by the messenger module to ensure that the individual slides in the presentation are presented in sequential order, even in the event that there is a break in the immediate presentation, such as caused by the user operating the PC." (Kjorsvik, 3:1-6.)

B. ***U.S. Patent No. 5,748,190 to Kjorsvik and U.S. Patent 5,781,894 to Petrecca***

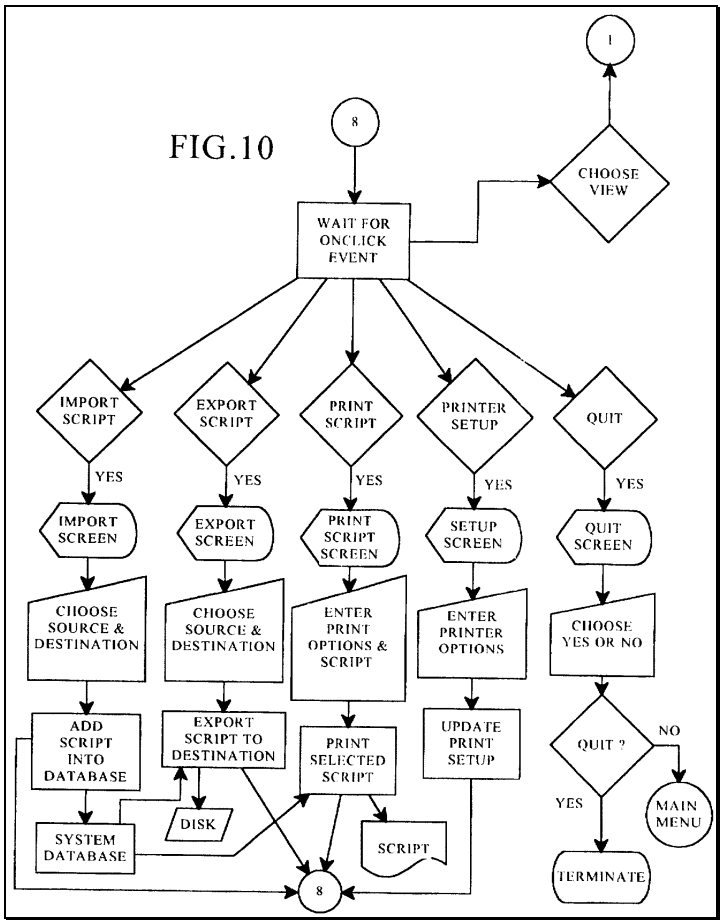
Claim 17 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Kjorsvik and Petrecca. As described above and set forth in the following claim chart, Kjorsvik discloses all of the limitations of independent claim 17 except the

limitation of "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed*." However, this limitation is disclosed by Petrecca.

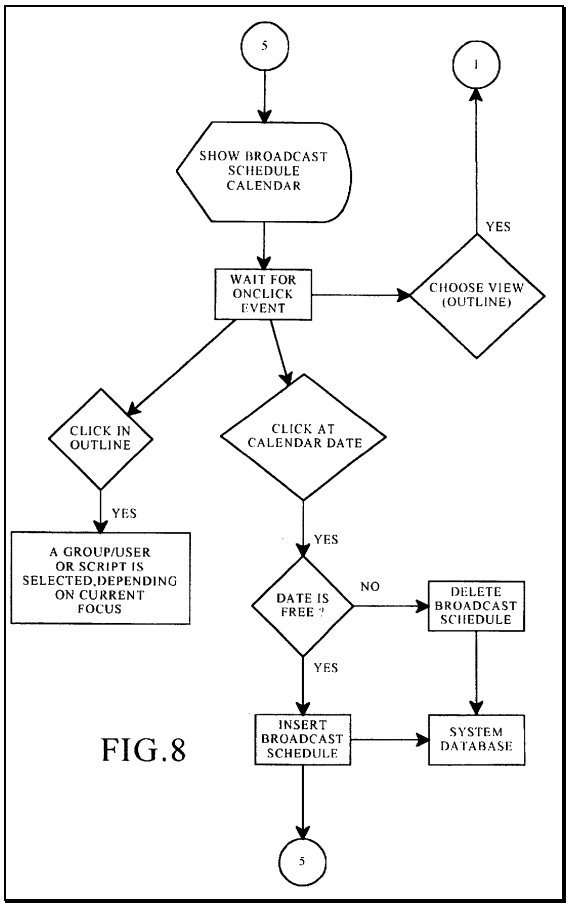
A person of ordinary skill in the art would have been motivated to combine Kjorsvik and Petrecca because Kjorsvik relates to providing content to a user on a display screen and Petrecca relates to setting scheduling constraints on the display of content to a user. A person of ordinary skill in the art would have been further motivated to combine Petrecca with Kjorsvik, because, as described in Petrecca, advertisers who are providing content may wish "control the number of presentations of a certain advertising message." (Petrecca, 3:5-6; see also Petrecca 3:4-17.) Furthermore, a person of ordinary skill in the art could have combined the elements taught by Kjorsvik and Petrecca by known methods and would have recognized that the results of the combination were predictable.

Claim 17	**Kjorsvik + Petrecca**
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract)
acquisition instructions	"Each presentation or script consists of one or more

Claim 17	Kjorsvik + Petrecca
for enabling acquisition of a set of content data from a specified information source;	individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60)

Claim 17	Kjorsvik + Petrecca
	
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	*See* FIGs. 3, 8, and 9 illustrating user menu options. "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-61.) "The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)

Claim 17	Kjorsvik + Petrecca
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

Claim 17	Kjorsvik + Petrecca
	 FIG.8 "Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:42-44.) "The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:8-13.) "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is

Claim 17	Kjorsvik + Petrecca
	Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed; and	"An advertising system to be used with personal computers which enables sponsors to present advertisements or commercials to a user during periods of waiting-time which are inherent in normal computer use." (Petrecca, Abstract.) "The advertising system and method of the present invention may also be configured so that it controls the number of presentations of a certain advertising message. For example, if a movie studio chooses to advertise several upcoming movies on game software and expects these movies to be released on a series of separate dates, the advertising program begins to present the advertisement of a particular movie starting 1 month before it is released and terminates the presentation of that particular advertisement 2 months later. Alternatively, the advertising system could keep track of the number of times that it presents a particular advertisement and be configured to stop presenting an advertisement after a certain number of presentations." (Petrecca, 3:4-18)
display instructions for enabling display of the image or images generated from the set of content data.	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs),

Claim 17	Kjorsvik + Petrecca
	particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)

C. *U.S. Patent No. 5,913,040 to Rakavy, et al ("Rakavy") and Macromedia Director*

Claims 4-8, 11, 15, 16 and 18 are unpatentable under 35 U.S.C. §103 as being obvious over the combination of Rakavy and Macromedia Director as discussed below. As described above and set forth in the following claim chart, Rakavy discloses all of the limitations of claims 4-8, 11, 15, 16 and 18 except displaying control options enabling the user to request display of a next image or a previous image in an advertisement such as an animated advertisement. Macromedia Director discloses the capability for a content provider to display sophisticated control options to a viewer of an image or animation.

A person of ordinary skill in the art would have been motivated to combine Rakavy and Macromedia Director because Rakavy discloses self-contained, animated advertisements, and Macromedia Director discloses techniques for generating self-contained, animated advertisements that could be used as the advertisements in Rakavy. Furthermore, a person of ordinary skill in the art could have combined the elements taught by Rakavy and Macromedia Director by known methods and would have recognized that the results of the combination were predictable.

1. Claim 4

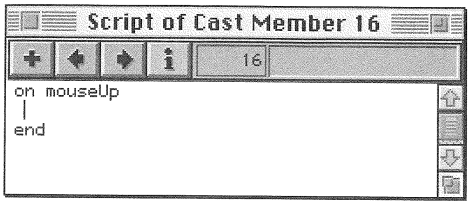
Claim 4 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

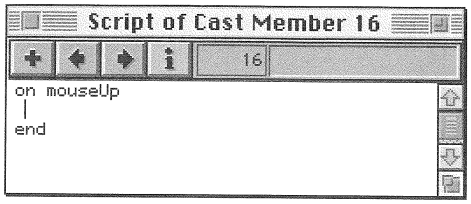
Claim 4	Rakavy + Macromedia Director
4. A system for engaging the peripheral attention of a person in the vicinity of a display device of an apparatus, comprising:	"This invention relates generally to advertisement computer display systems and more particularly to a method and system for displaying advertisements and other information on a computer based on general user selected criteria and transmitting such information from a remote network to the local computer" (Rakavy, 1:7-12.)
means for acquiring a set of content data from a content providing system;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the

Claim 4	Rakavy + Macromedia Director
	plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67)
means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Advertising Display Manager 210 is responsible for selecting and displaying Advertisements 50 from the User Preference and Advertisements Database 230." (Rakavy, 7:44-46.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences."

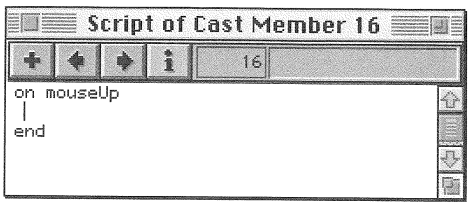
Claim 4	Rakavy + Macromedia Director
	(Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33)
means for displaying one or more control options with the display device while the means for selectively displaying is operating;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) "In one embodiment of the invention, the Advertising Display Manager 210 allows users to respond to Advertisements 50 being presented by selecting a user grading box which allows users to judge the Advertisements 50 on a scale from "do not show me this advertisement again" to "excellent." (Rakavy, 10:12-17.) "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this

Claim 4	Rakavy + Macromedia Director
	manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "The Advertisement Display Manager 210 will display the collection of bitmaps, ***animation,*** and sound clips associated with the Advertisement 50." (Rakavy, 10:43-45) "Many platforms, including the preferred Windows-95 platform, include a multi-media subsystem that provides APIs for playing animation, sound clips, video clips, etc. See Win32 Programmer's Reference Manual, hereby incorporated by reference. Alternatively, there are a wide variety of stand-alone tools suitable for providing such functions on Windows, Macintosh and other platforms." (Rakavy, 11:16-22.) *Macromedia Director* As explained in Director, "animation is only a part of what Director has to offer. Another big part is ***interactivity***, the ability to provide the viewer with at least some measure of control." (Macromedia Director, p. 144.) **"Building the Play button** ... ***The physical button*** But, we have to make a home for this second script before we write it, since it doesn't belong in the script channel. Make sure the playback head is in the first frame, then: ***1. Open the Tools window.*** ***2. Select the "pushbutton" tool (the rightmost one).***

Claim 4	Rakavy + Macromedia Director
	3. Use the tool to draw a box in the lower left-hand corner of the Stage A cursor appears, flashing in the middle of the button box. ***4. Type in the word "Play"*** ***5. Use the handles, on the selection border to resize the box to suit*** ***6. Click on the Score to make it active.*** Director has automatically placed the new cast member in a new channel (and turned on that red light next to the channel to notify you of this). … ***The button script*** ***8. Click on the button's icon in the Cast wind to select.*** ***9. Click on the script button in the Cast window.*** A new Script window appears. But unlike the previous one, which read "Score Script," this has a different heading. **The Cast/ the script:** Lingo can be attached to cast members directly, following them wherever they go in the movie.  Before, we were writing a script that became a cast member itself. This time we're attaching a script to another cast member, in this case a button (as already noted, there are a lot of nooks and crannies in Director for Lingo to live in). Notice how the event handler has changed too: it now reads `on mouseUp` rather than on `exitFrame`. The event of `mouseUp` is the last half of a mouse click, when the mouse button returns to its original position (`mouseDown`, the first half, is considered a separate event). Director knows to execute this script when the user finishes a mouse click … and since the script belongs

Claim 4	Rakavy + Macromedia Director
	to a cast member, it runs the script only when the mouse click is over that cast member. ***9. Type the command*** `continue` That's our second script. In Lingo, `continue` is the opposite of pause. ***10. Close the Script window"*** (Marcomedia Director, pp. 147-48.)
means for selecting a displayed control option; and	During prosecution, the Patent Owner provided an example of a structure meeting this limitation - the "'means for selecting a displayed control option,' as recited in Claim 33 [corresponding to issued claim 4], was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art.)." (Reply to 2/3/98 Office Action, p. 25.) "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, ***input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device)***, and a Mass Storage Device 516." (Rakavy, 4:47-52.)(emphasis added) Therefore, the keyboard and/or pointing device of the local computer 500 of Rakavy discloses this limitation. *Macromedia Director* ***"9. Click on the script button in the Cast window.*** A new Script window appears. But unlike the previous one, which read "Score Script," this has a different heading. **The Cast/ the script:** Lingo can be attached to cast members directly, following them wherever they go in the movie. 

Claim 4	Rakavy + Macromedia Director
	Before, we were writing a script that became a cast member itself. This time we're attaching a script to another cast member, in this case a button (as already noted, there are a lot of nooks and crannies in Director for Lingo to live in). Notice how the event handler has changed too: it now reads `on mouseUp` rather than on `exitFrame`. The event of `mouseUp` is the last half of a mouse click, when the mouse button returns to its original position (`mouseDown`, the first half, is considered a separate event). Director knows to execute this script when the user finishes a mouse click … and since the script belongs to a cast member, it runs the script only when the mouse click is over that cast member. " (Marcomedia Director, p. 148.)
means for controlling aspects of the operation of the system in accordance with a selected control option.	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) *Macromedia Director* **"Building the Play button** ...

Claim 4	Rakavy + Macromedia Director
	The physical button But, we have to make a home for this second script before we write it, since it doesn't belong in the script channel. Make sure the playback head is in the first frame, then: ***1. Open the Tools window.*** ***2. Select the "pushbutton" tool (the rightmost one).*** ***3. Use the tool to draw a box in the lower left-hand corner of the Stage*** A cursor appears, flashing in the middle of the button box. ***4. Type in the word "Play"*** ***5. Use the handles, on the selection border to resize the box to suit*** ***6. Click on the Score to make it active.*** Director has automatically placed the new cast member in a new channel (and turned on that red light next to the channel to notify you of this). … ***The button script*** ***8. Click on the button's icon in the Cast wind to select.*** ***9. Click on the script button in the Cast window.*** A new Script window appears. But unlike the previous one, which read "Score Script," this has a different heading. **The Cast/ the script:** Lingo can be attached to cast members directly, following them wherever they go in the movie.  Before, we were writing a script that became a cast member itself. This time we're attaching a script to another cast member, in this case a button (as already

Claim 4	Rakavy + Macromedia Director
	noted, there are a lot of nooks and crannies in Director for Lingo to live in). Notice how the event handler has changed too: it now reads `on mouseUp` rather than on `exitFrame`. The event of `mouseUp` is the last half of a mouse click, when the mouse button returns to its original position (`mouseDown`, the first half, is considered a separate event). Director knows to execute this script when the user finishes a mouse click … and since the script belongs to a cast member, it runs the script only when the mouse click is over that cast member. ***9. Type the command*** `continue` That's our second script. In Lingo, `continue` is the opposite of pause. ***10. Close the Script window"*** (Marcomedia Director, pp. 147-48.)

2. Claim 5

Claim 5 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 5	Rakavy + Macromedia Director
A system as in claim 4, wherein:	
the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system.	"When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including

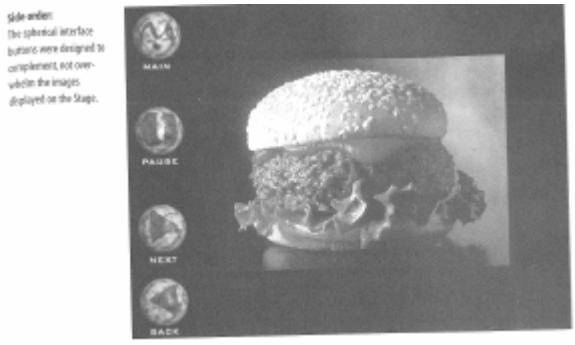
Claim 5	Rakavy + Macromedia Director
	answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) *Macromedia Director* Macromedia also includes a "Quit" command that "[c]auses Director to not only close the current movie but the application as well, and return to the Finder." (Macromedia Director, p. 565.) **"Creating a Quit button** We have one last button to add before we turn this movie into a freestanding projector. Unless we *want* to introduce frustration, we need to give the end user some means of exiting the program …" (Macromedia Director, pp. 155-56.)

3. Claim 6

Claim 6 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 6	Rakavy + Macromedia Director
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	"The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement

Claim 6	Rakavy + Macromedia Director
	Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.)
the control option enables the user to request display of a next image or images generated from a next set of content data; and the means for controlling displays the next image.	*Macromedia Director* **"go next** ***Elements:*** `go next` ***Purpose:*** When paced in a score script, this command causes the playback head to move to the next frame possessing a marker. ***In context*** `go next` **go previous** ***Elements:*** `go previous` ***Purpose:*** When placed in a score script, this command

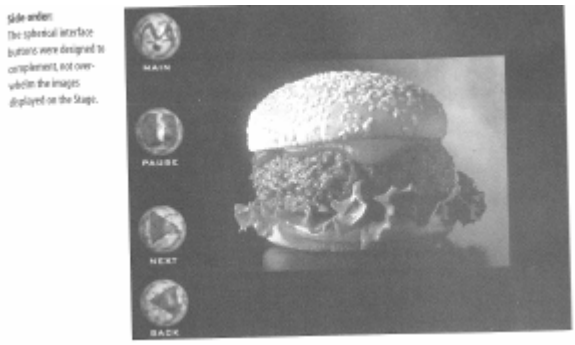
Claim 6	Rakavy + Macromedia Director
	causes the playback head to move to the previous frame possessing a marker. ***In context:*** `go previous"` (Macromedia Director, pp. 546-47.)  (Macromedia Director, p. 297)

4. Claim 7

Claim 7 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 7	Rakavy + Macromedia Director
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	"The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65)

Claim 7	Rakavy + Macromedia Director
	"The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.)
the control option enables the user to request display of a previous image generated from a previous set of content data; and the means for controlling displays the previous image.	*Macromedia Director* **"go next** ***Elements:*** `go next` ***Purpose:*** When paced in a score script, this command causes the playback head to move to the next frame possessing a marker. ***In context*** `go next` **go previous** ***Elements:*** `go previous` ***Purpose:*** When placed in a score script, this command causes the playback head to move to the previous frame possessing a marker. ***In context:***

Claim 7	Rakavy + Macromedia Director
	go previous" (Macromedia Director, pp. 546-47.)  (Macromedia Director, p. 297)

5. Claim 8

Claim 8 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 8	Rakavy + Macromedia Director
8. A system as in claim 4, wherein:	
a plurality of sets of content data are acquired by the system;	"The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips

Claim 8	Rakavy + Macromedia Director
	and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15)
the means for selectively displaying further comprises means for scheduling the display of the image or images generated from the sets of content data;	A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the

Claim 8	Rakavy + Macromedia Director
	Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.)
the control option enables the user to remove a set of content data from the schedule; and the means for controlling removes the set of content data from the schedule.	"In one embodiment of the invention, the Advertising Display Manager 210 allows users to respond to Advertisements 50 being presented by selecting a user grading box which allows users to judge the Advertisements 50 on a scale from "do not show me this advertisement again" to 'excellent.'" (Rakavy, 10:12-17.) "The Advertisement Killer 275 periodically scans the User Preference and Advertisements Database 230, and purges Advertisements 50 that satisfy its purge criteria. Typical criterion include the total time the advertisement has been stored and ***the number of times displayed***. Additionally, Advertisements 50 are purged on user demand through user interaction with the Advertisements 50 or the User Interface Setup Process 201." (Rakavy, 12:52-59)(emphasis added)

6. Claim 11

Claim 11 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 11	Rakavy + Macromedia Director
A system as in claim 4, wherein:	
the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information	"When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210. The

Claim 11	Rakavy + Macromedia Director
location.	user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.)

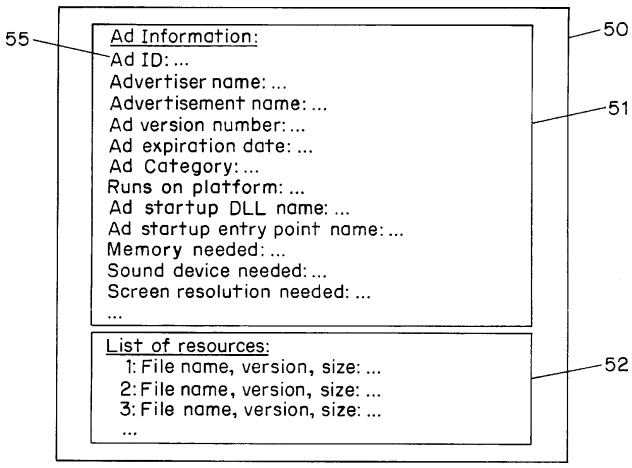
7. Claim 15

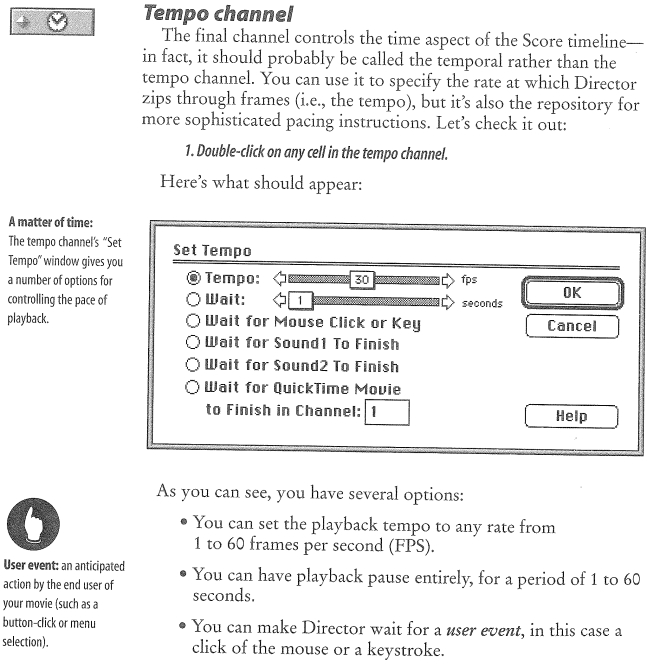
Claim 15 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

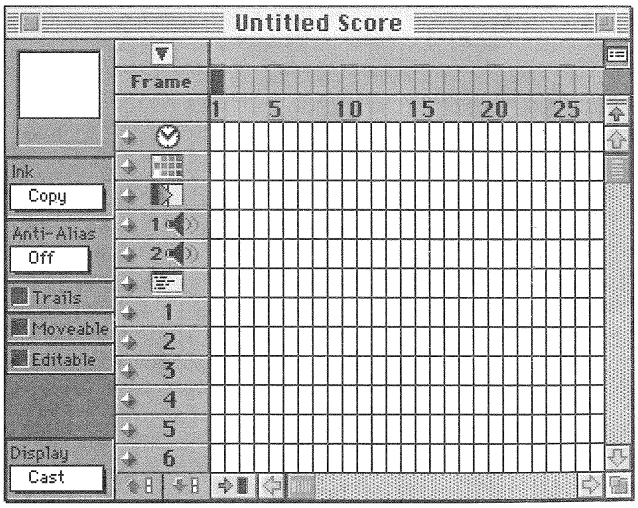
Claim 15	Rakavy + Macromedia Director
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"This invention relates generally to advertisement computer display systems and more particularly to a method and system for displaying advertisements and other information on a computer based on general user selected criteria and transmitting such information from a remote network to the local computer" (Rakavy, 1:7-12.)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.)

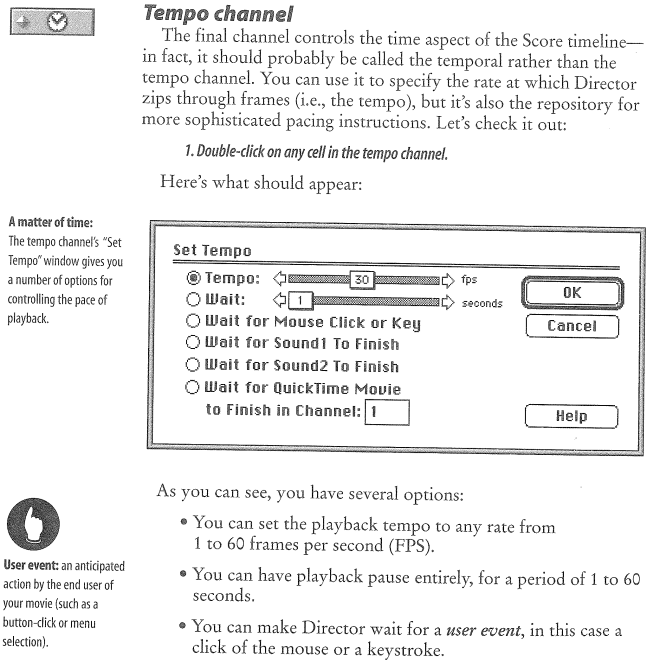
Claim 15	Rakavy + Macromedia Director
	"The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"The User Interface Setup Process 201 allows the user to configure the behavior of the system on their desktops." (Rakavy, 7:43-44) "The User Interface Setup Process 201 allows the user to configure the behavior of the system. This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:17-20) "User preference information typically includes: a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical advertisement categories are 'SCUBA diving equipment,' 'Fast food vendors,' 'Toys for ages 8-14,' or 'Cigarettes' and the like. The actual list of categories will be provided by the Advertising System Server 600." (Rakavy, 9:34-50.) "The Advertisement Feeder 250 will incorporate the advertising preference information, the Local Computer's platform capabilities, disk space limitations, and other configuration data into its request for new advertisements." (Rakavy, 9:55-58.)

