IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TV GUIDE ONLINE, INC. and TV GUIDE ONLINE, LLC, Plaintiffs and Counterclaim Defendants, v. TRIBUNE MEDIA SERVICES, INC., Defendant and Counterclaim Plaintiff.	)	Case No.: 05-725-***

TRIBUNE MEDIA SERVICES, INC.'S *MARKMAN* BRIEF

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I. INTRODUCTION

This brief sets forth TMS' proposed constructions of certain claim limitations of the patent-in-suit — U.S. Patent No. 5,988,078 ("the '078 patent") — entitled "Method and Apparatus for Receiving Customized Television Programming Information by Transmitting Geographic Location to a Service Provider Through a Wide-Area Network." TMS bases its proposed constructions on the claim language, the '078 patent specification, and the prosecution history. To further understand the '078 patent, a background of the patent with an overview of the claims, specification, and prosecution history is provided below.

II. THE LEGAL STANDARDS

TMS asks the Court to construe the disputed terms in the asserted claims of the '078 patent. Claim interpretation is a question of law that the district court resolves: "the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claim." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). The court's task is to determine how the terms of the patent claims would be understood by one of ordinary skill in the art at the time of the invention. *See Markman*, 52 F.3d at 986. "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (citing *Markman*, 52 F.3d at 979). This "intrinsic evidence" constitutes the "public record of the patentee's claim, a record on which the public is entitled to rely." *Vitronics*, 90 F.3d at 1583. The en banc Federal Circuit recently reaffirmed these basic principles governing claim construction in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-17 (Fed. Cir. 2005).

The Claim Language. The *Phillips* Court explained that claim terms "are generally given their ordinary and customary meaning ... [which] is the meaning that the [terms] would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1312-13 (internal quotations and citations omitted). In many cases, "the claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314. However, the claims "do not stand alone" and "must be read in view of the specification, of which they are a part." *Id.* at 1315 (citing *Markman*, 52 F.3d at 978-79).

The Specification. The *Phillips* court specifically considered "the extent to which we should resort to and rely on the patent's specification in seeking to ascertain the proper scope of its claims" and confirmed that the specification is the primary basis for construing patent claim terms. *Id.* at 1312, 1312-15. The court emphasized that "the specification is always highly relevant to the claim construction analysis." *Phillips*, 415 F.3d at 1315 (quoting *Vitronics*, 90 F.3d at 1582) (internal quotations omitted); *see also Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1347 (Fed. Cir. 2004) ("claims are to be construed in light of the specification and both are to be read with a view to ascertaining the invention") (quoting *United States v. Adams*, 383 U.S. 39, 49 (1966)). That is because "[t]he claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose." *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001). Likewise, "[c]laims are not interpreted in a vacuum, but are part of and are read in light of the specification." *Microsoft*, 357 F.3d at 1347 (quoting *Slimfold Mfg. Co. v. Kinkead Indus., Inc.*, 810 F.2d 1113, 1116 (Fed. Cir. 1987)); *see also Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d

1295, 1301 (Fed. Cir. 1999) (claim terms are "not construed in a lexicographic vacuum, but in the context of the specification and drawings.").

Additionally, the specification must be consulted because a claim cannot be construed in a way that would give the claim a broader scope than the patent's written description supports. *See Wang Labs., Inc. v. Am. Online, Inc.*, 197 F.3d 1377, 1384 (Fed. Cir. 1999) ("[T]he doctrine of claim differentiation can not broaden claims beyond their correct scope, determined in light of the specification and the prosecution history and any relevant extrinsic evidence."), *N. Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1577 (Fed. Cir. 1993) ("A patent applicant cannot disclose and claim an invention narrowly and then, in the course of an infringement suit, argue effectively that the claims should be construed to cover that which is neither described nor enabled in the patent."). To determine whether the claims of the patent are broader than the preferred embodiment described in the specification, as fairly construed, "is a question specific to the content of the specification, the context in which the embodiment is described, the prosecution history, and if appropriate the prior art." *Wang*, 197 F.3d at 1383. The fact that an embodiment described in the specification is described as a "preferred embodiment" does not mean that claims are necessarily broader than that embodiment; they must still be supported by the specification. *Id.*

The Prosecution History. The prosecution history of the patent is also significant in construing its claims. It contains the complete record of proceedings before the United States Patent and Trademark Office (the PTO), including all representations made by the applicant regarding the invention. *See Vitronics*, 90 F.3d at 1582 ("[T]he record before the Patent and Trademark Office is often of critical significance in determining the meaning of the claims."). The Federal Circuit "has noted that arguments made during the prosecution history are relevant

in determining the meaning of the terms at issue...Thus, the prosecution history ... limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance." *Jonsson v. Stanley Works*, 903 F.2d 812, 818 (Fed. Cir. 1990) (internal quotations and citations omitted); *see also Phillips*, 415 F.3d at 1317 ("the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be."). Indeed, "[a]rguments made during the prosecution of a patent application are given the same weight as claim amendments." *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 979 (Fed. Cir. 1999). This makes sense because "[t]he public has a right to rely on the assertions made by a patent applicant to secure allowance of its claims. Post-hoc, litigation-inspired argument cannot be used to reclaim subject matter that the public record in the PTO clearly shows has been abandoned." *Desper Prods., Inc. v. QSound Labs, Inc.*, 157 F.3d 1325, 1340 (Fed. Cir. 1998). In determining whether subject matter has been abandoned, "[t]he relevant inquiry is whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter." *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 813 (Fed. Cir. 2002); *see also Desper*, 157 F.3d at 1338 (same).

It is well-established that for a patent like the '078 patent that is a continuation-in-part in a chain of applications, arguments made during prosecution of any of the applications in the chain may apply to the claim interpretation given to any claim of any of the patents that subsequently result. *See Wang*, 197 F.3d at 1384 (applying argument made in parent application to claim construction of child continuation-in-part application); *Desper*, 157 F.3d at 1339 n.6 (applying arguments to claim construction of sibling application); *Jonsson*, 903 F.2d at 818

(applying argument made in parent application to claim construction of child continuation-in-part application). The statement need not appear in PTO submissions specific to the particular patent or claim language at issue if the statement in the related application applies to common subject matter. *See Wang*, 197 F.3d at 1384; *Jonsson*, 903 F.2d at 818.

Continuation Practice. To understand "continuation" patents and "priority," and to put in context the prosecution history in this case, a brief explanation of the patent law's requirements for "continuation" patents may be helpful. The patent claims must be both described and enabled by the patent's disclosure as of the date the patent application is filed. 35 U.S.C. § 112; *see, e.g., Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1560-64 (Fed. Cir. 1991) (explaining the differences between enablement and written description). These are distinct requirements. To satisfy the written description requirement, an "application itself must describe an invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought." *Lockwood v. Am. Airlines*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). To satisfy the enablement requirement, the patent disclosure must enable one of ordinary skill in the art to make and use the invention. 35 U.S.C. § 112.

After an application is filed, the claims may be revised during prosecution, but the applicant cannot insert "new matter" into the disclosure to support the claims. *See* 35 U.S.C. § 132. These statutory restrictions prevent a patent applicant from revising a patent application to claim inventions not disclosed in the original application. *Vas-Cath*, 935 F.2d at 1563-64. If such revisions were permitted, applicants could artificially avoid prior art that developed after they filed their application, even though they did not disclose the claimed inventions in the application. *See id.* at 1559 (patent needed earlier priority date to avoid prior art).

Written description rules are also used to evaluate "continuation" patents and their efforts to obtain "priority." In order for a continuation application to obtain priority back to the filing date of an earlier application, the technical disclosure of the earlier "parent" application must be sufficient to support (*i.e.*, describe and enable) the claims presented in the later filed continuation application. *See* 35 U.S.C. § 120 (priority statute); *Reiffin v. Microsoft Corp.*, 54 U.S.P.Q.2d 1915, 1917 (Fed. Cir. 2000). When assessing priority, a court should set the current specification aside and instead determine whether the parent application supports the claims in the continuation application. If not, the claims cannot obtain the claimed priority date, and they are instead given the later filing date. *See Reiffin,* 54 U.S.P.Q 2d at 1918.

III. BACKGROUND OF THE PATENT

Because the intrinsic evidence is key in determining the proper claim construction of the '078 patent, this section provides an overview of the '078 patent background.

