UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FORD MOTOR COMPANY,
Petitioner,

v.

SAFE DRIVING TECHNOLOGIES LLC,
Patent Owner.

U.S. Patent No. 10,532,709 to Naboulsi

Case No.: IPR2021-01353

PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. § 311 *ET SEQ.* AND 37 C.F.R. § 42.100 *ET SEQ.*
(CLAIMS 1-7 and 14-16 OF U.S. PATENT NO. 10,532,709)

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List of Exhibits

Exhibit No.	Description	Identifier
1001	U.S. Patent No. 10,532,709	'709 Patent
1002	U.S. Patent No. 10,532,709 File History	'709 Patent FH
1003	Declaration of Scott Andrews	Andrews Decl.
1004	Curriculum Vitae of Scott Andrews	
1005	*Safe Driving Technologies LLC v. Ford Motor Company*, No. 21-cv-64-MN, Ford's First Interrogatories (No. 1) served April 28, 2021	
1006	*Safe Driving Technologies LLC v. Ford Motor Company*, No. 21-cv-64-MN, Safe Driving Response to Interrogatory No. 1	
1007	https://timeandnavigation.si.edu/multimedia-asset/magellan-nav-1000-gps-receiver-1988 (accessed 11/19/2017)	
1008	TravTek Global Evaluation and Executive Summary (Publication No. FHWA-RD-96-031 March 1996)	TravTek1
1009	TravTek System Architecture Evaluation (Publication No. FHWA-RD-94-141 July 1995)	TravTek2
1010	TravTek Evaluation Orlando Test Network Study (Publication No. FHWA-RD-95-162 January 1996)	TravTek3
1011	U.S. Patent No. 5,923,294	Bacelon
1012	U.S. Patent No. 5,808,566	Behr
1013	Vehicle Location and Navigation Systems by Yilin Zhao, ©1997	Zhao
1014	Computer Networks, 3rd Ed., by Andrew S. Tanenbaum, ©1996, Prentice Hall, ISBN 0-13-394248-1	Tanenbaum
1015	Automotive Electronics Handbook, by Ronald Jurgen	Jurgen
1016	U.S. Patent No. 3,906,166	Cooper

Exhibit No.	Description	Identifier
1017	An Introduction to GSM by Redl, Weber, and Oliphant, ©1995Artech House, ISBN 0-890067-785-6	An Introduction to GSM
1018	GSM and Personal Communications Handbook, by Redl, Weber, and Oliphant, ©1998 Artech House, ISBN 0-89006-957-3	GSM and Personal Communications Handbook
1019	"History of Pagers and Beepers." ThoughtCo, Jan. 31, 2021, thoughtco.com/history-of-pagers-and-beepers-1992315	History of Pagers and Beepers
1020	Post Office Code Standardisation Advisory Group	
1021	Map Design: An On-the-Road Evaluation of the Time to Read Electronic Navigation Displays By Christopher Nowakowski and Paul Green, Report Date June 1998	UMTRI Report 98-4
1022	Map Design: An On-the-Road Evaluation of the Time to Read Electronic Navigation Displays By Christopher Nowakowski and Paul Green, Report Date June 1998	UMTRI Report 98-20
1023	U.S. Patent No. 6,612,682	Andrews
1024	Japanese Patent H10-232992	Nojima
1025	U.S. Patent No. 6,574,531	Tan
1026	U.S. Patent No. 7,711,355	Krueger
1027	U.S. Patent No. 7,484,008	Gelvin
1028	*Safe Driving Technologies LLC v. Ford Motor Company*, No. 21-cv-64-MN, D.I. 21, Scheduling Order	
1029	U.S. Patent Publication No. 2002/0070852	Trauner
1030	U.S. Patent No. 9,047,170	‘170 Patent
1031	*Intentionally Left Blank*	
1032	*Intentionally Left Blank*	
1033	60/336,293 Provisional Patent Application	‘293 provisional
1034	60/390,877 Provisional Patent Application	‘877 provisional

Mandatory Notices under 37 C.F.R. §42.8

Real Party-In-Interest - 37 C.F.R. §42.8(b)(1)

Petitioner certifies that Ford Motor Company ("Ford") is the real party-in-interest.

Related Matters 37 C.F.R. §42.8(b)(2)

Patents and Applications

U.S. Patent No. 10,532,709 ("the '709 Patent") is related to the following issued patents or pending applications:

- U.S. Patent No. 8,301,108 ("the '108 Patent")
- U.S. Patent No. 9,047,170 ("the '170 Patent")
- U.S. Patent No. 9,713,994 ("the '994 Patent")
- U.S. Patent No. 6,731,925 ("the '925 Patent")
- U.S. Patent No. 9,524,034 ("the '034 Patent")
- U.S. Patent No. 10,081,317 ("the '317 Patent")

Related Litigation

The '709, '994, '108, and '170 Patents have been asserted against Ford in:

Safe Driving Technologies LLC v. Ford Motor Company, 1-21-cv-00064 (D. Del.) (pending).

Patent Office Proceedings

The '709 Patent is not subject to any other proceedings before the Patent Office.

Lead and Back-Up Counsel Under 37 C.F.R. §42.8(b)(3)

The Petitioner identifies the following lead and back-up counsel:

Lead Counsel	Back-Up Counsel
John S. LeRoy (Reg. No. 48,158) BROOKS KUSHMAN P.C. 1000 Town Center, 22nd Floor Southfield, MI 48075 Telephone (248) 358-4400 Facsimile (248) 358-3351	Christopher C. Smith (Reg. No. 59,669) John P. Rondini (Reg. No. 64,949) BROOKS KUSHMAN P.C. 1000 Town Center, 22nd Floor Southfield, MI 48075 Telephone (248) 358-4400 Facsimile (248) 358-3351

Pursuant to 37 C.F.R. §42.10(b), an appropriate Power of Attorney is filed concurrently herewith.

Service Information - 37 C.F.R. §42.8(b)(4)

Service information for lead and back-up counsel is provided in the designation of lead and back-up counsel above. Petitioner Ford hereby consent to service by email at the following email address: FPGP0137IPR@brookskushman.com.

I. Introduction

Petitioner Ford Motor Company ("Ford") respectfully requests *inter partes* review of claims 1-7 and 14-16 of U.S. Patent No. 10,532,709 ("the '709 Patent"; Ex.1001) in accordance with 35 U.S.C. §§311–319 and 37 C.F.R. §42.100 *et seq.* The Declaration of Scott Andrews is filed as Exhibit 1003 in support of this Petition.

As set forth in detail below, the '709 Patent is obvious over various references in the prior art—none of which was considered during examination of the '709 Patent or its patent family. (Ex.1003, ¶34.) Trial in the litigation Safe Driving Technologies LLC ("SDT") filed against Ford is scheduled for February 21, 2023—more than 18 months after the filing of this Petition. (Ex.1028, p.12.) Petitioner intends to move to stay the litigation after institution to ensure that the PTAB will address the validity of the '709 Patent avoiding unnecessary use or duplication of district court resources.

II. Certifications and Grounds

A. Grounds for Standing - 37 C.F.R. §42.104(a)

Petitioner certifies that the '709 Patent is available for *inter partes* review (IPR). Petitioner also certifies that it is not barred or estopped from requesting IPR of the claims of the '709 Patent. Neither Petitioner, nor any party in privity with Petitioner, has filed a civil action challenging the validity of any claim of the '709

Patent. The '709 Patent has not been the subject of a prior IPR by Petitioner or a privy of Petitioner. Petitioner also certifies that this Petition is timely filed as this Petition was filed less than one year after January 22, 2021, the date Ford accepted service of a complaint, filed January 21, 2021, alleging infringement of a claim of the '709 Patent.

B. Identification of Challenge - 37 C.F.R. §42.104(b)

The grounds of unpatentability presented in this petition are as follows:

Ground	Basis	References	Claims Challenged
1	§103	U.S. Patent No. 7,711,355 ("Krueger") and U.S. Patent No. 7,484,008 ("Gelvin") and the knowledge of an ordinary artisan	1-4 and 15
2	§103	U.S. Patent Publication No. 2002/0070852 ("Trauner") and Gelvin and the knowledge of an ordinary artisan	1-3, 5-7 and 14
3	§103	U.S. Patent No. 6,574,530 ("Tan") and Gelvin and the knowledge of an ordinary artisan	15-16

III. Person of Ordinary Skill in the Art ("ordinary artisan")

The level of ordinary skill in the art is evidenced by the references. *See In re GPAC Inc*., 57 F.3d 1573, 1579 (Fed. Cir. 1995). An ordinary artisan as of October 24, 2001 would have been a person having a Bachelor's degree in Electrical Engineering, Mechanical Engineering, Computer Engineering, or Computer Science, or an equivalent degree with at least two years of experience in electronic user interface systems and vehicle sensor systems or related technologies. Additional education may substitute for lesser work experience and vice-versa. (Ex.1003, ¶19.)

IV. Overview of the '709 Patent

The '709 Patent is directed to a system for controlling the user interfaces of telematics devices based on various sensor inputs indicating, for example the speed of the vehicle or other factors that may relate to the level of attention that the driver can safely devote to the user interface. (Ex.1001, Abstract; Ex.1003, ¶22.)

The method for accomplishing this objective is illustrated for example in connection with Figure 4, reproduced below, wherein various vehicle sensors are used to determine the state of the vehicle, the state of the driver and/or the current driving situation. (Ex.1001, 13:65-14:17; Ex.1003, ¶¶23-24.) Depending on these factors the various devices (telephone, computer, etc.) are disabled.