Claim 15	Rakavy + Macromedia Director
	"The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "Each Advertisement 50 in the Server Database 730 comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55),

Claim 15	Rakavy + Macromedia Director
	its category, its size, and the hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements. The Resource List 52 contains a list of resources (bitmaps, animations, digitized audio segments, executable code, etc.) that must exist on the Local Computer 500 or associated local LAN in order to present the advertisement. The Resource List 52 includes a unique resource-ID, a resource type, and a resource pointer. The resource pointer identifies a file, a database record, a block of data, or other means of identifying the resource." (Rakavy, 7:13-28.)  FIG. 5 "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "One system, Hot Java, available from Sun Microsystems, supports the execution of small applications programs written in a specific programming language executing within the browser on the local computer." (Rakavy, 1:46-51) *Macromedia Director* *Frame Tempo Control*

Claim 15	Rakavy + Macromedia Director
	 (Macromedia Director, p. 33.)
wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed; and	A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent

Claim 15	Rakavy + Macromedia Director
	operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) An animation consists of a set of images (e.g., frames in Macromedia Director) arranged in a sequence. *Macromedia Director* *Macromedia Stage (frames and channels)* **The Score window** The Stage may be where your project is manifested—and the Cast is where all the pieces reside—but the *Score window* is where the project really takes shape. When Director "runs" a movie, all it's doing (for the most part) is interpreting the information in the Score and whisking elements on and off the Stage accordingly. I say "for the most part" because it's possible to create commands that overrule Score info (the "Lingo is everywhere" principle again). But the Score is really Production Central, where the different elements of the Cast are synthesized into that melange known as multimedia. As you can see, the Score bears something of a resemblance to a spreadsheet, with lots of individual cells, divided into both rows and columns. These rows are called *channels*, while the columns are called *frames*. Each column has a number associated with it (they're marked off in five-column intervals), and each channel begins with either a number or a distinctive icon. **Channels:** The rows of Score cells. **Frames:** The columns in the Score. **What's the Score?** The Score window is the spreadsheet-like environment which Director "reads" while playing back a movie.  (Macromedia Director, p. 27.) *Frame Tempo Control*

Claim 15	Rakavy + Macromedia Director
	 ***Tempo channel*** The final channel controls the time aspect of the Score timeline—in fact, it should probably be called the temporal rather than the tempo channel. You can use it to specify the rate at which Director zips through frames (i.e., the tempo), but it's also the repository for more sophisticated pacing instructions. Let's check it out: *1. Double-click on any cell in the tempo channel.* Here's what should appear: **A matter of time:** The tempo channel's "Set Tempo" window gives you a number of options for controlling the pace of playback. Set Tempo Tempo: 30 fps Wait: 1 seconds Wait for Mouse Click or Key Wait for Sound1 To Finish Wait for Sound2 To Finish Wait for QuickTime Movie to Finish in Channel: 1 OK Cancel Help **User event:** an anticipated action by the end user of your movie (such as a button-click or menu selection). As you can see, you have several options: • You can set the playback tempo to any rate from 1 to 60 frames per second (FPS). • You can have playback pause entirely, for a period of 1 to 60 seconds. • You can make Director wait for a *user event*, in this case a click of the mouse or a keystroke. (Macromedia Director, p. 33.)
display instructions for enabling display of the image or images generated from the set of content data.	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48)

Claim 15	Rakavy + Macromedia Director
	"Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33)

8. Claim 16

Claim 16 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 16	Rakavy + Macromedia Director
A computer readable medium as in claim 15, wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data.	"FIG. 5 shows a schematic representation of an Advertisement 50. Each Advertisement 50 in the Server Database 730 comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55), its category, its size, and the hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements. The Resource List 52 contains a list of resources (bitmaps, animations, digitized audio segments, executable code, etc.) that must exist on the Local Computer 500 or associated local LAN in order to present the advertisement. The Resource List 52 includes a unique resource-ID, a resource type, and a resource pointer. The resource pointer identifies a file, a database record, a block of data, or other means of identifying the resource. In this manner, resources can be shared by various Advertisements 50." (Rakavy, 7:13-29)

Claim 16	Rakavy + Macromedia Director

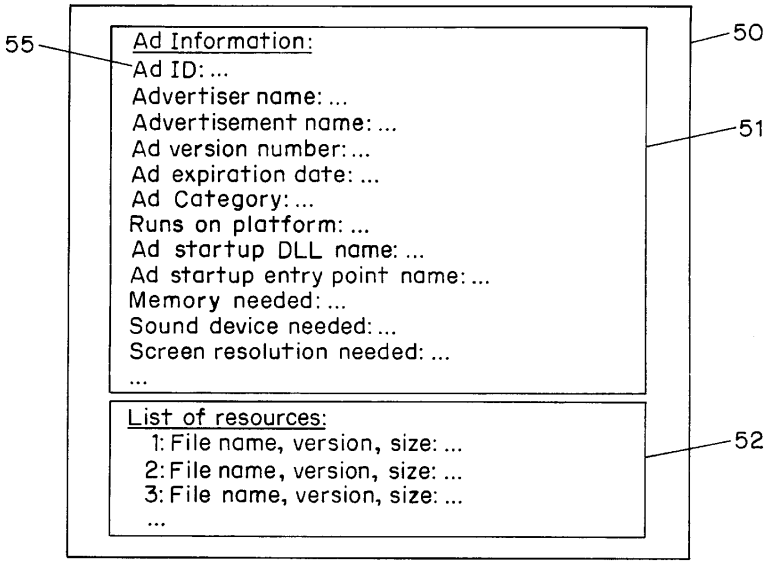


FIG. 5

Frame Tempo Control

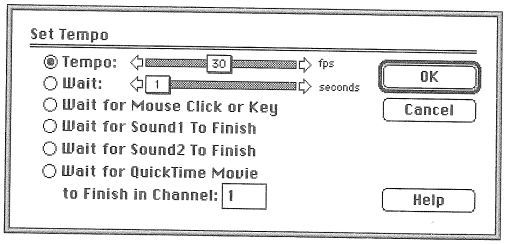
Tempo channel

The final channel controls the time aspect of the Score timeline—in fact, it should probably be called the temporal rather than the tempo channel. You can use it to specify the rate at which Director zips through frames (i.e., the tempo), but it's also the repository for more sophisticated pacing instructions. Let's check it out:

1. Double-click on any cell in the tempo channel.

Here's what should appear:

A matter of time: The tempo channel's "Set Tempo" window gives you a number of options for controlling the pace of playback.



User event: an anticipated action by the end user of your movie (such as a button-click or menu selection).

As you can see, you have several options:

- You can set the playback tempo to any rate from 1 to 60 frames per second (FPS).
- You can have playback pause entirely, for a period of 1 to 60 seconds.
- You can make Director wait for a *user event*, in this case a click of the mouse or a keystroke.

(Macromedia Director, p. 33.)

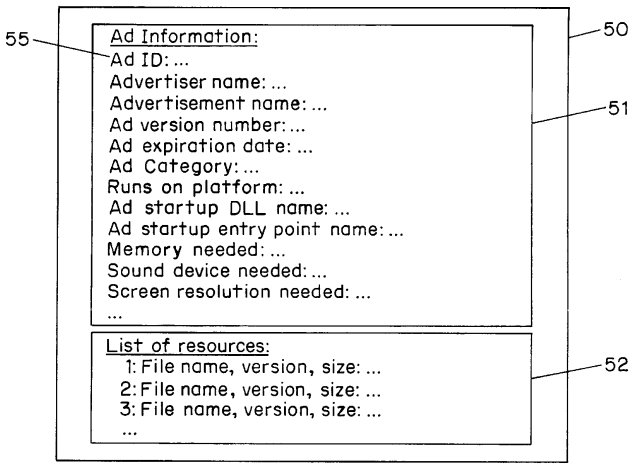
9. Claim 18

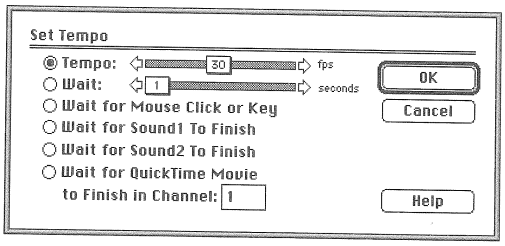
Claim 18 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Macromedia Director. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Macromedia Director.

Claim 18	Rakavy + Macromedia Director
18. A computer readable medium, for use by a content display system, encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"This invention relates generally to advertisement computer display systems and more particularly to a method and system for displaying advertisements and other information on a computer based on general user selected criteria and transmitting such information from a remote network to the local computer" (Rakavy, 1:7-12.)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder

Claim 18	Rakavy + Macromedia Director
	250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"The User Interface Setup Process 201 allows the user to configure the behavior of the system on their desktops." (Rakavy, 7:43-44) "The User Interface Setup Process 201 allows the user to configure the behavior of the system. This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:17-20) "User preference information typically includes: a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical advertisement categories are "SCUBA diving equipment," "Fast food vendors," "Toys for ages 8-14," or "Cigarettes" and the like. The actual list of categories will be provided by the Advertising System Server 600." (Rakavy, 9:34-50.) "The Advertisement Feeder 250 will incorporate the advertising preference information, the Local Computer's platform capabilities, disk space limitations, and other configuration data into its request for new advertisements." (Rakavy, 9:55-58.) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for***

Claim 18	Rakavy + Macromedia Director
	use with the attention manager of the invention." ('652 patent, 16:9-15.)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data;	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "Each Advertisement 50 in the Server Database 730 comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55), its category, its size,

Claim 18	Rakavy + Macromedia Director
	and the hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements. The Resource List 52 contains a list of resources (bitmaps, animations, digitized audio segments, executable code, etc.) that must exist on the Local Computer 500 or associated local LAN in order to present the advertisement. The Resource List 52 includes a unique resource-ID, a resource type, and a resource pointer. The resource pointer identifies a file, a database record, a block of data, or other means of identifying the resource." (Rakavy, 7:13-28.)  FIG. 5 "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "One system, Hot Java, available from Sun Microsystems, supports the execution of small applications programs written in a specific programming language executing within the browser on the local computer." (Rakavy, 1:46-51)

Claim 18	Rakavy + Macromedia Director
	Macromedia Director *Frame Tempo Control* ***Tempo channel*** The final channel controls the time aspect of the Score timeline—in fact, it should probably be called the temporal rather than the tempo channel. You can use it to specify the rate at which Director zips through frames (i.e., the tempo), but it's also the repository for more sophisticated pacing instructions. Let's check it out: *1. Double-click on any cell in the tempo channel.* Here's what should appear: **A matter of time:** The tempo channel's "Set Tempo" window gives you a number of options for controlling the pace of playback.  **User event:** an anticipated action by the end user of your movie (such as a button-click or menu selection). As you can see, you have several options: • You can set the playback tempo to any rate from 1 to 60 frames per second (FPS). • You can have playback pause entirely, for a period of 1 to 60 seconds. • You can make Director wait for a *user event*, in this case a click of the mouse or a keystroke. (Macromedia Director, p. 33.)
display instructions for enabling display of the image or images generated from the set of content data;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and

Claim 18	Rakavy + Macromedia Director
	displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33)
content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data;	"The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents, as shown by references 271 and 272, respectively, in FIG. 4." (Rakavy, 12:6-15.) "An advertisement in Rakavy "may be stored on any one of the plurality of advertising system servers connected to the Network 700. In this embodiment, the Local Computer 500 initiates communication with a predetermined advertising system server. The predetermined advertising system server will select the next Advertisement 50 to be downloaded and transmit the network address of the advertising system server storing the Advertisement 50. The Local Computer 500 uses the transmitted network address to request the selected Advertisement 50 from the appropriate advertising system server." (Rakavy, 5:54-65.)
operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data;	"The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3)

Claim 18	Rakavy + Macromedia Director
	"User interaction with the Advertisement Display Manager 210 is preferably initiated by pressing a predesignated key, for example F10. When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210." (11:31-39.)
content display system scheduling instructions for scheduling the display of the image or images on the display device;	A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4)

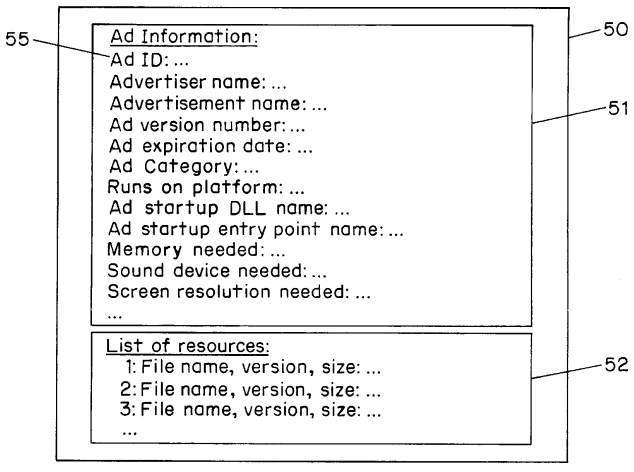
Claim 18	Rakavy + Macromedia Director
	"The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.)
installation instructions for installing the operating instructions and content display system scheduling instructions on the content display system; and	During prosecution, the Patent Owner admitted that "[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system," as recited in claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.)
audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data.	"The Feedback Manager 220 is responsible for sending feedback information to the Advertising System Server 600. This information includes statistics on displayed Advertisements 50, including user ratings of specific advertisements and the time and length an advertisement was displayed. The Feedback Manager 220 also transmits information which was gathered from the user during interaction with the Advertisements 50, such as through games and questionnaires." (Rakavy, 12:61-13:2) "The system monitors the user's interaction with the advertisements and produces raw data on how many times a particular advertisement was accessed as well as the user's response to advertisements." (Rakavy, 3:44-49.) "The system monitors a user's interaction with the advertisements and produces raw data on how many times a particular advertisement was accessed as well as the user's response to advertisements. All pertinent information is stored and sent back to a network server where it is made available to the advertisers." (Rakavy, 5:39-41) "The Server Database 730 contains the system information, including: the Advertisements 50 or other informational content; listings of users; listings of advertisers; listings of network service providers; billing information; audit logs and statistics." (Rakavy, 6:55-59)

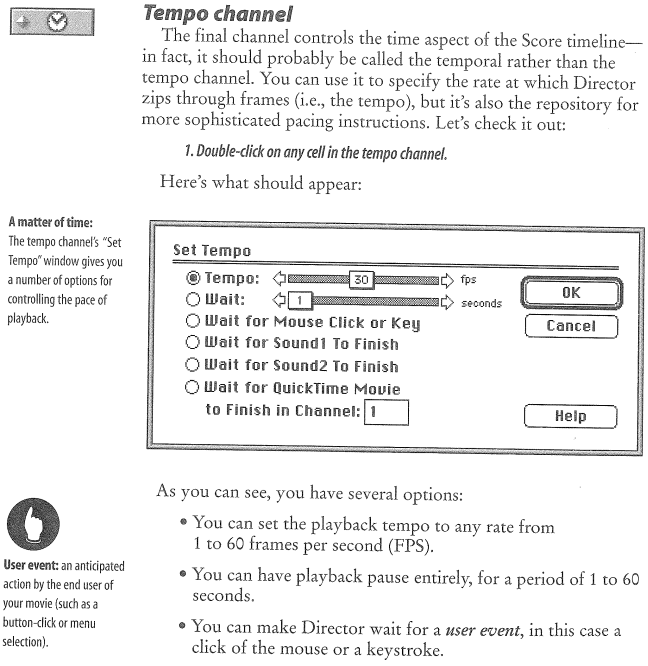
D. ***U.S. Patent No. 5,913,040 to Rakavy***

Claim 17 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Rakavy as discussed below

Claim 17	Rakavy
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"This invention relates generally to advertisement computer display systems and more particularly to a method and system for displaying advertisements and other information on a computer based on general user selected criteria and transmitting such information from a remote network to the local computer" (Rakavy, 1:7-12.)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230

Claim 17	Rakavy
	contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"The User Interface Setup Process 201 allows the user to configure the behavior of the system on their desktops." (Rakavy, 7:43-44) "The User Interface Setup Process 201 allows the user to configure the behavior of the system. This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:17-20) "User preference information typically includes: a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical advertisement categories are 'SCUBA diving equipment,' 'Fast food vendors,' 'Toys for ages 8-14,' or 'Cigarettes' and the like. The actual list of categories will be provided by the Advertising System Server 600." (Rakavy, 9:34-50.) "The Advertisement Feeder 250 will incorporate the advertising preference information, the Local Computer's platform capabilities, disk space limitations, and other configuration data into its request for new advertisements." (Rakavy, 9:55-58.) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The

Claim 17	Rakavy
	Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "Each Advertisement 50 in the Server Database 730 comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55), its category, its size, and the hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements. The Resource List 52 contains a list of resources (bitmaps, animations, digitized audio segments, executable code, etc.) that must exist on the Local Computer 500 or associated local LAN in order to present the advertisement. The Resource List 52 includes a unique resource-ID, a resource type, and a resource pointer. The resource pointer identifies a file, a database record, a block of data, or other means of identifying the resource." (Rakavy, 7:13-28.)  FIG. 5 "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-

Claim 17	Rakavy
	contained within the Advertisement 50 itself. In this manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "One system, Hot Java, available from Sun Microsystems, supports the execution of small applications programs written in a specific programming language executing within the browser on the local computer." (Rakavy, 1:46-51) *Macromedia Director* *Frame Tempo Control*  ***Tempo channel*** The final channel controls the time aspect of the Score timeline—in fact, it should probably be called the temporal rather than the tempo channel. You can use it to specify the rate at which Director zips through frames (i.e., the tempo), but it's also the repository for more sophisticated pacing instructions. Let's check it out: *1. Double-click on any cell in the tempo channel.* Here's what should appear: **A matter of time:** The tempo channel's "Set Tempo" window gives you a number of options for controlling the pace of playback. As you can see, you have several options: • You can set the playback tempo to any rate from 1 to 60 frames per second (FPS). • You can have playback pause entirely, for a period of 1 to 60 seconds. • You can make Director wait for a *user event*, in this case a click of the mouse or a keystroke. **User event:** an anticipated action by the end user of your movie (such as a button-click or menu selection). (Macromedia Director, p. 33.)
wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated	"The Advertisement Killer 275 periodically scans the User Preference and Advertisements Database 230, and purges Advertisements 50 that satisfy its purge criteria. Typical criterion include the total time the advertisement has been stored and ***the number of times displayed***. Additionally, Advertisements 50 are purged on user demand through

Claim 17	Rakavy
from a set of content data can be displayed; and	user interaction with the Advertisements 50 or the User Interface Setup Process 201." (Rakavy, 12:52-59)(emphasis added)
display instructions for enabling display of the image or images generated from the set of content data.	"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33)

E. ***U.S. Patent No. 5,913,040 to Rakavy and U.S. Patent No. 5,748,190 to Kjorsvik***

Claims 4-8, 11, and 15-18 are unpatentable under 35 U.S.C. §103 as being obvious over the combination of Rakavy and Kjorsvik as discussed below. As described

above and set forth in the following claim chart, Rakavy discloses all of the limitations of claims 4-8, 11, 15, 16 and 18 except displaying control options enabling the user to request display of a next image or a previous image in an advertisement such as an animated advertisement. Kjorsvik discloses the capability for a content provider to display sophisticated control options to a viewer of a frame or animation.

A person of ordinary skill in the art would have been motivated to combine Rakavy and Kjorsvik because Rakavy discloses using self-contained, animated advertisements in connection with a screen saver (among other embodiments), and Kjorsvik discloses control options for use with presentations displayed to a user in connection with a screen saver (among other embodiments). Furthermore, a person of ordinary skill in the art could have combined the elements taught by Rakavy and Kjorsvik by known methods and would have recognized that the results of the combination were predictable.

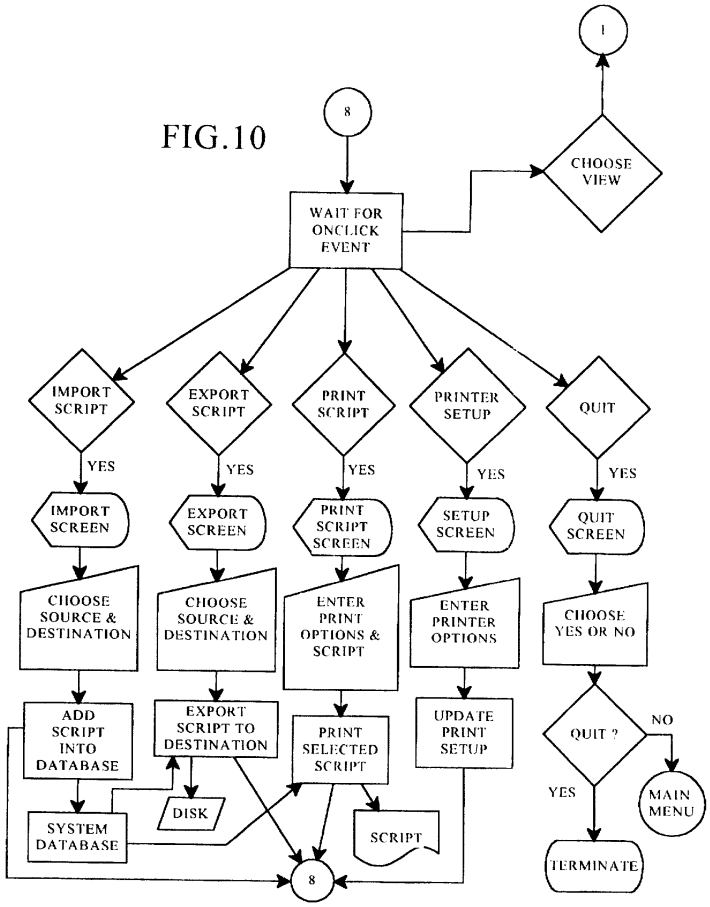
10. ***Claim 4***

Claim 4 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 4	Rakavy and Kjorsvik
4. A system for engaging the peripheral attention of a person in the vicinity of a display device of an apparatus, comprising:	"The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract) "The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC. A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling

Claim 4	Rakavy and Kjorsvik
	the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract)
means for acquiring a set of content data from a content providing system;	*Rakavy* "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67)"[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display

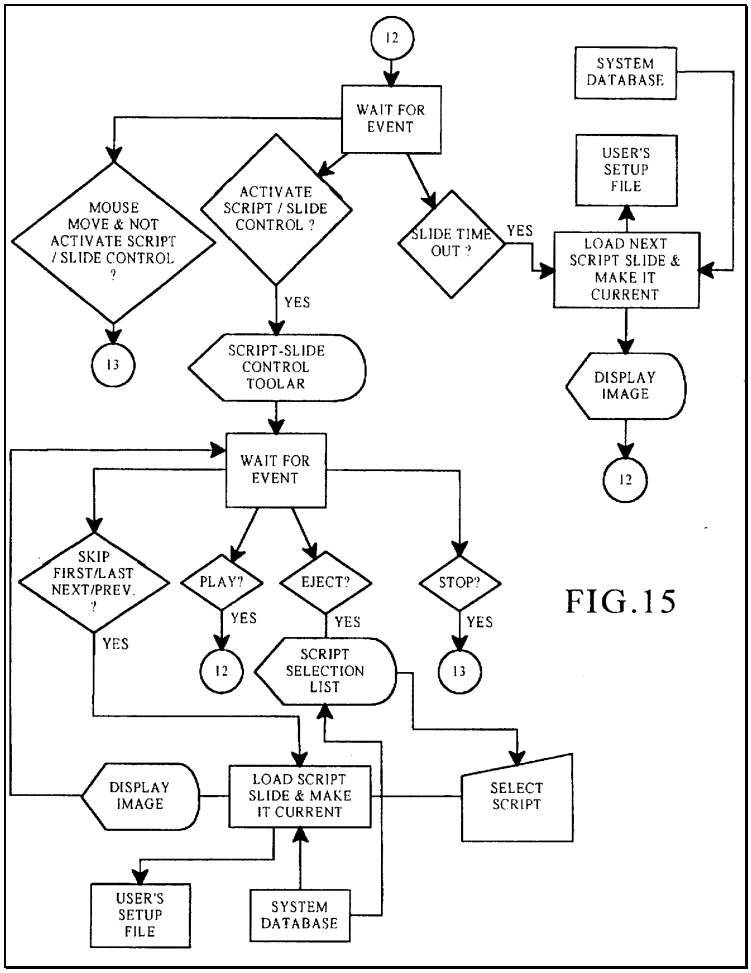
Claim 4	Rakavy and Kjorsvik
	statistics, configuration information and user preference data." (Rakavy, 8:62-67) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) *Kjorsvik* "Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60)

Claim 4	Rakavy and Kjorsvik
	
means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data;	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Advertising Display Manager 210 is responsible for selecting and displaying Advertisements 50 from the User Preference and Advertisements Database 230." (Rakavy, 7:44-46.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which

Claim 4	Rakavy and Kjorsvik
	will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33) *Kjorsvik* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "The messenger modules 22--22 communicate with system database 24 on the network server 18 and provide a certain amount of local control over the presentation at its associated PC. The messenger module can be loaded into a network PC from any external source, including the hard disk on the server." (Kjorsvik, 2:45-50) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the

Claim 4	Rakavy and Kjorsvik
	user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)
means for displaying one or more control options with the display device while the means for selectively displaying is operating;	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically

Claim 4	Rakavy and Kjorsvik
	terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) "In one embodiment of the invention, the Advertising Display Manager 210 allows users to respond to Advertisements 50 being presented by selecting a user grading box which allows users to judge the Advertisements 50 on a scale from "do not show me this advertisement again" to "excellent." (Rakavy, 10:12-17.) "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "The Advertisement Display Manager 210 will display the collection of bitmaps, ***animation,*** and sound clips associated with the Advertisement 50." (Rakavy, 10:43-45) "Many platforms, including the preferred Windows-95 platform, include a multi-media subsystem that provides APIs for playing animation, sound clips, video clips, etc. See Win32 Programmer's Reference Manual, hereby incorporated by reference. Alternatively, there are a wide variety of stand-alone tools suitable for providing such functions on Windows, Macintosh and other platforms." (Rakavy, 11:!6-22.) *Kjorsvik* "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on

Claim 4	Rakavy and Kjorsvik
	the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32) FIG. 15 illustrates exemplary control options.  FIG.15
means for selecting a displayed control option; and	During prosecution, the Patent Owner provided an example of a structure meeting this limitation - the "'means for selecting a displayed control option,' as recited in Claim 33 [corresponding to issued claim 4], was embodied by the content display computer and a conventional computer mouse or keyboard operating in accordance with conventional software for controlling operation of such devices (as known to those skilled in the art.)." (Reply to 2/3/98 Office Action, p. 25.) *Rakavy* "[T]he Local Computer 500 preferably includes a Central

Claim 4	Rakavy and Kjorsvik
	Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, ***input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device)***, and a Mass Storage Device 516." (Rakavy, 4:47-52.)(emphasis added) Therefore, the keyboard and/or pointing device of the local computer 500 discloses this limitation. *Kjorsvik* "At any point in the presentation, the user may begin use of the PC, such as for work-in-progress, by simply pushing any key on the PC keyboard except for a designated key which is for manual control of the presentation." (Kjorsvik, 3:6-10) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32) "By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the "current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)
means for controlling aspects of the operation of the system in accordance with a selected control option.	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the

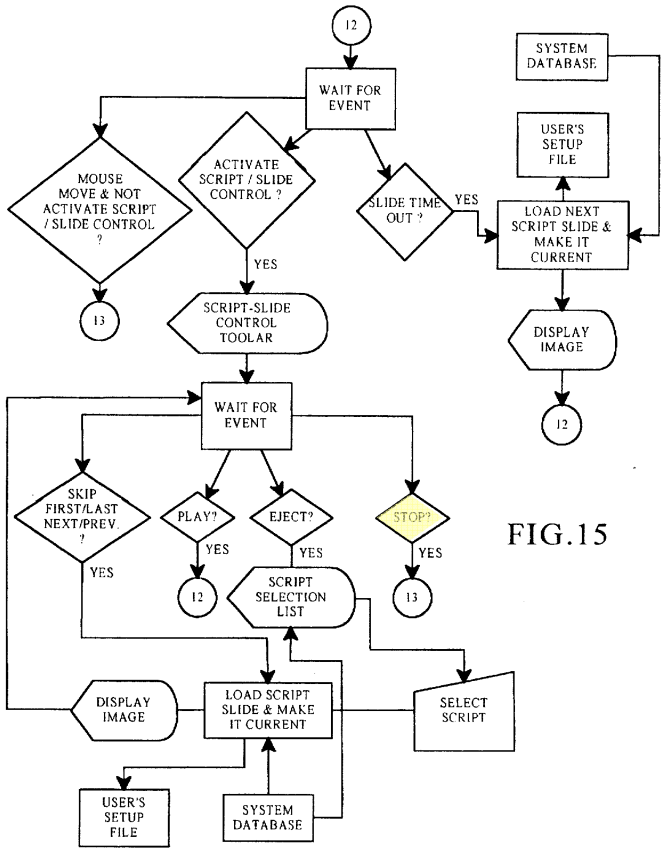
Claim 4	Rakavy and Kjorsvik
	default operating system routine, which will typically terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "The Advertisement Display Manager 210 will display the collection of bitmaps, ***animation,*** and sound clips associated with the Advertisement 50." (Rakavy, 10:43-45) *Kjorsvik* "A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "Each messenger module is controlled to some extent by the individual PC with which it is associated." (Kjorsvik, 5:23-24) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-

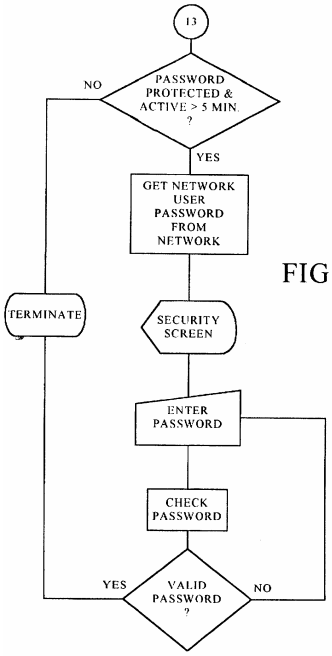
Claim 4	Rakavy and Kjorsvik
	forwarded, slide by slide." (Kjorsvik, 5:25-32) "FIG. 16 shows the 'quit' sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence permits the PCs to return to their previous tasks." (Kjorsvik, 5:48-51) *See also* FIGs. 14-16

11. ***Claim 5***

Claim 5 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 5	Rakavy and Kjorsvik
A system as in claim 4, wherein:	
the control option enables the user to request termination of operation of the system; and	*Rakavy* "When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) *Kjorsvik* "FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48) Note the blocks in FIG. 15 labeled "WAIT FOR EVENT" and "STOP?." A STOP event leads the method flow of FIG. 15 to FIG. 16 where operation is terminated (as discussed

Claim 5	Rakavy and Kjorsvik
	below).  FIG.15
the means for controlling terminates operation of the system.	*Kjorsvik* "A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "FIG. 16 shows the 'quit' sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence permits the PCs to return to their previous tasks." (Kjorsvik, 5:48-51)

Claim 5	Rakavy and Kjorsvik
	 FIG.16

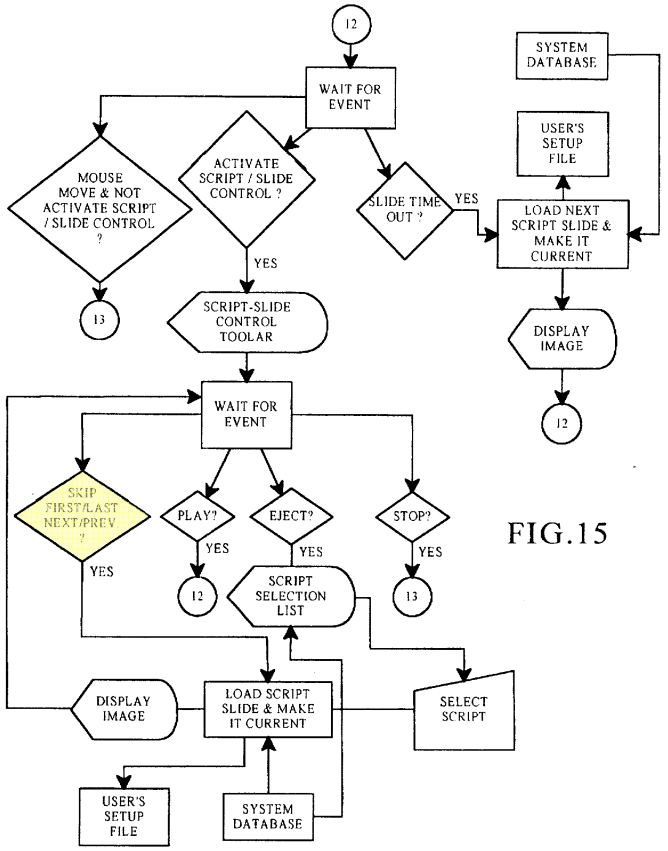
12. ***Claim 6***

Claim 6 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 6	Rakavy and Kjorsvik
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	*Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65).