A. The '078 Patent Family.

The '078 patent is part of an extensive patent family that goes back to a 1981 application entitled "VCR Programmer." Through a sixteen-year string of continuation and continuation-in-part applications, the '078 application eventually was filed in 1997, claiming priority to an abandoned 1991 application, which in turn claimed priority to the abandoned 1981 application. '078 App., Claim for Priority (A94); 1991 App., Claim for Priority (A27). During prosecution of the '078 patent, however, the applicant conceded that priority was limited to an abandoned March 9, 1992 continuation-in-part application, and TV Guide claims the same priority date in this litigation.[1] 2/12/99 Office Action, at 2 (A113); TV Guide Supp. Interr. Resp. at 11-12

[1] TMS reserves the right to challenge TV Guide's claim to the 1992 priority date for the '078 claims.

(A546-A547). Not surprisingly given these continuation tactics, much of the technology from the original 1981 application remains in the '078 patent. The 1981 application has spawned several patents, many of which Gemstar has asserted in prior patent litigation.[2]

The sole named inventor of this patent family, Michael Levine, claims he came up with the idea for the 1981 application when he programmed his VCR to record the 1981 Rose Bowl and missed the game because it failed to record. Levine Dep. at 15:5-17:2 (A630). Levine does not practice the patents in this family, but rather assigns them to his patent holding company "Smart VCR," which in turn sells them to Gemstar. *See, e.g.*, Levine Dep. at 27:8-28:3 (A631); Gemstar-Levine Assign. Agreement (A455-A481). According to Levine, when the first patent in this family issued in the early 1990s, U.S. Patent No. 4,908,713 ("the '713 patent"), Levine and his long-time patent counsel Allen Krass approached Gemstar as a company that might be interested in it. Levine ultimately sold Gemstar the program guide claims from the '713 patent, but kept the "on screen programming claims" from the '713 patent. Levine Dep. at 36:8-38:17 (A632).[3] Levine claims to have "licensed the entire [VCR] industry ... and still to this day collects royalties" on "part of the '713 and all of the '914," a related patent. *Id.*

On January 6, 1998, while Gemstar and TV Guide (then Prevue) were still enmeshed in patent litigation, Levine's company Smart VCR assigned the then-pending application for the

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2 *See, e.g.*, (1) *Gemstar Dev. Corp. v. StarSight Telecast Inc.*, 93-CV-6903 (C.D. Cal) transferred to *Starsight Telecast, Inc. v. Gemstar Dev. Corp.*, 93-CV-20777 (N.D. Cal.), (2) *Prevue Interactive, Inc. v. Starsight Telecast, Inc.*, 93-CV-934 (N.D. Okla.), *Gemstar Dev. Corp. v. Prevue Networks Inc.*, 98-CV-20778 (N.D. Cal.) transferred to *Gemstar Dev. Corp. v. Prevue Networks, Inc.*, 99-CV-127 (N.D. Okla.), (3) *In re Gemstar Dev. Corp. Patent Litig.*, MDL-1274-WBH (N.D. Ga.), (4) *Superguide Corp. v. DirecTV Enters., Inc.*, No. 1:00CV144 (W.D.N.C.), (5) *Starsight Telecast, Inc. v. TiVo, Inc.*, C 00-00186 and 00-CV-20133 (N.D. Cal.), and (6) *In the Matter of Certain Set-Top Boxes and Components Thereof*, ITC Investigation No. 337-TA-454.

3 It is improper to split up ownership of a patent this way, and, as a result, Gemstar's '713 patent infringement claims were dismissed for lack of standing in a prior MDL lawsuit involving several patents from this patent family. *See* June 10, 2003 Order Granting Motion for Summary Judgment that Gemstar Lacks Standing to Enforce '713 Patent, *In re Gemstar Dev. Corp. Patent Litig.*, MDL-1274-WBH (N.D. Ga.).

'078 patent to Gemstar's patent holding company Index Systems, Inc., a wholly-owned subsidiary of Gemstar. 4/13/98 USPTO Record of Assign. (A124-A126). Many years later, immediately before filing this suit against TMS, Gemstar engineered the '078 patent assignment from Index Systems to TV Guide Online, LLC. Assign. to TV Guide Online, LLC (A127). By 1995, long before Levine filed the '078 application and before he first submitted the asserted claims, let alone assigned the '078 patent to Index/Gemstar, both TMS and TV Guide had websites that allegedly practice the '078 claims. *See* TV Guide's Supp. Interr. Resp. at (13-14 (A548-549); TV Week Interactive Agreement (A322-A328); ClickTV printouts (A329-A334).

B. The Claims of the '078 Patent

TV Guide asserts all of the '078 patent claims except claim 9, the only claim that requires controlling the TV. There are two independent method claims, one independent system claim, and several dependent claims. The '078 patent relates generally to a method and system for locating and receiving television programming information specific to a geographic location. '078 patent at 1 (A1). The parties ask the Court to construe the following disputed terms used in the asserted claims of the '078 patent:

- viewing location
- information … regarding the geographical location of the particular viewing location; information … regarding the geographical area of the viewing location; and information … pertaining to the geographic location of the television receiver
- modem
- transmitting/transmit
- receiving … information specific to the type of programming available to the particular viewing location; receiving … television programming schedule information specific to the viewing location; and receive … the information specific to the type of television programming available to the receiver
- controller being programmed to perform

For the use of these terms in the asserted claims of the patent, please see A7-A8. The parties' proposed constructions for these terms are laid out in the chart attached at A651-652, and are discussed in more detail below.

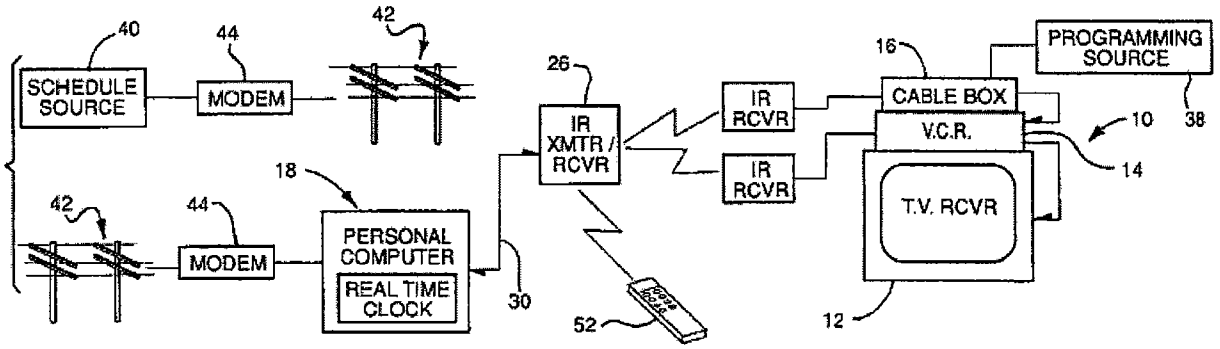
C. The Specification of the '078 Patent

An examination of the '078 patent specification is an important step in construing the disputed claim terms, because "the specification is always highly relevant to the claim construction analysis." *Phillips*, 415 F. 3d at 1315. (internal quotations omitted). "Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." *Id.* 415 F.3d at 1316 (Internal citations omitted).

The Problem and The Solution. The '078 patent purports to solve a problem faced by its great-grandparent — the '713 patent — and other related applications. The specification describes the problem with the '713 patent and related applications to be that "they suffer from the disadvantage of adding hardware and software to existing video cassette recorders or cable boxes which do not contain ***a schedule memory*** and ***a database program*** for selecting particular entries on the memory for display." '078 patent at 1:47-51 (A5) (emphases added). In the SUMMARY OF THE INVENTION, the '078 patent states that it purportedly solves this problem by placing the schedule memory and database program *i.e.*, a memory of television programming schedule information, on a personal computer rather than the VCR or cable box.

> ***The present invention*** allows the implementation of the ***electronic schedule memory*** and cursor-based programming on a conventional video recorder through use of an associated personal computer…
>
> …The schedule information may be displayed on the monitor of the personal computer under control of ***a database program*** allowing chronological, alphabetical or topical selection…

Id. at 1:54–2:6 (A5) (emphases added). The solution offered by the '078 patent is illustrated in its Figure 2, which depicts transmitting the schedule information to the personal computer by telephonic communication, the personal computer then using the schedule information to control the cable box or VCR:



The Schedule Memory and The Database Program. The schedule memory and the database program, the location of which is the purported "solution" of the '078 patent, go hand in hand throughout the '078 specification. First, the ABSTRACT discloses: "An application program allows the computer to receive data representing a schedule of future programs. The operator can perform data base operations on the data to obtain listings of programs of particular interest." '078 patent at 1 (A1). Then in the SUMMARY OF THE INVENTION, immediately after explaining that "the present invention" implements "the electronic schedule memory and cursor-based programming" of the related applications using a personal computer, the specification discloses: (1) alternative methods for providing the schedule information to the schedule memory, and (2) use of a database program to manipulate the stored schedule information:

> [1] Future programming schedule information may be provided to the personal computer from a remote database by telephonic communication, by broadcast, or by subscription provision of disposable memories. [2] The schedule information may be displayed on the monitor of the personal computer under control of a database program allowing chronological, alphabetical or topical selection…

'078 patent at 1:65–2:4 (A5). Next, in the DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT, the specification elaborates on this disclosure and spells out the inextricable connection between the programming schedule memory and the database program: "the program requires as data the schedule of future programming available to the system..." *Id.* at 3:41-43 (A6); *see also id.* at 3:22-27, 40-45 (A6).