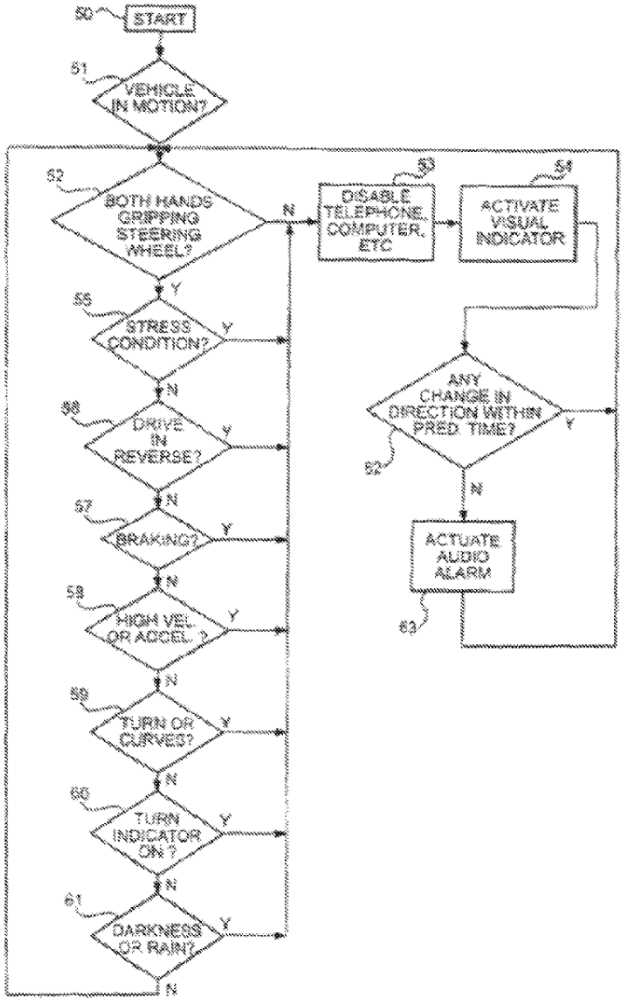


Figure 4

Ex.1001, Figure 4

V. Claim Construction — 37 C.F.R. §42.104(B)(3)

For purposes of this IPR, a claim is interpreted "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. §282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary

skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. §42.100(b).

In this case, Ford submits that the limitations of the challenged claims can be understood based on their ordinary and customary meaning as understood by one of ordinary skill in the art, and therefore no claim construction is necessary at this time.

VI. Unpatentability Grounds

The references below render the challenged claims invalid under 35 U.S.C. §103 and the Petitioner therefore has a reasonable likelihood of prevailing as to each of the following grounds of unpatentability. 35 U.S.C. §314(a); 37 C.F.R. §42.104(b)(4).

A. Rationale to Combine: Krueger, Trauner and Tan with Gelvin

This Petition raises three grounds challenging claims of the '709 Patent. In each ground, Petitioner argues that the claimed invention is obvious in view of a combination of a primary reference (Krueger, Trauner, Tan) and Gelvin, a secondary reference directed to vehicle data buses ubiquitous in the automotive industry as of the earliest claimed filing date of the '709 Patent. Utilizing the vehicle data bus disclosed in Gelvin in the context of Krueger, Trauner, and Tan would have been obvious to an ordinary artisan for the reasons explained below.

Because the rationale to combine Gelvin with each of those references is substantively identical, Petitioner provides its rational for the three primary references (Grounds 1-3) in this single rationale to combine section.

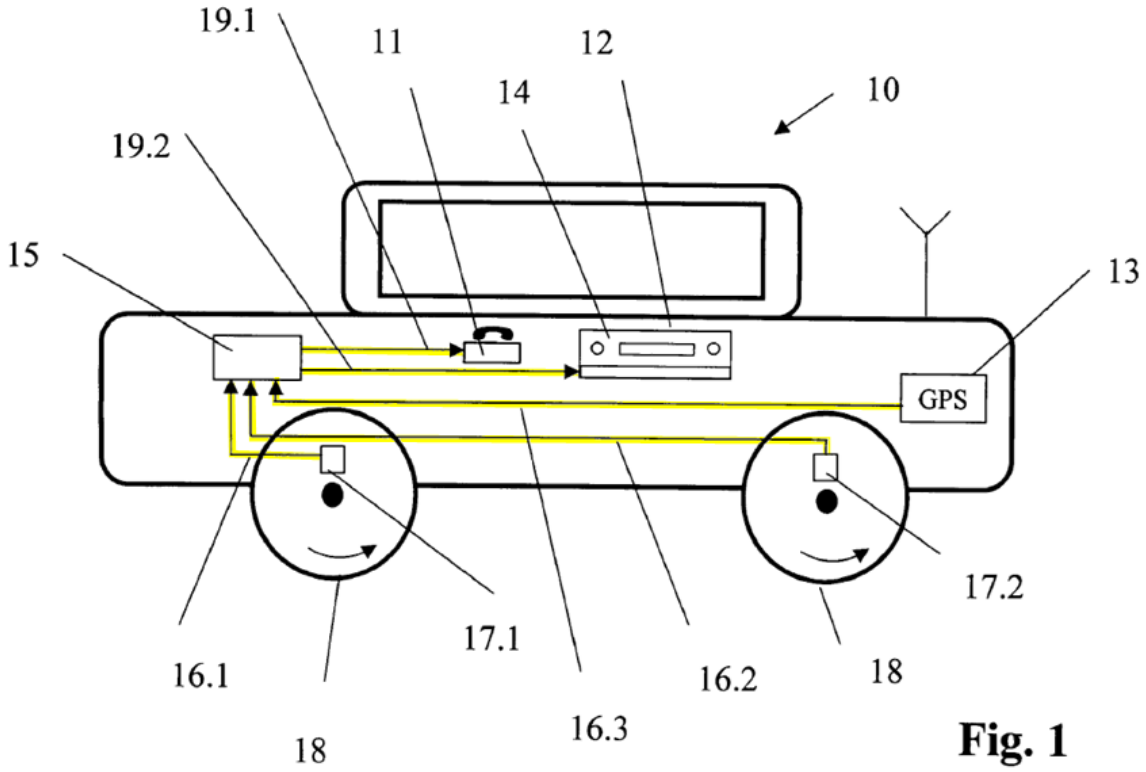
An ordinary artisan would have found it obvious to combine the vehicle bus disclosed in Gelvin with the various operable devices and sensors disclosed in Krueger, Trauner or Tan such that the devices in Krueger, Trauner or Tan could more efficiently communicate with one another. Indeed, as describe in Mr. Andrew's background section, at the time of the '709 invention, vehicles were often equipped with data buses like the one disclosed in Gelvin. (Ex.1003, ¶¶75-83.) The idea of utilizing such a data bus to connect the operable devices and sensors in Krueger, Trauner or Tan would have been an obvious modification to the Krueger, Trauner or Tan systems. (Ex.1003, ¶¶123, 208, 352 361.)

Gelvin describes several benefits to using a data bus, which an ordinary artisan would have appreciated at the time of the '709 invention:

- The ability for "sensors, actuators and computing elements for controlling the operations can all be linked in a common environment" eliminating the need for separate connections and environments for each device. (Ex.1027, 1:54-56.)

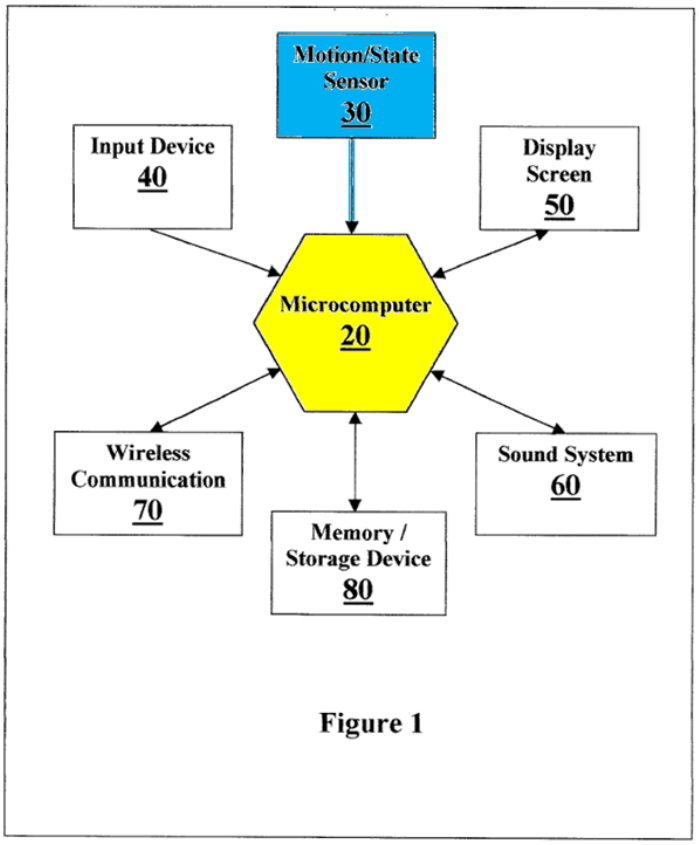
- Reducing "the wiring within the vehicle," which "allows for cost reduction in that the number of different kind of interfaces is vastly reduced." (Ex.1027, 1:56-58.)
- Creation of a standard bus so that several different types of vehicle components can be included on the bus and communicate with one another. (Ex.1027, 1:59-2:17.)

An ordinary artisan would have understood that the benefits described in Gelvin for utilizing such a data bus would have benefited the system in Krueger, Trauner or Tan. For example, Krueger discussed the use of wires, as depicted in Figure 1 of Krueger where each operable device (11-13 and sensor 17.1 and 17.2) are connected to the decision unit 15 with their own dedicated wiring (shown in yellow in the figure below). (Ex.1003, ¶¶124-125.)