Claim 6	Rakavy and Kjorsvik
	"User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "messenger module means in each personal computer in the network … for controlling the display of said presentation sequence on the screen of the messenger module's associated personal computer, wherein the presentation sequence is displayed on the screen only when said

Claim 6	Rakavy and Kjorsvik
	associated personal computer has been on but unused for a pre-selected period of time" (Kjorsvik, claim 1) "The administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18) "As discussed briefly above, the administration module has the capability of scheduling a sequence of different scripts for each user. When one script is completed at a particular PC, the messenger module for that PC may either repeat that script or go to the next presentation in the schedule." (Kjorsvik, 5:18-22)
the control option enables the user to request display of a next image or images generated from a next set of content data; and	*Kjorsvik* "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)
the means for controlling displays the next image.	*Kjorsvik* "A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48)

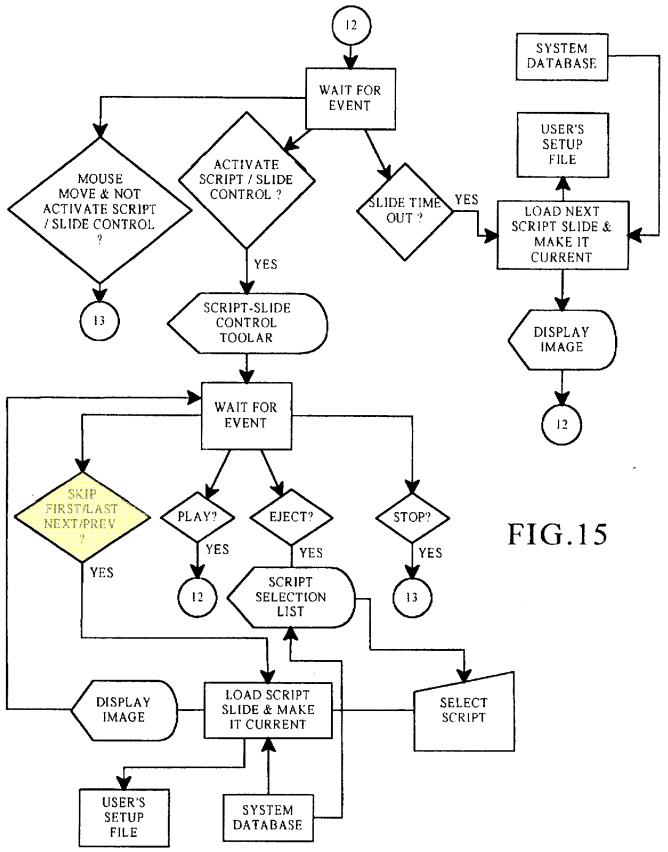
Claim 6	Rakavy and Kjorsvik
	 FIG.15 "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

13. ***Claim 7***

Claim 7 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 7	Rakavy and Kjorsvik
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	*Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "The presentation is displayed on the screens of the

Claim 7	Rakavy and Kjorsvik
	individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "messenger module means in each personal computer in the network … for controlling the display of said presentation sequence on the screen of the messenger module's associated personal computer, wherein the presentation sequence is displayed on the screen only when said associated personal computer has been on but unused for a pre-selected period of time" (Kjorsvik, claim 1) "The administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18) "As discussed briefly above, the administration module has the capability of scheduling a sequence of different scripts for each user. When one script is completed at a particular PC, the messenger module for that PC may either repeat that script or go to the next presentation in the schedule." (Kjorsvik, 5:18-22)
the control option enables the user to request display of a previous image generated from a previous set of content data; and	*Kjorsvik* "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-

Claim 7	Rakavy and Kjorsvik
	forwarded, slide by slide." (Kjorsvik, 5:25-32)
the means for controlling displays the previous image.	*Kjorsvik* "A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48)  FIG.15 "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

14. ***Claim 8***

Claim 8 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 8	Rakavy and Kjorsvik
8. A system as in claim 4, wherein:	
a plurality of sets of content data are acquired by the system;	*Rakavy* "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) *Kjorsvik* "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and

Claim 8	Rakavy and Kjorsvik
	images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)
the means for selectively displaying further comprises means for scheduling the display of the image or images generated from the sets of content data;	*Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4)

Claim 8	Rakavy and Kjorsvik
	"The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "messenger module means in each personal computer in the network … for controlling the display of said presentation sequence on the screen of the messenger module's associated personal computer, wherein the presentation sequence is displayed on the screen only when said associated personal computer has been on but unused for a pre-selected period of time" (Kjorsvik, claim 1) "The administration module 26 and database 24 on server 18 are responsible for generating the various slide presentations, selecting particular slide presentations for the individual PCs in the network and scheduling those presentations in a particular sequence." (Kjorsvik, 2:62-66) "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18) "As discussed briefly above, the administration module has the capability of scheduling a sequence of different scripts for each user. When one script is completed at a particular PC, the messenger module for that PC may either repeat that script or go to the next presentation in the schedule." (Kjorsvik, 5:18-22)
the control option	*Rakavy*

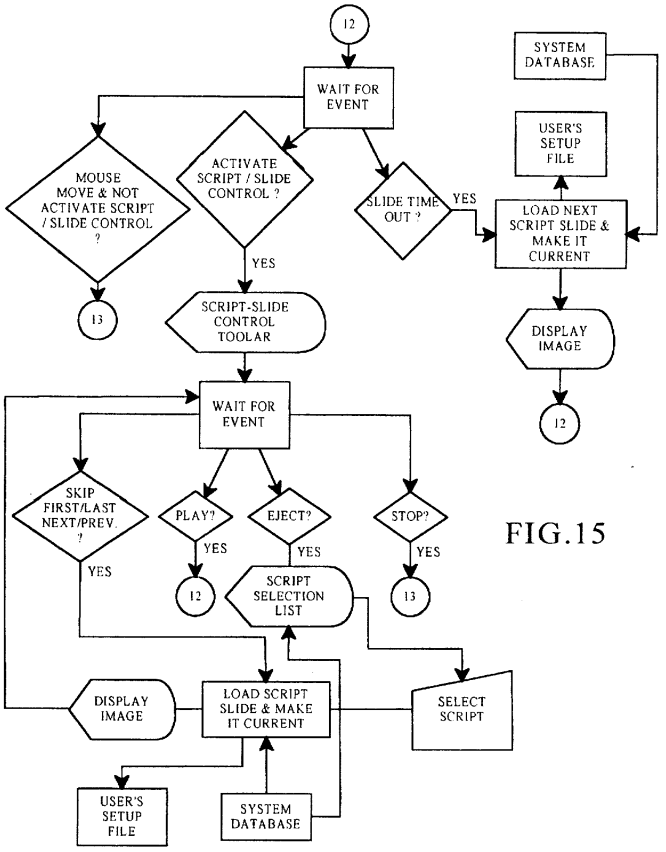
Claim 8	Rakavy and Kjorsvik
enables the user to remove a set of content data from the schedule; and the means for controlling removes the set of content data from the schedule.	"In one embodiment of the invention, the Advertising Display Manager 210 allows users to respond to Advertisements 50 being presented by selecting a user grading box which allows users to judge the Advertisements 50 on a scale from "do not show me this advertisement again" to 'excellent.'" (Rakavy, 10:12-17.) "The Advertisement Killer 275 periodically scans the User Preference and Advertisements Database 230, and purges Advertisements 50 that satisfy its purge criteria. Typical criterion include the total time the advertisement has been stored and ***the number of times displayed***. Additionally, Advertisements 50 are purged on user demand through user interaction with the Advertisements 50 or the User Interface Setup Process 201." (Rakavy, 12:52-59)(emphasis added) *Kjorsvik* "A PC user has the capability of returning the PC to its conventional use, but also has the capability of controlling the presentation to an extent, or even changing to an entirely different presentation among the several which may be available to that specific user." (Kjorsvik, Abstract) "By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the "current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)

15. ***Claim 11***

Claim 11 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 11	Rakavy and Kjorsvik
A system as in claim 4, wherein:	

Claim 11	Rakavy and Kjorsvik
the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location.	*Rakavy* "When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210. The user may interact with the Advertisement Display Manager 210 through a number of ways, including answering questioners, initiating a WEB browser to connect directly to an advertiser WEB page on the Network 700, or automatically initiating a voice connection through the Modem 520 to the advertiser." (Rakavy, 11:33-44.) *Kjorsvik* Kjorsvik discloses two different control options that meet this claim limitation. *presentation control options* As depicted in FIG. 15, when a user selects one of the "SKIP, FIRST/LAST, NEXT/PREV" the messenger module links to the user's setup file and/or the system database to obtain the proper slide to display. Similarly, when a user selects the "EJECT" options, the messenger module also interacts with the system database to obtain the proper script (presentation) to display.

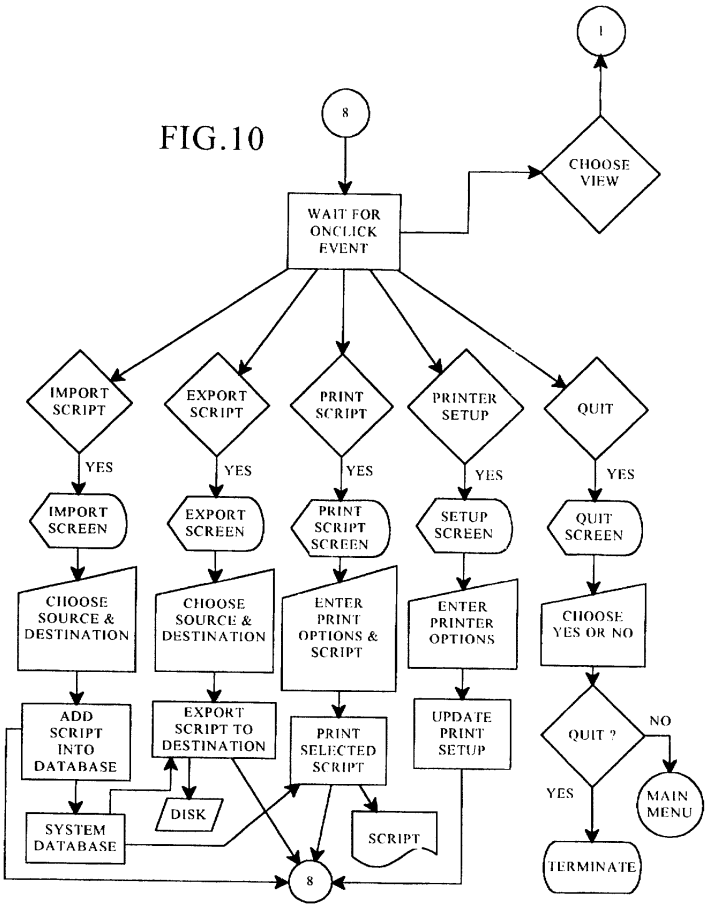
Claim 11	Rakavy and Kjorsvik
	 FIG.15 *importing presentations from external sources* "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) To obtain a presentation from an external source, in Kjorsvik, a main pulldown menu is presented to a user. (*See* Kjorsvik, FIG. 3.) If a user selects the file menu (FIG. 9), the user can select a control option to import or export scripts (presentations) from an external source. (*See* Kjorsvik, FIGs. 9, 10.)

16. ***Claim 15***

Claim 15 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 15	Rakavy and Kjorsvik
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	*acquisition* "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) *display* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the

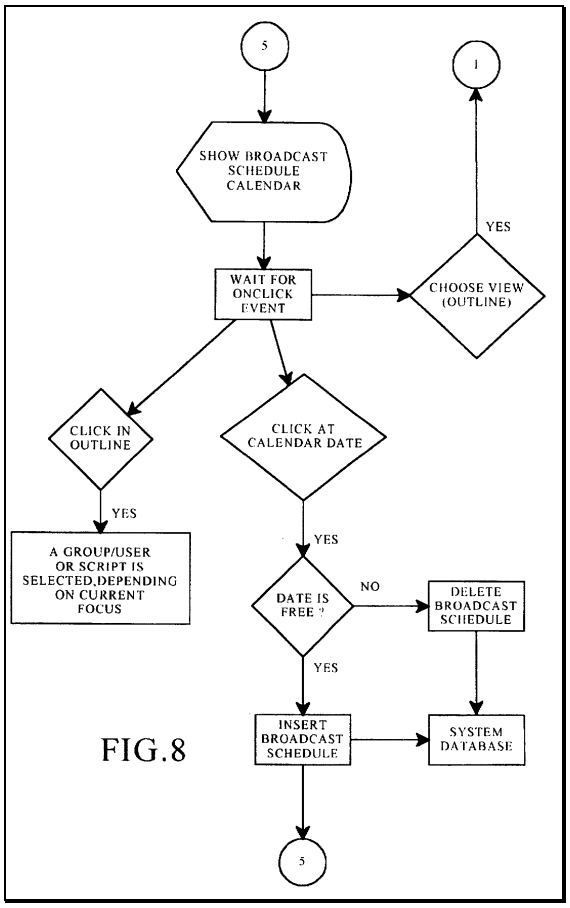
Claim 15	Rakavy and Kjorsvik
	plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67) *Kjorsvik* "Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the

Claim 15	Rakavy and Kjorsvik
	system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60) 
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	*Rakavy* "The User Interface Setup Process 201 allows the user to configure the behavior of the system on their desktops." (Rakavy, 7:43-44) "The User Interface Setup Process 201 allows the user to configure the behavior of the system. This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:17-20) "User preference information typically includes: a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical

Claim 15	Rakavy and Kjorsvik
	advertisement categories are "SCUBA diving equipment," "Fast food vendors," "Toys for ages 8-14," or "Cigarettes" and the like. The actual list of categories will be provided by the Advertising System Server 600." (Rakavy, 9:34-50.) "The Advertisement Feeder 250 will incorporate the advertising preference information, the Local Computer's platform capabilities, disk space limitations, and other configuration data into its request for new advertisements." (Rakavy, 9:55-58.) *Kjorsvik* *See* FIGs. 3, 8, and 9 illustrating user menu options. "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-61.) "The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention." ('652 patent, 16:9-15.)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well

Claim 15	Rakavy and Kjorsvik
	as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) *Rakavy* "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "Each Advertisement 50 in the Server Database 730 comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55), its category, its size, and the hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements. The Resource List 52 contains a list of resources (bitmaps, animations, digitized audio segments, executable code, etc.) that must exist on the Local Computer 500 or associated local LAN in order to present the advertisement. The Resource List 52 includes a unique resource-ID, a resource type, and a resource pointer. The resource pointer identifies a file, a database record, a block of data, or other means of identifying the resource." (Rakavy, 7:13-28.) "In the preferred embodiment, the display and other presentation capabilities for each advertisement are self-contained within the Advertisement 50 itself. In this

Claim 15	Rakavy and Kjorsvik
	manner the Advertisement Display Manager 210 can support a virtually unlimited number of presentation techniques. The code needed for presenting the advertisement such as a digital sound or video decoder or animation file player, is a resource available from the Resource List 52 within the Advertisement structure 50. The resource may exist in a number of forms such as executable or interpreted code or scripting code such as that used in Hot Java." (Rakavy, 10:66-11:9) "One system, Hot Java, available from Sun Microsystems, supports the execution of small applications programs written in a specific programming language executing within the browser on the local computer." (Rakavy, 1:46-51) *Kjorsvik* "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

Claim 15	Rakavy and Kjorsvik
	 FIG.8 "Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:42-44.) "The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:8-13.) "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is

Claim 15	Rakavy and Kjorsvik
	Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed; and	*Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "Another function of administration module 26 in the

Claim 15	Rakavy and Kjorsvik
	embodiment shown concerns the creation of the individual presentations, which may be alternatively referred to as scripts. Each presentation or script consists of one or more individual slides or screens composed around a particular topic. … In any event, each script comprises a series or sequence of slides … Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:30-43) "All of the above concerns the composition or creation of individual slides. The basic capability of creating such slides is available in standard PC operating systems. One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available. Administration module 26 is arranged to interface with such operating systems so that slides can be created and then arranged into presentations …" (Kjorsvik, 3:58-65)
display instructions for enabling display of the image or images generated from the set of content data.	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a

Claim 15	Rakavy and Kjorsvik
	predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33) *Kjorsvik* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each

Claim 15	Rakavy and Kjorsvik
	PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)

17. ***Claim 16***

Claim 16 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 16	Rakavy and Kjorsvik
A computer readable medium as in claim 15, wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data.	*Rakavy* "FIG. 5 shows a schematic representation of an Advertisement 50. Each Advertisement 50 in the Server Database 730 comprises an Advertisement Information Record 51 and a Resource List 52. The Advertisement Information Record 51 contains information identifying the advertisement (including the Advertisement-ID 55), its category, its size, and the hardware required to display the advertisement, such as sound boards, screen resolution and multimedia requirements. The Resource List 52 contains a list of resources (bitmaps, animations, digitized audio segments, executable code, etc.) that must exist on the Local Computer 500 or associated local LAN in order to present the advertisement. The Resource List 52 includes a unique resource-ID, a resource type, and a resource pointer. The resource pointer identifies a file, a database record, a block of data, or other means of identifying the resource. In this manner, resources can be shared by various Advertisements 50." (Rakavy, 7:13-29) *Kjorsvik*

Claim 16	Rakavy and Kjorsvik
	"Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:14-17) "All of the above concerns the composition or creation of individual slides. The basic capability of creating such slides is available in standard PC operating systems. One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available. Administration module 26 is arranged to interface with such operating systems so that slides can be created and then arranged into presentations …" (Kjorsvik, 3:58-65)

18. ***Claim 17***

Claim 17 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik as discussed below

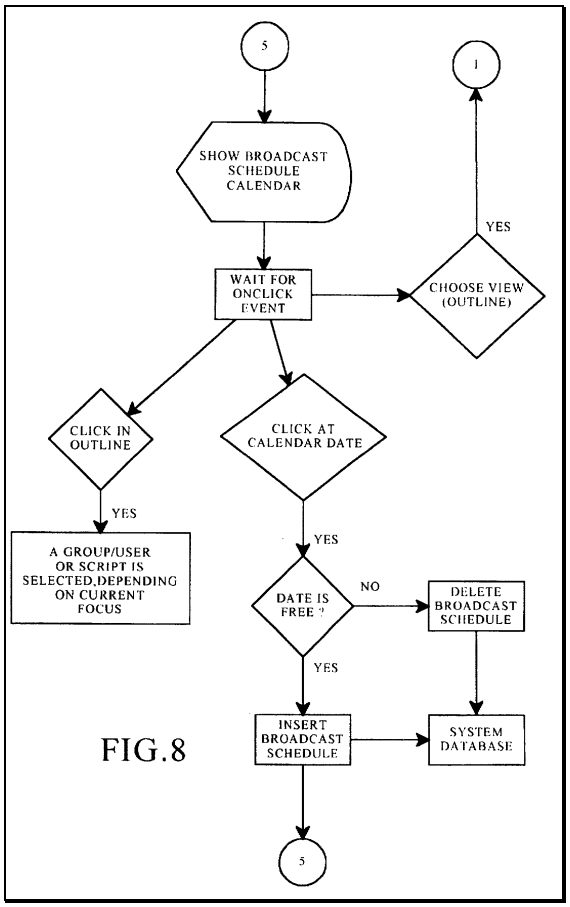
Claim 17	Rakavy and Kjorsvik
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract)
acquisition instructions for enabling acquisition of a set of content data from a	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output

Claim 17	Rakavy and Kjorsvik
specified information source;	Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) *Kjorsvik* "Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik,

Claim 17	Rakavy and Kjorsvik
	4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	*Rakavy* "The User Interface Setup Process 201 allows the user to configure the behavior of the system. This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:17-20) "User preference information typically includes: a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical advertisement categories are "SCUBA diving equipment," "Fast food vendors," "Toys for ages 8-14," or "Cigarettes" and the like. The actual list of categories will be provided by the Advertising System Server 600. b) Time periods during which sound-only advertisement are to be played. c) Whether wallpaper or cursor advertisements are allowed. d) Whether animation is allowed. e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted. f) Identification of the user's natural language." (Rakavy, 9:34-50.) *Kjorsvik* *See* FIGs. 3, 8, and 9 illustrating user menu options. "Administration module 26 also has the capability of communicating with external sources, including other

Claim 17	Rakavy and Kjorsvik
	network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-61.) "The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	*Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted." (Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65)

Claim 17	Rakavy and Kjorsvik
	"The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

Claim 17	Rakavy and Kjorsvik
	 FIG.8 "Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:42-44.) "The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:8-13.) "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is

Claim 17	Rakavy and Kjorsvik
	Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed; and	"The Advertisement Killer 275 periodically scans the User Preference and Advertisements Database 230, and purges Advertisements 50 that satisfy its purge criteria. Typical criterion include the total time the advertisement has been stored and ***the number of times displayed***. Additionally, Advertisements 50 are purged on user demand through user interaction with the Advertisements 50 or the User Interface Setup Process 201." (Rakavy, 12:52-59)(emphasis added)
display instructions for enabling display of the image or images generated from the set of content data.	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background

Claim 17	Rakavy and Kjorsvik
	wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33) *Kjorsvik* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide

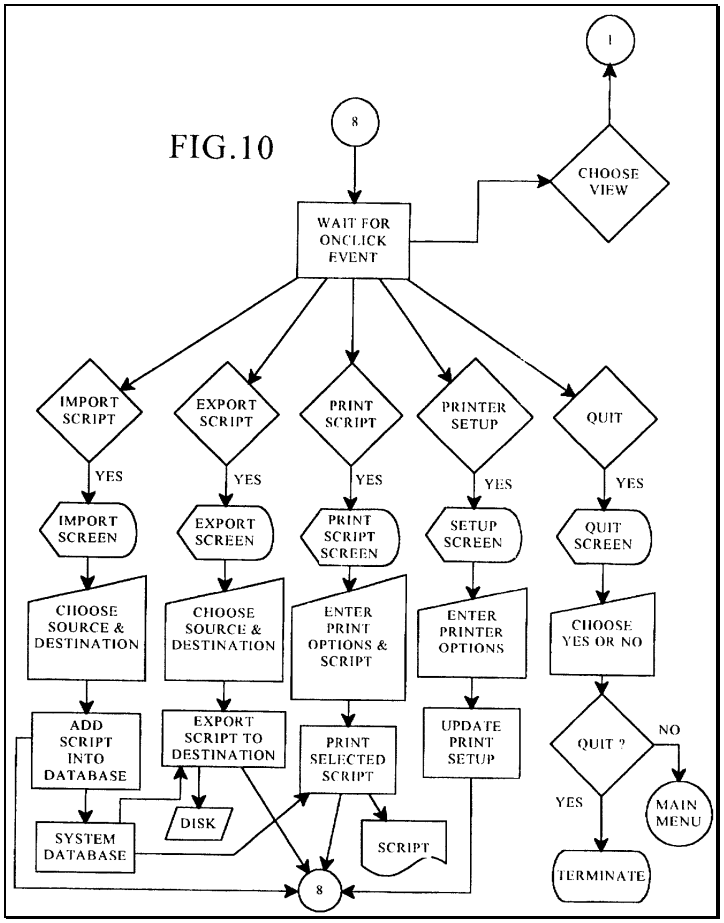
Claim 17	Rakavy and Kjorsvik
	information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)

19. ***Claim 18***

Claim 18 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Rakavy and Kjorsvik. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Rakavy and Kjorsvik.