Just as in the SUMMARY OF THE INVENTION, the next two paragraphs disclose: (1) alternative methods for providing the schedule information to the schedule memory, *id.* at 3:46-67 (A6), and (2) use of a database program to manipulate the stored schedule information, *id.* at 4:1-9 (A6). In the first and preferred method disclosed here,

> ...the schedule information is provided to the personal computer 18 from a remote database 40, which may constitute a database provider such as "COMPUSERVE," "PRODIGY" or the like. This information may be customized for the cable service 38 available to the system through an initialization routine in which the computer operator keys in the postal ZIP code of his location and, if necessary, an identification of the cable service provider. The head end database uses this information to provide the computer 18 with the schedule of programming available for that service. The operator of the personal computer system 18 may communicate with the schedule source over phone lines 42 using modems 44 at each end...

Id. at 3:46-58. (A6) [4] This disclosure, first submitted by Levine in ***1992***, is strikingly similar to the following disclosure from U.S. Patent No. 4,706,121 to Young ("Young patent"), issued in ***1987***:

> It should further be apparent to those skilled in the art that various changes in form and details of the invention as shown and described may be made. For example, ***the schedule information could be accessible with a personal computer through an information utility, such as Compuserve*** or The Source,

[4] The next sentence of the '078 patent makes clear that the television programming schedule information is ***stored*** in the computer (and therefore could be updated automatically, if desired): "Alternatively, the personal computer could employ a program in which the system automatically communicates with the schedule source 40 at predetermined periods, such as each morning at 4:00 a.m. or the like, to update ***the schedule stored in the personal computer***." '078 patent at 3:59-63 (A6) (emphasis added).

> ***and the user could*** either make the selection inputs to the utility's mainframe for running a selection program on the mainframe and then download the selected program information, or ***download the program schedule information for his or her locality***, then run the selection program with the downloaded program schedule information on the personal computer. The television set and VCR could then be controlled as peripherals of the personal computer…

Young at 21:65-22:10 (A153) (emphases added). Thus both the '078 patent and the Young patent teach a schedule memory operating with a database program for purposes of getting television schedule information.[5]

Levine faced rejections based on the Young patent in both the grandparent 1992 application and the 1997 application that issued as the '078 patent. Levine repeatedly distinguished the Young and other patents and, in the process, disclaimed subject matter at issue here. *See infra*. TV Guide now seeks to reclaim this long-abandoned subject matter using the CompuServe snippet from the '078 patent specification (the same disclosure Young made years before Levine) in a vacuum, divorced from its context and prosecution history. That is the only way TV Guide can try to read Levine's 1980s technology on today's internet technology.

D. The Prosecution History of the '078 Patent

It also is important to examine the prosecution history in construing the disputed claim terms, because "the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise

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[5] The Young patent also disclosed the alternative method where "[a] diskette containing broadcast information could be used instead of a direct broadcast as an input to the TV scheduler. The diskette can be read by a computer that controls a programmable TV tuner," *Young* at 22:14-19 (A153), just as the '078 patent later described "[a]s another alternative, diskettes could mailed [sic] out to the personal computer on a subscription basis or the schedule information could be provided to the personal computer via cablecast or broadcast." '078 patent at 3:63-65 (A6).

be." *Phillips*, 415 F.3d at 1317. With these principles in mind, the following is a brief summary of the '078 prosecution history.

The 1992 Application. In 1992, Levine filed a continuation-in-part application, entitled "Personal Computer-Based Schedule Guide and Controller for Video Recorder." 3/9/92 App., at 000513 (A9). Most of the '078 specification was first contained in this 1992 application, and TV Guide relies on this application for priority in this litigation. TV Guide Supp. Inter. Resp. at 11-12 (A546-A457). The Examiner initially rejected the claims based on U.S. Patent No. 5,086,385 to Launey ("Launey"). 8/13/93 Office Action at 2-6 (A30-A34). In order to overcome the Launey rejection, Levine distinguished his "invention" from a system like Launey's, where "schedule information might be kept in remote database 44 and downloaded through modem 42 to central processor 10 on an as-needed basis." 11/16/93 Amend., at 7 (A42). Levine distinguished his "invention" based on the schedule memory and database program:

> ***In contrast, the present invention maintains a database*** including information relating to programming available to the VCR during a future period...This information may be derived from a remote database via telephonic communication, by broadcast, or by subscription provision of disposable memories. ***In all cases***, however, ***an entire block of schedule information for a given period of time is transferred to the personal computer in accordance with the present invention, thereby enabling an operator to perform database-type manipulations directly on this information***, including its use to immediately schedule a particular video program for future recording.

Id. at 7-9 (emphases added) (A42-A44). In other words, Levine argued that his invention was different than the prior art because in his invention the schedule information is saved on the user's computer, not just accessed from viewed on an as needed basis. Levine made clear that this distinction from the prior art applies ***in all cases*** of ***the present invention***.

In the same Response, Levine argued for an earlier priority date based on the database memory disclosed in the parent 1991 and the 1992 applications. Levine pointed out that the parent application "discloses a system providing a schedule of future programming available to a

video recorder including ***a database memory*** so that the operator may display selected portions of the future schedule as an aid in choosing programs for recording." *Id.* at 1 (A36) (emphasis added). Levine explained that the 1992 application "adds to this subject matter the placement of ***the database memory*** within a general-purpose personal computer including a remote-control transmitter connected to an I/O port of the personal computer." *Id.* Levine amended his claims accordingly, which led the Examiner to reject all the claims based on Launey in view of the Young patent. 2/7/94 Office Action at 2-4 (A49-A51). Levine then canceled most of the claims and amended some claims, but ultimately abandoned the application and filed the 1994 continuation-in-part application. 9/29/94 Notice of Abandonment (A75).

The 1994 Application. The 1994 application added as new matter a purported improvement to VCR Plus™, made possible "with the present invention storing a large database of programs in the personal computer." 8/8/94 App., at 12-14 (A64-A66). After an initial rejection based on Launey in combination with two other patents, the Examiner rejected all the claims based on the VCR Plus™ patent, U.S. Patent No. 5,307,173. 12/2/96 Office Action, at 2, 5 (A77,A80). Levine overcame the rejection by arguing that the VCR Plus™ patent "fails to teach the downloading of the schedule information by the PC..." 4/15/97 Interview Summary (A83). The Examiner then allowed the amended claims, which issued in U.S. Patent No. 5,692,214, renamed "System for Unattended Recording of Video Programs by Remote Control Code Transmitter Module Which Receives User Selections from a Personal Computer." '214 Patent (A84-A93).

The 1997 Application. Finally, on October 9, 1997, Levine filed the 1997 application that led to the '078 patent. As a continuation of the 1994 application, it had the original title and claims from the 1994 application, all directed to controlling a VCR. Along with the continuation

application, Levine filed a Preliminary Amendment: (1) changing the name to "Method and Apparatus for Receiving Customized Television Programming Information"; (2) deleting the reference to related applications older than 1991 and claiming priority to the 1991 application; (3) canceling all of the original claims and (4) adding the claims that ultimately issued in the '078 patent. 10/9/97 Preliminary Amend. (A95-A99). The Examiner initially rejected the claims based on a combination of prior art that included transmission of information for a particular geographic market. 7/24/98 Office Action (A100-A105). In response, Levine (1) argued that his invention predated the prior art because of the claim to priority to the earlier applications and (2) distinguished his invention from the prior art primarily on the basis that his invention transmits geographical information "***from the viewer location*** to the service provider." 11/30/98 Amend., at 3 (A108) (emphasis added).

The next Office Action rejected every claim based on the Young patent, and noted that Levine claimed the March 9, 1992 priority date instead of the originally claimed 1991 date. 2/12/99 Office Action, at 2-4 (AX113-A115). As shown above, the '078 patent's disclosure of CompuServe providing schedule information for the user's location is strikingly similar to the Young '121 patent disclosure from 1987. *Compare* '078 patent at 3:46-58 (A6) *with* Young at 21:65 - 22:10 (A153). In particular, the Young patent teaches that "the schedule information could be accessible with a personal computer through an information utility, such as Compuserve or The Source, and the user could…download the program schedule information for his or her locality…" Young at 21:67-22:7 (A153).