Ex.1026, Fig. 1 (annotated)

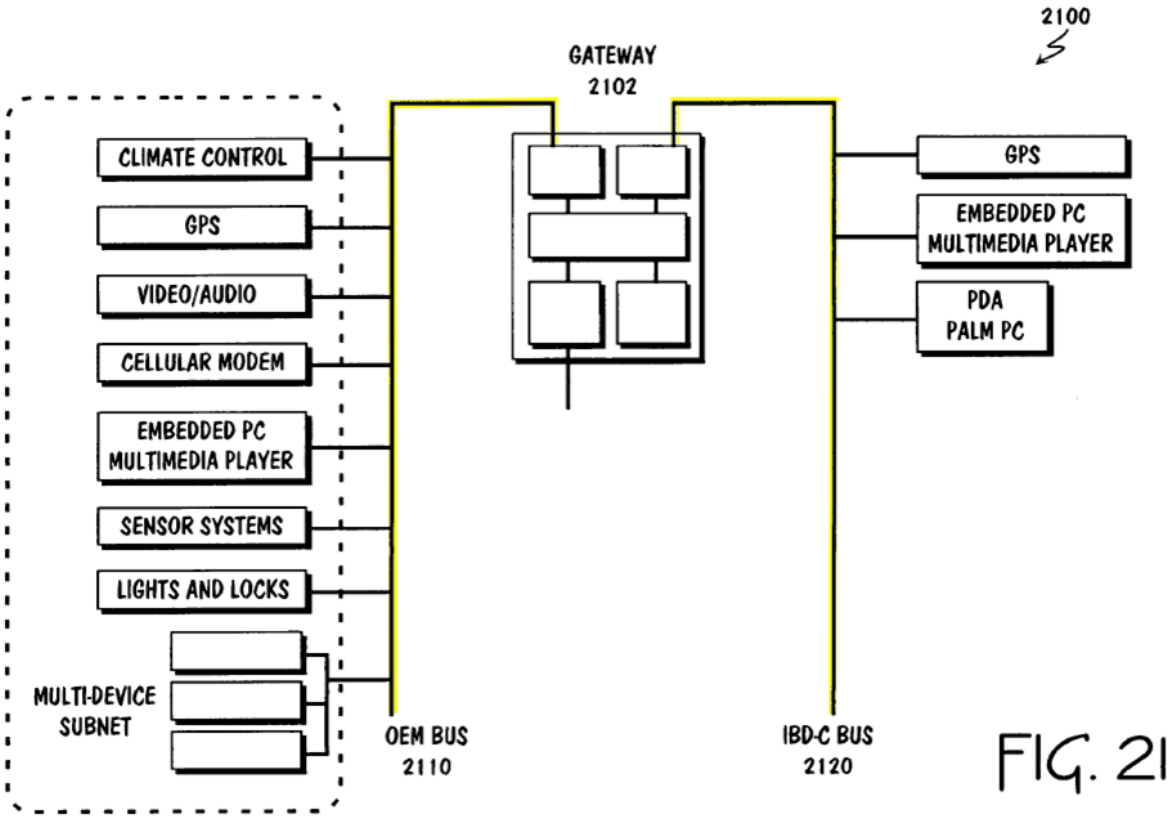
Similarly, Trauner teaches that the various devices such as a display screen, an input device, wireless communications, a sound system, a storage device, and a Motion/State Sensor (shown in blue below) are all connected—presumably by wires—to the Microcomputer 20 (controller) (shown in yellow below). (Ex.1003, ¶210.)



Ex.1029, Figure 1 (annotated)

And Tan teaches that the sensors can determine whether the vehicle is in motion and are connected—presumably by wires—to the vehicle computer. (Ex.1025, 4:4-9; Ex.1003, ¶354.)

On the other hand, as shown below, the data buses (shown in yellow) disclosed in Gelvin use a set of common wires, allowing the devices to interact and share data over a single physical medium (e.g., a set of one or more common wires) either through the decision unit or directly without any intermediaries. (Ex.1003, ¶126.)



Ex.1027, Fig. 21

As discussed in Gelvin, an ordinary artisan would have understood the benefit of using a single data bus to connect all the Krueger, Trauner or Tan devices—leading to the use of less wiring, connectors, and materials. Moreover, an ordinary artisan would have understood that as the number of devices managed by the decision unit grows, the number of wires and the number of connectors also grows, thereby adding significant complexity and density to the inputs and outputs of the decision unit. An ordinary artisan would have understood that by using a data bus this complexity could be reduced to a single connector on each device,

including the decision unit, with one set of wires interconnecting all of the devices. (Ex.1003, ¶127.)

An ordinary artisan would have also understood that such an arrangement would allow the decision unit to maintain control over the device functions as described by Krueger but would also allow for these devices to share data directly with one another when there was no decision or control required. For example, to the extent the radio requires signals from the phone for making ringing sounds and for communicating in hand-free mode, the data bus would allow these devices to directly communicate. Similarly, when the phone received web data, it could then send this data directly to a vehicle display without sending the data through the decision unit as would have been required in the original Krueger architecture. (Ex.1003, ¶128.)

As discussed in Gelvin, an ordinary artisan would have understood the benefit of using a single data bus to connect all the Trauner devices—leading to the use of less wiring, connectors, and materials. Moreover, an ordinary artisan would have understood that as the number of devices managed by the system grows, the number of wires and the number of connectors also grows, thereby adding significant complexity and density to the inputs and outputs of the system. An ordinary artisan would have understood that by using a data bus this complexity could be reduced to a single connector on each device, including the

microcomputer, with one set of wires interconnecting all the devices. An ordinary artisan would have also understood that such an arrangement would allow the microcomputer to maintain control over the device functions as described by Trauner but would also allow for these devices to share data directly with one another when there was no decision or control required. For example, to the extent the radio requires signals from the phone for making ringing sounds and for communicating in hand-free mode, the data bus would allow these devices to directly communicate. Similarly, when the phone received web data, it could then send this data directly to a vehicle display without sending the data through the microcomputer as would have been required in the original Trauner architecture. (Ex.1003, ¶212.)

As discussed in Gelvin, an ordinary artisan would have understood the benefit of using a single data bus to connect all the Tan devices—leading to the use of less wire and materials as the ability for all the devices to be able to communicate directly to one another rather than need to communicate through the vehicle computer system. (Ex.1003, ¶353.)

An analysis of the *KSR* Factors further supports combining the teachings of Gelvin with the teachings of Krueger, Trauner or Tan.

The combination of familiar elements according to known methods to yield predictable results: As discussed above, the use of vehicle data buses was common

at the time of the '709 Patent filing. Therefore, an ordinary artisan would have expected that combining the data bus teachings disclosed in Gelvin with the systems disclosed in Krueger, Trauner or Tan would have yielded the predictable result of connecting the operable devices and sensors in Krueger, Trauner or Tan together such that they could communicate directly with one another, or with the decision unit on the same wiring, while using fewer wires and other materials. (Ex.1003, ¶¶130, 214, 358.)

The technique has been used to improve other vehicles: As discussed in Gelvin, the concept of using a data bus to connect various components in a vehicle together can lead to improvements such as reduced materials and the creation of a standard mode of communication between the different components. (Ex.1027, 1:54-2:17.) An ordinary artisan would have understood that the benefits taught in Gelvin could have been applied to the systems in Krueger, Trauner or Tan to similarly improve the systems in Krueger, Trauner or Tan so that the different components and sensors described in Krueger, Trauner or Tan would have been able to communicate with one another in a standard mode while reducing unnecessary waste of materials and wiring. (Ex.1003, ¶¶131, 215, 359.)

It is obvious to try the combination: As discussed above, there are multiple benefits to utilizing a data bus like the data bus described in Gelvin—including reducing wiring, allowing multiple devices to communicate directly with one

another, minimizing load on a central management device, and creating a standard communication protocol that leads to more compatibility amongst a variety of devices. Because of these benefits of using a vehicle data bus, coupled with the fact that many vehicles at the time of the '709 Patent were already using data buses, an ordinary artisan would have found it obvious to try and combine the data bus disclosed in Gelvin with the systems described in Krueger, Trauner and Tan. (Ex.1003, ¶¶133, 217, 361.)

B. Ground 1: Claims 1-4 and 15 are obvious over Krueger in view of Gelvin and the General Knowledge of an Ordinary Artisan

1. Overview of Krueger and Gelvin

a. Krueger

U.S. Patent No. 7,711,355 ("Krueger") issued on May 4, 2010 from an application filed July 21, 2000. It claims priority to German patent DE 19934105, which was filed on July 21, 1999. (Ex.1026.) Krueger is therefore prior art under at least 35 U.S.C. §§102(b) and 102(e). A complete summary of Krueger is included in Mr. Andrews' Declaration. (Ex.1003, ¶¶93-99.)

b. Gelvin

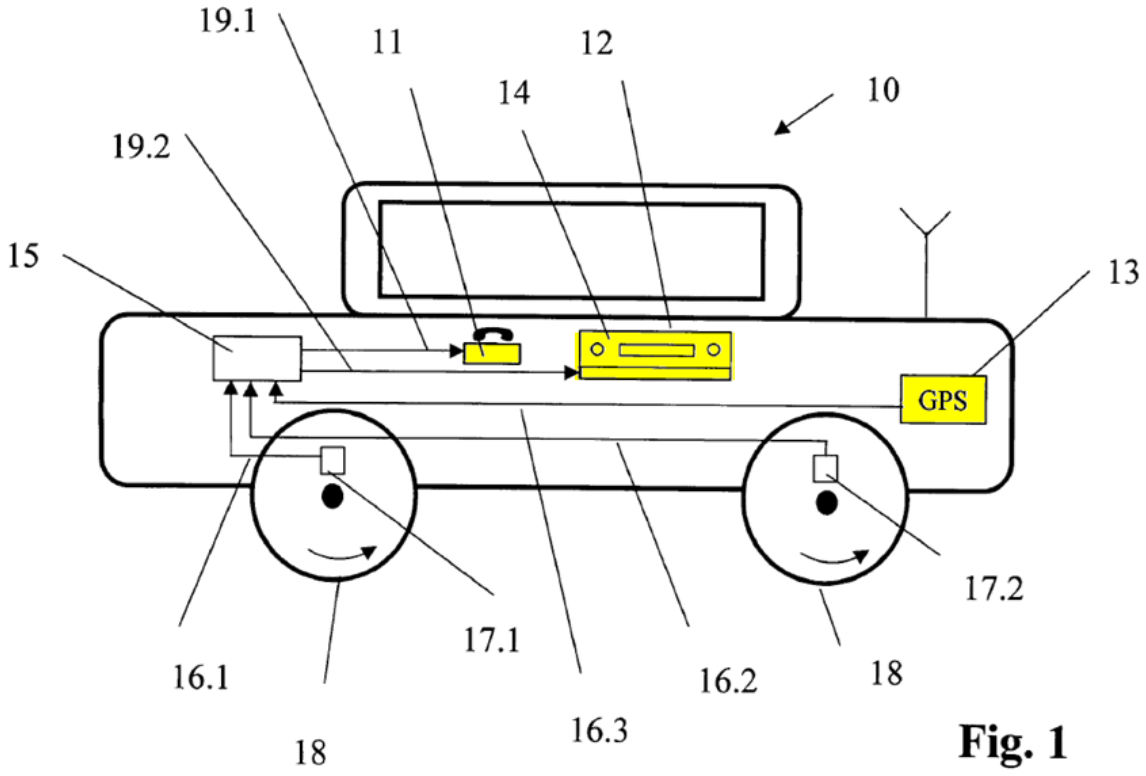
U.S. Patent No. 7,484,008 ("Gelvin") issued on January 27, 2009 from an application filed on October 4, 2000. It claims priority to a provisional application No. 60/158,013 filed on October 6, 1999. (Ex.1027.) Gelvin is therefore prior art

under at least 35 U.S.C. §§102(b) and 102(e). A complete summary of Gelvin is included in Andrews' Declaration. (Ex.1003, ¶¶100-105.)