Claim 18	Rakavy and Kjorsvik
18. A computer readable medium, for use by a content display system, encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24) *display* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used." (Kjorsvik, Abstract)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g.,

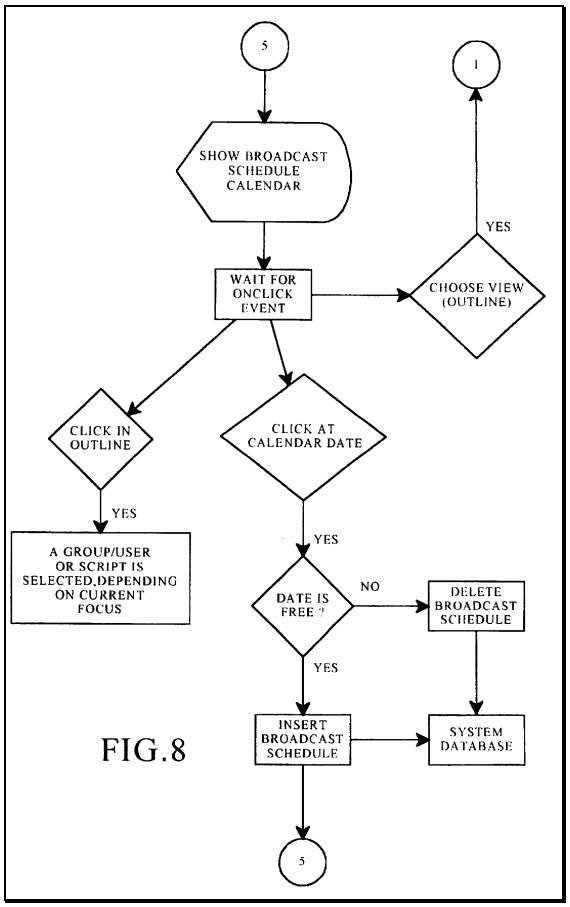
Claim 18	Rakavy and Kjorsvik
	mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The system preferably includes at least one Advertising System Server 600. The main roles of the Advertising System Server 600 are to store Advertisements 50, transfer the Advertisements 50 to the Local Computer 500, and collect user feedback." (Rakavy, 5:32-36) "In an alternate embodiment of the present invention, the selected advertisement may be stored on any one of the plurality of advertising system servers connected to the Network 700." (Rakavy, 5:54-57.) "The Advertisement Feeder 250, is responsible for adding new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents." (Rakavy, 12:6-15) "The User Preference and Advertisement Database 230 contains various information needed by the system. The primary data stored is the advertisement information (including executable code modules, bitmaps, video clips and sound clips). The database also stores display statistics, configuration information and user preference data." (Rakavy, 8:62-67) *Kjorsvik* "Each presentation or script consists of one or more individual slides or screens composed around a particular topic." (Kjorsvik, 3:33-35.) "One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:60-62.) "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "The administration module 26 has the basic responsibility of composing, adding to, or deleting information from the

Claim 18	Rakavy and Kjorsvik
	database 24 on server 18." (Kjorsvik, 2:55-57.) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system ***to obtain or provide*** presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)(emphasis added) "FIGs. 9-13 concern the overall operating means of the system." (Kjorsvik, 4:55-56.) "In FIG. 10, control is provided over the importing and exporting of presentations (scripts) and over the options available for printing the text and the visual information." (Kjorsvik, 4:57-60) 
user interface installation instructions for enabling provision of a user interface that allows a	*Rakavy* "The User Interface Setup Process 201 allows the user to configure the behavior of the system on their desktops."

Claim 18	Rakavy and Kjorsvik
person to request the set of content data from the specified information source;	(Rakavy, 7:43-44) "The User Interface Setup Process 201 allows the user to configure the behavior of the system. This process allows the user to input and view preferences as to advertising categories, as well as local computer configuration data." (Rakavy, 9:17-20) "User preference information typically includes: a) Listings of advertisement categories which are to be given high priority, and those categories which are to be banned from being downloaded or displayed. Typical advertisement categories are "SCUBA diving equipment," "Fast food vendors," "Toys for ages 8-14," or "Cigarettes" and the like. The actual list of categories will be provided by the Advertising System Server 600." (Rakavy, 9:34-50.) "The Advertisement Feeder 250 will incorporate the advertising preference information, the Local Computer's platform capabilities, disk space limitations, and other configuration data into its request for new advertisements." (Rakavy, 9:55-58.) "The content data acquisition instructions 330 can also include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added) *Kjorsvik* *See* FIGs. 3, 8, and 9 illustrating user menu options. "Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-61.) "The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:52-54) "The content data acquisition instructions 330 can also

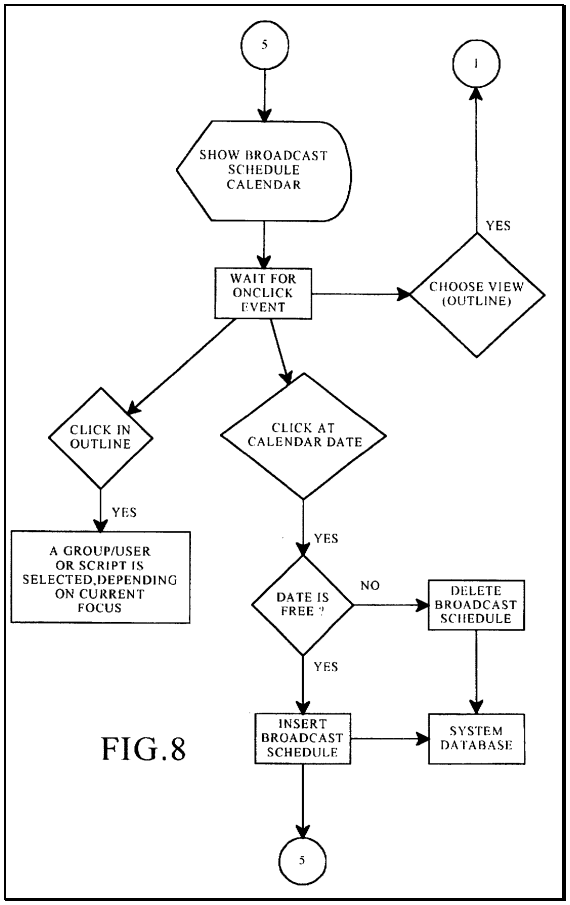
Claim 18	Rakavy and Kjorsvik
	include user interface installation instructions 333 that enable content providers to install a user interface in the information environment (e.g., Web page) of the content provider so that users can request sets of content data from the content provider. ***Such user interface installation instructions are conventional and readily available for use with the attention manager of the invention***." ('652 patent, 16:9-15.)(emphasis added)
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data;	"Judson also does not appear to teach or suggest "content data scheduling instructions for providing temporal constraints on the display of [an] image or images generated from [a] set of content data," as also recited in Claim 49. Such content data scheduling instructions are described in Applicants' specification at, for example, page 19, line 27 to page 22, line 27 and page 34, line 2 to page 35, line 1, and enable content providers to provide constraints on the manner in which the content data they provide is used for display. Such constraints may relate to, for example, the duration of the display of the image(s) generated from the content data, the sequence in which clips of a set of content data are displayed (as well as the duration of the display of each clip), times at which the content data can or cannot be used to generate image(s) for display, and limitations on the number of times that a set of content data can be used to generate image(s) for display." (Reply to 2/3/98 Office Action, pp. 18-19.) *Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted."

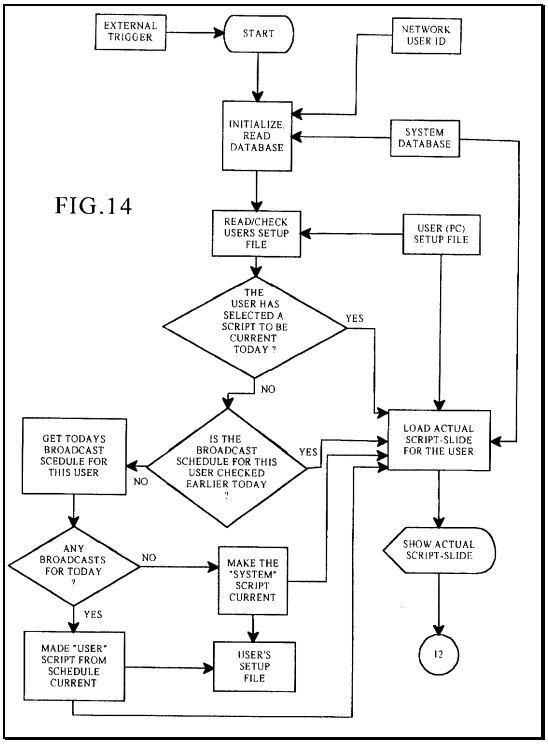
Claim 18	Rakavy and Kjorsvik
	(Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

Claim 18	Rakavy and Kjorsvik
	 FIG.8 "Administration module 26 creates particular presentations by arranging individual slides in a selected sequence." (Kjorsvik, 3:42-44.) "The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The presentation begins at the same point at which it was interrupted. The messenger module is responsible for this control." (Kjorsvik, 5:8-13.) "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is

Claim 18	Rakavy and Kjorsvik
	Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
display instructions for enabling display of the image or images generated from the set of content data;	*Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "By utilizing on-line communications, the screen saver of the present invention provides a wide variety of potential content themes which may be personalized and modified on a timely basis in accordance with user preferences." (Rakavy, 7:9-13) "The Advertisement Display Manager 210 selects and displays Advertisements 50 from the User Preference and Advertisements Database 230. The Advertisement Display Manager 210 is typically activated by the Screen Saver Subsystem 220 when the user has not entered input for a predetermined time, or from the Scheduler 265." (Rakavy, 10:43-48) "Other techniques for displaying the advertisement, such as periodic audio-only messages, screen background wallpaper, cursor modifications, and display in a window on the user's computer display are also available." (Rakavy, 3:30-33) *Kjorsvik* "The presentation is displayed on the screens of the individual PCs in the network by the action of a messenger software module present in each PC, following passage of a selected amount of time during which the PC is on but is not used. The messenger module maintains control over

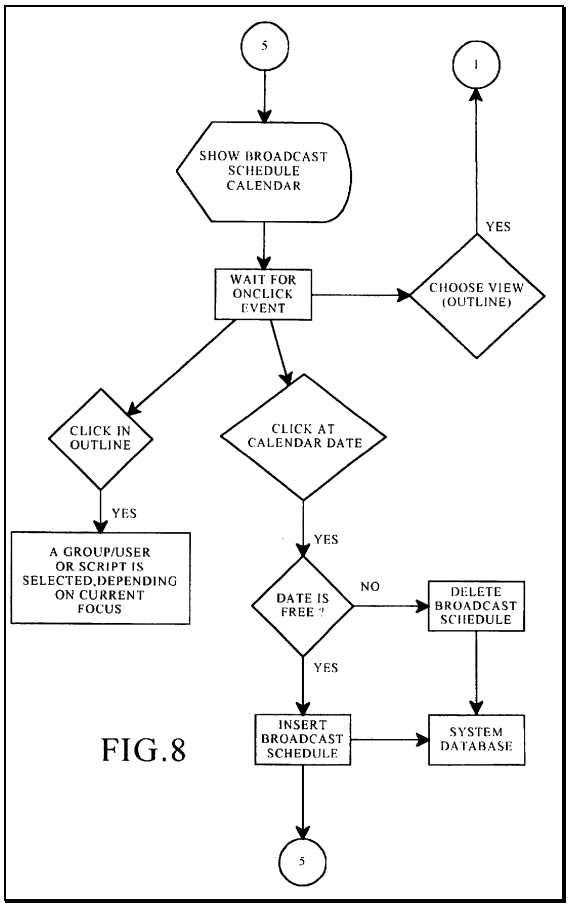
Claim 18	Rakavy and Kjorsvik
	the presentation of the images in the particular presentation sequence following interruptions of actual use by the PC." (Kjorsvik, Abstract) "When a personal computer is in its "ON" state but not in use, its computer screen is still lit, which will ultimately lead to damage or degradation of the screen. "Screen saver" techniques are frequently used in such situations, in which a selected image appears on the screen. Such screen saver images, however, serve no other useful purpose. Accordingly, it would be desirable that useful information or other presentation material be made available to the user on his/her computer screen at selected times when the computer is not being used, as an alternative to conventional screen saver images." (Kjorsvik, 1:26-36) "As discussed above, personal computers (PCs), particularly when they are used in a business context, are typically left in an "ON" state during the entire work day, even when they are not actually being used. Such PCs may have a conventional "screen saver" module, which produces certain images on the screen when the computer is not in use, in order to extend the life of the computer screen." (Kjorsvik, 1:66-2:5) "The present invention, which is for use in a computer network, in basic overview includes a repertoire of presentations, each of which typically takes the form of a series of successive slides or screen images. These presentations are stored in a system database located on a network server PC, and in operation of the system are provided to the individual network PCs for display on their computer screens. The presentations are initiated for each PC in the network following a selected amount of time during which each PC has been in an "on" state but has not been in use. These presentations in effect replace the conventional screen saver, but in addition, provide information in visual form which is intended to be beneficial to the user of the PC." (Kjorsvik, 2:13-18) "When a network PC has not been in use for the specific period of time established for that particular PC, the messenger module, in coordination with the database, will automatically begin the assigned presentation on the PC's screen." (Kjorsvik, 5:4-8)
content data update instructions for enabling	*Rakavy* "The Advertisement Feeder 250, is responsible for adding

Claim 18	Rakavy and Kjorsvik
acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data;	new Advertisements 50 to the User Preference and Advertisement Database 230. Advertisements 50 preferably are provided from the Internet through the Internet Feeder 270, however, the Advertisements Feeder 250 is not dependent on the type of advertisement source and may receive Advertisements 50 from other sources, such as commercial on-line services, via other feeder mechanisms and other types of polite agents, as shown by references 271 and 272, respectively, in FIG. 4." (Rakavy, 12:6-15.) Broadcast schedules for presentations at an individual network PC are set on a calendar basis (e.g., daily). In Kjorsvik, the same presentation may be scheduled on different days for a network PC. In Kjorsvik, a "particular slide may be edited at any time for presentation flexibility. The system database 24 is updated immediately upon such editing so as to impact presentations in effect on-line." (Kjorsvik, 4:34-37.)  FIG.8 As depicted in FIG. 14, the messenger module may obtain scheduling information and presentations from the

Claim 18	Rakavy and Kjorsvik
	network server database daily. "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)  FIG.14
operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data;	*Rakavy* "The Screen Saver Subsystem 220 tracks user interaction with the system. When the Screen Saver Subsystem 220 detects that the system has been idle, for example, when there has been no user interaction with the computer (through the use of the keyboard, mouse, pointing device or other user input device), for a preconfigured time, it activates the Advertisements Display Manager 210 which will select an advertisement and display it." (Rakavy, 7:63-8:3) "User interaction with the Advertisement Display Manager

Claim 18	Rakavy and Kjorsvik
	210 is preferably initiated by pressing a predesignated key, for example F10. When the Advertisement Display Manager 210 is active, all user input is routed directly to the Advertisement Display Manager 210, thus allowing for user interaction with Advertisements 50. The Advertisement Display Manager 210 selectively forwards certain keys to the default operating system routine, which will typically terminate the Advertisement Display Manager 210." (Rakavy, 11:31-39.) *Kjorsvik* "FIGS. 14 and 15 show the software control of the flow of data and the operating process for the system of the present invention. FIG. 14 shows the sequence of messenger module operation, including reading of database 24. The operation sequence begins each time the PC has not been used for a selected period of time. This is initiated by a trigger signal, which could originate at the PC or from the network server. FIG. 15 shows the functional process steps for showing an actual slide at the user's PC. FIG. 16 shows the "quit" sequence for the messenger module, terminating current operation of its associated network PC in the presentation network. This sequence permits the PCs to return to their previous tasks." (Kjorsvik, 5:40-51) *See also* Kjorsvik, FIGs. 14-16
content display system scheduling instructions for scheduling the display of the image or images on the display device;	*Rakavy* A user defines certain preferences related to advertisements. The advertisements are selected for downloading to the Local Computer based on the priority assigned by the user. (Rakavy, 9:66-67.) The Advertisement Display Manager 210 of the Local Computer 500 "selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:62-65). "User preference information typically includes . . . b) Time periods during which sound-only advertisement are to be played. . . e) Time periods and types of foreground activities during which advertisements and feedback information may be transmitted."

Claim 18	Rakavy and Kjorsvik
	(Rakavy, 9:34-50.) "The Advertisement Display Manager 210 is typically called by either the Screen Saver Subsystem 220 to display a screen saver type advertisement after the system has been idle for a predefined period or by the Scheduler 265 to modify the background wallpaper or present a sound-only type advertisement on a periodic basis. The Advertisement Display Manager 210 selects and presents the next Advertisement 50 of the specified type to be presented from the User Preference and Advertisements Database 230." (Rakavy, 10:57-65) "The Scheduler 265 keeps track of the list of timing-dependent operations. When the time comes to execute a timing-dependent Advertisement 50, as for example changing the wallpaper or playing a sound-only Advertisement 50, the Scheduler 265 notifies the Advertising Display Manager 210, which performs the required action." (Rakavy 11:66-12:4) "The Advertisement Display Manager 210 will display the collection of bitmaps, animation, and sound clips associated with the Advertisement 50." (Rakavy, 10:52-54.) *Kjorsvik* "A related function of the administration module 26 concerns the particular schedule which is established for the appearance of the individual presentations at each of the network PCs. For instance, each user in the system (each network PC) will have its own unique schedule of presentations, including a particular sequence of different presentations and a specific time of nonuse required before a presentation begins. This scheduling of presentations is established through the administration module and stored in system database 24." (Kjorsvik, 4:9-18)

Claim 18	Rakavy and Kjorsvik
	 FIG.8 "Each slide is shown for a preselected period of time, and then, if the PC is still not being used, the next slide in the presentation sequence is shown, again under the control of the messenger module." (Kjorsvik, 5:15-18) "The basic capability of creating such slides is available in standard PC operating systems. One example is Powerpoint in WINDOWS software from Microsoft, Inc., of Redmond, Washington, which is now widely available." (Kjorsvik, 3:59-62)
installation instructions for installing the operating instructions and content display system scheduling instructions on the content display system; and	"[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system," as recited in claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.) *Rakavy* "[T]he Local Computer 500 preferably includes a Central Processor 510, a Main Memory 511, an Input/Output

Claim 18	Rakavy and Kjorsvik
	Controller 512, a Display Device 513, input devices such as a Keyboard 514 and a Pointing Device 515 (e.g., mouse, track ball, pen, slide pointer or similar device), and a Mass Storage Device 516." (Rakavy, 4:47-52.) *Kjorsvik* "The messenger module can be loaded into a network PC from any external source, including the hard disk on the server. The system also includes an administration software module 26 which can be loaded into and executed from any PC in the network. The administration module 26 can be loaded from the server's hard disk storage, a diskette, or the PC's own memory." (Kjorsvik, 2:48-54) The system of Kjorsvik works with conventional software, such as "WINDOWS software from Microsoft, Inc., of Redmond, Washington." (Kjorsvik, 3:60-67.)
audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data.	*Rakavy* "The Feedback Manager 220 is responsible for sending feedback information to the Advertising System Server 600. This information includes statistics on displayed Advertisements 50, including user ratings of specific advertisements and the time and length an advertisement was displayed. The Feedback Manager 220 also transmits information which was gathered from the user during interaction with the Advertisements 50, such as through games and questionnaires." (Rakavy, 12:61-13:2) *Kjorsvik* "The messenger module maintains control of the presentation on the screen to the extent that it has stored in its user's own setup file (a file on the PC's hard disk) the last slide which has been shown in the particular presentation then being used, even if the presentation has been interrupted by use of the PC. The messenger module is responsible for this control." (Kjorsvik, 5:8-14.) "The appearance of the successive slides on the PC screen is monitored by the messenger module to ensure that the individual slides in the presentation are presented in sequential order, even in the event that there is a break in the immediate presentation, such as caused by the user operating the PC." (Kjorsvik, 3:1-6.)

F. ***U.S. Patent No. 5,740,549 to Reilly***

Claims 4-7, 11, 15, 16 and 18 are unpatentable under 35 U.S.C. §102(e) as being anticipated by Reilly as discussed below.

1. ***Claim 4***

Claim 4 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 4	U.S. Patent 5,740,549 to Reilly
4. A system for engaging the peripheral attention of a person in the vicinity of a display device of an apparatus, comprising:	
means for acquiring a set of content data from a content providing system;	"A information server stores and updates a database of information items and advertisements." (Reilly, 2:63-65) "Workstations remotely located from the information server each include a display device, a communication interface for receiving at least a subset of the information items and advertisements in the information server's database and local memory for storing the information items and advertisements received from the information server." (Reilly, 2:67-3:5.) "The default connection schedule is for the subscriber's computer to initiate a connection to the information server once during the middle of the night (e.g., a randomly selected time between 11 p.m. and 7 a.m. local time) for an "administrative update," and once every four hours during the rest of the day for "news story updates." During the administrative update connection, the set of advertisements, scripts and images in the subscriber computer's local information database are updated as necessary, and any software upgrades are also downloaded onto the subscriber's computer. During both "administrative update" and "news story update" connections, the news stories in the subscriber computer's local information database are updated. At the option of the information server's system operator, script and/or software updates can be made during "news story update"

Claim 4	U.S. Patent 5,740,549 to Reilly
	connections, especially when a malfunction has been detected in previously distributed scripts or software." (Reilly, 8:19-44) "The client computer then sends a portion of its user profile to the assigned application server. If an administrative update is being requested, the locally accumulated advertising display statistics 218 (see FIG. 4) are also sent to the application server. Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted. The application server 272 then makes calls to one or more data servers 274 to collect all the information that needs to be sent to the client computer and then sends those items to the client computer, along with instructions on what items, if any, should be deleted from the client computer's local information database." (Reilly, 14:57-15:6)
means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data;	"It is a goal of the present invention to disseminate information and advertisements to subscribers' computers in a system where the information and advertisements are automatically displayed when the subscriber's computer is on but meets predefined idleness criteria. For example, the predefined idleness criteria could be the failure to receive any input for a period of at least five minutes." (Reilly, 2:28-34) "An information display controller in each workstation displays on the workstation's display device at least a subset of the information items and advertisements stored in local memory when the workstation meets predefined idleness criteria." (Reilly, 3:11-14.) "While most client computers are desktop computers, such as IBM compatible computers and Macintosh computers, virtually any type of computer can be a client computer so long as it can support the "screen saver" mode of operation of the preferred embodiment." (Reilly, 4:16-20.) "Screen Saver and Viewer Procedures 200 are a set of procedures for controlling the display of news stories and advertisements. These procedures include a main screen saver procedure 201, category managers 202, an animation

Claim 4	U.S. Patent 5,740,549 to Reilly
	engine 204, a profiler 206, a data viewer 208 and an advertisement display statistics generator 210." (Reilly, 6:62-67.)
means for displaying one or more control options with the display device while the means for selectively displaying is operating;	"The data viewer 208 is a program for viewing news items that the subscriber specifically wants to read. The data viewer 208 can be executed at the subscriber's explicit command, and can also be launched from the screen saver if the, user indicates he/she wants to read a news story shown in the screen saver display." (Reilly, 9:11-16.)
means for selecting a displayed control option; and	"Referring to FIG. 10, the data viewer 208 is a program for viewing news items that the subscriber specifically wants to read. The data viewer 208 can be executed at the subscriber's explicit command, and as just described in the immediately preceding section of this document, the data viewer can also be launched from the screen saver when the subscriber indicates that he/she wants to read a news story shown in the screen saver display by "clicking" the subscriber's computer's mouse or trackball on that news story." (Reilly, 13:29-36)
means for controlling aspects of the operation of the system in accordance with a selected control option.	"Execution of the Screen Saver procedure 201, like other screen savers, is terminated and the subscriber's computer's display is returned to whatever was being displayed before the Screen Saver was executed, upon detection of certain types of user input. In the preferred embodiment, the user can use the profiler to select one of at least two exit modes: in a first mode, the Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface keyboard or by moving the user interface's mouse or trackball; in a second mode, the Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface keyboard, but movement of the mouse or trackball does not cause the Screen Saver procedure to terminate. Rather, in the second screen saver exit mode, the subscriber can use the mouse or trackball to point to any of the news items being displayed and upon clicking one of the mouse or trackball's buttons, the data viewer 208 is executed with the news item selected by the subscriber being displayed." (Reilly, 12:57-13:8)

2. *Claim 5*

Claim 5 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 5	U.S. Patent 5,740,549 to Reilly
A system as in claim 4, wherein:	
the control option enables the user to request termination of operation of the system; and the means for controlling terminates operation of the system.	"The profiler 206 is actually a set of procedures that define and update the subscriber's user profile 194. Referring to FIG. 4, in the preferred embodiment, the user profile 194 includes: … a screen saver exit mode indicator 220, indicating what actions cause the screen saver procedure to terminate and what actions cause the data viewer 208 to be executed." (Reilly, 7:45-8:18.) "Execution of the Screen Saver procedure 201, like other screen savers, is terminated and the subscriber's computer's display is returned to whatever was being displayed before the Screen Saver was executed, upon detection of certain types of user input. In the preferred embodiment, the user can use the profiler to select one of at least two exit modes: in a first mode, the Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface keyboard or by moving the user interface's mouse or trackball; in a second mode, the Screen Saver procedure is terminated by hitting any key on the subscriber computer's user interface keyboard, but movement of the mouse or trackball does not cause the Screen Saver procedure to terminate. Rather, in the second screen saver exit mode, the subscriber can use the mouse or trackball to point to any of the news items being displayed and upon clicking one of the mouse or trackball's buttons, the data viewer 208 is executed with the news item selected by the subscriber being displayed." (Reilly, 12:57-13:8)

3. *Claim 6*

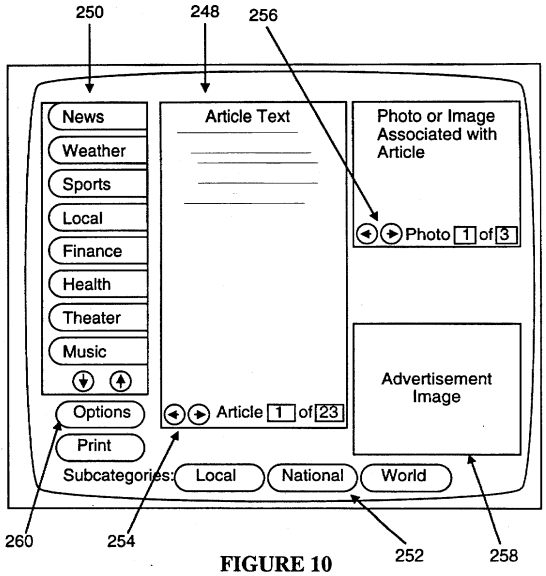
Claim 6 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 6	U.S. Patent 5,740,549 to Reilly
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	"The information database 134 also stores a set of "display scripts" 142. A script controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds. A script determines the number of news items displayed, determines the positions of the news items and advertisement on the display, determines any movement of the news items around the displayed image, and determines what background image or images are displayed in conjunction with the news items. An important concept associated with the present invention is that constantly varying the presentation of news items and advertisements, through the use of a rotating set of scripts, makes it easier for subscribers to read the news headlines and advertisements being presented. In a preferred embodiment, at least two distinct scripts, and preferably three or more distinct scripts are provided for most information categories, with a total of at least ten different scripts being used. Most scripts can be used with multiple categories of news items." (Reilly, 5:25-45) "The workstation's secondary memory is used to store a local information database 184 that includes news stories 183, advertisements 188, images 190 and display scripts 192." (Reilly, 6:46-49.) "In the preferred embodiment, the screen saver procedures for displaying news items and advertisements are invoked using the same types of criteria as are used by other types of screen saver procedures. Generally, whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local

Claim 6	U.S. Patent 5,740,549 to Reilly

	information database. In the preferred embodiment, the screen saver procedures display news items and advertisements for a sequence of information categories in a sequence of 30 second time slots.
	