Levine overcame this rejection by arguing that whereas "All of applicant's [*i.e.*, Levine's] independent claims include the limitation, in one form or another, of transmitting, from a computerized unit situated at a viewing location, information regarding geographical location,"

Young "does not imply transmitting particular geographical location information." 5/18/99 Resp. to Office Action, at 1-2 (emphasis in original) (A117-A118). Levine's argument was incorrect. As shown in TMS' Motion for Summary Judgment of Invalidity, and as admitted by TV Guide's technical expert, CompuServe did in fact allow a user to transmit geographical location information before Levine's 1992 invention date. Cole Dep. at 192:6-23 (A611). Nonetheless, the Examiner allowed the claims and changed the title to "Method and Apparatus for Receiving Customized Television Programming Information by Transmitting Geographic Location to a Service Provider Through a Wide-Area Network." 6/8/99 Notice of Allowability and Examiner's Amend. (A120-A123).

IV. THE CLAIM TERMS FOR THE COURT'S CONSTRUCTION

As stated above, the parties ask the Court to construe certain disputed terms within the asserted claims of the '078 patent. A chart summarizing the parties' claim construction positions can be found at A651-A652.

A. "Viewing Location" (All Claims)

TMS's proposed construction for "viewing location" should be adopted because it comports with the teachings of the claims themselves and the specification. In contrast, TV Guide's proposed construction contradicts the intrinsic record. TMS also asks the Court to construe "viewing location" to include in claim 8 the requirement that the controller be located at a viewing location, as is required by claims 1 and 6. During prosecution of the '078 patent, Levine disclaimed any construction of the '078 patent that would have the personal computer located anywhere other than a viewing location.

The parties exchanged the following constructions for "viewing location":

TMS	TV Guide

The specific room within a building where a television set is positioned and watched	Residence or other building at which a television signal can be received

TMS's proposed construction for "viewing location" is consistent with how the term is used in the '078 patent claims. It is used throughout the independent method claims of the '078 patent:

> In a television distribution arrangement wherein a plurality of geographically dispersed television ***viewing locations*** receive television programming from a source of such programming, a method of receiving information specific to the type of programming available to a particular one of the ***viewing locations***, the method comprising the steps of:
>
> providing a computerized unit at the particular ***viewing location***, the unit including an operator input and a modem;
>
> establishing a connection to a wide-area network through the modem;
>
> transmitting, from the computerized unit, information to a service provider through the wide-area network regarding the geographical location of the particular ***viewing location***; and
>
> receiving, from the service provider, information specific to the type of programming available to the particular ***viewing location***.

'078 patent at claim 1 (A7) (emphasis added); *see also id.* at claim 6 (A8) ("providing, at a television ***viewing location***" … "transmitting, from the television ***viewing location***" … "regarding the geographical area of the ***viewing location***" … "specific to the ***viewing location***") (emphasis added).

The language of claim 1 makes clear that the "viewing location" is a place where a television signal is actually received. Per the preamble of claim 1, the "television viewing locations ***receive television programming*** from a source of such programming," and the claim describes "a method of receiving information specific to … a particular one of the viewing locations." '078 patent at claim 1 (A7). In other words, claim 1 describes a method that is

practiced at a viewing location that ***must in fact receive*** television programming — consistent with TMS's proposed construction.

The specification also supports TMS's proposed construction for "viewing location." Per the independent method claims of the '078 patent, the computer is to be located ***at*** the viewing location. '078 patent at claims 1, 6 (A7-A8). These "viewing location" limitations require the computer to be in the same room as the television (*i.e.*, the viewing location), because the specification expressly contrasts the scenario where the personal computer is located at the viewing location with the situation where the television/VCR combination is "located" in a different room from the computer. The specification characterizes the scenario where the computer and television are ***not*** in the same room as a scenario where they are "located remotely from one another," not in "proximity" and "located a large distance from" one another, requiring an alternative embodiment for transmitting control signals, as follows:

- "*Fig.* 7 is an illustration of a second embodiment of the invention in which the personal computer and video recorder are located remotely from one another and the output signals from the personal computer are transmitted by radio to an infrared transmitter for control of the video recorder." *Id.* at 2:58-62 (A5);
- "Alternatively the unit 26 may be detachable from the computer 18 so that after it is loaded with data on programs to be recorded it may be detached and moved into proximity with the receiver system 10, which may be located in another room." *Id.* at 4: 45-49 (A6);
- "The embodiment of the invention illustrated in *Fig.* 7 is utilized in systems where the cassette recorder 14 is located a large distance from the personal computer 18, such as in another room of the house." *Id.* at 6:13-16 (A7).

In the context of the '078 patent, which is directed to using a personal computer to control a VCR with infrared signals as depicted in Figures 1 and 2, another room is a different location — it is ***not*** the "viewing location."

TV Guide's proposed construction of "viewing location" only requires that the viewing location be ***capable*** of receiving a television signal, not that it actually does receive the signal.

But that construction ignores the language of the claim, which requires that the location ***actually*** receive a television signal. TV Guide's proposed construction also ignores the teaching of the specification that the personal computer be located in the same room as the television.

Because of arguments Levine made during prosecution of the '078 patent, TMS' proposed construction of "viewing location" should also be construed to include the requirement in ***all*** claims, including claim 8, that the computer be situated at the location where the television is positioned and watched by the user, *i.e.*, at the viewing location. Levine successfully overcame a rejection of all of the '078 claims based on the Young '121 patent by arguing that "***All*** of Applicant's independent claims include the limitation, in one form or another, of transmitting, ***from a computerized unit situated at a viewing location***, information regarding geographical location. The Young patent does not disclose or suggest such a limitation." 5/18/99 Resp. to Office Action, at 1 (A117) (underlining in original; bold, italics added). The Examiner then allowed the claims. 6/8/99 Notice of Allowability (A120-A123). This argument reiterated Levine's earlier argument, in response to the Examiner's initial rejection of all the claims that issued in the '078 patent, distinguishing other prior art because "[i]n particular, ***all*** of Applicant's independent claims include the step or apparatus associated with transmitting, ***from a viewing location***, information to a service provider through a wide-area network regarding ***the geographical location of the particular viewing location***." 11/30/98 Amend., at 2 (A107) (emphases added).

Indeed, both of Levine's prosecution history arguments explicitly applied to "all" of the independent claims that are now being construed. This is a classic case of prosecution history disclaimer. The Examiner repeatedly rejected the claims based on the prior art, and in response Levine very clearly, deliberately and unequivocally distinguished the prior art on the basis that

"all" of the independent claims contain the limitation at issue and require the computer to be situated at the television viewing location. TV Guide's attempt to evade this disclaimer here is improper. As noted above, the Federal Circuit has admonished that "[t]he public has a right to rely on the assertions made by a patent applicant to secure allowance of its claims. Post-hoc, litigation-inspired argument cannot be used to reclaim subject matter that the public record in the PTO clearly shows has been abandoned." *Desper Prods., Inc. v. QSound Labs, Inc.*, 157 F.3d 1325, 1340 (Fed. Cir. 1998). Because Levine disclaimed a system where the computer was not located at the viewing location, claim 8 should be construed to require that the Controller be located at the viewing location.

B. "Information ... Regarding The Geographical Location Of The Particular Viewing Location." (All Claims)

The parties have exchanged proposed constructions of the variations of "information ... regarding the geographical location of the particular viewing location," as shown in the chart found at A651-A652. The two parties' proposals differ in two important regards.

First, the various limitations call for "information ... regarding the geographical location," "information ... regarding the geographical area" and "information ... pertaining to the geographical location." TMS offers a construction for what "geographical information" is: "any information, irrespective of how the information is encoded, that expressly indicates in geographic language (e.g., name of a continent, country, province, state, city, town, region, street address, zip code, area code, etc.) the approximate portion of the planet."[6] In contrast, TV Guide proposes that this aspect of the term be construed merely to be "geographical information." But

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[6] "Geographic: ... 2: belonging to or characteristic of a particular region." "Geography: 1: a science that deals with the description, distribution, and interaction of the diverse physical, biological, and cultural features of the earth's surface." Merriam-Webster's Collegiate Dictionary 523 (11th ed. 2003) (A492).

that is effectively no construction at all, and provides no guidance to a jury regarding the proper meaning of this claim term.