2. Claim 1

… ***[1.0] A telematics system for a motor vehicle, wherein the motor vehicle has a bus and the telematics system is operable by a driver of the vehicle, the telematics system comprising:***

Krueger discloses "operable devices" that consist of "car phone 11, a car radio 12 and a navigation system 13." (Ex.1026, 2:11-15.) Krueger discloses that these devices communicate with decision unit 15, which determines whether to disable functionality based on vehicle speed. (Ex.1026, 2:18-39, 2:48-57.) Below, is an annotated version Figure 1 from Krueger--the devices that make up the "operable devices" are highlighted in yellow. (Ex.1003, ¶135.)

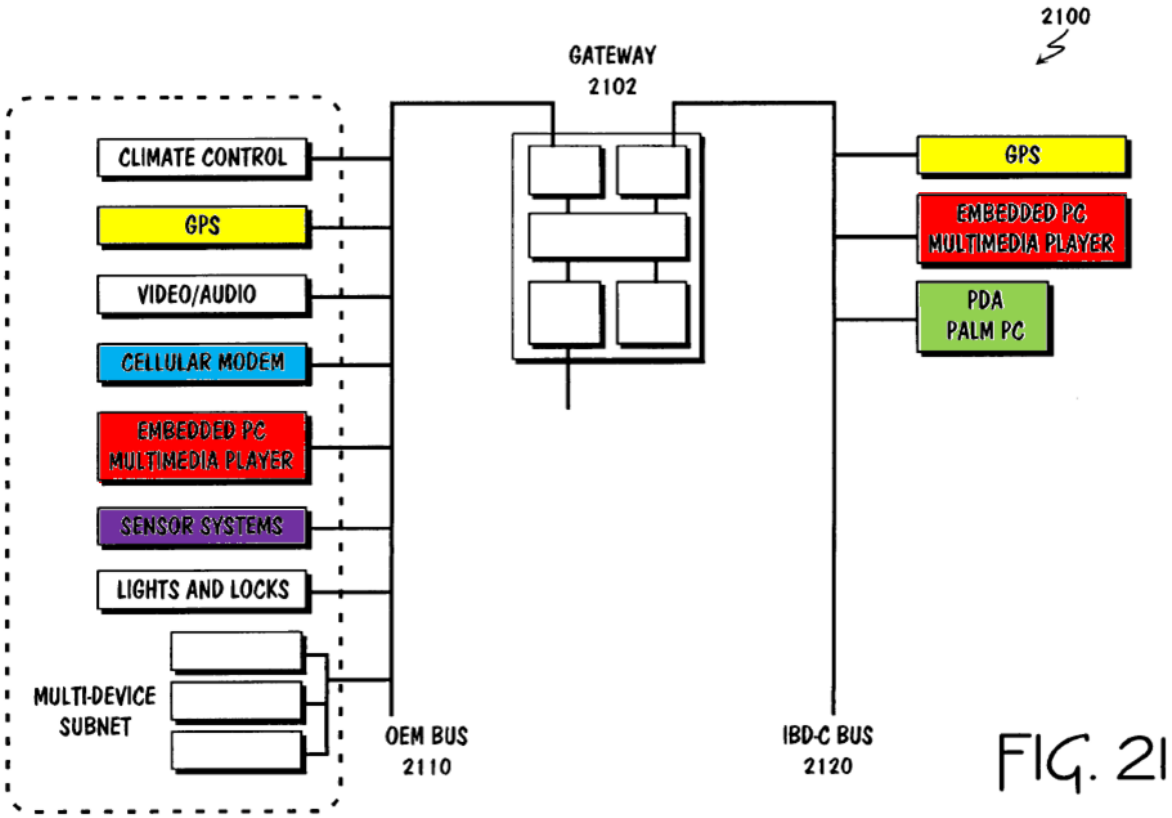


Ex.1026, Fig. 1 (annotated)

The '709 Patent states that the "telematic device," i.e. "telematic system," can be a "telephone, PDA, computer, and the like." (Ex.1001, 16:62-63.) Krueger discloses that the "operable devices" include a car phone and navigation system, which an ordinary artisan would have understood both include computers to perform their functionality. (Ex.1026, 2:11-15, Fig. 1.) Therefore, an ordinary artisan would have understood that the "operable devices" along with decision unit 15 described in Krueger constitutes the claimed "telematic system." (Ex.1003, ¶136.)

Krueger discloses that the "decision unit 15 is connected to sensors 17.1, 17.2 via the ***wires*** 16.1, 16.2. Sensor 17.1 has the task of determining the speed of the vehicle 10." (Ex.1026, 2:18-21, emphasis added.) Thus, Krueger discloses connecting the system to sensors (including speed sensors) using wires. (Ex.1003, ¶137.) Although Krueger discloses the use of separate wires to connect the sensors to the system, an ordinary artisan would have understood that vehicles at the time of the '709 Patent included the use of data buses to connect various devices in the system in order for data to be exchanged between the devices. Such data buses consist of wires like the wires (16.1, 16.2) disclosed in Krueger. (Ex.1003, ¶138.)

As discussed in more detail above, it would have been obvious to combine the data bus described in Gelvin with the system disclosed in Krueger. As shown in the annotated version of Figure 21 of Gelvin below, Gelvin teaches the use of a vehicle bus to connect vehicle modules such as GPS (yellow), cellular modem (blue), embedded PC (red), PDA (green) and sensor systems (purple). (Ex.1003, ¶139.)



Ex.1027, Fig. 21 (annotated)

Gelvin teaches the ability for devices like GPS devices, cellular devices, and vehicle sensors, i.e., the devices described in Krueger, to communicate over one or more vehicle buses. (Ex.1027, 27:53-65; Ex.1003, ¶¶140-141.)

… ***[1.1] a first mode of operation and a reduced distractions mode of operation;***

Krueger discloses a first mode of operation where the radio panel is functional and the user can make and receive telephone calls, consistent with their normal functionality. (Ex.1026, Krueger, 1:13-26, 2:48-57, 3:21-28, Abstract; Ex.1003, ¶143.)

Krueger then discloses a reduced distractions mode:

> If the threshold switch is provided with speed values from sensor 17.1 that are over the speed of 130 km/h that is considered dangerous, then a signal is triggered and is transmitted on the data lines 19.1, 19.2. ***This signal then blocks the operation of the operating panel 14 on the car radio 12 and prevents telephone calls from being made in the vehicle 10 and from being received in the vehicle 10***.

(Ex.1026, 2:51-57, Abstract, emphasis added.)

In this mode, Krueger teaches the reduction of distractions by disabling the ability for the user to operate the radio and make or receive telephone calls. (Ex.1003, ¶¶144-145.)

… ***[1.2] the telematics system configured to be operatively coupled with a cellular phone having at least one feature and an output; the telematics system operable by a driver of the motor vehicle;***

As discussed above, Krueger teaches that the "operable devices" include "car phone 11," which is later described as a "mobile telephone" that an ordinary artisan would have understood included cellular capabilities for making calls from a vehicle. (Ex.1026, 4:54-58, 2:11-15.) Krueger further discloses that "sensor 23," which is part of the "mobile telephone" that is connected to the "decision unit 15," which is also part of the overall disclosed system. (Ex.1026, 5:8-10.) Therefore, an ordinary artisan would have understood that the telematic system described in

Krueger is configured to be operably coupled with a cellular phone. (Ex.1003, ¶147.)

Krueger discloses that the "car phone," and thus the telematic system, supports at least the following functions: (1) making a telephone call, (2) receiving a telephone call, (3) the ability to notify the driver of an incoming call, and (4) the ability to forward incoming telephone calls to another telephone. (Ex.1026, 2:55-57, 2:63-3:2, 3:7-15.) Further, Krueger discloses that the car phone has outputs such as notification for incoming calls and the ability to receive and engage an incoming telephone call, i.e., speak to the caller. (Ex.1026, 2:55-57, 2:63-3:2, 3:7-15; Ex.1003, ¶148.)

As discussed above, the described car phone can be operated by the driver, for example, to make phone calls and receive incoming phone calls. (Ex.1026, 2:55-57, 2:63-3:2, 3:7-15.) Further, when not restricted, the car radio can be operated by the driver. (Ex.1026, 2:58-63, 3:3-5.) Thus, aspects of the "operable devices," i.e., the telematics system, would be operable by the driver of the vehicle depending on whether certain speed restrictions were met. (Ex.1003, ¶149.)