	More specifically, under the control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script for 30 seconds, then news stories and an advertisement assigned to a second information category are displayed using a second display script for the next 30 seconds, and so on until news stories and an advertisement have been displayed in all the information categories indicated in the subscriber's user profile 194 as being of interest to the subscriber, at which point the process repeats with the first information category." (Reilly, 11:40-63)
	
	TABLE 1
	
	Pseudocode Representation of Screen Saver Procedure
	
	Store, indication of last information category displayed, and for each category an indication of the last advertisement, news story and display script used.
	Do Until Screen Saver Mode is exited:
	{
	Select next information category (SIC).
	Select next display script (SDS) from queue of display scripts and next advertisement (SA) from queue of advertisements for the selected information category.
	Inspect selected display script to determine NN, the number of news items to be displayed. Select the NN next news items (SNI) from queue of news items for the selected information category.
	Update User Profile to indicate the last selected information category, and to indicate for the selected information category, the selected display script, advertisement and last selected news story.
	Call Animation Engine (SDS, SA, SNI) to display for the next 30 seconds the selected advertisement (SA) and news items (SNI) under the direction of the selected display script (SDS).
	Call Ad Display Statistics Generator to update displayed advertisement statistics to include the advertisement displayed during current screen saver display period.
	}

the control option enables the user to request display of a next image or images generated from a next set of content data; and	"Referring to FIG. 10, the data viewer 208 is a program for viewing news items that the subscriber specifically wants to read. The data viewer 208 can be executed at the subscriber's explicit command, and as just described in the immediately preceding section of this document, the data viewer can also be launched from the screen saver when the subscriber indicates that he/she wants to read a news story shown in the screen saver display by "clicking" the subscriber's computer's mouse or trackball on that news story. The news stories shown in the center section 248 of the

Claim 6	U.S. Patent 5,740,549 to Reilly
	data viewer's display is selected by first selecting an information category by clicking on any of the category buttons 250 on the left margin of the display, and a subcategory button 252, if any, on the bottom margin of the display, and then clicking on the article advance backward and forward buttons 254 to scroll through the news items in the selected information category. When a news item has more than one photo image associated with it, the subscriber can click on the photo ***advance backward and forward buttons 256*** to scroll through the photos." (Reilly, 13:29-48)(emphasis added)  FIGURE 10

4. ***Claim 7***

Claim 7 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

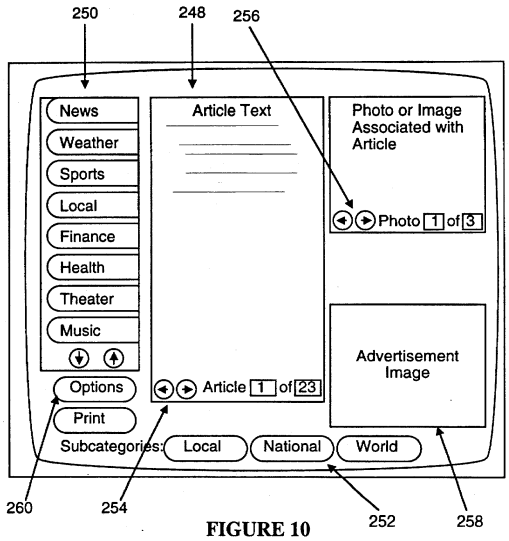
Claim 7	U.S. Patent 5,740,549 to Reilly
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for	"The information database 134 also stores a set of "display scripts" 142. A script controls the display of news items and advertisements, typically displaying a selected number

Claim 7	U.S. Patent 5,740,549 to Reilly
scheduling the display of an image or images generated from a set of content data;	of news items and one advertisement for a period of 30 seconds. A script determines the number of news items displayed, determines the positions of the news items and advertisement on the display, determines any movement of the news items around the displayed image, and determines what background image or images are displayed in conjunction with the news items. An important concept associated with the present invention is that constantly varying the presentation of news items and advertisements, through the use of a rotating set of scripts, makes it easier for subscribers to read the news headlines and advertisements being presented. In a preferred embodiment, at least two distinct scripts, and preferably three or more distinct scripts are provided for most information categories, with a total of at least ten different scripts being used. Most scripts can be used with multiple categories of news items." (Reilly, 5:25-45) "The workstation's secondary memory is used to store a local information database 184 that includes news stories 183, advertisements 188, images 190 and display scripts 192." (Reilly, 6:46-49.) "In the preferred embodiment, the screen saver procedures for displaying news items and advertisements are invoked using the same types of criteria as are used by other types of screen saver procedures. Generally, whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database. In the preferred embodiment, the screen saver procedures display news items and advertisements for a sequence of information categories in a sequence of 30 second time slots. More specifically, under the control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script for 30 seconds, then news stories and an advertisement assigned to a second information category are displayed using a second display script for the next 30 seconds, and so on until news stories and an advertisement have been displayed in all the information categories indicated in the subscriber's user profile 194 as being of interest to the subscriber, at which point the process repeats

Claim 7	U.S. Patent 5,740,549 to Reilly

	with the first information category." (Reilly, 11:40-63)
	
	TABLE 1
	Pseudocode Representation of Screen Saver Procedure
	Store, indication of last information category displayed, and for each category an indication of the last advertisement, news story and display script used.
	Do Until Screen Saver Mode is exited:
	{
	Select next information category (SIC).
	Select next display script (SDS) from queue of display scripts and next advertisement (SA) from queue of advertisements for the selected information category.
	Inspect selected display script to determine NN, the number of news items to be displayed. Select the NN next news items (SNI) from queue of news items for the selected information category.
	Update User Profile to indicate the last selected information category, and to indicate for the selected information category, the selected display script, advertisement and last selected news story.
	Call Animation Engine (SDS, SA, SNI) to display for the next 30 seconds the selected advertisement (SA) and news items (SNI) under the direction of the selected display script (SDS).
	Call Ad Display Statistics Generator to update displayed advertisement statistics to include the advertisement displayed during current screen saver display period.
	}

the control option enables the user to request display of a previous image generated from a previous set of content data; and the means for controlling displays the previous image.	"Referring to FIG. 10, the data viewer 208 is a program for viewing news items that the subscriber specifically wants to read. The data viewer 208 can be executed at the subscriber's explicit command, and as just described in the immediately preceding section of this document, the data viewer can also be launched from the screen saver when the subscriber indicates that he/she wants to read a news story shown in the screen saver display by "clicking" the subscriber's computer's mouse or trackball on that news story. The news stories shown in the center section 248 of the data viewer's display is selected by first selecting an information category by clicking on any of the category buttons 250 on the left margin of the display, and a subcategory button 252, if any, on the bottom margin of the display, and then clicking on the article advance backward and forward buttons 254 to scroll through the news items in the selected information category. When a news item has more than one photo image associated with it, the subscriber can click on the photo ***advance backward and forward buttons 256*** to scroll through the photos." (Reilly, 13:29-48)(emphasis added)

Claim 7	U.S. Patent 5,740,549 to Reilly
	 FIGURE 10

5. ***Claim 11***

Claim 11 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 11	U.S. Patent 5,740,549 to Reilly
A system as in claim 4, wherein:	
the control option enables the user to establish a link with an information location; and the means for controlling establishes the link with the information location.	"When using the second screen saver exit mode, if subscriber user clicks on an advertisement, the subscriber's computer is automatically connected to the an associated World Wide Web page on the Internet that provides additional information from the advertiser. This is accomplished by World Wide Web connection and viewer procedures 211 (see FIG. 2) stored on subscriber's computer. Each advertisement is stored on both the information server and subscriber computers as a C++ data structure that includes (A) an image data array, typically representing a "GIF" format image, as well as (B) a list of static images (such as corporate logos and legends), if any, incorporated into the advertisement, and (C) a Web site address that is used by the World Wide Web connection and viewer procedures 211 to connect the subscriber to the

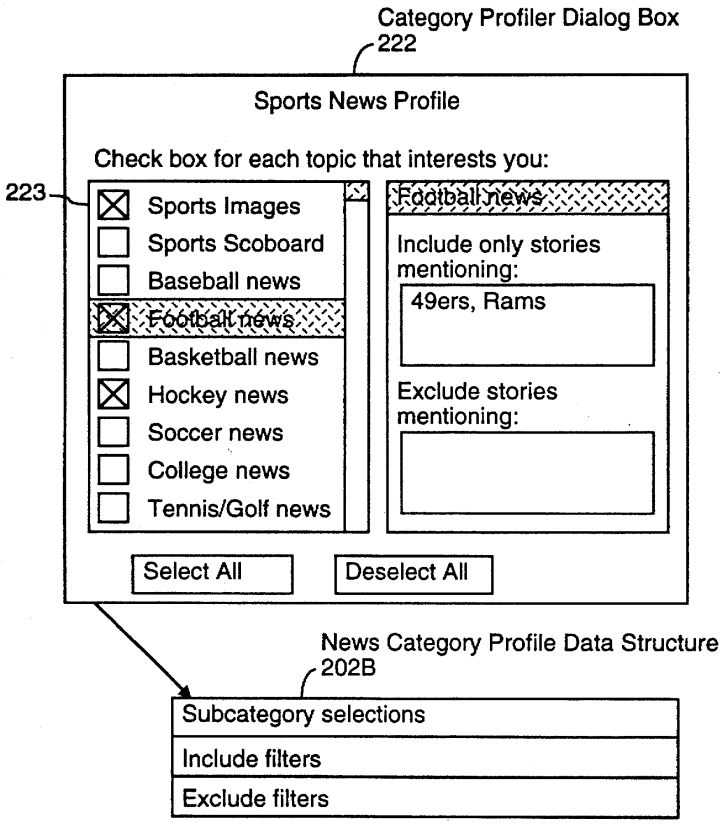
Claim 11	U.S. Patent 5,740,549 to Reilly
	advertiser's specified Web page when the subscriber clicks on the image of the associated advertisement." (Reilly, 13:9-25)

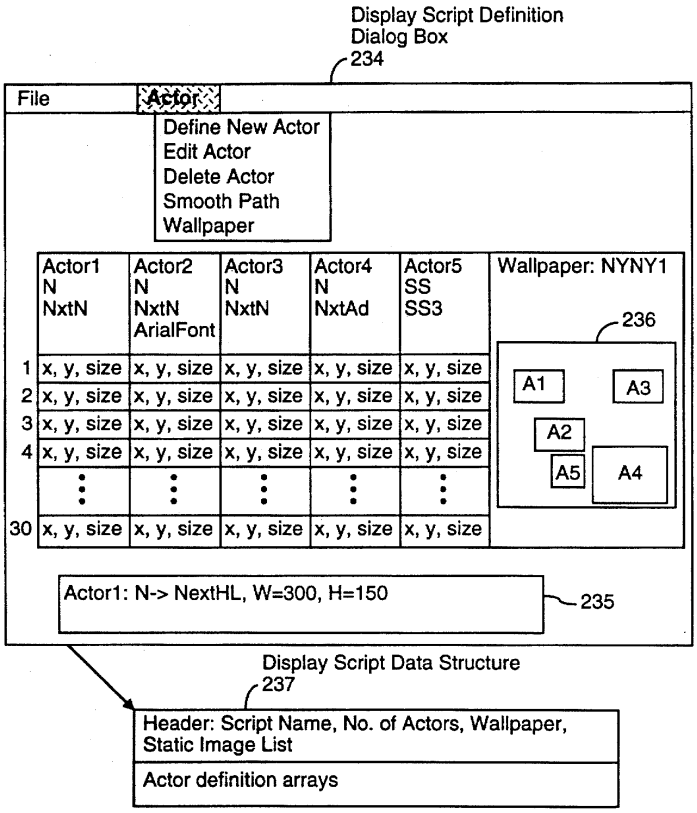
6. *Claim 15*

Claim 15 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 15	U.S. Patent 5,740,549 to Reilly
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"A information server stores and updates a database of information items and advertisements." (Reilly, 2:63-65) "Workstations remotely located from the information server each include a display device, a communication interface for receiving at least a subset of the information items and advertisements in the information server's database and local memory for storing the information items and advertisements received from the information server." (Reilly, 2:67-3:5.) "The default connection schedule is for the subscriber's computer to initiate a connection to the information server once during the middle of the night (e.g., a randomly selected time between 11 p.m. and 7 a.m. local time) for an "administrative update," and once every four hours during the rest of the day for "news story updates." During the administrative update connection, the set of advertisements, scripts and images in the subscriber computer's local

Claim 15	U.S. Patent 5,740,549 to Reilly
	information database are updated as necessary, and any software upgrades are also downloaded onto the subscriber's computer. During both "administrative update" and "news story update" connections, the news stories in the subscriber computer's local information database are updated. At the option of the information server's system operator, script and/or software updates can be made during "news story update" connections, especially when a malfunction has been detected in previously distributed scripts or software." (Reilly, 8:19-44) "The client computer then sends a portion of its user profile to the assigned application server. If an administrative update is being requested, the locally accumulated advertising display statistics 218 (see FIG. 4) are also sent to the application server. Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted. The application server 272 then makes calls to one or more data servers 274 to collect all the information that needs to be sent to the client computer and then sends those items to the client computer, along with instructions on what items, if any, should be deleted from the client computer's local information database." (Reilly, 14:57-15:6)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"Another goal of the present invention is provide each subscriber with the ability to set up and change a user profile indicating categories and subcategories of topics which are of interest and not of interest to the subscriber, and to select the news stories displayed on the subscriber's computer accordingly." (Reilly, 2:48-53) "The information database 134 also stores software modules 144 for downloading to subscribers' computers. The information administration management procedures and information viewing procedures in subscribers' computers will need updating and upgrading from time to time. The new versions of these software procedures are stored in the information server's information database 134 for downloading into the computers of subscribers at the same time that the information items or advertisements in the

Claim 15	U.S. Patent 5,740,549 to Reilly
	subscriber computers' information database 184 is updated. Since numerous types of subscriber computers are supported, the server's information database 134 will typically store a set of updated software modules for each of the supported types of computers." (Reilly, 5:47-60)  **FIGURE 5**
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	A display script in Reilly "controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds." (Reilly, 5:25-29.) Reilly describes in detail the creation of display scripts that control the position, motion and sequence of the display of certain items. (Reilly 9:64-11:36 ("Display Script Definition Procedure"). For example, FIG. 7A (reproduced below) "provides an easy to use dialog 234 for display script definition." (Reilly, 10:19-20.) As illustrated in FIG. 7A, the user can define the position and size of an actor in one second intervals. (Reilly, 10:56-58.) "Each 'actor' represents a sprite, which is a displayable image, that can move around the screen …."

Claim 15	U.S. Patent 5,740,549 to Reilly
	(Reilly, 10:23-24.)  **FIGURE 7A** "The subscriber level news item filtering function is also used to enable the information server to instruct the subscribers' computers to "black out" an advertisement, without deleting it from the local database. For example, a company may want to suspend its advertisements for a few days after a disaster involving the company. The black out function is achieved by simply removing the corresponding advertisement(s) from the advertisement queues in the data access tables. For this purpose, the information server and subscriber computers may temporarily define a "non-use" information category and a corresponding advertisement queue for keeping track of blacked out items." (Reilly, 15:41-52)
wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images	"The information database 134 also stores a set of "display scripts" 142. A script controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds. A script determines the number of news items displayed, determines the positions of the news items and

Claim 15	U.S. Patent 5,740,549 to Reilly
generated from a set of content data are displayed; and	advertisement on the display, determines any movement of the news items around the displayed image, and determines what background image or images are displayed in conjunction with the news items. An important concept associated with the present invention is that constantly varying the presentation of news items and advertisements, through the use of a rotating set of scripts, makes it easier for subscribers to read the news headlines and advertisements being presented. In a preferred embodiment, at least two distinct scripts, and preferably three or more distinct scripts are provided for most information categories, with a total of at least ten different scripts being used. Most scripts can be used with multiple categories of news items." (Reilly, 5:25-45) "The workstation's secondary memory is used to store a local information database 184 that includes news stories 183, advertisements 188, images 190 and display scripts 192." (Reilly, 6:46-49.) "In the preferred embodiment, the screen saver procedures for displaying news items and advertisements are invoked using the same types of criteria as are used by other types of screen saver procedures. Generally, whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database. In the preferred embodiment, the screen saver procedures display news items and advertisements for a sequence of information categories in a sequence of 30 second time slots. More specifically, under the control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script for 30 seconds, then news stories and an advertisement assigned to a second information category are displayed using a second display script for the next 30 seconds, and so on until news stories and an advertisement have been displayed in all the information categories indicated in the subscriber's user profile 194 as being of interest to the subscriber, at which point the process repeats with the first information category." (Reilly, 11:40-63)

Claim 15	U.S. Patent 5,740,549 to Reilly

	TABLE 1
	Pseudocode Representation of Screen Saver Procedure
	Store, indication of last information category displayed, and for each category an indication of the last advertisement, news story and display script used.
	Do Until Screen Saver Mode is exited:
	{
	Select next information category (SIC).
	Select next display script (SDS) from queue of display scripts and next advertisement (SA) from queue of advertisements for the selected information category.
	Inspect selected display script to determine NN, the number of news items to be displayed. Select the NN next news items (SNI) from queue of news items for the selected information category.
	Update User Profile to indicate the last selected information category, and to indicate for the selected information category, the selected display script, advertisement and last selected news story.
	Call Animation Engine (SDS, SA, SNI) to display for the next 30 seconds the selected advertisement (SA) and news items (SNI) under the direction of the selected display script (SDS).
	Call Ad Display Statistics Generator to update displayed advertisement statistics to include the advertisement displayed during current screen saver display period.
	}

display instructions for enabling display of the image or images generated from the set of content data.	"It is a goal of the present invention to disseminate information and advertisements to subscribers' computers in a system where the information and advertisements are automatically displayed when the subscriber's computer is on but meets predefined idleness criteria. For example, the predefined idleness criteria could be the failure to receive any input for a period of at least five minutes." (Reilly, 2:28-34) "An information display controller in each workstation displays on the workstation's display device at least a subset of the information items and advertisements stored in local memory when the workstation meets predefined idleness criteria." (Reilly, 3:11-14.) "While most client computers are desktop computers, such as IBM compatible computers and Macintosh computers, virtually any type of computer can be a client computer so long as it can support the "screen saver" mode of operation of the preferred embodiment." (Reilly, 4:16-20.) "Screen Saver and Viewer Procedures 200 are a set of procedures for controlling the display of news stories and advertisements. These procedures include a main screen saver procedure 201, category managers 202, an animation engine 204, a profiler 206, a data viewer 208 and an advertisement display statistics generator 210." (Reilly, 6:62-67.)

7. *Claim 16*

Claim 16 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 16	U.S. Patent 5,740,549 to Reilly
A computer readable medium as in claim 15, wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data.	″ The subscriber level news item filtering function is also used to enable the information server to instruct the subscribers' computers to "black out" an advertisement, without deleting it from the local database. For example, a company may want to suspend its advertisements for a few days after a disaster involving the company. The black out function is achieved by simply removing the corresponding advertisement(s) from the advertisement queues in the data access tables. For this purpose, the information server and subscriber computers may temporarily define a "non-use" information category and a corresponding advertisement queue for keeping track of blacked out items." (Reilly, 15:41-52)

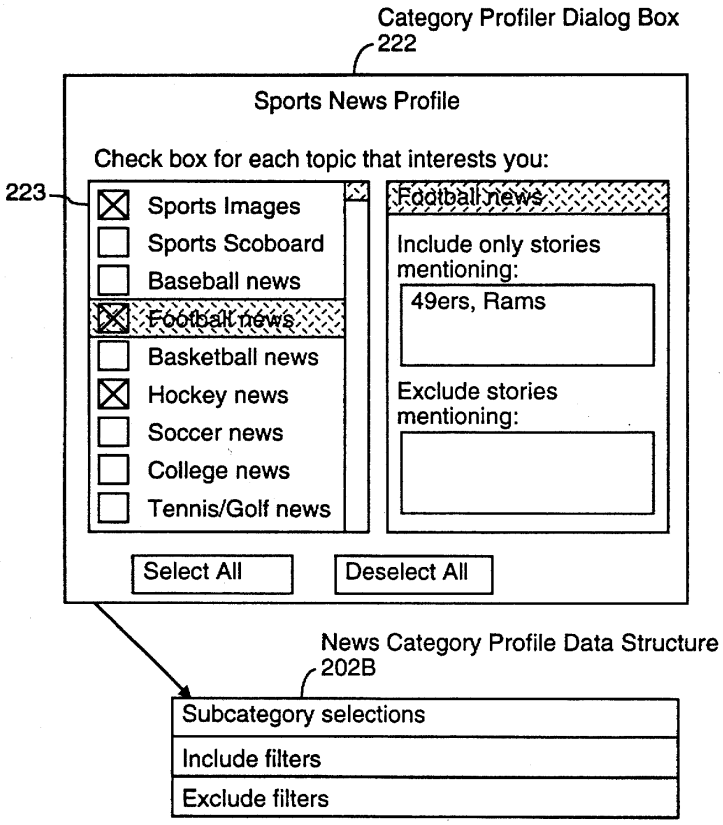
8. *Claim 18*

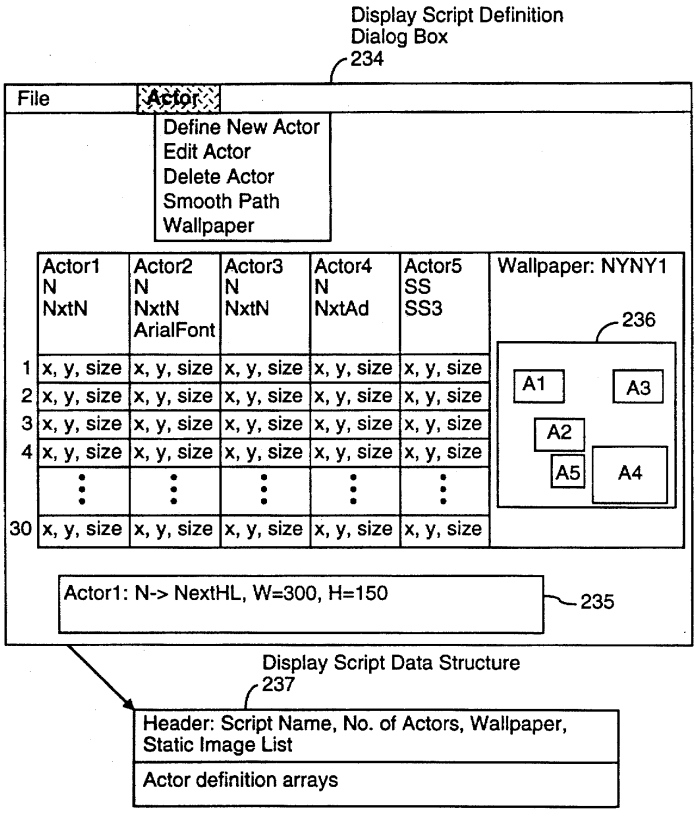
Claim 18 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Reilly. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Reilly.

Claim 18	U.S. Patent 5,740,549 to Reilly
18. A computer readable medium, for use by a content display system, encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the	

Claim 18	U.S. Patent 5,740,549 to Reilly
set of content data on a display device during operation of an attention manager, comprising:	
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"A information server stores and updates a database of information items and advertisements." (Reilly, 2:63-65) "Workstations remotely located from the information server each include a display device, a communication interface for receiving at least a subset of the information items and advertisements in the information server's database and local memory for storing the information items and advertisements received from the information server." (Reilly, 2:67-3:5.) "The default connection schedule is for the subscriber's computer to initiate a connection to the information server once during the middle of the night (e.g., a randomly selected time between 11 p.m. and 7 a.m. local time) for an "administrative update," and once every four hours during the rest of the day for "news story updates." During the administrative update connection, the set of advertisements, scripts and images in the subscriber computer's local information database are updated as necessary, and any software upgrades are also downloaded onto the subscriber's computer. During both "administrative update" and "news story update" connections, the news stories in the subscriber computer's local information database are updated. At the option of the information server's system operator, script and/or software updates can be made during "news story update" connections, especially when a malfunction has been detected in previously distributed scripts or software." (Reilly, 8:19-44) "The client computer then sends a portion of its user profile to the assigned application server. If an administrative update is being requested, the locally accumulated advertising display statistics 218 (see FIG. 4) are also sent to the application server. Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted. The application server 272 then

Claim 18	U.S. Patent 5,740,549 to Reilly
	makes calls to one or more data servers 274 to collect all the information that needs to be sent to the client computer and then sends those items to the client computer, along with instructions on what items, if any, should be deleted from the client computer's local information database." (Reilly, 14:57-15:6)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"Another goal of the present invention is provide each subscriber with the ability to set up and change a user profile indicating categories and subcategories of topics which are of interest and not of interest to the subscriber, and to select the news stories displayed on the subscriber's computer accordingly." (Reilly, 2:48-53) "The information database 134 also stores software modules 144 for downloading to subscribers' computers. The information administration management procedures and information viewing procedures in subscribers' computers will need updating and upgrading from time to time. The new versions of these software procedures are stored in the information server's information database 134 for downloading into the computers of subscribers at the same time that the information items or advertisements in the subscriber computers' information database 184 is updated. Since numerous types of subscriber computers are supported, the server's information database 134 will typically store a set of updated software modules for each of the supported types of computers." (Reilly, 5:47-60) "As mentioned earlier, each of the category managers includes a profiler procedure for defining the subscriber's interest in receiving news items within each information category. An example of the profile definition dialog generated by a category profiler, for the Sports category, is shown in FIG. 5. In this example, the Sports Definition Profile dialog box 222 includes, on the left side, a scroll box 223 in which the user can select and deselect subcategories of sports information by clicking on boxes next to the listed subcategories. A "Select All" button in the dialog box can be used (i.e., by clicking the subscriber computer's mouse or trackball device on the image of the box) to select all subcategories, and a "Deselect All" button can be used to indicate that the subscriber does not want to receive any news items for the Sports category. For each subcategory, either an "include only" or an "exclude" filter (but not both) can be defined where the user types in key words to be used to select (for the include only) or deselect news items within

Claim 18	U.S. Patent 5,740,549 to Reilly
	that subcategory. For instance, if the subscriber types in the words "49ers, Rams" in the box for the include only filter for the "football news" subcategory, only news items using either of those words will be shown to the subscriber" (Reilly, 9:36-57)  **FIGURE 5**
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data;	A display script in Reilly "controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds." (Reilly, 5:25-29.) Reilly describes in detail the creation of display scripts that control the position, motion and sequence of the display of certain items. (Reilly 9:64-11:36 ("Display Script Definition Procedure"). For example, FIG. 7A (reproduced below) "provides an easy to use dialog 234 for display script definition." (Reilly, 10:19-20.) As illustrated in FIG. 7A, the user can define the position and size of an actor in one second intervals. (Reilly, 10:56-58.) "Each 'actor' represents a sprite, which is a displayable image, that can move around the screen …."