Second, TV Guide uses its proposed construction for the term "viewing location" in its proposed constructions for these terms. As explained above, however, this construction is incorrect and overbroad. TMS proposes using the term "viewing location" in the construction or, at the Court's preference, substituting the proper construction of "viewing location" into the construction of these terms as appropriate.

C. "Modem" (All Claims)

TMS's proposed construction of the term "modem" is consistent with what one of ordinary skill in the art would have understood the term to mean in 1992, the date to which the '078 patent claims priority. Additionally, TMS's proposed construction is consistent with the teachings of the '078 patent specification. TV Guide's proposed construction is an attempt to impermissibly broaden the scope of the patent beyond what one of ordinary skill in the art would have understood in 1992, and beyond the teachings of the '078 patent.

All of the independent claims of the '078 patent use the term "modem." '078 patent at claims 1, 6, 8 (A7-A8). The parties exchanged these proposed constructions of "modem":

TMS	TV Guide
A data signal conversion device that converts digital signals to analog signals (and vice versa) and allows a computer to exchange data over a standard dial-up telephone line	Data signal conversion device that connects data terminal equipment to a communication line

The "modem" construction proposed by TMS, including digital to analog conversion and transmission over a standard dial-up telephone line, is required by the claim language and the specification. In contrast, TV Guide derives its construction from a single dictionary definition. The en banc Federal Circuit explicitly "clarified" the use of dictionary definitions in *Phillips* and

warned against the type of misuse TV Guide engages in here. While dictionaries have a place in claim construction, "heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." *Phillips*, 415 F.3d at 1321. The definition TV Guide uses exemplifies the "problem" identified in *Phillips* where "there may be a disconnect between the patentee's responsibility to describe and claim his invention, and the dictionary editors' objective of aggregating all possible definitions for particular words." *Id.* As shown below, TV Guide takes its construction from a technical dictionary in the broad context of "electrical and electronics terms" that specifically aggregates numerous definitions of the term "modem" from various fields. There is no connection between Levine's alleged invention and the definition that TV Guide cherry-picks from the many options.

The Claim Language. TV Guide's proposed construction of "modem" to mean "data signal conversion device that connects data terminal equipment to a communication line" uses the following one of the numerous "modem" definitions in *The New IEEE Standard Dictionary of Electrical and Electronics Terms* 815 (5th ed. 1993) ("IEEE Dictionary"):

> (1) (data transmission). A contraction of MOdulator-DEModulator, an equipment that connects data terminal equipment to a communication line. (PE) 599-1985w. (A485)

This definition, however, is out of context. It merely indicates that in the context of data transmission, a modem is a type of equipment that connects data terminal equipment to a communication line. If anything, the "contraction of MOdulator-DEModulator" portion of this definition alludes to digital to analog conversion in accordance with TMS' proposed construction.

Regardless, this same dictionary provides a more complete definition of "modem" in a context that matches the subject matter of the '078 patent claims, namely, the category "Computer," and includes digital to analog conversion:

> …. (5) (A) A device that performs modulation and demodulation functions necessary to transmit signals over communication lines….. (B) A device that transforms a digital signal received into an analog signal and vice versa. (C) 610.7-1995

IEEE Dictionary at 815 (A485). Likewise, this dictionary defines "modem" in the context of "broadband local area networks" (not disclosed in the '078 patent), categorized as "Computer — local and metropolitan area networks," that also includes digital to analog conversion:

> …. (3) (broadband local area networks). A modulator-demodulator device. The modulator encodes digital information into an analog carrier signal by varying the amplitude, frequency, or phase of that carrier. The demodulator extracts digital information from a similarly modified carrier. A modem transforms digital signals into a form suitable for transmission over an analog medium. (C/LM) 802.7-1989

Id. Similarly, the *IBM Dictionary of Computing* 366 (9th ed. 1991) (A488) defines modem as:

> (1) A functional unit that modulates and demodulates signals. One of the functions of a modem is to enable digital data to be transmitted over analog transmission facilities. (T) (A) (2) A device that converts digital data from a computer to an analog signal that can be transmitted on a telecommunication line, and converts the analog signal received to data for the computer.

Several other technical dictionaries referenced by TV Guide's expert (yet disregarded by TV Guide in construing "modem") support the TMS construction and comport with the '078 specification's disclosure of using a modem to transmit ***over a standard telephone line***. First, every edition of the *Microsoft Press Computer Dictionary* from 1991 (in effect as of the 1992 priority date) through 1997 (when the '078 patent was filed) defines modem as:

> Short for modulator/demodulator, a communications device that enables a computer to transmit information ***over a standard telephone line***….

Microsoft Press Computer Dictionary 230 (1st ed. 1991) (A528); *id.* at 259 (2d ed. 1994) (509); *id.* at 311 (3d ed. 1997) (A518) (emphasis added). The Federal Circuit relied on the 1991 edition of the *Microsoft Press Computer Dictionary* in resolving a similar claim construction dispute in *Microsoft Corp. v. Multi-Tech Systems, Inc.*, 357 F.3d 1340, 1345 n.2, 1347 n.3 (Fed. Cir. 2004).

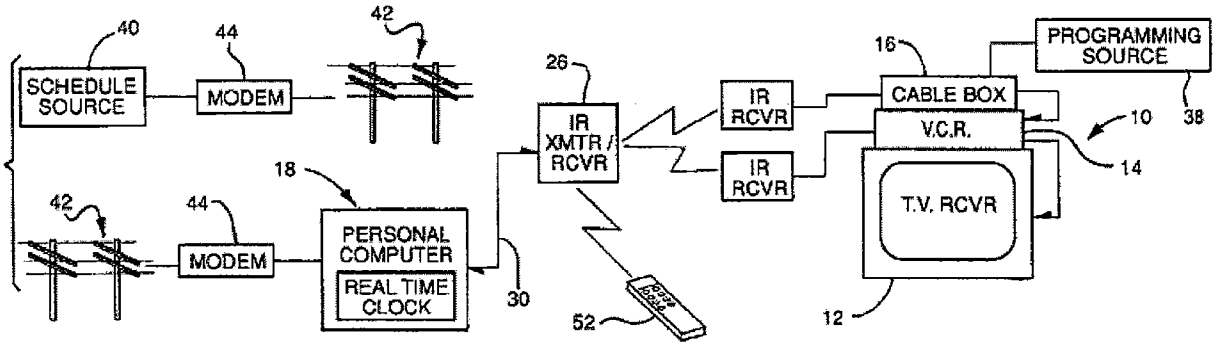
Likewise, in *Microsoft* the Federal Circuit relied on the 1992 edition of *Newton's Telecom Dictionary*. The 1990 edition of *Newton's* referenced by TV Guide's expert, as well as the 1991 and 1992 editions, define modem as:

> Acronym for MOdulator/DEModulator. Equipment which converts digital signals to analog signals and vice-versa. Modems are used to send data signals (digital) over the telephone network, which usually is analog. The Modem modulates the "1s" and "0s" into tones which can be carried by the phone network. At the other end, the demodulator part of the modem converts the tones back into digital 1s and 0s.

Newton's Telecom Dictionary 296 (3d ed. 1990) (A496); *id.* at 397 (4th ed. 1991) (504); *id.* at 574 (5th ed. 1992) (A537).

These definitions demonstrate that one of ordinary skill in the art at the time of the alleged invention would have understood the term modem to mean "a data signal conversion device that converts digital signals to analog signals (and vice versa) and allows a computer to exchange data over a standard dial-up telephone line."

The Specification. Moreover, these definitions correspond with the specification's disclosure of the claimed modem. Figure 2, appearing on the front of the patent and reproduced below, depicts the modem connected directly to a telephone line:



The BACKGROUND OF THE INVENTION explains that in the '713 patent containing Levine's original 1981 specification, "[t]he schedule may be provided to the memory and updated either by broadcasting schedule information or by delivering disposable memories to the system on a subscription basis." '078 patent at 1:30-33 (A5). The '078 SUMMARY OF THE INVENTION adds "telephonic communication" to the 1981 broadcasting and disposable memories technologies: "Future programming schedule information may be provided to the personal computer from a remote database ***by telephonic communication***, by broadcast, or by subscription provision of disposable memories." '078 patent at 1:65–2:1 (A5) (emphasis added). The DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT elaborates in reference to Figure 2:

> In the preferred embodiment of the invention the schedule information is provided to the personal computer 18 from a remote database 40, which may constitute a database provider such as "COMPUSERVE," "PRODIGY" or the like. This information may be customized for the cable service 38 available to the system through an initialization routine in which the computer operator keys in the postal ZIP code of his location and, if necessary, an identification of the cable service provider. The head end database uses this information to provide the computer 18 with the schedule of programming available for that service. ***The operator of the personal computer system 18 may communicate with the schedule source over phone lines 42 using modems 44 at each end***....