… ***[1.3] the telematics system configured to be operatively coupled with a web server;***

Krueger teaches that "if the vehicle is equipped with a receiving unit 20 with which traffic and/or weather information can be received, then this information can

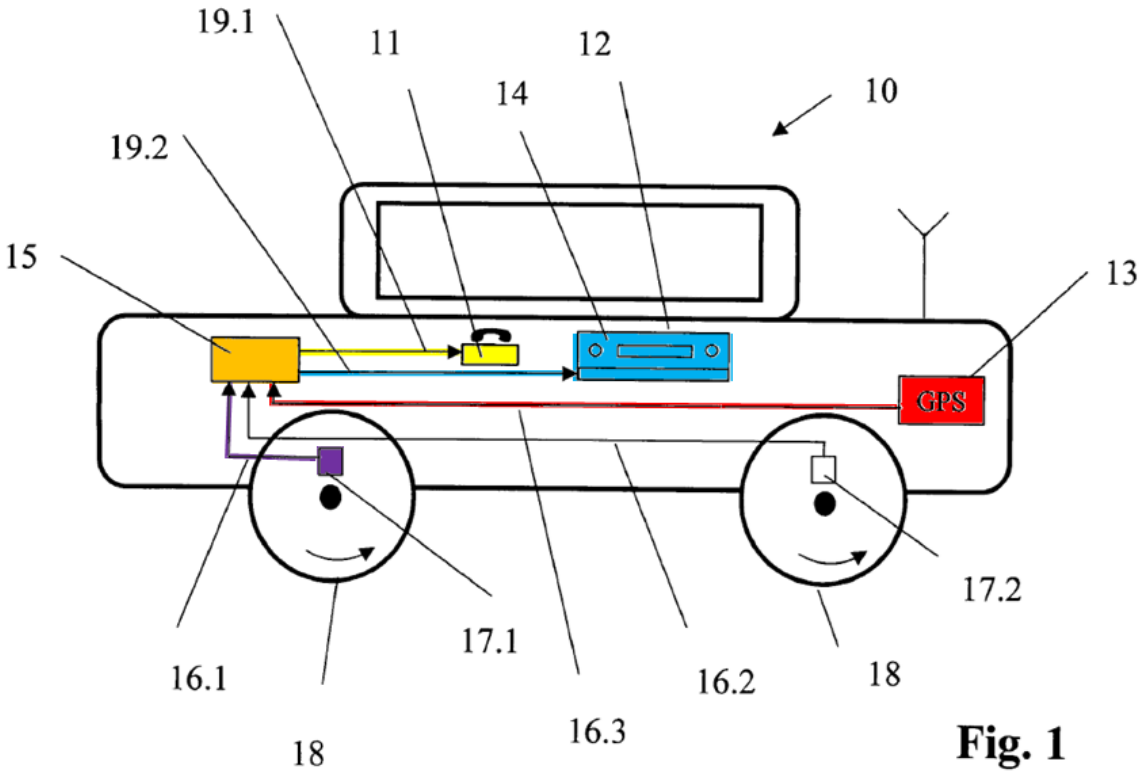
be used to block or release the operable devices 11, 12, 13. To do this, it is necessary that the data received by the receiving unit 20 is transmitted to the decision unit 15 (not shown in FIG. 1)." (Ex.1026, 3:65-4:4.) An ordinary artisan would have understood that the "receiving unit" would communicate with a server so that it could download updated traffic and/or weather information for use with the decision unit, which is part of the overall system and used to make determinations for restrictions of the "operable devices." (Ex.1003, ¶151.)

An ordinary artisan would have also understood that while there are a variety of server interfaces available, a well-known interface at the time of the '709 Patent would be to use the Hyper-Text Transport Protocol (HTTP) such as that used on the worldwide web. This ordinarily skilled artisan would have also understood that a server responding to HTTP formatted requests would be considered a "web server." (Ex.1026, 2:48-57, 3:65-4:4; Ex.1003, ¶¶151-152.)

… ***[1.4] the telematics system being operatively coupled to the vehicle's bus and being configured to receive at least one of a vehicle transmission information and a vehicle movement information from the bus;***

As discussed above, Krueger discloses that the decision unit, which is the part of the disclosed system that determines whether to disable functionality, is connected to the phone, radio, GPS and sensors of the system. (Ex.1026, 2:18-22,

2:36-38.) As showing below in the annotated version of Figure 1, the decision unit 15 (orange), is connected via wire to the car phone 11 (yellow), the radio 14 (blue), the GPS 13 (red), and the speed sensors 17.1 (purple). (Ex.1003, ¶154.)



Ex.1026, Fig. 1 (annotated)

As discussed above, it would have been obvious to an ordinary artisan to combine the vehicle bus technology disclosed in Gelvin with the system described in Krueger such that the wire-connected devices shown in Figure 1 of Krueger (above) could communicate over the vehicle bus, which was a commonly known technology at the time of the '709 Patent. (Ex.1003, ¶155.)

Krueger further discloses that the decision unit 15 receives speed information from sensor 17.1 (in purple above). Indeed, Krueger discloses that the "decision unit 15 is connected to sensors 17.1, 17.2 via the wires 16.1, 16.2. Sensor 17.1 has the task of determining the speed of the vehicle 10." (Ex.1026, 2:18-21.) Krueger further discloses that sensor 17.1 "continuously transmits speed values to the decision unit 15. The decision unit 15 is designed as a threshold switch (not presented in more detail). If the threshold switch is provided with speed values from sensor 17.1 that are over the speed of 130 km/h that is considered dangerous, then a signal is triggered and is transmitted on the data lines 19.1, 19.2." (Ex.1026, 2:48-54; Ex.1003, ¶156.)

An ordinary artisan would have understood that the vehicle speed data, which is provided to the decision unit 15 from sensor 17.1 constitutes "vehicle movement information," i.e. information about the speed at which the vehicle moves, a non-zero value representing movement of the vehicle. Finally, when combining the teachings of Krueger with the vehicle bus described in Gelvin, an ordinary artisan would have understood that the speed data would have commonly been communicated to the decision unit via a data bus like the data bus disclosed in Gelvin. (Ex.1003, ¶157.)

… ***[1.5] the telematics system configured to automatically switch between the first mode of operation and the reduced distractions mode of operation, as a result of at least one predetermined condition being met by the at least one of the transmission information and the vehicle movement information; and,***

Krueger teaches that if it is sensed that the vehicle speed is over 130 km/h a signal is sent that blocks the operating panel of the radio and prevents telephone calls from being made in the vehicle and being received in the vehicle. (Ex.1026, 2:48-57; Ex.1003, ¶159.) Thus, Krueger teaches that if the vehicle speed exceeds 130 km/h, a signal will be automatically triggered, which will switch from the first mode of operation (fully functional) to a reduced distractions mode (fully suppressing the ability to make or received phone calls and use the operating panel of the radio). (Ex.1003, ¶160.)

Krueger further discloses that "[i]n the context of the car phone 12, the unit could be designed so that the driver is also notified of incoming calls even if the current speed prevents the driver from accepting the call, [sic] ***In this case the driver may be provided the opportunity to reduce the speed in order to be able to accept the call***." (Ex.1026, 3:7-12, emphasis added.) Thus, when the speed is reduced to below the predetermined condition, e.g., 130 km/h, the phone functionality will be automatically enabled. (Ex.1003, ¶161.) In another example

Krueger discloses that the suppressed act of making a phone call is automatically enabled once the speed of the vehicle drops below the critical value. (Ex.1026, 3:15-20; Ex.1003, ¶162.)

… ***[1.6] wherein the telematics system, while operating in the reduced distractions mode of operation, is configured to disable the at least one feature, suppress at least a portion of the output and***

When the vehicle speed increases above 130 km/h, both the radio's operating panel is disabled and the ability to make and receive telephone calls are disabled. (Ex.1026, 2:48-57.) Hence, Krueger discloses that calling and receiving features are disabled and the output that is associated with making and receiving phone calls are suppressed. (Ex.1003, ¶164.)

… ***[1.7] provide at least one indicium to the driver that the reduced distractions mode of operation is active; wherein the at least one indicium is presented by the motor vehicle.***

Krueger discloses that "[i]f the telephone function of the car phone 12 or the operability of the car radio 11 is suspended due to the current vehicle speed, ***the driver can be optically or acoustically informed of this state*** at the same time the signal is transmitted on the data lines 19.1, 19.2." (Ex.1026, 3:3-7, emphasis added.) Thus, Krueger discloses that at least one of an optical or acoustic indicium will be provided to the driver by the vehicle indicating that reduced distraction mode is the current state of the vehicle. (Ex.1003, ¶166.)

3. Claim 2

… ***[2] The telematics system of claim 1, further configured to provide a second output format instead of the suppressed output format.***

Krueger discloses that "making a telephone call from the vehicle 10 could be prevented at speeds higher than 50 km/h while receiving a telephone call is allowed at speeds of up to 160 km/h." (Ex.1026, 2:65-3:1.) Rather than suppressing the outputs associated with both making and receiving phone calls, between 50 km/h and 160 km/h the ability to receive phone calls remains (and the outputs associated therewith like the incoming call alerts and speaker to listen to caller) while the ability to make a phone call is suppressed. (Ex.1003, ¶169.)

Krueger discloses an alternative notification format where "the unit could be designed so that the driver is also notified of incoming calls even if the current speed prevents the driver from accepting the call. In this case the driver may be provided the opportunity to reduce the speed in order to be able to accept the call." (Ex.1026, 3:7-12.) Hence, Krueger discloses an output format different from a complete suppression of an incoming call, but instead an output format where the driver is provided with a notification and the opportunity to reduce the speed so that the call can be received. (Ex.1003, ¶170.)

4. Claim 3

… ***[3] The telematics system of claim 1, further configured to receive settings from the web server.***

Krueger discloses that conditions, such as traffic and/or weather information received using receiving unit 20, can also be used to determine whether to block or release operable devices. (Ex.1026, 3:63-4:1; Ex.1003, ¶172.) Krueger discloses using the "receiving unit 20," a device that is configured to receive information from a web server, to receive settings (information) that is used to determine whether to block or release operable devices. An ordinary artisan would recognize weather and traffic information as "settings" in this context because Krueger teaches that this information is used by the devices to set whether to block or release devices, i.e., they are settings. (Ex.1003, ¶173.)

In addition, Gelvin describes managing vehicle data systems remotely via web and Internet interfaces. (Ex.1003, ¶174.)

> The internetwork further includes bridging among the vehicular networks 2202 and cellular modems or services 2206, which may for example provide PCS and GSM wide-area access to the Internet 2299. Among the functions enabled are remote access to controls, diagnostic data and security functions via standard Web interfaces, and exchange of email. Other electronic services supported include access to a server 2210 enabling global Internet access. With this access, a SQL

server can be used to provide database services for management of vehicle data systems.

(Ex.1027, 28:22-31.)

An ordinary artisan would have understood that such internet and web interfaces would interface to a web server. An ordinary artisan would also have understood that "management of vehicle data systems" would include setting various parameters associated with those systems, that is, to manage the vehicle data systems, the vehicle would receive settings from a web server via the web/internet interfaces described by Gelvin above. (Ex.1003, ¶175.)

5. Claim 4

… ***[4] The telematics system of claim 1, further comprising the telematics system being configured to receive a navigation information from the bus.***

Krueger discloses that "navigation system 13" is connected to the "decision unit 15." (Ex.1026, 2:11-15, Fig. 1; Ex.1003, ¶177.) Krueger further discloses that "navigation system 13" can be used as a sensor that sends information to the "decision unit 15" that can be used to determine whether to block the operable devices. (Ex.1026, 4:38-53.)