Claim 18	U.S. Patent 5,740,549 to Reilly
	(Reilly, 10:23-24.)  **FIGURE 7A** "The subscriber level news item filtering function is also used to enable the information server to instruct the subscribers' computers to "black out" an advertisement, without deleting it from the local database. For example, a company may want to suspend its advertisements for a few days after a disaster involving the company. The black out function is achieved by simply removing the corresponding advertisement(s) from the advertisement queues in the data access tables. For this purpose, the information server and subscriber computers may temporarily define a "non-use" information category and a corresponding advertisement queue for keeping track of blacked out items." (Reilly, 15:41-52)
display instructions for enabling display of the image or images generated from the set of content data;	"It is a goal of the present invention to disseminate information and advertisements to subscribers' computers in a system where the information and advertisements are automatically displayed when the subscriber's computer is on but meets predefined idleness criteria. For example, the predefined idleness criteria could be the failure to receive

Claim 18	U.S. Patent 5,740,549 to Reilly
	any input for a period of at least five minutes." (Reilly, 2:28-34) "An information display controller in each workstation displays on the workstation's display device at least a subset of the information items and advertisements stored in local memory when the workstation meets predefined idleness criteria." (Reilly, 3:11-14.) "While most client computers are desktop computers, such as IBM compatible computers and Macintosh computers, virtually any type of computer can be a client computer so long as it can support the "screen saver" mode of operation of the preferred embodiment." (Reilly, 4:16-20.) "Screen Saver and Viewer Procedures 200 are a set of procedures for controlling the display of news stories and advertisements. These procedures include a main screen saver procedure 201, category managers 202, an animation engine 204, a profiler 206, a data viewer 208 and an advertisement display statistics generator 210." (Reilly, 6:62-67.)
content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously acquired set of content data;	"Another goal of the present invention is to automatically update each subscriber's local database of news stories at least once per day, and preferably multiple times per day so as to present subscribers with timely information." (Reilly, 2:35-38.) "An information administrator in each workstation establishes communication with the information server from time to time so as to update the information items and advertisements stored in local memory with at least a subset of the information items and advertisements stored by the information server." (Reilly, 3:5-11.) "The default connection schedule is for the subscriber's computer to initiate a connection to the information server once during the middle of the night (e.g., a randomly selected time between 11 p.m. and 7 a.m. local time) for an "administrative update," and once every four hours during the rest of the day for "news story updates." During the administrative update connection, the set of advertisements, scripts and images in the subscriber computer's local information database are updated as necessary, and any software upgrades are also downloaded onto the subscriber's computer. During both "administrative update" and "news story update" connections, the news stories in the subscriber computer's local information database are updated. At the

Claim 18	U.S. Patent 5,740,549 to Reilly
	option of the information server's system operator, script and/or software updates can be made during "news story update" connections, especially when a malfunction has been detected in previously distributed scripts or software." (Reilly, 8:19-44) " Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted. The application server 272 then makes calls to one or more data servers 274 to collect all the information that needs to be sent to the client computer and then sends those items to the client computer, along with instructions on what items, if any, should be deleted from the client computer's local information database." (Reilly, 14:62-15:6)
operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data;	"[W]henever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database." (Reilly, 11:43-49.) Under the "control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script …" (Reilly, 11:53-56.) Reilly further discloses that the screen saver procedure may be "terminated by hitting any key on the subscriber computer's user interface keyboard." (Reilly, 12:66-13:1.)
content display system scheduling instructions for scheduling the display of the image or images on the display device;	"The information database 134 also stores a set of "display scripts" 142. A script controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds. A script determines the number of news items displayed, determines the positions of the news items and advertisement on the display, determines any movement of the news items around the displayed image, and determines what background image or images are displayed in conjunction with the news items. An important concept associated with the present invention

Claim 18	U.S. Patent 5,740,549 to Reilly
	is that constantly varying the presentation of news items and advertisements, through the use of a rotating set of scripts, makes it easier for subscribers to read the news headlines and advertisements being presented. In a preferred embodiment, at least two distinct scripts, and preferably three or more distinct scripts are provided for most information categories, with a total of at least ten different scripts being used. Most scripts can be used with multiple categories of news items." (Reilly, 5:25-45) "The workstation's secondary memory is used to store a local information database 184 that includes news stories 183, advertisements 188, images 190 and display scripts 192." (Reilly, 6:46-49.) "In the preferred embodiment, the screen saver procedures for displaying news items and advertisements are invoked using the same types of criteria as are used by other types of screen saver procedures. Generally, whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database. In the preferred embodiment, the screen saver procedures display news items and advertisements for a sequence of information categories in a sequence of 30 second time slots. More specifically, under the control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script for 30 seconds, then news stories and an advertisement assigned to a second information category are displayed using a second display script for the next 30 seconds, and so on until news stories and an advertisement have been displayed in all the information categories indicated in the subscriber's user profile 194 as being of interest to the subscriber, at which point the process repeats with the first information category." (Reilly, 11:40-63)

Claim 18	U.S. Patent 5,740,549 to Reilly

	TABLE 1
	Pseudocode Representation of Screen Saver Procedure
	Store, indication of last information category displayed, and for each category an indication of the last advertisement, news story and display script used.
	Do Until Screen Saver Mode is exited:
	{
	Select next information category (SIC).
	Select next display script (SDS) from queue of display scripts and next advertisement (SA) from queue of advertisements for the selected information category.
	Inspect selected display script to determine NN, the number of news items to be displayed. Select the NN next news items (SNI) from queue of news items for the selected information category.
	Update User Profile to indicate the last selected information category, and to indicate for the selected information category, the selected display script, advertisement and last selected news story.
	Call Animation Engine (SDS, SA, SNI) to display for the next 30 seconds the selected advertisement (SA) and news items (SNI) under the direction of the selected display script (SDS).
	Call Ad Display Statistics Generator to update displayed advertisement statistics to include the advertisement displayed during current screen saver display period.
	}

installation instructions for installing the operating instructions and content display system scheduling instructions on the content display system; and	"[I]nstallation instructions for installing the operating instructions and content display system scheduling instructions on a content display system," as recited in claim 66, were embodied by conventional software present on the content display computer …" (Response to Final Office Action, p. 33.)
audit instructions for monitoring usage of the content display system to selectively display an image or images generated from a set of content data.	"Finally, the information database 134 includes advertising display statistics 148 and news item display statistics 149. The display statistics are collected from the subscribers' computers when the subscribers' computers call in for updated news stories and the like. Advertising display statistics indicate how many times each advertisement has been displayed on subscribers' computers. In a preferred embodiment, display statistics for each advertisement are divided into a display count for displaying during data viewer usage, a display count for other display instances, and an indication of each advertisement the user has interacted with, such as by "clicking" on the advertisement to connect to the advertiser's World Wide Web page. News item display statistics 149 concern how much time the subscriber spent viewing each non-advertising item in the data viewer as well as the amount of time the screen saver was active for each information category." (5:61-6:10) "The profiler 206 is actually a set of procedures that define and update the subscriber's user profile 194. Referring to

Claim 18	U.S. Patent 5,740,549 to Reilly
	FIG. 4, in the preferred embodiment, the user profile 194 includes: … advertising and news item display statistics 218; screen saver information 219 indicating the last displayed information category and the last displayed advertisement and news items in each information category are stored in a portion of the user profile 194 not transmitted to the information server" (Reilly, 7:45-8:18.) "The display statistics generator 210 keeps tracks of how many times each advertisement in the local information database has been displayed since the last time advertisement display statistics have been transferred to the information server. The display statistics generator 210 also keeps track of how many times each news item has been displayed in the same time period. These display statistics are stored in the user profile 194 at 218. In the preferred embodiment, the advertisement display statistics, and news items display statistics, are transferred to the information server once per day during a connection also used to update the subscriber computer's information database. In alternate embodiments, the advertisement display statistics could be transferred more often (e.g., every time the subscriber's computer connects to the information server) or less often (e.g., once per week)." (Reilly, 9:18-33)

D. *Reilly and Kjorsvik*

Claim 8 is unpatentable under 35 U.S.C. § 103 as being rendered obvious by the combination of Reilly and Kjorsvik as discussed below.

As described above and set forth in the following claim chart, Reilly discloses all of the limitations of dependent claim 8 except the limitations of "*the control option enables the user to remove a set of content data from the schedule; and the means for controlling removes the set of content data from the schedule*." However, these limitations are disclosed by Kjorsvik.

A person of ordinary skill in the art would have been motivated to combine Reilly and Kjorsvik because both references relate to providing content to a user on a display screen and more particularly, disclose doing so in connection with screen savers (among other embodiments). Furthermore, a person of ordinary skill in the art could have combined the elements taught by Reilly and Kjorsvik by known methods and would have recognized that the results of the combination were predictable.

Claim 8	Reilly and Kjorsvik
8. A system as in claim 4, wherein:	
a plurality of sets of content data are acquired by the system;	"Administration module 26 also has the capability of communicating with external sources, including other network servers with databases having presentation information, as well as other outside sources of data and images." (Kjorsvik, 2:58-62) "Lastly, presentations may be obtained or provided to external systems and/or other outside sources over external communication lines. This enables the one administration module for the system to obtain or provide presentations directly from or to external sources, so as to eliminate the need for composing them within the system." (Kjorsvik, 4:19-24)
the means for selectively displaying further comprises means for scheduling the display of the image or images generated from the sets of content data;	"The information database 134 also stores a set of "display scripts" 142. A script controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds. A script determines the number of news items displayed, determines the positions of the news items and advertisement on the display, determines any movement of the news items around the displayed image, and determines what background image or images are displayed in conjunction with the news items. An important concept associated with the present invention is that constantly varying the presentation of news items and advertisements, through the use of a rotating set of scripts, makes it easier for subscribers to read the news headlines and advertisements being presented. In a preferred embodiment, at least two distinct scripts, and preferably three or more distinct scripts are provided for

Claim 8	Reilly and Kjorsvik
	most information categories, with a total of at least ten different scripts being used. Most scripts can be used with multiple categories of news items." (Reilly, 5:25-45) "The workstation's secondary memory is used to store a local information database 184 that includes news stories 183, advertisements 188, images 190 and display scripts 192." (Reilly, 6:46-49.) "In the preferred embodiment, the screen saver procedures for displaying news items and advertisements are invoked using the same types of criteria as are used by other types of screen saver procedures. Generally, whenever the system detects a lack of user inputs via either keyboard or pointer device (e.g., a mouse or trackball) for a user configurable or otherwise specified length of time (e.g., 5 minutes), the screen saver procedures of the present invention begin the display of news items and advertisements from the local information database. In the preferred embodiment, the screen saver procedures display news items and advertisements for a sequence of information categories in a sequence of 30 second time slots. More specifically, under the control of the screen saver procedures, news stories and an advertisement assigned to a first information category are displayed using a first display script for 30 seconds, then news stories and an advertisement assigned to a second information category are displayed using a second display script for the next 30 seconds, and so on until news stories and an advertisement have been displayed in all the information categories indicated in the subscriber's user profile 194 as being of interest to the subscriber, at which point the process repeats with the first information category." (Reilly, 11:40-63)

Claim 8	Reilly and Kjorsvik

	TABLE 1
	Pseudocode Representation of Screen Saver Procedure
	Store, indication of last information category displayed, and for each category an indication of the last advertisement, news story and display script used.
	Do Until Screen Saver Mode is exited:
	{
	Select next information category (SIC).
	Select next display script (SDS) from queue of display scripts and next advertisement (SA) from queue of advertisements for the selected information category.
	Inspect selected display script to determine NN, the number of news items to be displayed. Select the NN next news items (SNI) from queue of news items for the selected information category.
	Update User Profile to indicate the last selected information category, and to indicate for the selected information category, the selected display script, advertisement and last selected news story.
	Call Animation Engine (SDS, SA, SNI) to display for the next 30 seconds the selected advertisement (SA) and news items (SNI) under the direction of the selected display script (SDS).
	Call Ad Display Statistics Generator to update displayed advertisement statistics to include the advertisement displayed during current screen saver display period.
	}

the control option enables the user to remove a set of content data from the schedule; and	"By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the "current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)
the means for controlling removes the set of content data from the schedule.	"By pushing an eject button or other designated key, the user will also be able to go to another selected presentation among the several available to it through the administration module. The newly selected presentation will remain the "current" presentation until the broadcast schedule previously established in the administration module for that PC indicates that another presentation is due." (Kjorsvik, 5:33-39)

G. *Reilly and U.S. Patent 5,781,894 to Petrecca*

Claim 17 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Reilly and Petrecca. As described above and set forth in the following claim chart, Reilly discloses all of the limitations of independent claim 17 except the

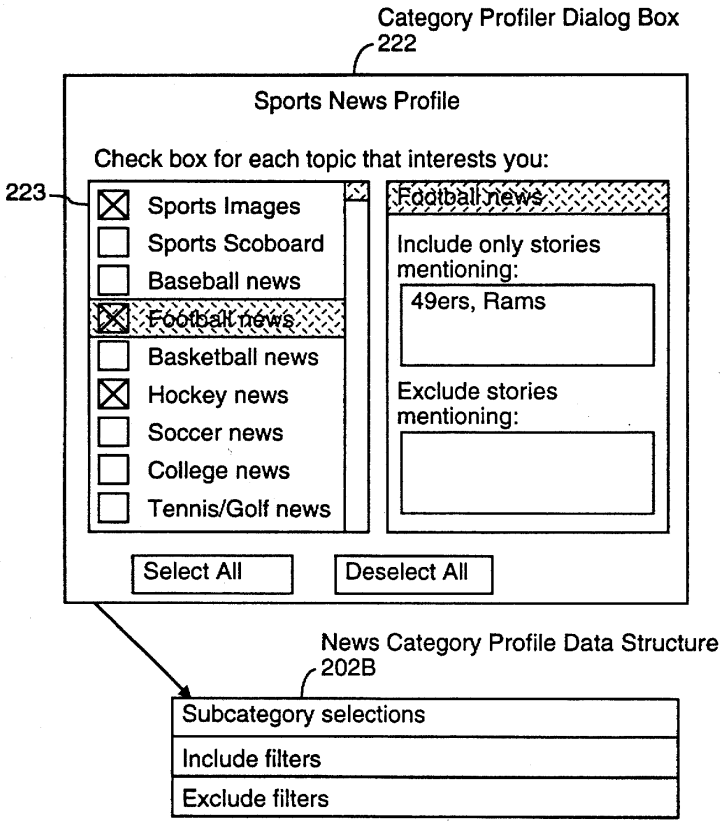
limitation of "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed*." However, this limitation is disclosed by Petrecca.

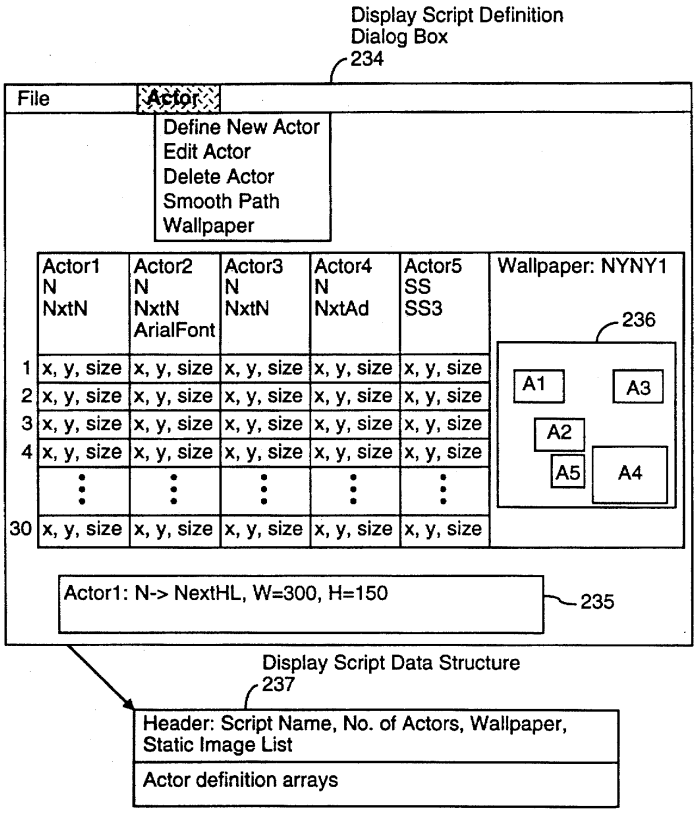
A person of ordinary skill in the art would have been motivated to combine Reilly and Petrecca because Reilly relates to providing content to a user on a display screen, including advertisements, and Petrecca relates to setting scheduling constraints on the display of content to a user and Petrecca discloses that advertisers who are providing content may wish "control the number of presentations of a certain advertising message." (Petrecca, 3:5-6; see also Petrecca 3:4-17.) Furthermore, a person of ordinary skill in the art could have combined the elements taught by Reilly and Petrecca by known methods and would have recognized that the results of the combination were predictable.

Claim 17	**Reilly + Petrecca**
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"A information server stores and updates a database of information items and advertisements." (Reilly, 2:63-65) "Workstations remotely located from the information server each include a display device, a communication interface for receiving at least a subset of the information items and advertisements in the information server's database and local memory for storing the information items and advertisements received from the information server."

Claim 17	Reilly + Petrecca
	(Reilly, 2:67-3:5.) "The default connection schedule is for the subscriber's computer to initiate a connection to the information server once during the middle of the night (e.g., a randomly selected time between 11 p.m. and 7 a.m. local time) for an "administrative update," and once every four hours during the rest of the day for "news story updates." During the administrative update connection, the set of advertisements, scripts and images in the subscriber computer's local information database are updated as necessary, and any software upgrades are also downloaded onto the subscriber's computer. During both "administrative update" and "news story update" connections, the news stories in the subscriber computer's local information database are updated. At the option of the information server's system operator, script and/or software updates can be made during "news story update" connections, especially when a malfunction has been detected in previously distributed scripts or software." (Reilly, 8:19-44) "The client computer then sends a portion of its user profile to the assigned application server. If an administrative update is being requested, the locally accumulated advertising display statistics 218 (see FIG. 4) are also sent to the application server. Based on the time of day and the information in the transmitted user profile, the application server determines (A) what type of update is to be performed (i.e., a news item update or an administrative update), and (B) what new information needs to be downloaded to the client computer and what items in the client computer's local information database should be deleted. The application server 272 then makes calls to one or more data servers 274 to collect all the information that needs to be sent to the client computer and then sends those items to the client computer, along with instructions on what items, if any, should be deleted from the client computer's local information database." (Reilly, 14:57-15:6)
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the	"Another goal of the present invention is provide each subscriber with the ability to set up and change a user profile indicating categories and subcategories of topics which are of interest and not of interest to the subscriber, and to select the news stories displayed on the subscriber's computer accordingly." (Reilly, 2:48-53)

Claim 17	Reilly + Petrecca
specified information source;	"The information database 134 also stores software modules 144 for downloading to subscribers' computers. The information administration management procedures and information viewing procedures in subscribers' computers will need updating and upgrading from time to time. The new versions of these software procedures are stored in the information server's information database 134 for downloading into the computers of subscribers at the same time that the information items or advertisements in the subscriber computers' information database 184 is updated. Since numerous types of subscriber computers are supported, the server's information database 134 will typically store a set of updated software modules for each of the supported types of computers." (Reilly, 5:47-60) "As mentioned earlier, each of the category managers includes a profiler procedure for defining the subscriber's interest in receiving news items within each information category. An example of the profile definition dialog generated by a category profiler, for the Sports category, is shown in FIG. 5. In this example, the Sports Definition Profile dialog box 222 includes, on the left side, a scroll box 223 in which the user can select and deselect subcategories of sports information by clicking on boxes next to the listed subcategories. A "Select All" button in the dialog box can be used (i.e., by clicking the subscriber computer's mouse or trackball device on the image of the box) to select all subcategories, and a "Deselect All" button can be used to indicate that the subscriber does not want to receive any news items for the Sports category. For each subcategory, either an "include only" or an "exclude" filter (but not both) can be defined where the user types in key words to be used to select (for the include only) or deselect news items within that subcategory. For instance, if the subscriber types in the words "49ers, Rams" in the box for the include only filter for the "football news" subcategory, only news items using either of those words will be shown to the subscriber" (Reilly, 9:36-57)

Claim 17	Reilly + Petrecca
	 **FIGURE 5**
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	A display script in Reilly "controls the display of news items and advertisements, typically displaying a selected number of news items and one advertisement for a period of 30 seconds." (Reilly, 5:25-29.) Reilly describes in detail the creation of display scripts that control the position, motion and sequence of the display of certain items. (Reilly 9:64-11:36 ("Display Script Definition Procedure"). For example, FIG. 7A (reproduced below) "provides an easy to use dialog 234 for display script definition." (Reilly, 10:19-20.) As illustrated in FIG. 7A, the user can define the position and size of an actor in one second intervals. (Reilly, 10:56-58.) "Each 'actor' represents a sprite, which is a displayable image, that can move around the screen …." (Reilly, 10:23-24.)

Claim 17	Reilly + Petrecca
	 **FIGURE 7A** "The subscriber level news item filtering function is also used to enable the information server to instruct the subscribers' computers to "black out" an advertisement, without deleting it from the local database. For example, a company may want to suspend its advertisements for a few days after a disaster involving the company. The black out function is achieved by simply removing the corresponding advertisement(s) from the advertisement queues in the data access tables. For this purpose, the information server and subscriber computers may temporarily define a "non-use" information category and a corresponding advertisement queue for keeping track of blacked out items." (Reilly, 15:41-52)
wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a	"The advertising system and method of the present invention may also be configured so that it controls the number of presentations of a certain advertising message. For example, if a movie studio chooses to advertise several upcoming movies on game software and expects these movies to be released on a series of separate dates, the advertising program begins to present the advertisement of a

Claim 17	Reilly + Petrecca
set of content data can be displayed; and	particular movie starting 1 month before it is released and terminates the presentation of that particular advertisement 2 months later. Alternatively, the advertising system could keep track of the number of times that it presents a particular advertisement and be configured to stop presenting an advertisement after a certain number of presentations." (Petrecca, 3:4-18)
display instructions for enabling display of the image or images generated from the set of content data.	"It is a goal of the present invention to disseminate information and advertisements to subscribers' computers in a system where the information and advertisements are automatically displayed when the subscriber's computer is on but meets predefined idleness criteria. For example, the predefined idleness criteria could be the failure to receive any input for a period of at least five minutes." (Reilly, 2:28-34) "An information display controller in each workstation displays on the workstation's display device at least a subset of the information items and advertisements stored in local memory when the workstation meets predefined idleness criteria." (Reilly, 3:11-14.) "While most client computers are desktop computers, such as IBM compatible computers and Macintosh computers, virtually any type of computer can be a client computer so long as it can support the "screen saver" mode of operation of the preferred embodiment." (Reilly, 4:16-20.) "Screen Saver and Viewer Procedures 200 are a set of procedures for controlling the display of news stories and advertisements. These procedures include a main screen saver procedure 201, category managers 202, an animation engine 204, a profiler 206, a data viewer 208 and an advertisement display statistics generator 210." (Reilly, 6:62-67.)

E. ***U.S. Patent No. 5,796,945 to Tarabella***

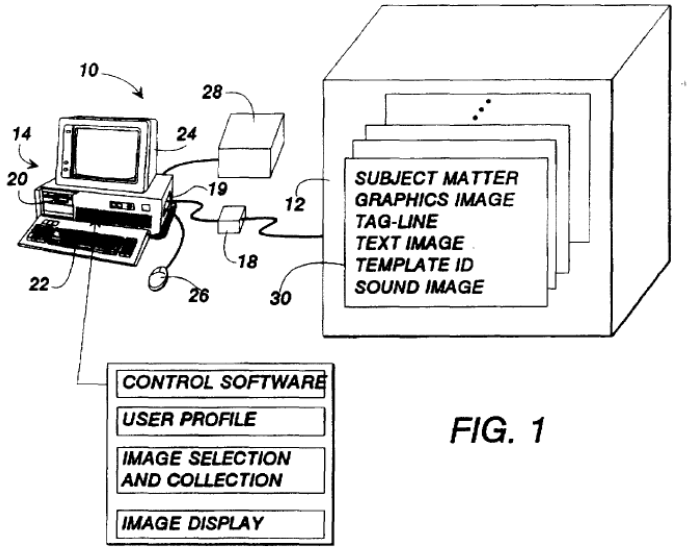
Claims 4, 5, 8, 11, 15, 16 and 18 are unpatentable under 35 U.S.C. §102(e) as being anticipated by Tarabella as discussed below.

9. ***Claim 4***

Claim 4 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 4	U.S. Patent No. 5,796,945 to Tarabella
4. A system for engaging the peripheral attention of a person in the vicinity of a display device of an apparatus, comprising:	"An apparatus for collecting a series of image collections for display on a video terminal at a user-selected time and sequence, with the series of image collections selected according to a user-defined indicia of images to collect. The apparatus includes means for generating a set of indicia used to select and create sets of image collections for subsequent display on a video terminal at a user-selected time and sequence; means for collecting sets of image collections based on the set of indicia; and means for displaying representative portions of each of the sets of image collections on the video terminal. Means are provided for displaying the sets of image collections." (Tarabella, Abstract.) "It is thus seen that a need exists for making the idle time of computers more productive for computer users by providing an apparatus that collects and displays selected images of subject matters of interest to the user. It is to the provision of such that the present invention is primarily directed. … The present invention in a preferred apparatus collects a series of image collections according to user-defined indicia of images to collect for display on a video terminal at a user-selected idle time and sequence." (Tarabella, 2:14-24.)
means for acquiring a set of content data from a content providing system;	"The apparatus comprises at least one library 12 having collections of images and at least one computer 14 such as a commercially available personal computer operable by a user to access the library. In the illustrated embodiment, the computer 14 is remotely located from the library 12. The computer 14 communicates with the library 12 through a communications device 18, such as a modem. The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24 . . . ." (Tarabella, 3:12-21.)

Claim 4	U.S. Patent No. 5,796,945 to Tarabella
	"After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Control Software-Image Selection and Collection At the predetermined time set in the connectivity screen (FIG. 4D), the microprocessor 20 automatically accesses the library 12. In a preferred embodiment, the library 12 is an on-line information service accessed through the modem communications device. The control software 38 uses the selected 52 subject matters 54 in the user profile 50 as criteria for selecting and collecting images from the library 12. In the illustrated embodiment, this is accomplished by matching the subject matters 54 with the file names in the library 12. The collected images are transferred from the library 12 to the hard disk 19 of the computer 14. Preferably, the collected images are sent as a single package of data. This minimizes the on-line connect time associated with accessing such services by modem. After downloading the package, the control software 38 breaks the package apart into the separate series of image collections according to the selected 52 subject matters 54 in the play list 50. The separated series of image collections are then available for display by the image display control software 40." (Tarabella, 8:9-29.)

Claim 4	U.S. Patent No. 5,796,945 to Tarabella
	 FIG. 1
means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data;	"After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile." (Tarabella, 4:31-35.) "The display control software 40 monitors the operation of the microprocessor 20. As the user works, there will be periods of idle computer time as other matters occupy the attention of the user. Idle computer time means periods during which no commands are entered to the computer for actions to be accomplished. The image display software 40 monitors the activity on the serial input/output ports for keyboard 22 and mouse 26 inputs and printer 28 outputs. After the predetermined period of computer idleness (no activity on the serial ports), the display software 40 dims the screen and begins to display the image collections selected and collected previously. For example, FIG. 7A shows a representative graphics image from the 'MPEG Player' image collection illustrated in FIG. 3A, being displayed on the video terminal 24 during the idle time of the computer. After the preselected display period, another representative image is displayed on the video terminal 24, for example, such as one of the images 60 from the 'Sports Weekly' image collection illustrated in FIG. 3." (Tarabella, 8:37-55.) "The display of the image collections can be interrupted so that the user can return to working with the computer 14."