'078 patent at 3:46-58 (A6) (emphasis added). This detailed description corresponds to the "telephonic communication" disclosed in the SUMMARY OF THE INVENTION, which both disclose connecting over a standard dial-up telephone line. The DETAILED DESCRIPTION

continues with alternative embodiments that correspond to the "broadcast" and "subscription provision of disposable memories" from the 1981 specification:

> As another alternative, diskettes could [sic] mailed out to the personal computer on a subscription basis or the schedule information could be provided to the personal computer via cablecast or broadcast.

Id. at 3:63-67 (A6). Significantly, the specification discloses the customized program guide with transmission of geographical information only by communicating over phone lines using modems at each end. *See id.* at 3:56-58 (A6). The broadcast and disposable memories are explicitly for an "alternative" embodiment that only discloses providing schedule information and does not disclose, let alone enable, transmitting geographical information to the service provider. '078 patent at 3:63-67 (A6). For this reason, TV Guide's reliance on the "cablecast or broadcast" embodiment to shoehorn its proposed construction into the specification fails. The "cablecast or broadcast" alternative embodiment, along with the subscription provision of disposable memories, is merely a vestige from the 1981 application. It does not apply to the claimed customized program guide using geographical information, and does not support TV Guide's proposed construction of "modem."

Thus, in addition to being consistent with the understanding of one of ordinary skill in the art in 1992, TMS's proposed construction for "modem" is consistent with the only applicable disclosure in the '078 patent specification.

D. "Transmit/Transmitting" (All Claims)

TMS's proposed construction of the term "transmit/transmitting" is consistent with the arguments Levine made in order to overcome a rejection of the '078 patent claims during prosecution. TV Guide's proposed construction, on the other hand, ignores the clear language in the prosecution history, and instead proposes a construction that offers no clarification at all.

All of the independent claims use the term "transmit" or "transmitting." '078 patent at claims 1, 6, 8 (A7-A8). The parties exchanged the following constructions for "transmit/transmitting":

TMS	TV Guide
make/making an affirmative indication	send/sending electronically

As discussed in more detail above, both the Young patent and the '078 patent disclose using CompuServe to download local schedule information to a personal computer. *Compare* '078 patent at 3:46-58 (A6) *with* Young patent at 21:65-22:10 (A153). During prosecution of the '078 patent, the Examiner rejected all of the '078 patent claims as obvious in view of the Young patent. 2/12/99 Office Action, at 2-4 (A113-A115). In order to overcome this rejection, Levine relied on a particular interpretation of the "transmit/transmitting" limitation, as follows:

> All of applicant's independent claims include the limitation, in one form or another, of transmitting, from a computerized unit situated at a viewing location, information regarding geographical location. The Young patent does not disclose or suggest such a limitation. The Examiner argues that the Young patent teaches "transmitt[al of], from the computerized unit, information to a service provider (CompuServe or The Source-- col. 22 lines 1-9) regarding the geographic location (locality-- col. 22 lines 1-9) of the particular viewing location." However, retrieval of information from a database does not, by definition, include or even suggest transmittal of a viewer's geographic location. The '121 patent describes the process of "download[ing] the program schedule information for his or her locality..." This description does not imply transmitting particular geographical location information. Most database applications allow a user to passively select information from a list/menu, or to search a database without transmitting location-specific information. Such applications provide choices from which a user may select without transmitting a request.
>
> In contrast, Applicant's claim 19 clearly sets forth the active transmittal of "geographical location of the particular viewing location." This language explicitly requires data transmission from the user "to a wide-area-network through [a] modem" before retrieval of the desired information can occur. The user of Applicant's device ***must transmit an affirmative indication*** of his viewing location before receiving programming data.

5/18/99 Response to Office Action, at 1-2 (A117-A115) (underlining in original; bold, italics added). In other words, Levine distinguished his invention from the Young patent because in Levine's patent, the user must transmit an affirmative indication of viewing location, whereas in the teachings of the Young patent, a user may make a passive selection rather than transmit an affirmative indication.[7]

Levine's arguments during prosecution "inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution." *See Phillips*, 415 F.3d at 1317. Levine's arguments that his claim requires ***active*** transmittal and that "[t]he user of Applicant's device ***must*** transmit an affirmative indication of his viewing location" — arguments made to overcome a patentability rejection and distinguish his invention from the prior art — could not be more clear that the claim term "transmitting" is not simply "sending electronically." Rather, "transmitting" requires an action by the user; an ***affirmative indication***. Thus TMS's proposed construction is consistent with the intrinsic record and the express arguments made by Levine during prosecution of the '078 patent.

In contrast, TV Guide's proposed construction of "transmit/transmitting" to mean "send/sending electronically" effectively avoids construing this term and provides no guidance to the finder of fact. In the context of the claims and specification of the '078 patent, it is clear that any "transmitting" is done electronically. Furthermore, TV Guide's proposed construction ignores Levine's prosecution history argument specifically directed at this claim term that

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[7] As explained in TMS' Motion for Summary Judgment of Invalidity of the '078 Patent, Levine's argument to the PTO regarding the operation of a database application such as CompuServe misrepresented the functionality of CompuServe. Contrary to Levine's representation, CompuServe did allow a user to transmit an affirmative indication of geographical location — for instance, by typing in a city or state name to obtain weather information. Schepp at 101 (A175) and Fig. 4-11. *See also* Cole Dep. at 138:18-139:11 (A607-A608).

requires the user to transmit an ***affirmative indication*** of geographical location. Therefore, TV Guide's proposed construction should be rejected.

E. "Receiving ... Information Specific To The Type of Programming Available To The Particular Viewing Location" (All Claims)

TMS's proposed construction for the "receive" limitations is the result of a disclaimer made by Levine during prosecution of the patent application to which the '078 patent claims priority. This construction is also consistent with the teachings of the '078 patent specification and the language of the claims themselves. TV Guide proposes that only the word "receive" be construed, and offers a construction that only requires that the "receiving" be done electronically — in effect, offering no construction at all for this term.

All of the independent claims include variations of the "receiving ... information specific to the type of programming available to the particular viewing location" limitation. '078 patent at claims 1, 6, 8 (A7-A8). The parties exchanged these proposed constructions:

TMS	TV Guide
Having data transferred to a computer such that a user can perform database-type manipulations directly on the transferred data without being connected to the original source of the data	Receiving electronically (construing only the terms "receive/receiving")

The construction proposed by TMS is required by the claim language, the specification, and the prosecution history arguments insisting "the present invention maintains a database.... ***In all cases ... schedule information for a given period of time is transferred to the personal computer*** in accordance with the present invention, thereby ***enabling an operator to perform database-type manipulations directly on this information...***" 11/16/93 Amend., 7-8 (A42-A43) (emphases added). TV Guide has avoided construing the term "receive," merely qualifying that it be done electronically.

The Claim Language: The claim construction issue is how one of ordinary skill in the art would have understood "receive" in the context of the specification at the time of the invention. In the personal-computer context of the '078 patent, "receive" is a term of art that means "to obtain and store data." *IBM Dictionary of Computing* 468 (9th ed. 1991) (A489). A technical dictionary referenced in TV Guide's infringement expert report likewise includes storing data in this definition of receive: "To accept data from an external communications system, such as a local area network (LAN) or a telephone line, and store the data as a file." *Microsoft Press Computer Dictionary* 399 (3rd ed. 1997) (520).[8] Another technical dictionary referenced by TV Guide's expert explains that "receive" is synonymous with "download" in this definition of "downloading": "The act of receiving data from another computer into your computer. It's also called to RECEIVE." *Newton's Telecom Dictionary* 160 (3rd ed. 1990) (495); *id.* at 209 (4th ed. 1991) (A503), *id.* at 307 (5th ed. 1992) (A536).[9] This is consistent with other technical dictionaries referenced by TV Guide's expert that do not define "receive," but define "download" to include storing data:

- "**download** In communications, the process of transferring a copy of a file from a remote computer to the requesting computer by means of a modem or network. With a modem-based communications link, the process generally involves the requesting computer instructing the remote computer to begin the transfer and the requesting computer saving the incoming file on disk...." *Microsoft Press Computer Dictionary* 116 (1st ed. 1991) (A527); *Microsoft Press Computer Dictionary* 132-33 (2d ed. 1994) (A507-A508).