Hence, Krueger discloses that the navigation system is connected to other parts of the system by wire and sends navigation information, such as location and road condition that is used to determine whether to block the operable devices

(phone and radio). As discussed above, and as shown in Gelvin, an ordinary artisan at the time of the '709 Patent would have been motivated to communicate such information from a navigation system (GPS) over a vehicle data bus like that disclosed in Gelvin. (Ex.1027, Fig. 21, 27:53-65, 9:1-7.) Thus, it would have been obvious to an ordinary artisan to communicate the location and road condition information from "navigation system 13" to the decision unit and operable devices via a vehicle bus like the bus disclosed in Gelvin. (Ex.1003, ¶178.)

6. Claim 15

… ***[15.0] A telematics system for a motor vehicle, wherein the motor vehicle has a bus and the telematics system is operable by a driver of the motor vehicle, the telematics system comprising:***

Because element [15.0] is substantively identical to limitation [1.0], Petitioner reasserts its argument for limitation [1.0]. (Ex.1003, ¶¶135-142, 180-187.)

… ***[15.1] a first mode of operation, a second mode of operation, and a third mode of operation each being respectively configured to operate a first, a second, and a third set of telematics features;***

Krueger discloses three modes of operation that are configured to operate a first, second and third set of telematic features. Krueger discloses a first mode of operation wherein the telephone can be operated to place a telephone call from the vehicle. Krueger discloses a second mode of operation wherein the operating panel

14 of the car radio can be operated. Krueger discloses a third mode of operation wherein the telephone can be operated to receive a telephone in the vehicle. (Ex.1026, 2:48-3:2; Ex.1003, ¶188.)

… ***[15.2] wherein at least the first set of telematics features is disabled in the second mode of operation and at least the second set of telematics features is disabled in the third mode of operation;***

Krueger discloses that the first set of telematics features—the ability to make a phone call—is disabled in the second mode of operation when the radio panel is operable. Krueger discloses that "making a telephone call can be ***prevented at speeds higher than 100 km/h*** while the operability of the car radio 12 is only ***restricted at speeds over 120 km/h***. (Ex.1026, 2:60-3:2, emphasis added.) Hence, Krueger discloses that making a phone call feature (first mode of operation) is disabled (above 100 km/h) while the operability of the car radio feature (second mode of operation) remains enabled up to 120 km/h. (Ex.1003, ¶190.)

Krueger discloses that "it should be noted that it is not necessary for the same speed limitations to apply to both the car radio 12 and the car phone 11." (Ex.1026, 2:58-60.) Hence, an ordinary artisan would have understood that a different speed limitation should have been applied to the car radio functionality such that the operation of receiving a telephone call (third set of telematic features) is enabled in the third mode of operation while the radio operability is disabled.

Indeed, in an example, Krueger teaches that "making a telephone call from the vehicle 10 could be prevented at speeds higher than 50 km/h while ***receiving a telephone call is allowed at speeds of up to 160 km/h***." (Ex.1026, 2:65-3:1, emphasis added.) Thus, Krueger teaches that the second mode of operation (operability of the radio) is disabled above 120 km/h while the ability to receive a telephone call (the third mode of operation) remains enabled up to 160 km/h. In other words, between 121 km/h and 160 km/h, Krueger teaches that the second set of telematic features (radio operability) are disabled in the third mode of operation. (Ex.1003, ¶191.)

… ***[15.3] the telematics system configured to be operatively coupled with a cellular phone;***

Because element [15.3] is substantively identical to limitation [1.2], Petitioner reasserts its argument for limitation [1.2]. (Ex.1003, ¶¶147-150, 193-195.)

… ***[15.4] the telematics system configured to be operatively coupled with a web server;***

Because element [15.4] is substantively identical to limitation [1.3], Petitioner reasserts its argument for limitation [1.3]. (Ex.1003, ¶¶151-153, 196-199.)

… ***[15.5] the telematics system being operatively coupled to the motor vehicle's bus and being configured to receive at least one of a vehicle transmission information and a vehicle movement information from the bus;***

Because element [15.5] is substantively identical to limitation [1.4], Petitioner reasserts its argument for limitation [1.4]. (Ex.1003, ¶¶154-158, 200-204.)

… ***[15.6] the telematics system configured to automatically switch between the first, the second, and the third modes of operation based on at least one of the transmission information and the vehicle movement information.***

Krueger teaches that depending on the speed the car radio panel may be disabled, the function of making a phone call may be disabled, or the functionality of receiving a phone call may be disabled. (Ex.1003, ¶205.)

> Just for the sake of completeness it should be noted that it is not necessary for the same speed limitations to apply to both the car radio 12 and the car phone 11. For example, making a telephone call can be prevented at speeds higher than 100 km/h while the operability of the car radio 12 is only restricted at speeds over 120 km/h. Even the various operating states of the car phone 11 could be dependent on the corresponding speed. For example, making a telephone call from the vehicle 10 could be prevented at speeds higher than 50 km/h while receiving a telephone call is allowed at speeds of up to 160 km/h,

> especially when the telephone is equipped with a hands-free operation accessory.

(Ex.1026, 2:58-3:2.)

Thus, in one example, Krueger teaches that if the vehicle speed exceeds 100 (or 50) km/h, the ability to make a telephone call will be automatically disabled while the ability to operate the radio will remain. Likewise, when the vehicle speed exceeds 120 km/h, the operability of the radio will be automatically disabled while the ability to receive a phone call (up to 160 km/h) will remain enabled. (Ex.1003, ¶206.)

C. Ground 2: Claims 1-3, 5-7 and 14 are obvious over Trauner in view of Gelvin and the General Knowledge of an Ordinary Artisan

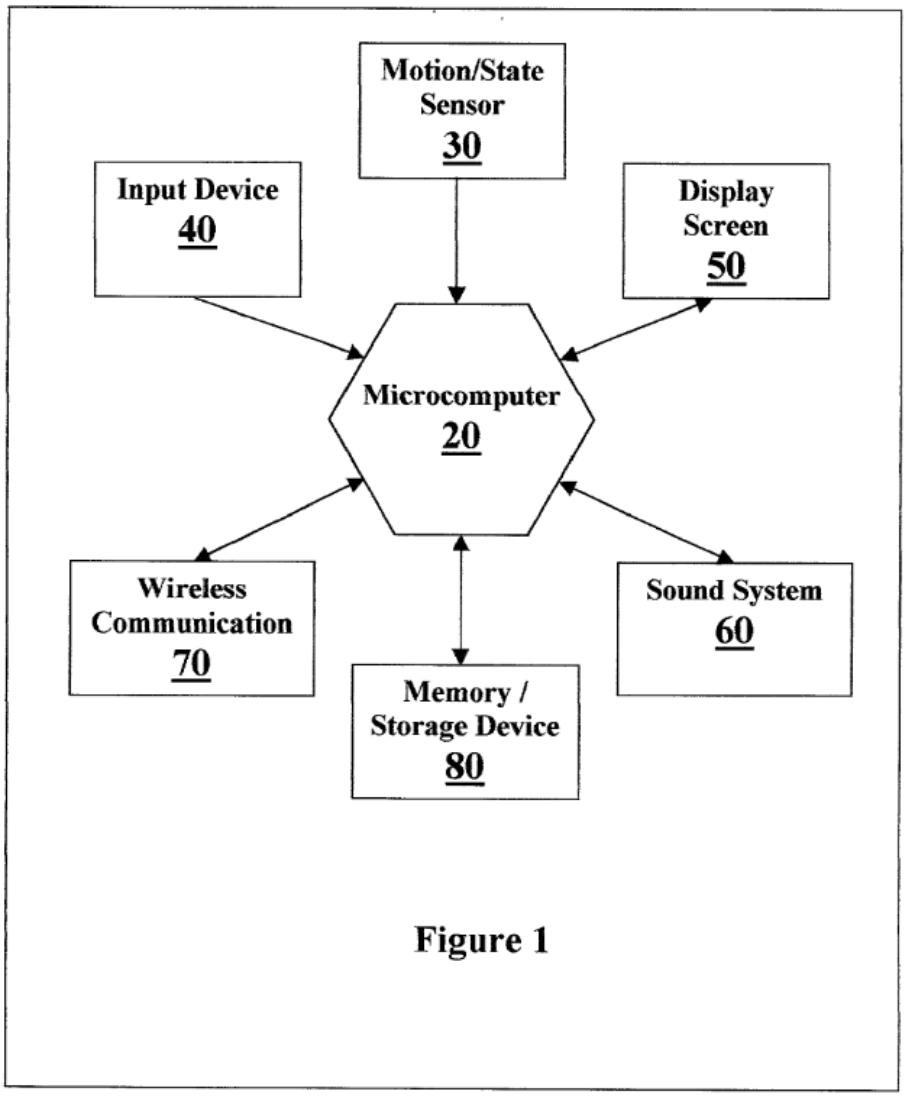
1. Overview of Trauner

U.S. Patent Publication No. 2002/0070852 ("Trauner") published on June 13, 2002 from an application filed on December 12, 2000. (Ex.1029.) Trauner is therefore prior art under at least 35 U.S.C. §102(e). A complete summary of Trauner is included in Mr. Andrews' Declaration. (Ex.1003, ¶¶106-113.)

2. Claim 1

… ***[1.0] A telematics system for a motor vehicle, wherein the motor vehicle has a bus and the telematics system is operable by a driver of the vehicle, the telematics system comprising:***

Trauner discloses "[t]he system 10 includes a microcomputer 20 that controls system operation, a vehicle state/motion sensor 30, an input device 40, a display screen 50, a sound system 60, a wireless communication device 70, and a memory buffer (or alternative storage media, e.g., hard disk, writeable CD) 80." (Ex.1029, ¶0012; Ex.1003, ¶219.) Figure 1 depicting the described system is shown below.



Ex.1029, Figure 1

Thus, Trauner discloses that the described system includes a microcomputer along with a wireless communication device. Trauner further discloses that "[t]he wireless communication device 70 uses standard cell phone circuitry to allow the system to communicate with cell phones and wireless Internet providers. This technology is now available for PDA's and can be easily integrated into the system." (Ex.1029, ¶0016.) The '709 Patent states that the "telematic device," i.e.

system, can be a "telephone, PDA, computer, and the like." (Ex.1001, 16:62-63.) Hence, an ordinary artisan would have understood that the system described in Trauner, which is described as including a computer, cell phone and PDA, would constitute the claimed telematic system. (Ex.1003, ¶220.)