Claim 4	U.S. Patent No. 5,796,945 to Tarabella
	(Tarabella, 8:56-57.) "Subsequently the user of the computer is otherwise occupied and the control software operating in the background of the computer determines that the computer is idle. This is accomplished by monitoring the activity of the serial input and output buses of the computer. In the absence of keyboard or mouse input or printer output for a period of time, the control software determines that the computer is idle. After the predetermined period of idleness, the display control software begins displaying the series of collected images as set forth in the user profile. An image of the President appears and fades to black after the predetermined display period as set forth in the user profile. The weather map is displayed, and the screen fades the black. A video clip of an exciting basketball play is then displayed, and repeated during the display period, before the screen fades to black. The selected cartoon is then displayed." (Tarabella, 9:54-10:2.)
means for displaying one or more control options with the display device while the means for selectively displaying is operating;	"The display of the graphics image on the screen can be varied to provide a collage effect by activating a collage switch 112. A switch 114 provides for floating the graphics image around the screen. A pop-up window 116 is accessed with the mouse and cursor to adjust the float speed. A trails switch 118 is activated to cause previous graphics images to remain on the screen and slowly fade away. The fading images provide a trailing effect for the graphics image floated to a new position on the screen." (Tarabella, 7:1-9.) "A 'connect now' switch 150 selectively displays a button on the idle time image display. Activating the button 150 with the mouse and cursor causes the apparatus 10 to open or 'launch' a connection with conventional on-line browsing software, such as that used to access commercial information networking systems. A browser button 152 also launches the on-line software directly from the connection window which facilitates connecting to commercial information networks." (Tarabella, 7:46-54.) "The user may want to see additional information about a graphics image being displayed on the terminal 24 during idle time. A selected keyboard key can be defined by the user as a hotkey switch for directing the display control software to perform selected functions. One such function is to display in a magazine-style format the graphic image

Claim 4	U.S. Patent No. 5,796,945 to Tarabella
	and its associated text, as illustrated in FIG. 5. The graphics image 50 is displayed with its associated tagline 160 that functions as a brief description of the graphics image. A header 162 is positioned over the graphics image 60 to identify the source subject matter 54 of the images. A text window 164 displays the associated text 166 for the graphics image 60. The text window 164 includes directional arrows 168 for scrolling through the text image. A close button 169 causes the control software 40 to end the display of the images and return the display on the video terminal to the previous graphic, for example, to the control window from which the image was selected." (Tarabella, 8:64 - 9:14.)
means for selecting a displayed control option; and	"The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24, a signalling [sic device such as a mouse 26, and a printing device 28, which communicate conventionally with the microprocessor 20. The microprocessor 20 operates the image selection, collection, and display software represented graphically as block 29." (Tarabella, 3:18-25.)
means for controlling aspects of the operation of the system in accordance with a selected control option.	"The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24, a signalling [sic device such as a mouse 26, and a printing device 28, which communicate conventionally with the microprocessor 20. The microprocessor 20 operates the image selection, collection, and display software represented graphically as block 29." (Tarabella, 3:18-25.) "The display of the graphics image on the screen can be varied to provide a collage effect by activating a collage switch 112. A switch 114 provides for floating the graphics image around the screen. A pop-up window 116 is accessed with the mouse and cursor to adjust the float speed. A trails switch 118 is activated to cause previous graphics images to remain on the screen and slowly fade away. The fading images provide a trailing effect for the graphics image floated to a new position on the screen." (Tarabella, 7:1-9.) "A 'connect now' switch 150 selectively displays a button

Claim 4	U.S. Patent No. 5,796,945 to Tarabella
	on the idle time image display. Activating the button 150 with the mouse and cursor causes the apparatus 10 to open or 'launch' a connection with conventional on-line browsing software, such as that used to access commercial information networking systems. A browser button 152 also launches the on-line software directly from the connection window which facilitates connecting to commercial information networks." (Tarabella, 7:46-54.) "The user may want to see additional information about a graphics image being displayed on the terminal 24 during idle time. A selected keyboard key can be defined by the user as a hotkey switch for directing the display control software to perform selected functions." (Tarabella, 8:64-9:1.)

10. ***Claim 5***

Claim 5 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 5	U.S. Patent No. 5,796,945 to Tarabella
A system as in claim 4, wherein:	
the control option enables the user to request termination of operation of the system; and	"A toggle switch 86 permits movement of the mouse 26 to awaken the microprocessor 20, i.e., stop the idle-time display of the collected images." (Tarabella, 6:6-25.) "FIG. 4C illustrates a screen 130 providing access to password control of the operation of the apparatus 10. By activating a button 132 and a button 134, a password is required to wake the screen from its idle-time display and to require the password at startup, respectively. A set password window 136 is activated by the mouse 26 and cursor to set or change the password for controlling access to the apparatus 10. If a password is enabled, the password must be entered in order to disable the password." (Tarabella, 7:19-27.)

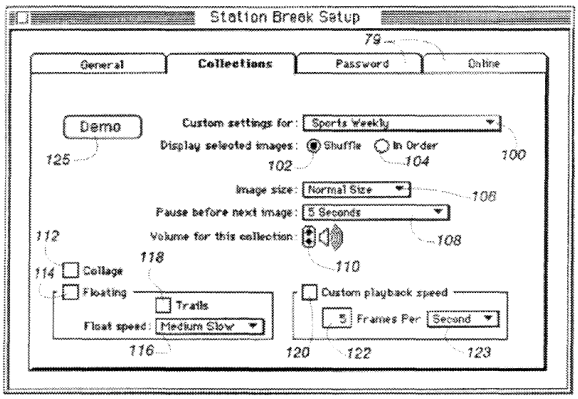
Claim 5	U.S. Patent No. 5,796,945 to Tarabella
the means for controlling terminates operation of the system.	"The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24, a signalling [sic device such as a mouse 26, and a printing device 28, which communicate conventionally with the microprocessor 20. The microprocessor 20 operates the image selection, collection, and display software represented graphically as block 29." (Tarabella, 3:18-25.) "A toggle switch 86 permits movement of the mouse 26 to awaken the microprocessor 20, i.e., stop the idle-time display of the collected images." (Tarabella, 6:6-25.) "FIG. 4C illustrates a screen 130 providing access to password control of the operation of the apparatus 10. y activating a button 132 and a button 134, a password is required to wake the screen from its idle-time display and to require the password at startup, respectively. A set password window 136 is activated by the mouse 26 and cursor to set or change the password for controlling access to the apparatus 10. If a password is enabled, the password must be entered in order to disable the password." (Tarabella, 7:19-27.)

11. ***Claim 8***

Claim 8 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 8	U.S. Patent No. 5,796,945 to Tarabella
8. A system as in claim 4, wherein:	
a plurality of sets of content data are acquired by the system;	"In the illustrated embodiment, the computer 14 is remotely located from the library 12. The computer 14 communicates with the library 12 through a communications device 18, such as a modem." (Tarabella, 3:15-18.)

Claim 8	U.S. Patent No. 5,796,945 to Tarabella
	"After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "In a preferred embodiment, the library 12 is an on-line information service accessed through the modem communications device. The control software 38 uses the selected 52 subject matters 54 in the user profile 50 as criteria for selecting and collecting images from the library 12. In the illustrated embodiment, this is accomplished by matching the subject matters 54 with the file names in the library 12. The collected images are transferred from the library 12 to the hard disk 19 of the computer 14. Preferably, the collected images are sent as a single package of data. This minimizes the on-line connect time associated with accessing such services by modem. After downloading the package, the control software 38 breaks the package apart into the separate series of image collections according to the selected 52 subject matters 54 in the play list 50. The separated series of image collections are then available for display by the image display control software 40." (Tarabella, 8:12-29.)
the means for selectively displaying further comprises means for scheduling the display of the image or images generated from the sets of content data;	"An apparatus for collecting a series of image collections for display on a video terminal at a user-selected time and sequence, with the series of image collections selected according to a user-defined indicia of images to collect. The apparatus includes means for generating a set of indicia used to select and create sets of image collections for subsequent display on a video terminal at a user-selected time and sequence; means for collecting sets of image collections based on the set of indicia; and means for displaying representative portions of each of the sets of image collections on the video terminal. Means are provided for displaying the sets of image collections." (Tarabella, Abstract.)

Claim 8	U.S. Patent No. 5,796,945 to Tarabella
	"A display-when button 71 defines how long a period occurs before the displaying the image of one subject matter 54 selected in the playlist to the next." (Tarabella, 5:55-58.) "A shuffle mode can be selected with an on/off toggle switch 82 for random display of the series of image collections or sequential display of the series of image collections according to the playlist sequence." (Tarabella, 6:11-13.)  FIG. 4B
the control option enables the user to remove a set of content data from the schedule; and	"The graphics selection switches 70a, 70b, and 70c allow customizing the display of images in the collection. If all images are to be displayed during idle time, switch 70a is activated. This is a default mode. If none of the images 60 are to be displayed, switch 70b is activated. The user can also 'deselect' graphic images if only a portion of the graphics images are to be displayed. The user first activates switch 70a. This highlights all of the graphics images 60 with a colored border. The user then deselects for display those images which are not be [sic] displayed." (Tarabella, 5:37-46.)
the means for controlling removes the set of content data from the schedule.	"The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24, a signalling [sic device such as a mouse 26, and a printing device 28, which communicate conventionally with the microprocessor 20. The microprocessor 20 operates the image selection, collection, and display

Claim 8	U.S. Patent No. 5,796,945 to Tarabella
	software represented graphically as block 29." (Tarabella, 3:18-25.) "The graphics selection switches 70a, 70b, and 70c allow customizing the display of images in the collection. If all images are to be displayed during idle time, switch 70a is activated. This is a default mode. If none of the images 60 are to be displayed, switch 70b is activated. The user can also 'deselect' graphic images if only a portion of the graphics images are to be displayed. The user first activates switch 70a. This highlights all of the graphics images 60 with a colored border. The user then deselects for display those images which are not be [sic] displayed." (Tarabella, 5:37-46.)

12. ***Claim 11***

Claim 11 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 11	U.S. Patent No. 5,796,945 to Tarabella
A system as in claim 4, wherein:	
the control option enables the user to establish a link with an information location; and	"A 'connect now' switch 150 selectively displays a button on the idle time image display. Activating the button 150 with the mouse and cursor causes the apparatus 10 to open or 'launch' a connection with conventional on-line browsing software, such as that used to access commercial information networking systems. A browser button 152 also launches the on-line software directly from the connection window which facilitates connecting to commercial information networks." (Tarabella, 7:46-54.)
the means for controlling establishes the link with the information location.	"The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24, a signalling [sic device such as a mouse 26, and a printing device 28, which communicate conventionally with the microprocessor 20. The microprocessor 20 operates the image selection, collection, and display

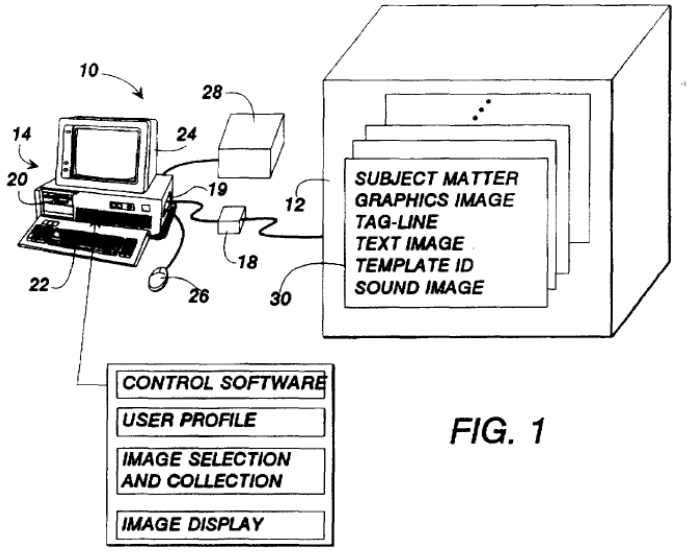
Claim 11	U.S. Patent No. 5,796,945 to Tarabella
	software represented graphically as block 29." (Tarabella, 3:18-25.) "A 'connect now' switch 150 selectively displays a button on the idle time image display. Activating the button 150 with the mouse and cursor causes the apparatus 10 to open or 'launch' a connection with conventional on-line browsing software, such as that used to access commercial information networking systems. A browser button 152 also launches the on-line software directly from the connection window which facilitates connecting to commercial information networks." (Tarabella, 7:46-54.)

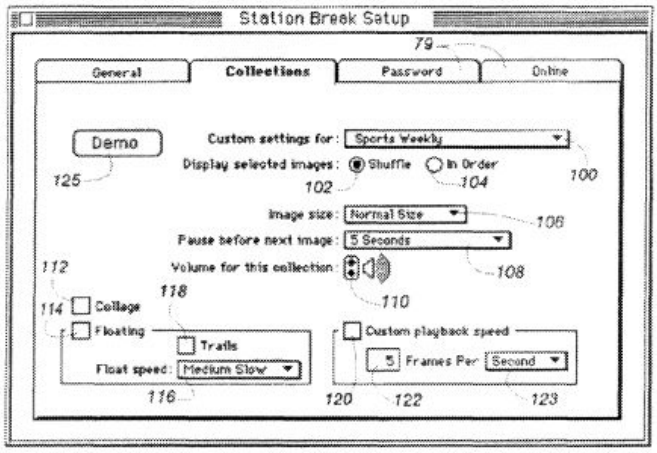
13. ***Claim 15***

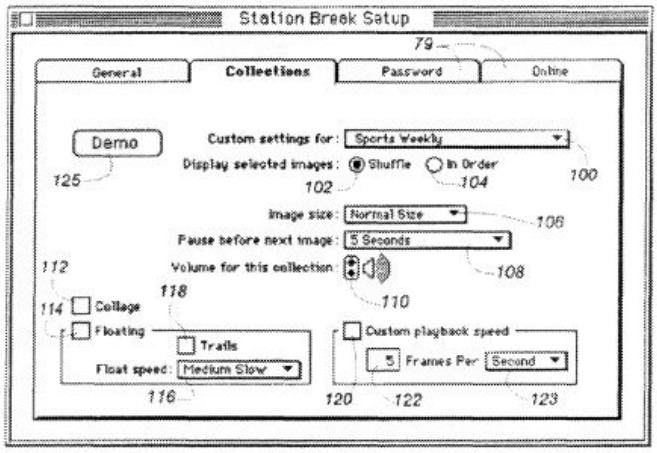
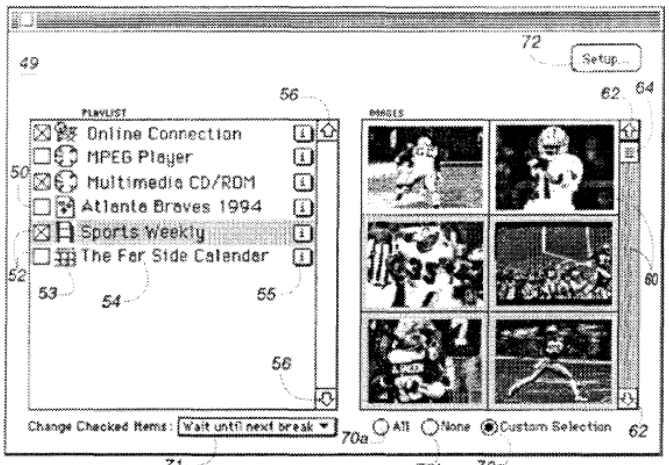
Claim 15 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 15	U.S. Patent No. 5,796,945 to Tarabella
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Subsequently, the user uses the computer 14 for work activities, such as executing word processing programs, graphic drawing programs, engineering programs, and the like. During use of the computer 14, the user may become involved with other matters, such as a telephone call or study, and not interact with the computer through the keyboard 22 or the mouse 26, and thereby leave the

Claim 15	U.S. Patent No. 5,796,945 to Tarabella
	computer idle. After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile. Should the user then return to working with the computer again, the display control software 40 becomes inactive until activated again." (Tarabella, 4:24-37.)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"The apparatus comprises at least one library 12 having collections of images and at least one computer 14 such as a commercially available personal computer operable by a user to access the library. In the illustrated embodiment, the computer 14 is remotely located from the library 12. The computer 14 communicates with the library 12 through a communications device 18, such as a modem. The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24 . . . ." (Tarabella, 3:12-21.) "After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Control Software-Image Selection and Collection At the predetermined time set in the connectivity screen (FIG. 4D), the microprocessor 20 automatically accesses the library 12. In a preferred embodiment, the library 12 is an on-line information service accessed through the modem communications device. The control software 38 uses the selected 52 subject matters 54 in the user profile 50 as criteria for selecting and collecting images from the library 12. In the illustrated embodiment, this is accomplished by matching the subject matters 54 with the

Claim 15	U.S. Patent No. 5,796,945 to Tarabella
	file names in the library 12. The collected images are transferred from the library 12 to the hard disk 19 of the computer 14. Preferably, the collected images are sent as a single package of data. This minimizes the on-line connect time associated with accessing such services by modem. After downloading the package, the control software 38 breaks the package apart into the separate series of image collections according to the selected 52 subject matters 54 in the play list 50. The separated series of image collections are then available for display by the image display control software 40." (Tarabella, 8:9-29.)  FIG. 1
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"FIG. 4A-4D are a sequence of interface screens for configuring the collection and display apparatus of the present invention." (Tarabella, 2:57-59.) "FIG. 4B illustrates a configuration screen for the image collections. Each of the image collections can be independently configured for display during the idle-time mode. A pop-up window 100 lists the selected 52 subject matters 54 for image collection. Activating the mouse cursor within the window 100 causes the window to become larger, showing the text names 54 of the selected subject matters. The particular subject matter 54 to be configured is then picked by moving the mouse curser and releasing the mouse. pair of toggle switches 102 and 104 control the display of the graphics images, for shuffle or

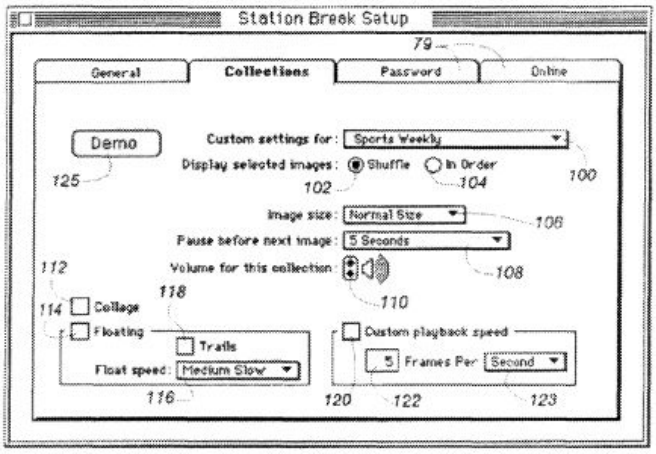
Claim 15	U.S. Patent No. 5,796,945 to Tarabella
	sequence display during idle-time of the images for the selected subject matter in the collection. The user controls the size of the displayed image with a selection made in a size window 106. A pause window 108 sets the amount of time the screen is blank between the end of the display of one graphics image in the collection and the display of the next image. A slide switch 110 can be moved up and down with the mouse cursor to increase or decrease the volume of the sound images played with the graphics image." (Tarabella, 6:48-67.)  FIG. 4B
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"A display-when button 71 defines how long a period occurs before the display control software switches from displaying the image of one subject matter 54 selected in the play list to the next. Changes can be implemented after a set period of time or after the next idle-time display mode occurs." (Tarabella, 5:55-60.) "Pause before next image: 5 seconds." (FIG. 4B)

Claim 15	U.S. Patent No. 5,796,945 to Tarabella
	 FIG. 4B
wherein the content data scheduling instructions further comprise sequencing instructions that specify an order in which the images generated from a set of content data are displayed; and	"FIG. 3 is a user profile showing a playlist of subject matters for selection, collection, and display of images." (Tarabella, 2:53-54.)  FIG. 3 "A shuffle mode can be selected with an on/off toggle switch 82 for random display of the series of image collections or sequential display of the series of image collections according to the playlist sequence." (Tarabella, 6:11-13.)
display instructions for enabling display of the image or images generated from the set of content data.	"After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile." (Tarabella, 4:31-35.)

Claim 15	U.S. Patent No. 5,796,945 to Tarabella
	"The display control software 40 monitors the operation of the microprocessor 20. As the user works, there will be periods of idle computer time as other matters occupy the attention of the user. Idle computer time means periods during which no commands are entered to the computer for actions to be accomplished. The image display software 40 monitors the activity on the serial input/output ports for keyboard 22 and mouse 26 inputs and printer 28 outputs. After the predetermined period of computer idleness (no activity on the serial ports), the display software 40 dims the screen and begins to display the image collections selected and collected previously. For example, FIG. 7A shows a representative graphics image from the 'MPEG Player' image collection illustrated in FIG. 3A, being displayed on the video terminal 24 during the idle time of the computer. After the preselected display period, another representative image is displayed on the video terminal 24, for example, such as one of the images 60 from the 'Sports Weekly' image collection illustrated in FIG. 3." (Tarabella, 8:37-55.) "The display of the image collections can be interrupted so that the user can return to working with the computer 14." (Tarabella, 8:56-57.) "Subsequently the user of the computer is otherwise occupied and the control software operating in the background of the computer determines that the computer is idle. This is accomplished by monitoring the activity of the serial input and output buses of the computer. In the absence of keyboard or mouse input or printer output for a period of time, the control software determines that the computer is idle. After the predetermined period of idleness, the display control software begins displaying the series of collected images as set forth in the user profile. An image of the President appears and fades to black after the predetermined display period as set forth in the user profile. The weather map is displayed, and the screen fades the black. A video clip of an exciting basketball play is then displayed, and repeated during the display period, before the screen fades to black. The selected cartoon is then displayed." (Tarabella, 9:54-10:2.)

14. ***Claim 16***

Claim 16 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 16	U.S. Patent No. 5,796,945 to Tarabella
A computer readable medium as in claim 15, wherein the sequencing instructions further specify the duration of the display of each image or images generated from each set of content data.	"A display-when button 71 defines how long a period occurs before the display control software switches from displaying the image of one subject matter 54 selected in the play list to the next. Changes can be implemented after a set period of time or after the next idle-time display mode occurs." (Tarabella, 5:55-60.) "Pause before next images: 5 Seconds." (Tarabella, FIG. 4B.)  FIG. 4B

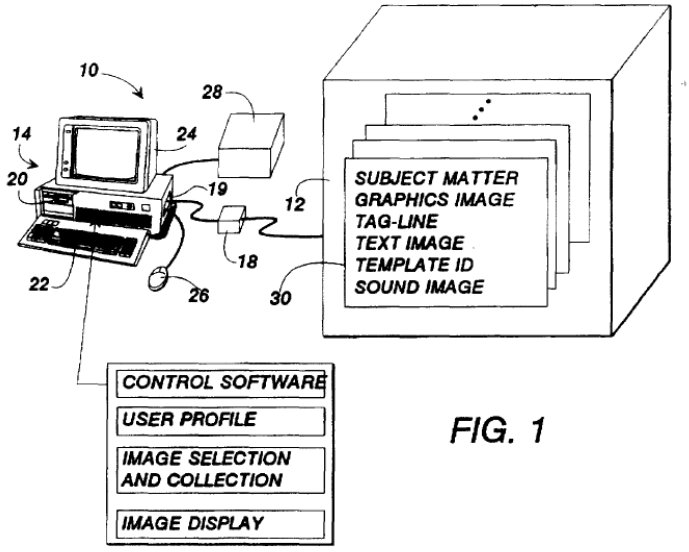
15. ***Claim 18***

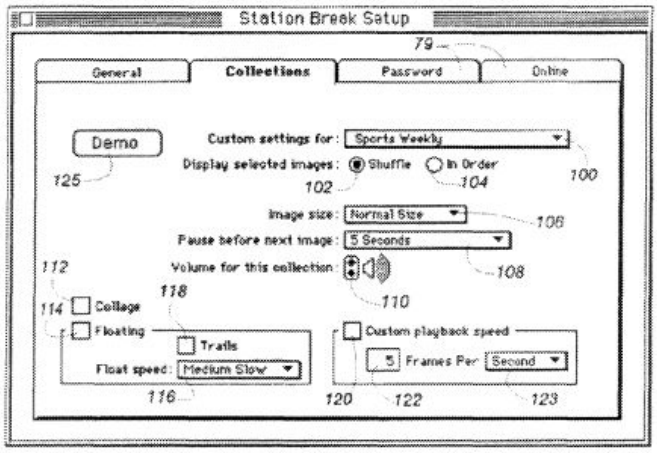
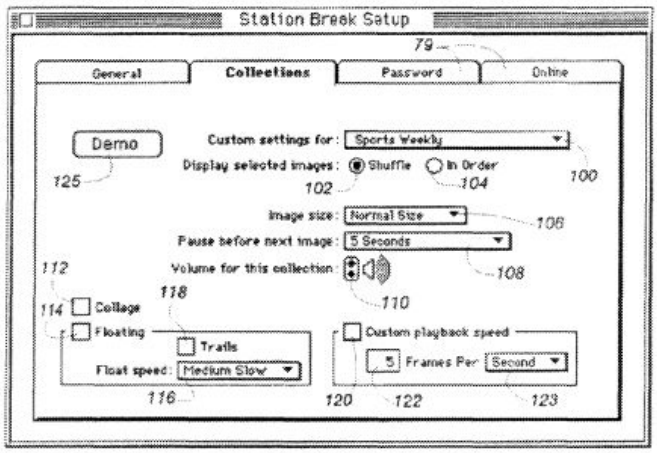
Claim 18 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Tarabella. The following claim chart provides a detailed comparison of each claim limitation with the relevant teachings of Tarabella.

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
18. A computer readable	"After the user profile is established and saved to the disk

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
medium, for use by a content display system, encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Subsequently, the user uses the computer 14 for work activities, such as executing word processing programs, graphic drawing programs, engineering programs, and the like. During use of the computer 14, the user may become involved with other matters, such as a telephone call or study, and not interact with the computer through the keyboard 22 or the mouse 26, and thereby leave the computer idle. After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile. Should the user then return to working with the computer again, the display control software 40 becomes inactive until activated again." (Tarabella, 4:24-37.)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"The apparatus comprises at least one library 12 having collections of images and at least one computer 14 such as a commercially available personal computer operable by a user to access the library. In the illustrated embodiment, the computer 14 is remotely located from the library 12. The computer 14 communicates with the library 12 through a communications device 18, such as a modem. The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal 24 . . . ." (Tarabella, 3:12-21.) "After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the

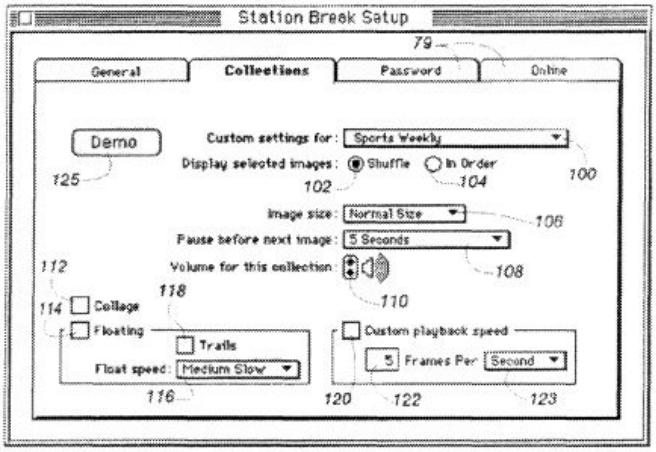
Claim 18	U.S. Patent No. 5,796,945 to Tarabella
	selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Control Software-Image Selection and Collection At the predetermined time set in the connectivity screen (FIG. 4D), the microprocessor 20 automatically accesses the library 12. In a preferred embodiment, the library 12 is an on-line information service accessed through the modem communications device. The control software 38 uses the selected 52 subject matters 54 in the user profile 50 as criteria for selecting and collecting images from the library 12. In the illustrated embodiment, this is accomplished by matching the subject matters 54 with the file names in the library 12. The collected images are transferred from the library 12 to the hard disk 19 of the computer 14. Preferably, the collected images are sent as a single package of data. This minimizes the on-line connect time associated with accessing such services by modem. After downloading the package, the control software 38 breaks the package apart into the separate series of image collections according to the selected 52 subject matters 54 in the play list 50. The separated series of image collections are then available for display by the image display control software 40." (Tarabella, 8:9-29.)