- "**download**. (A) To transfer some collection of data from a computer memory to another storage location. (B) To transfer some collection of data to the memory of a second computer that is relatively smaller than the first: for example, to transfer data

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8 The Federal Circuit relied on the 1991 edition of this dictionary to construe a patent in *Microsoft Corp. v. Multi-Tech Systems, Inc.*, 357 F.3d 1340, 1345 n.2, 1347 n.3 (Fed. Cir. 2004).

9 The *Microsoft* court also relied on the 1992 edition of *Newton's Telecom Dictionary* in *Microsoft*. *Id.* at 1345 n.2.

> from a mainframe computer to a microcomputer. 610.5-1990." *The New IEEE Standard Dictionary of Electrical and Technical Terms* 385 (5th ed. 1993) (A484_.

Levine likewise used the terms "receive" and "download" interchangeably, as well as the term "transfer" contained in the above dictionary definitions of "download." *See* '078 patent at ABSTRACT, ("receive") (A1), 5:42-46 ("download") (A7), 5:49-50 ("receive") (A7); *see also* 11/16/93 Amend. at 7-8 (using "download" and "transfer" interchangeably) (A42-A43). These technical definitions support Levine's repeated and consistent representations throughout the specification and the prosecution history that his alleged invention is directed to transferring a database of schedule information to a personal computer enabling the user to perform database-type manipulations directly on the transferred data.

The Specification: The '078 specification — from beginning to end — emphasizes that the invention transfers a database of schedule information enabling the user who receives the information to perform database-type manipulations directly on the transferred data. *See, e.g.*, '078 patent at 1:54-55; 1:65-2:6; 3:40-45; 4:1-4 (A5-A6). As in *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001), and *Microsoft Corp. v. Multi-Tech Systems, Inc.*, 357 F.3d 1340 (Fed. Cir. 2004), the specification leads to the inescapable conclusion that the claims require this limitation, especially in view of the prosecution history. Just like the *SciMed* specification, the '078 specification discloses this limitation first in "the abstract," second "in discussing the disadvantages of certain prior art structures," and third, "the 'Summary of the Invention' portion of the patent[] describes 'the present invention' as having" this limitation. *SciMed*, 242 F.3d at 1342-43 (limiting claim scope based on the specification); *see also SafeTCare Mfg., Inc. v. Tele-Made, Inc.*, __ F.3d __, 2007 WL 2215718, at *5, *5-7 (Fed. Cir. Aug. 3, 2007) (limiting claim scope where "the patentee

repeatedly emphasized its invention" as having the disputed feature in the Background, Summary of the Invention, and Detailed Description of the specification).

First, the ABSTRACT of the '078 patent uses "receive" in the way TMS argues it should be construed:

> An application program allows the computer to ***receive*** data representing a schedule of future programs. ***The operator can perform data base operations on the data*** to obtain listings of programs of particular interest.

(emphases added). "Thus, from the outset the specification identifies [receive], as that term is used in the [Levine patent]" as enabling database-type manipulations on the received information. *SciMed*, 242 F.3d at 1342. Significantly, this disclosure mirrors the prosecution history disclaimer where Levine represented:

> In contrast [to the prior art], ***the present invention*** maintains a database...This information may be derived from a remote database via telephonic communication, by broadcast, or by subscription provision of disposable memories. ***In all cases***, however, an entire block of schedule information for a given period of time is transferred to the personal computer ***in accordance with the present invention,*** thereby ***enabling an operator to perform database-type manipulations directly on this information***.

11/16/93 Amend., at 7-8 (emphases added) (A42-A43). The *SciMed* court attached great significance to similar language. Much like Levine's "In all cases" argument, the specification in *SciMed* stated "all embodiments of the present invention" have the structure at issue. The Federal Circuit found "[t]he words 'all embodiments of the present invention' are broad and unequivocal," and thus "a necessary element of every variant of the claimed invention." *SciMed*, 242 F.3d at 1344. "This is therefore a clear case of disclaimer of subject matter that, absent the disclaimer, could have been considered to fall within the scope of the claim language." *Id.*

Second, like *SciMed*, the BACKGROUND OF THE INVENTION explicitly discusses "the disadvantage" of the prior art '713 patent and other related applications in terms of the limitation at issue:

> They suffer from the disadvantage of adding hardware and software to existing video cassette recorders or cable boxes which do not contain ***a schedule memory*** and ***a database program*** for selecting particular entries on the memory for display.

'078 patent at 1:47-51 (A5) (emphases added).

Third, also like *SciMed*, in the SUMMARY OF THE INVENTION, the '078 patent "describes 'the present invention' as having" the limitation at issue. *SciMed*, 242 F.3d at 1343. Specifically, the '078 SUMMARY OF THE INVENTION discloses that "the present invention" solves the previously articulated "disadvantage" of the prior art by using a personal computer with a schedule memory and a database program:

> ***The present invention*** allows the implementation of the ***electronic schedule memory*** and cursor-based programming on a conventional video recorder through use of an associated personal computer ....
>
> Future programming schedule information may be provided to the personal computer from a remote database by telephonic communication, by broadcast, or by subscription provision of disposable memories. The schedule information may be displayed on the monitor of the personal computer under control of ***a database program*** allowing chronological, alphabetical or topical selection and the operator may move a cursor on the display screen to point to a particular program to select it for future recording.

'078 patent at 1:54 –2:6 (A5) (emphases added). The Federal Circuit explained in *SciMed*: "As in the *Wang Labs* and *Modine* cases cited above, the characterization of the [limitation at issue] as part of the 'present invention' is strong evidence that the claims should not be read to encompass the opposite structure." *SciMed*, 242 F.3d at 1343. The Federal Circuit reiterated this teaching in *Microsoft*:

> Those statements, some of which are found in the "Summary of the Invention" portion of the specification, are not limited to describing a preferred embodiment, but more broadly describe the overall inventions...In light of those clear statements in the specification that the invention ("the present system") is directed to [x], we cannot read the claims of the [patents-in-suit] to encompass [y].

Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1348 (Fed. Cir. 2004); *see also SafeTCare Mfg., Inc. v. Tele-Made, Inc.*, __ F.3d __, 2007 WL 2215718, at *6 (Fed. Cir. Aug. 3, 2007) (emphasizing the Summary of the Invention in limiting claim scope).

Fourth, the Federal Circuit very recently found in *SafeTCare* that statements in the Detailed Description representing "the present invention" limited the claim scope, combined with similar statements in the Background and Summary of the Invention. *SafeTCare*, 2007 WL 2215718 at *6. The same is the case here. The '078 BACKGROUND and SUMMARY OF THE INVENTION describe "the present invention" as storing a database, and the DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT describes "the present invention" explicitly using the claim term "receive" as follows:

> ***The present invention*** may take advantage of some or all of the VCR Plus™ features or similar features of any similar automated programming system. If ***the database received and stored in the personal computer by the present invention*** includes encoded program information such as VCR Plus™ codes...with ***the present invention storing a large database of programs in the personal computer***, the VCR Plus™ code alone may be delivered to the remote unit 26 to bring about the desired programming sequence.

'078 patent at 5:47-63 (emphases added) (A6).

This section of the patent further describes the necessity of a database program to implement the alleged invention in the precise (and only) portion of the specification disclosing the claimed customized program guide:

> The personal computer 18 is conventional but is provided with ***a special application program to implement the present invention...The application program*** is loaded into the personal computer via a diskette or the like. ***The program requires as data the schedule of future programming available to the system 10 from a programming source*** 38, such as a cable or the like, for a particular period of time such as a week or month.

'078 patent at 3:22-24, 3:40-45 (emphases added).

In contrast to other portions of the specification, the database program is referred to as "***the*** invention," not a "preferred" or "alternative" embodiment. For example, the specification discloses the customized program guide transferred "over phone lines 42 using modems 44 at each end" as a "preferred embodiment," followed by "alternative" embodiments (broadcast and disposable memories). '078 patent at 3:46-67 (A6). Immediately after describing the various embodiments for providing the schedule database, the specification teaches, regardless of the embodiment, "Through ***use of a database program*** employing menus, submenus and the like, the operator may obtain a display of programming for a particular period of time, such as that illustrated at 46 in *Fig.* 1." '078 patent at 4:1-4 (emphasis added) (A6).