As shown above in Figure 1 and described in its specification, Trauner discloses that the system includes various components all connected to a microcomputer. (Ex.1029, ¶0012; Ex.1003, ¶221.) Thus, Trauner discloses connecting the system to sensors (including speed sensors), as well as other devices such as a wireless communication device. (Ex.1003, ¶222.)

An ordinary artisan would have understood that vehicles at the time of the '709 Patent included the use of data buses to connect various devices in the system in order for data to be exchanged between the devices. (Ex.1003, ¶223.) Gelvin teaches the ability for devices like cellular devices and vehicle sensors, i.e., the devices described in Trauner, to communicate over one or more vehicle buses. (Ex.1027, 27:53-65; Ex.1003, ¶¶226-227.) As discussed above in detail, Gelvin describes several benefits to using a data bus, which an ordinary artisan would have appreciated at the time of the '709 invention. (Ex.1003, ¶224; Ex.1027, 1:54-2:17.)

… ***[1.1] a first mode of operation and a reduced distractions mode of operation;***

Trauner discloses a first mode of operation where the driver has complete access to the described system. Trauner also discloses a reduced distractions mode of operation. (Ex.1029, ¶0007; Ex.1003, ¶¶230-231.) With respect to Figure 2, Trauner further discloses the operation of the system in these various modes of operation:

> At time t_0, the driver powers up the system and the vehicle is stopped and the speed is 0. In this case the "Voice/Sound" and "Display/Keyboard" are both enabled and the driver can operate the entire system. At a time t_1, the driver starts to move and the "Display/Keyboard" state changes to disabled, thereby preventing the driver from looking at the display and using any of the hand activated input devices. At a time t_2, the driver has decelerated and is once again stopped. At a time t_3, which occurs after a predefined minimum time interval Δt, or when the driver changes the driving state (e.g., when the driver puts the transmission into park, or neutral with a foot on the break [sic], or just in any gear or idle, but not moving or exceeding a predetermined speed e.g., 2 mph), the "Display/Keyboard" state changes to enabled, once again allowing the driver to view the display and use the hand activated input devices.

(Ex.1029, ¶0020; Ex.1003, ¶232.)

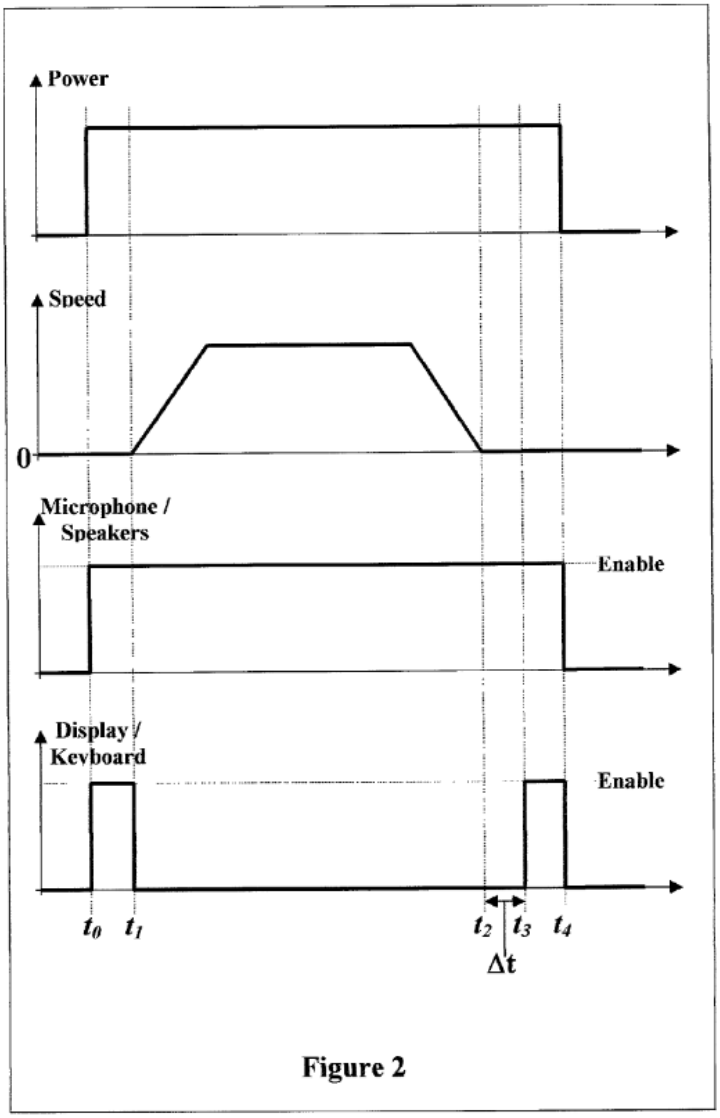


Figure 2

Ex.1029, Figure 2

… ***[1.2] the telematics system configured to be operatively coupled with a cellular phone having at least one feature and an output; the telematics system operable by a driver of the motor vehicle;***

Trauner discloses that the system is operatively coupled with a cellular phone. As described in connection with Figure 1, Trauner describes that the cell phone capabilities for connecting to the Internet are operable by the driver.

(Ex.1029, ¶0016; Ex.1003, ¶234.) Trauner discloses that the included cellular phone, i.e. "communication device 70," includes at least one feature, the ability of the phone to provide the user with the aforementioned "email, voice mail, daily calendar, weather information, etc." (Ex.1029, ¶0017; Ex.1003, ¶234.)

Trauner further discloses that the system has "an output":

> [t]he driver can request from the system multiple sets of data that are downloaded and displayed only when the display is enabled.

(Ex.1029, ¶0017; Ex.1003, ¶236.) This data would include the display of information such as email, the daily calendar and weather information discussed above, *i.e.*, visual outputs from the display. (Ex.1003, ¶237.)

… ***[1.3] the telematics system configured to be operatively coupled with a web server;***

As discussed above, Trauner discloses that the system provides internet access. (Ex.1029, ¶0016; Ex.1003, ¶239.) An ordinary artisan would have understood that this connection with wireless Internet providers would allow the telematic system disclosed in Trauner to be operatively coupled with a variety of servers accessible via the Internet, including web servers. (Ex.1003, ¶240.) Trauner further discloses that PDAs "can be easily integrated into the system," and that these PDAs are used to access the internet/web. (Ex.1029, ¶0016; Ex.1003, ¶241.)

An ordinary artisan would have understood that to "allow access to the []web," the PDA would connect to a web server (i.e., be "operatively coupled to a web server"), since that is how the "web" operates as the servers store the information that can be downloaded via the Internet when a device accesses the server. Thus, Trauner also discloses the use of integrated PDA's to operatively couple the described system with web servers on the Internet to allow for downloading e-mails, weather information, driving directions, etc. (Ex.1003, ¶242.)

… ***[1.4] the telematics system being operatively coupled to the vehicle's bus and being configured to receive at least one of a vehicle transmission information and a vehicle movement information from the bus;***

Trauner discloses that "[t]he system 10 includes a microcomputer 20 that controls system operation, ***a vehicle state/motion sensor*** **30**, an input device 40, a display screen 50, a sound system 60, a wireless communication device 70, and a memory buffer (or alternative storage media, e.g., hard disk, writeable CD) 80." (Ex.1029, ¶0012, emphasis added.) Thus, Trauner discloses that the system includes, and therefore is operatively coupled, to among other devices, "vehicle state/motion sensor 30." (Ex.1003, ¶244.)

Trauner also discloses that the system is configured to receive at least transmission information. (Ex.1029, ¶0019; Ex.1003, ¶245.) Trauner also discloses that the vehicle motion/state sensor measures vehicle speed and motion. (Ex.1029, ¶0017; Ex.1003, ¶246.) Thus, Trauner expressly discloses that the telematic system can receive both "a transmission information" and "a vehicle movement information" to determine whether to change the state of the system to determine whether to disable functionality. (Ex.1003, ¶247.)

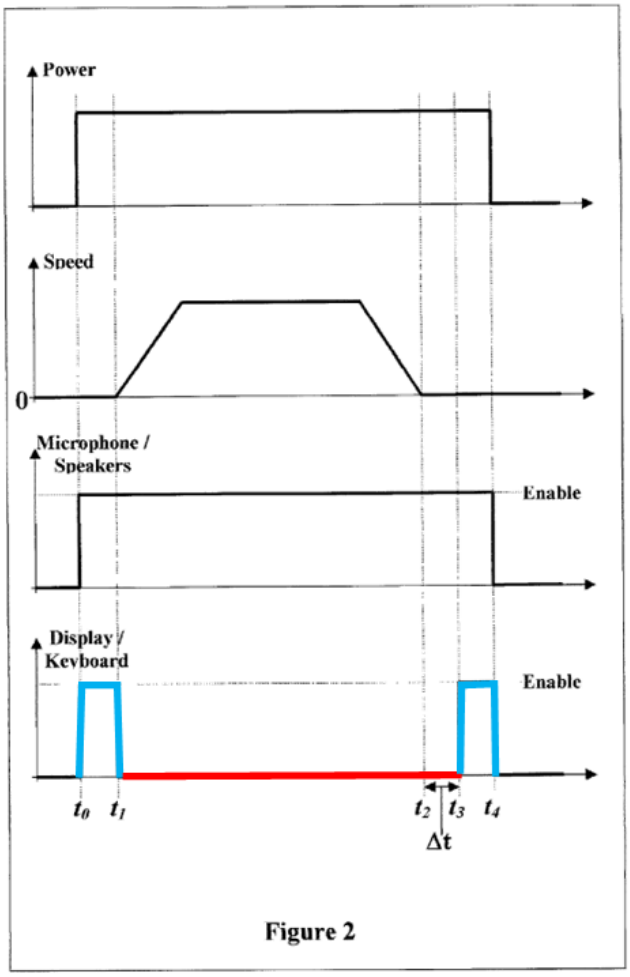
As discussed above, it would have been obvious to an ordinary artisan to combine the vehicle bus technology disclosed in Gelvin with the system described in Trauner such that devices like the vehicle state/motion sensor could communicate over a vehicle bus, which was a commonly known technology at the time of the '709 Patent. An ordinary artisan would have understood that the vehicle state (e.g., whether the vehicle is in park or drive) constitutes vehicle transmission information while the motion sensor would sense vehicle movement information. (Ex.1003, ¶248.)