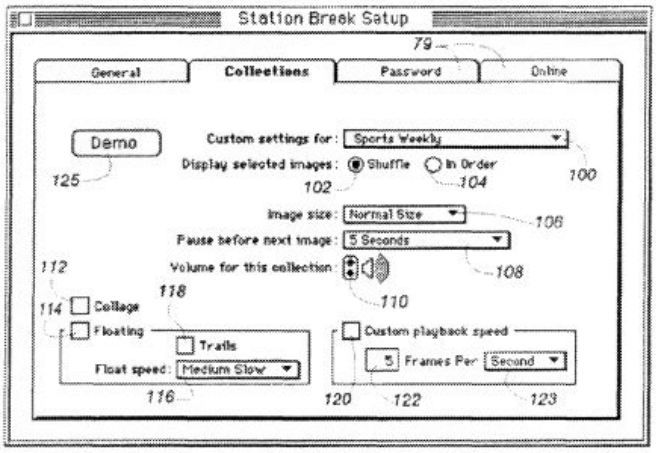
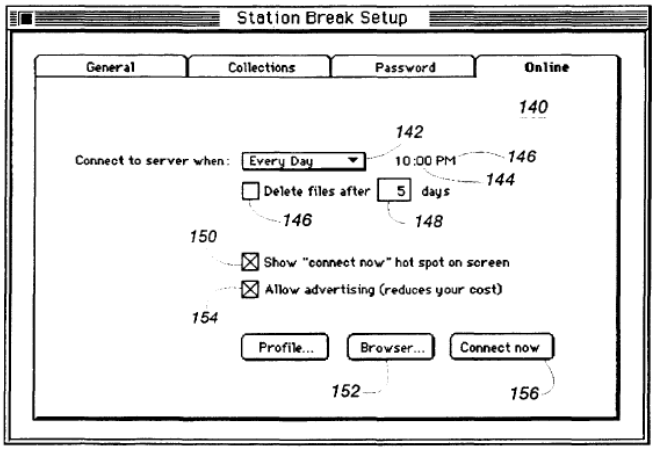
Claim 18	U.S. Patent No. 5,796,945 to Tarabella
	 FIG. 1
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"FIG. 4A-4D are a sequence of interface screens for configuring the collection and display apparatus of the present invention." (Tarabella, 2:57-59.) "FIG. 4B illustrates a configuration screen for the image collections. Each of the image collections can be independently configured for display during the idle-time mode. A pop-up window 100 lists the selected 52 subject matters 54 for image collection. Activating the mouse cursor within the window 100 causes the window to become larger, showing the text names 54 of the selected subject matters. The particular subject matter 54 to be configured is then picked by moving the mouse curser and releasing the mouse. A pair of toggle switches 102 and 104 control the display of the graphics images, for shuffle or sequence display during idle-time of the images for the selected subject matter in the collection. The user controls the size of the displayed image with a selection made in a size window 106. A pause window 108 sets the amount of time the screen is blank between the end of the display of one graphics image in the collection and the display of the next image. A slide switch 110 can be moved up and down with the mouse cursor to increase or decrease the volume of the sound images played with the graphics image." (Tarabella, 6:48-67.)

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
	 FIG. 4B
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data;	"A display-when button 71 defines how long a period occurs before the display control software switches from displaying the image of one subject matter 54 selected in the play list to the next. Changes can be implemented after a set period of time or after the next idle-time display mode occurs." (Tarabella, 5:55-60.)  FIG. 4B
display instructions for enabling display of the image or images generated from the set of content data;	"After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile." (Tarabella, 4:31-35.) "The display control software 40 monitors the operation of the microprocessor 20. As the user works, there will be periods of idle computer time as other matters occupy the

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
	attention of the user. Idle computer time means periods during which no commands are entered to the computer for actions to be accomplished. The image display software 40 monitors the activity on the serial input/output ports for keyboard 22 and mouse 26 inputs and printer 28 outputs. After the predetermined period of computer idleness (no activity on the serial ports), the display software 40 dims the screen and begins to display the image collections selected and collected previously. For example, FIG. 7A shows a representative graphics image from the 'MPEG Player' image collection illustrated in FIG. 3A, being displayed on the video terminal 24 during the idle time of the computer. After the preselected display period, another representative image is displayed on the video terminal 24, for example, such as one of the images 60 from the 'Sports Weekly' image collection illustrated in FIG. 3." (Tarabella, 8:37-55.) "The display of the image collections can be interrupted so that the user can return to working with the computer 14." (Tarabella, 8:56-57.) "Subsequently the user of the computer is otherwise occupied and the control software operating in the background of the computer determines that the computer is idle. This is accomplished by monitoring the activity of the serial input and output buses of the computer. In the absence of keyboard or mouse input or printer output for a period of time, the control software determines that the computer is idle. After the predetermined period of idleness, the display control software begins displaying the series of collected images as set forth in the user profile. An image of the President appears and fades to black after the predetermined display period as set forth in the user profile. The weather map is displayed, and the screen fades the black. A video clip of an exciting basketball play is then displayed, and repeated during the display period, before the screen fades to black. The selected cartoon is then displayed." (Tarabella, 9:54-10:2.)
content data update instructions for enabling acquisition of an updated set of content data from an information source that corresponds to a previously	"The subject matter collections 30 in the library 12 are periodically updated by librarians with new graphic and text data. In the preferred embodiment, the updates occur daily, for example, current political, economic, and sports information." (Tarabella, 3:58-62.)

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
acquired set of content data;	"FIG. 4D illustrates a connectivity screen 140 for setting the time for the microprocessor 20 to access the library 12 to update the images for the selected 52 subject matters 54. A connection occurrence window 142 defines the frequency with which the apparatus 10 automatically accesses the library 12 to obtain updated images for the selected 52 subject matters 54. A clock 144 defines the time for the automatic update on the selected days. The clock 144 is accessed by mouse and cursor. Arrow buttons (not illustrated) allow setting the time, and a day/night indicator 146 toggles between the indicators AM and PM." (Tarabella, 7:28-38.)
operating instructions for beginning, managing and terminating the display on the display device of an image generated from a set of content data;	"Subsequently the user of the computer is otherwise occupied and the control software operating in the background of the computer determines that the computer is idle. This is accomplished by monitoring the activity of the serial input and output buses of the computer. In the absence of keyboard or mouse input or printer output for a period of time, the control software determines that the computer is idle. After the predetermined period of idleness, the display control software begins displaying the series of collected images as set forth in the user profile. An image of the President appears and fades to black after the predetermined display period as set forth in the user profile. The weather map is displayed, and the screen fades the black. A video clip of an exciting basketball play is then displayed, and repeated during the display period, before the screen fades to black. The selected cartoon is then displayed." (Tarabella, 9:54-10:2.) "A toggle switch 86 permits movement of the mouse 26 to awaken the microprocessor 20, i.e., stop the idle-time display of the collected images." (Tarabella, 6:22-25.) "For example, FIG. 7A shows a representative graphics image from the 'MPEG Player' image collection illustrated in FIG. 3A, being displayed on the video terminal 24 during the idle time of the computer. After the preselected display period, another representative image is displayed on the video terminal 24, for example, such as one of the images 60 from the 'Sports Weekly' image collection illustrated in FIG. 3." (Tarabella, 8:48-53.)

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
content display system scheduling instructions for scheduling the display of the image or images on the display device;	"A display-when button 71 defines how long a period occurs before the display control software switches from displaying the image of one subject matter 54 selected in the play list to the next. Changes can be implemented after a set period of time or after the next idle-time display mode occurs." (Tarabella, 5:55-60.)  FIG. 4B
installation instructions for installing the operating instructions and content display system scheduling instructions on the content display system; and	"FIG. 4A-4D are a sequence of interface screens for configuring the collection and display apparatus of the present invention." (Tarabella, 2:57-59.) "FIG. 4B illustrates a configuration screen for the image collections. Each of the image collections can be independently configured for display during the idle-time mode. A pop-up window 100 lists the selected 52 subject matters 54 for image collection. Activating the mouse cursor within the window 100 causes the window to become larger, showing the text names 54 of the selected subject matters. The particular subject matter 54 to be configured is then picked by moving the mouse curser and releasing the mouse. A pair of toggle switches 102 and 104 control the display of the graphics images, for shuffle or sequence display during idle-time of the images for the selected subject matter in the collection. The user controls the size of the displayed image with a selection made in a size window 106. A pause window 108 sets the amount of time the screen is blank between the end of the display of one graphics image in the collection and the display of the next image. A slide switch 110 can be moved up and

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
	down with the mouse cursor to increase or decrease the volume of the sound images played with the graphics image." (Tarabella, 6:48-67.)  FIG. 4B "FIG. 4D illustrates a connectivity screen 140 for setting the time for the microprocessor 20 to access the library 12 to update the images for the selected 52 subject matters 54. A connection occurrence window 142 defines the frequency with which the apparatus 10 automatically accesses the library 12 to obtain updated images for the selected 52 subject matters 54. A clock 144 defines the time for the automatic update on the selected days. The clock 144 is accessed by mouse and cursor. Arrow buttons (not illustrated) allow setting the time, and a day/night indicator 146 toggles between the indicators AM and PM." (Tarabella, 7:28-38.)  FIG. 4D
audit instructions for	"A log is maintained of the downloaded collections of

Claim 18	U.S. Patent No. 5,796,945 to Tarabella
monitoring usage of the content display system to selectively display an image or images generated from a set of content data.	images. The log includes the subject matters 54, the date, and the time of collection. The control software compares the log with the images then-available in the library 12 for collection. Images previously collected are not recollected for downloading." (Tarabella, 8:30-35.)

F. ***U.S. Patent No. 5,796,945 to Tarabella and U.S. Patent No. 5,748,190 to Kjorsvik***

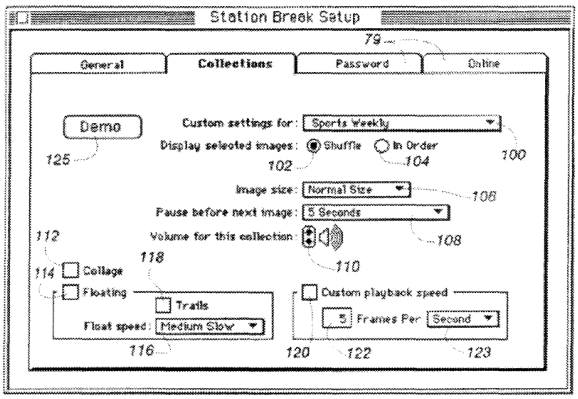
Claims 6 and 7 are unpatentable under 35 U.S.C. § 103 as being rendered obvious by the combination of Tarabella and Kjorsvik as discussed below.

1. ***Claim 6***

Claim 6 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Tarabella and Kjorsvik. As described above and set forth in the following claim chart, Tarabella discloses all of the limitations of dependent claim 5 except the limitations of "*the control option enables the user to request display of a next image or images generated from a next set of content data, and the means for controlling displays the next image.*." However, these limitations are disclosed by Kjorsvik.

A person of ordinary skill in the art would have been motivated to combine Tarabella and Kjorsvik because both references relate to providing content to a user on a display screen, including during idle periods. Furthermore, a person of ordinary skill in the art could have combined the elements taught by Tarabella and Kjorsvik by known methods and would have recognized that the results of the combination were predictable.

Claim 6	Tarabella + Kjorsvik
A system as in claim 4, wherein:	
the means for selectively displaying further comprises means for	"An apparatus for collecting a series of image collections for display on a video terminal at a user-selected time and sequence, with the series of image collections selected

Claim 6	Tarabella + Kjorsvik
scheduling the display of an image or images generated from a set of content data;	according to a user-defined indicia of images to collect. The apparatus includes means for generating a set of indicia used to select and create sets of image collections for subsequent display on a video terminal at a user-selected time and sequence; means for collecting sets of image collections based on the set of indicia; and means for displaying representative portions of each of the sets of image collections on the video terminal. Means are provided for displaying the sets of image collections." (Tarabella, Abstract.) "A display-when button 71 defines how long a period occurs before the displaying the image of one subject matter 54 selected in the playlist to the next." (Tarabella, 5:55-58.) "A shuffle mode can be selected with an on/off toggle switch 82 for random display of the series of image collections or sequential display of the series of image collections according to the playlist sequence." (Tarabella, 6:11-13.)  FIG. 4B
the control option enables the user to request display of a next image or images generated from a next set of content data; and	"For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

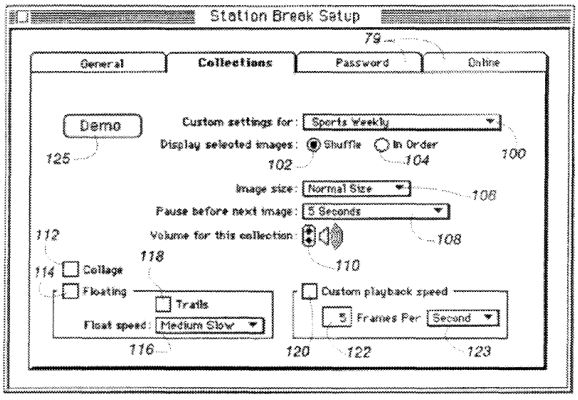
Claim 6	Tarabella + Kjorsvik
the means for controlling displays the next image.	"FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

2. *Claim 7*

Claim 7 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Tarabella and Kjorsvik. As described above and set forth in the following claim chart, Tarabella discloses all of the limitations of dependent claim 5 except the limitations of "*the control option enables the user to request display of a previous image generated from a previous set of content data, and the means for controlling displays the previous image*." However, these limitations are disclosed by Kjorsvik.

A person of ordinary skill in the art would have been motivated to combine Tarabella and Kjorsvik because both references relate to providing content to a user on a display screen including during idle periods. Furthermore, a person of ordinary skill in the art could have combined the elements taught by Tarabella and Kjorsvik by known methods and would have recognized that the results of the combination were predictable.

Claim 7	Tarabella + Kjorsvik
A system as in claim 4, wherein:	

Claim 7	Tarabella + Kjorsvik
the means for selectively displaying further comprises means for scheduling the display of an image or images generated from a set of content data;	"An apparatus for collecting a series of image collections for display on a video terminal at a user-selected time and sequence, with the series of image collections selected according to a user-defined indicia of images to collect. The apparatus includes means for generating a set of indicia used to select and create sets of image collections for subsequent display on a video terminal at a user-selected time and sequence; means for collecting sets of image collections based on the set of indicia; and means for displaying representative portions of each of the sets of image collections on the video terminal. Means are provided for displaying the sets of image collections." (Tarabella, Abstract.) "A display-when button 71 defines how long a period occurs before the displaying the image of one subject matter 54 selected in the playlist to the next." (Tarabella, 5:55-58.) "A shuffle mode can be selected with an on/off toggle switch 82 for random display of the series of image collections or sequential display of the series of image collections according to the playlist sequence." (Tarabella, 6:11-13.)  FIG. 4B
the control option enables the user to request display of a previous image generated from a previous	"For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the

Claim 7	Tarabella + Kjorsvik
set of content data; and	presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)
the means for controlling displays the previous image.	"FIG. 15 shows the functional process steps for showing an actual slide at the user's PC." (Kjorsvik, 5:47-48) "For instance, by pressing a designated key on the PC keyboard (or the correct mouse button), when a presentation is in progress, a control menu will appear on the user's screen over the current slide. This menu gives the user various possibilities by which to control the presentation. It is possible, for example, to reverse the presentation slide by slide, or the presentation may be fast-forwarded, slide by slide." (Kjorsvik, 5:25-32)

G. *U.S. Patent No. 5,796,945 to Tarabella and U.S. Patent No. 5,781,894 to Petrecca*

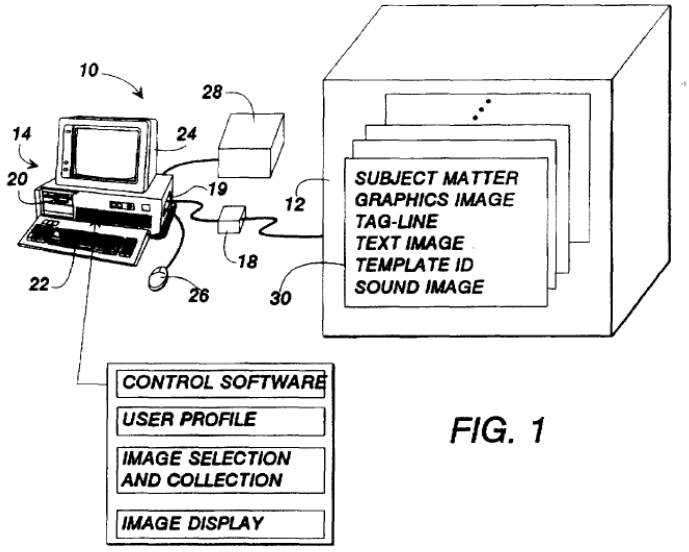
Claim 17 is unpatentable under 35 U.S.C. § 103 as being obvious over the combination of Tarabella and Petrecca. As described above and set forth in the following claim chart, Tarabella discloses all of the limitations of independent claim 17 except the limitation of "*wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed*." However, this limitation is disclosed by Petrecca.

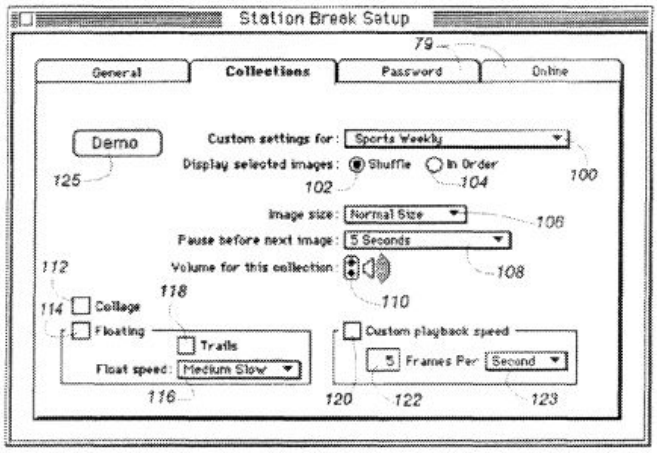
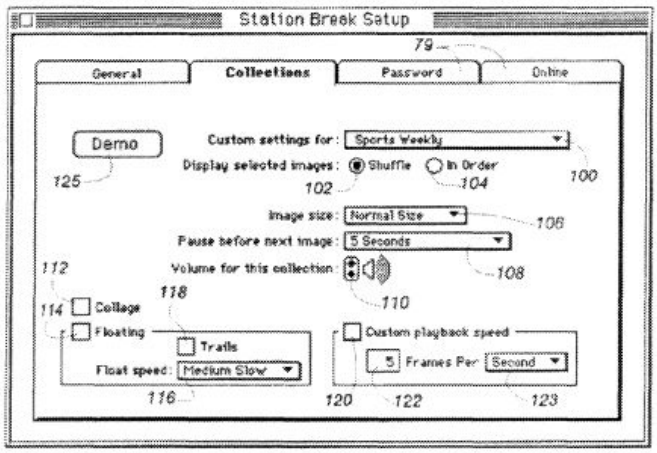
A person of ordinary skill in the art would have been motivated to combine Tarabella and Petrecca because Tarabella relates to providing content to a user on a display screen and Petrecca relates to setting scheduling constraints on the display of content to a user. A person of ordinary skill in the art would have been further motivated to combine Petrecca with Tarabella, because, as described in Petrecca, advertisers who are providing content may wish "control the number of presentations of a certain advertising message." (Petrecca, 3:5-6; see also Petrecca 3:4-17.) Furthermore, a person

of ordinary skill in the art could have combined the elements taught by Tarabella and Petrecca by known methods and would have recognized that the results of the combination were predictable.

Claim 17	Tarabella + Petrecca
A computer readable medium encoded with one or more computer programs for enabling acquisition of a set of content data and display of an image or images generated from the set of content data on a display device during operation of an attention manager, comprising:	"After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Subsequently, the user uses the computer 14 for work activities, such as executing word processing programs, graphic drawing programs, engineering programs, and the like. During use of the computer 14, the user may become involved with other matters, such as a telephone call or study, and not interact with the computer through the keyboard 22 or the mouse 26, and thereby leave the computer idle. After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile. Should the user then return to working with the computer again, the display control software 40 becomes inactive until activated again." (Tarabella, 4:24-37.)
acquisition instructions for enabling acquisition of a set of content data from a specified information source;	"The apparatus comprises at least one library 12 having collections of images and at least one computer 14 such as a commercially available personal computer operable by a user to access the library. In the illustrated embodiment, the computer 14 is remotely located from the library 12. The computer 14 communicates with the library 12 through a communications device 18, such as a modem. The computer 14 comprises a hard disk 19 and a microprocessor unit 20 that connects to input/output devices, including a keyboard 22, a video display terminal

Claim 17	Tarabella + Petrecca
	24 . . . ." (Tarabella, 3:12-21.) "After the user profile is established and saved to the disk 19, the image collection control software 38 accesses the library 12 and selects images from the library for collection. The user profile contains the names of the selected subject matters of interest to the user. These names comprise a set of user-defined indicia of images to collect. The image collection process uses each listed subject matter as a criteria and collects from the library the images available for those subject matters. The images are transferred to the local data storage device such as hard disk 19 operatively communicating with the computer 14." (Tarabella, 4:9-19.) "Control Software-Image Selection and Collection At the predetermined time set in the connectivity screen (FIG. 4D), the microprocessor 20 automatically accesses the library 12. In a preferred embodiment, the library 12 is an on-line information service accessed through the modem communications device. The control software 38 uses the selected 52 subject matters 54 in the user profile 50 as criteria for selecting and collecting images from the library 12. In the illustrated embodiment, this is accomplished by matching the subject matters 54 with the file names in the library 12. The collected images are transferred from the library 12 to the hard disk 19 of the computer 14. Preferably, the collected images are sent as a single package of data. This minimizes the on-line connect time associated with accessing such services by modem. After downloading the package, the control software 38 breaks the package apart into the separate series of image collections according to the selected 52 subject matters 54 in the play list 50. The separated series of image collections are then available for display by the image display control software 40." (Tarabella, 8:9-29.)

Claim 17	Tarabella + Petrecca
	 FIG. 1
user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source;	"FIG. 4A-4D are a sequence of interface screens for configuring the collection and display apparatus of the present invention." (Tarabella, 2:57-59.) "FIG. 4B illustrates a configuration screen for the image collections. Each of the image collections can be independently configured for display during the idle-time mode. A pop-up window 100 lists the selected 52 subject matters 54 for image collection. Activating the mouse cursor within the window 100 causes the window to become larger, showing the text names 54 of the selected subject matters. The particular subject matter 54 to be configured is then picked by moving the mouse curser and releasing the mouse. A pair of toggle switches 102 and 104 control the display of the graphics images, for shuffle or sequence display during idle-time of the images for the selected subject matter in the collection. The user controls the size of the displayed image with a selection made in a size window 106. A pause window 108 sets the amount of time the screen is blank between the end of the display of one graphics image in the collection and the display of the next image. A slide switch 110 can be moved up and down with the mouse cursor to increase or decrease the volume of the sound images played with the graphics image." (Tarabella, 6:48-67.)

Claim 17	Tarabella + Petrecca
	 FIG. 4B
content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data,	"A display-when button 71 defines how long a period occurs before the display control software switches from displaying the image of one subject matter 54 selected in the play list to the next. Changes can be implemented after a set period of time or after the next idle-time display mode occurs." (Tarabella, 5:55-60.)  FIG. 4B
wherein the content data scheduling instructions further comprise saturation instructions that constrain the number of times that the image or images generated from a set of content data can be displayed; and	"The advertising system and method of the present invention may also be configured so that it controls the number of presentations of a certain advertising message. For example, if a movie studio chooses to advertise several upcoming movies on game software and expects these movies to be released on a series of separate dates, the advertising program begins to present the advertisement of a particular movie starting 1 month before it is released and terminates the presentation of that particular

Claim 17	Tarabella + Petrecca
	advertisement 2 months later. Alternatively, the advertising system could keep track of the number of times that it presents a particular advertisement and be configured to stop presenting an advertisement after a certain number of presentations." (Petrecca, 3:4-18)
display instructions for enabling display of the image or images generated from the set of content data.	"After a predetermined period of idleness, the display control software 40 becomes active. The collected images are presented on the video terminal 24 in accordance with occurrence and timing criteria as selected by the user and maintained in the user profile." (Tarabella, 4:31-35.) "The display control software 40 monitors the operation of the microprocessor 20. As the user works, there will be periods of idle computer time as other matters occupy the attention of the user. Idle computer time means periods during which no commands are entered to the computer for actions to be accomplished. The image display software 40 monitors the activity on the serial input/output ports for keyboard 22 and mouse 26 inputs and printer 28 outputs. After the predetermined period of computer idleness (no activity on the serial ports), the display software 40 dims the screen and begins to display the image collections selected and collected previously. For example, FIG. 7A shows a representative graphics image from the 'MPEG Player' image collection illustrated in FIG. 3A, being displayed on the video terminal 24 during the idle time of the computer. After the preselected display period, another representative image is displayed on the video terminal 24, for example, such as one of the images 60 from the 'Sports Weekly' image collection illustrated in FIG. 3." (Tarabella, 8:37-55.) "The display of the image collections can be interrupted so that the user can return to working with the computer 14." (Tarabella, 8:56-57.) "Subsequently the user of the computer is otherwise occupied and the control software operating in the background of the computer determines that the computer is idle. This is accomplished by monitoring the activity of the serial input and output buses of the computer. In the absence of keyboard or mouse input or printer output for a period of time, the control software determines that the computer is idle. After the predetermined period of

Claim 17	Tarabella + Petrecca
	idleness, the display control software begins displaying the series of collected images as set forth in the user profile. An image of the President appears and fades to black after the predetermined display period as set forth in the user profile. The weather map is displayed, and the screen fades the black. A video clip of an exciting basketball play is then displayed, and repeated during the display period, before the screen fades to black. The selected cartoon is then displayed." (Tarabella, 9:54-10:2.)

VII. DISCLOSURE OF CONCURRENT LITIGATION

The present request for *ex parte* reexamination arises in response to *Interval Licensing LLC v. AOL, Inc., et al.,* Case No. 2:10-cv-01385, pending in the U.S. District Court for the Western District of Washington, in which the '652 patent was asserted.

VIII. CERTIFICATION OF SERVICE ON PATENT OWNER

The undersigned hereby certifies that the above captioned **Request for *Ex Parte* Reexamination** was served by First Class Mail upon:

David R. Graham, Esq.
1337 Chewpon Avenue
Milpitas, CA 95035

IX. CONCLUSION

For the reasons given above, reexamination of claims 4-8, 11, and 15-18 of U.S. Patent 6,034,652 is requested.

RESPECTFULLY SUBMITTED,

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