The Prosecution History: TV Guide argues that Levine's "In all cases" prosecution history position should not apply because it was made in a different application and involved different claims. TV Guide's argument fails because Levine made this argument in prosecuting the parent application on which TV Guide relies for priority, involving the same specification and subject matter at issue here. *See, e.g., Wang Labs., Inc. v. Am. Online, Inc.*, 197 F.3d. 1377, 1384 (Fed. Cir. 1999) (argument made in parent application limited claim scope of different claims in continuation-in-part application because it involves "common subject matter"); *Jonsson v. Stanley Works*, 903 F.2d 812, 818 (Fed. Cir. 1990) (same). Most importantly, as explained above, Levine's argument applies to the '078 claims because it was not limited to the claim language at issue, but rather was made explicitly as to "the present invention" with the broad and unequivocal language that it applies "In all cases."

Levine made the "In all cases" argument during prosecution of the ultimately-abandoned 1992 application. The 1992 application is not merely related to the '078 patent — it is the application to which Levine claimed priority during prosecution of the '078 patent and to which

TV Guide now claims priority. That is because the vast majority of the '078 specification was first submitted in the 1992 application. The only new matter is the VCR Plus™ portion added in the 1994 application, appearing in the '078 patent at column 5, line 23 through column 6, line 12.

The 1992 application's independent claims were directed to using a personal computer to control a VCR with dependent claims to "means for connecting the personal computer to a remote source of current schedule information" (claim 6) "wherein said current schedule information is transmitted from said remote source of current schedule information via telephone lines" (claim 7) and "providing the personal computer with a schedule of future programming available to said video recorder" (claim 15), similar to the '078 claim term at issue here, *e.g.*, "receive ... the information specific to the type of television programming available to the receiver" ('078 patent, *e.g.*, claim 8). 3/9/92 App., Claims at TG000524-29 (A20-A25). The Examiner initially rejected ***every claim*** in the 1992 application based on U.S. Patent No. 5,086,385 to Launey, which also disclosed using a personal computer to control a VCR. 8/13/93 Office Action, at 2-6 (A30-A34). The Examiner additionally found that Levine's continuation claim to priority back to the 1981 application was improper, limiting the filing date to the 1991 application. *Id.* at 1 (A29); 1991 App. (A9-A26), Claim to Priority (A27).

In response, Levine first argued extensively for priority based on the database memory and program enabling database-type manipulations directly on the data:

> As disclosed in the Background of the Invention of the present application, parent application to which the present application relates discloses a system providing a schedule of future programming available to a video recorder including ***a database memory so that the operator may display selected portions of the future schedule as an aid in choosing programs for recording***. The present application adds to this subject matter the placement of ***the database memory*** within a general-purpose personal computer including a remote-control transmitter connected to an I/O port of the personal computer.

11/16/93 Amend., at 1 (emphases added) (A36). As explained above, the '078 Background of the Invention identifies the parent application as "suffer[ing] from the disadvantage of adding hardware and software to existing video cassette recorders or cable boxes which do not contain a schedule memory and a database program for selecting particular entries on the memory for display." '078 patent at 1:47-51 (A5). The '078 purports to solve this problem by using a personal computer to implement the schedule/database memory and database program. *See, e.g.*, '078 patent at 1:54–2:13 (A5). Levine's priority argument in the 1992 prosecution history reiterates the necessity of the database program as the core of the invention.

Levine likewise challenged the Launey rejection on the basis that his invention enables database-type manipulations. Levine argued that "Launey does not suggest where schedule information concerning future programming available to the VCR is to be stored. It can only be inferred from the Launey patent that such schedule information might be kept in remote database 44 and downloaded through modem 42 to central processor 10 on an as-needed basis." 11/16/93 Amend., at 6-7 (A42-A43). Emphatically disclaiming such a system, where schedule information from a remote database is downloaded through a modem on an as-needed basis, Levine argued:

> ***In contrast, the present invention maintains a database*** including information relating to programming available to the VCR during a future period, including program identification, start time and so forth. This information may be derived from a remote database via telephonic communication, by broadcast, or by subscription provision of disposable memories. ***In all cases***, however, ***an entire block of schedule information for a given period of time is transferred to the personal computer in accordance with the present invention, thereby enabling an operator to perform database-type manipulations directly on this information***, including its use to immediately schedule a particular video program for future recording.

Id., at 7-8 (emphases added) (A42-A43). This argument explicitly and repeatedly characterizes and distinguishes "the present invention," as opposed to the proposed claims. As in *Microsoft*,

"That statement unambiguously reflects [the patentee's] own understanding of its inventions in the [patents-in-suit] as being limited to [x]. We cannot construe the claims to cover subject matter broader than that which the patentee itself regarded as comprising its inventions and represented to the PTO." *Microsoft Corp. v. Multi-Tech Sys., Inc,* 357 F.3d 1340, 1349 (Fed. Cir. 2004) (limiting claims based on argument in parent application characterizing the "invention" to distinguish prior art); *see also Jonsson,* 903 F.2d at 817 (same). TV Guide asks this Court to do just that —construe the claims to cover a system where schedule information from a remote database is downloaded through a modem on an as-needed basis, subject matter explicitly disclaimed during prosecution and broader than what Levine represented as his invention to the PTO.

F. "The Controller Being Programmed To Perform" (Claims 8 and 10)

TMS's proposed construction of the term "controller being programmed to perform" is consistent with the understanding of one of ordinary skill in the art at the time the patent application to which the '078 patent claims priority was filed. This term's meaning within the context of the '078 patent would not readily be understood by the jury, and thus this Court should construe the term.

Independent claim 8, and thus its dependent claim 10, includes the limitation "the controller being programmed to perform." The parties exchanged these proposed constructions:

TMS	TV Guide
Computer application programs are installed on the controller prior to its use by a user to perform	No construction proposed[10]

The court's task in construing a patent claim term is to determine how the term would be understood by one of ordinary skill in the art at the time of the invention. *See Markman*, 52 F.3d at 986. TMS bases its proposed construction of "controller being programmed to perform" on how one of ordinary skill in the art would have understood the term at the alleged time of the invention — 1992. Neither the '078 specification nor the 1992 patent application on which TV Guide relies for priority uses the term "controller." To satisfy the written description requirement for patentability, the '078 patent must describe its alleged invention "in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought." *See Lockwood*, 107 F.3d at 1572. Therefore, to satisfy the written description requirement, the "controller being programmed to perform" must be analogous to something taught by the '078 patent specification. The teaching of the '078 patent is that the alleged invention is carried out by a personal computer — specifically, by a ***conventional*** personal computer. '078 patent at 3:22-27, 40-41 (A6) (emphasis added); *see also id.* at 1:59-63; 2:1-6; 2:21-22, 2:24-27; 3:59-63; 4:1-4; 4:57-60 (A5-A6). Levine's disclosure of a "conventional" personal computer to implement the claimed "controller being programmed to perform" the requisite functions limits the claim scope to conventional personal computer

[10] The parties also exchanged proposed constructions of the term "controller." Subsequently, in an effort to narrow the issues and conserve the Court's and the parties' resources, TMS accepted TV Guide's proposed construction of "controller" as follows: "a programmable electronic device."

technology in 1992. *See Kopykake Enters., Inc. v. Lucks Co.*, 264 F.3d 1377, 1384 (Fed. Cir. 2001).

As TMS' expert Dr. Gary Tjaden will testify:

> It is clear from the '078 specification that the functions performed by the 'controller' are embodied in a computer application that runs on the controller (or personal computer-like device). At the priority date of the '078 patent (March 1992), personal computer application programs were completely installed on the personal computer before they began executing. The concept of downloading during the execution of the application program incremental functionality for it to perform was not widely used or commonly known to skilled artisans. Only several years after the introduction of the first widely available Internet browser, a time subsequent to the '078 Patent's priority date, was this concept commonly known and in use. Thus, I conclude that all of the functions embodied in the '078 controller's programming must exist as one or more software executable files (computer application programs) within the controller prior to its use by a user to perform those functions.

Tjaden Decl. at ¶ 5 (A654). Thus one of ordinary skill in the art in 1992, the date to which the '078 patent claims priority, would have understood "controller being programmed to perform" to mean that "computer application programs are installed on the controller prior to its use by a user to perform," as TMS proposes.

TV Guide offers no construction for this term, despite the fact that "controller being programmed to perform" is not a term that would be readily understood by a jury. In patent infringement cases, the court should construe a term if the term's meaning within the context of the patent would not readily be understood by the jury. *See Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356 (Fed. Cir. 2004) (holding that the district court must instruct the jury on the meaning of all disputed terms used in the claims necessary for a jury to be able to "intelligently determine the questions presented"). Because TMS's proposed construction is consistent with the understanding of one of ordinary skill in the art in 1992, and because this term should be construed to provide guidance to the jury, TMS respectfully requests that the Court adopt its construction.

V. CONCLUSION

In consideration of the foregoing points and authorities, TMS respectfully requests that the Court construe the claims as set forth above.

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