… ***[1.5] the telematics system configured to automatically switch between the first mode of operation and the reduced distractions mode of operation, as a result of at least one predetermined condition being met by the at least one of the transmission information and the vehicle movement information; and,***

Trauner discloses automatically switching between a first motion of full operation and a reduced distractions mode based on vehicle movement information. Trauner discloses that the keyboard is enabled when the vehicle is stopped and it is disabled when it is in motion. (Ex.1029, ¶0007; Ex.1003, ¶250.) As noted above, Trauner similarly discloses "[t]he state/motion sensor 30 can be simply a direct electrical connection to the vehicle speedometer, which provides a signal that is proportional to the speed. In this case the microprocessor compares the vehicle speed to the maximum allowable speed and if the speed is lower, then the display and input devices are enabled." (Ex.1029, ¶0017.) Thus, Trauner discloses that when the vehicle is stopped the driver has full use of the keyboard input and display, but when the vehicle is in motion (vehicle movement information is provided), those functions are automatically inhibited. (Ex.1003, ¶251.)

Similarly, as discussed above, Trauner discloses automatically switching between a first mode of full operation and a reduced distractions mode based on vehicle transmission information. (Ex.1029, ¶0019; Ex.1003, ¶252.) Trauner

further discloses, in Figure 2, annotated below, enabling (shown in blue) and disabling (shown in red) the keyboard and display based on vehicle speed and transmission position. (Ex.1029, ¶0020; Ex.1003, ¶253.)



Ex.1029, Figure 2 (annotated)

Therefore, Trauner discloses that when the vehicle is in park the driver has full use of the keyboard input and display, but when the vehicle is in drive (and moving) (vehicle transmission and speed information is provided), those functions are automatically inhibited. (Ex.1003, ¶254.)

… ***[1.6] wherein the telematics system, while operating in the reduced distractions mode of operation, is configured to disable the at least one feature, suppress at least a portion of the output and***

As discussed above, Trauner discloses that when the vehicle is in motion, both the keyboard and display are disabled. (Ex.1029, ¶¶0020, 0007, 0017; Ex.1003, ¶256.) An ordinary artisan would have understood that if the display is disabled in order to prevent the driver from looking at the display, an output from the system is "suppressed" as claimed. (Ex.1003, ¶257.)

… ***[1.7] provide at least one indicium to the driver that the reduced distractions mode of operation is active; wherein the at least one indicium is presented by the motor vehicle.***

Trauner discloses:

> While moving, the present system can be put into a mode to slowly read the downloaded information via computer voice synthesis. Voice confirmation may be provided that searches have been completed (while the vehicle is in motion).

(Ex.1029, ¶0021; Ex.1003, ¶259.)

Thus, Trauner discloses that the driver is provided voice (audible) notification of downloaded information specifically because the vehicle is moving, and the display is disabled. An ordinary artisan would have understood that these voice synthesis confirmations would have acted as an indicum to the driver that the

vehicle is in a reduced distraction mode because these functions are disclosed as occurring in the display-disabled mode. (Ex.1003, ¶260.)

Trauner further renders element [1.7] obvious in view of Krueger, which discloses that "[i]f the telephone function of the car phone 12 or the operability of the car radio 11 is suspended due to the current vehicle speed, ***the driver can be optically or acoustically informed of this state*** at the same time the signal is transmitted on the data lines 19.1, 19.2." (Ex.1026, 3:3-7, emphasis added.) Krueger discloses that at least one of an optical or acoustic indicium will be provided to the driver by the vehicle indicating that reduced distraction mode is the current state of the vehicle. (Ex.1003, ¶261.)

An ordinary artisan would have recognized the benefits of including a feature to optically or acoustically inform the driver that the vehicle is in reduced functionality mode, i.e. reduced distraction mode. An ordinary artisan would have understood that adding the functionality from Krueger to the system in Trauner would have benefited the system disclosed in Trauner because it would provide the driver notification that the current conditions of the vehicle reflect increased driving risk and thus the driver should increase his or her alertness and avoid distractive behavior. Such an indicium would also assure that the driver did not become confused when certain features were disabled, since the system would be indicating that they had been disabled. This would avoid the driver from becoming

concerned that the system was malfunctioning. This could lead to a decrease in driving incidents, such as accidents, and could even save lives. An ordinary artisan would have further been motivated to combine the teachings in Krueger with Trauner given that both references teach methods for distraction avoidance, and thus using certain methods from Krueger to improve Trauner would have been obvious to try as both systems focus on solving the same problem in similar ways. (Ex.1003, ¶262.)

3. Claim 2

… ***[2] The telematics system of claim 1, further configured to provide a second output format instead of the suppressed output format.***

Trauner discloses that, while driving the system can receive voice input, and use voice synthesis to output data that would otherwise be displayed. (Ex.1029, ¶0017; Ex.1003, ¶264.) Thus, Trauner discloses an alternative embodiment where the suppressed display information is synthesized into a second "voice" output format. (Ex.1003, ¶265.)

4. Claim 3

… ***[3] The telematics system of claim 1, further configured to receive settings from the web server.***

Trauner discloses that "Internet enabled cell phones and PDAs now allow wireless access to the internet/web. These devices are now used in vehicles to download driving directions, weather information, e-mails, voice mails, and general data. Cell phone, PDAs and information systems are now being integrated into luxury automobiles." (Ex.1029, ¶0004.) Trauner discloses that the described system includes "wireless communication device 70" that "uses standard cell phone circuitry to allow the system to communicate with cell phones and wireless Internet providers." (Ex.1029, ¶0016.) Thus, Trauner discloses that the system uses cellular technology to communicate with outside devices, which an ordinary artisan reading Trauner would have understood could include downloading settings such as driving directions, weather information and other data. In addition, Trauner describes using the system for receiving email. An ordinary artisan would have recognized that email is displayed in a list form in what is commonly known as an "inbox," and the display of specific information, for example an email inbox with newly received emails highlighted or otherwise indicated, comprises a new "setting" for the email inbox, thus receipt of this sort of state-change information,

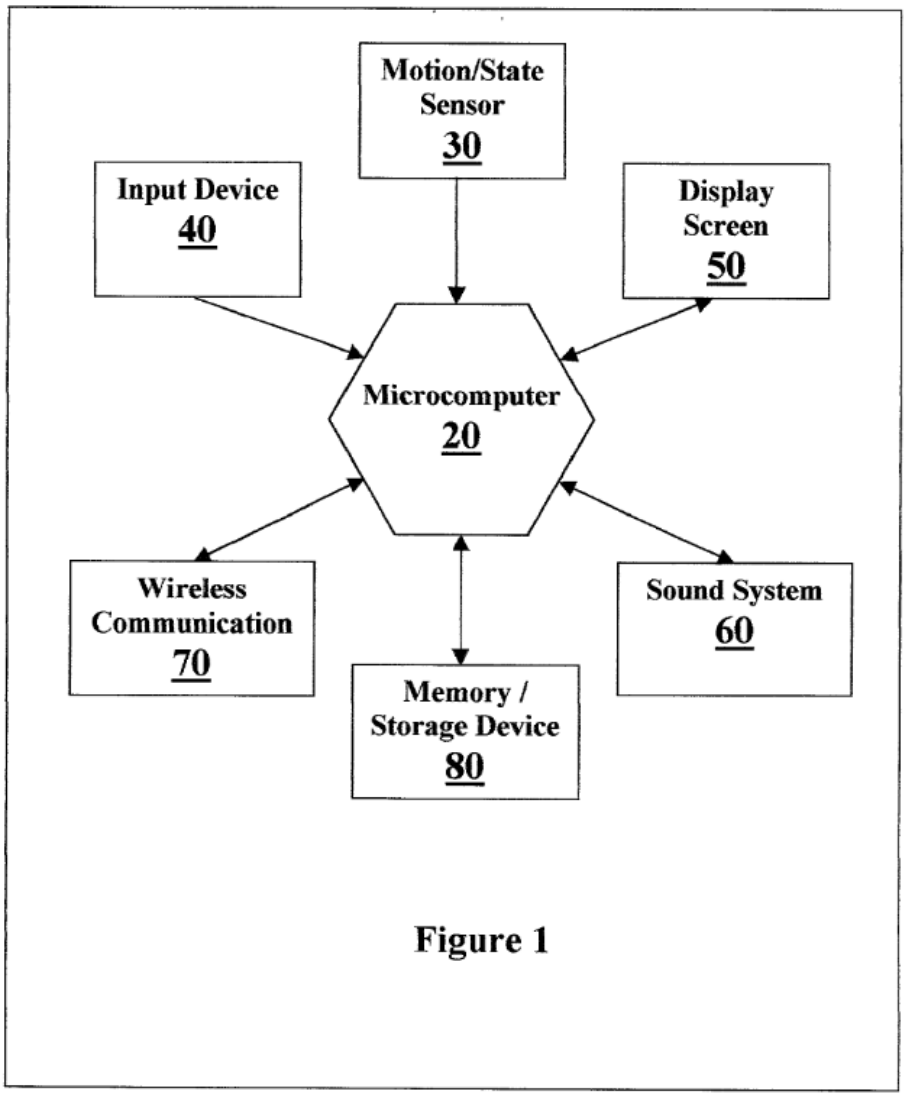
as opposed to simply a web page, would represent a changed "setting" in the system. (Ex.1003, ¶267.)

In addition, Gelvin describes managing vehicle data systems remotely via web and Internet interfaces. (Ex.1027, 28:22-31; Ex.1003, ¶268.) An ordinary artisan would have understood that such internet and web interfaces would interface to a web server. An ordinary artisan would also have understood that "management of vehicle data systems" would include setting various parameters associated with those systems, that is, to manage the vehicle data systems, the vehicle would receive settings from a web server via the web/internet interfaces described by Gelvin above. (Ex.1003, ¶269.)

5. Claim 5

… ***[5.0] A method for providing safety to a driver in a motor vehicle that includes a bus, a cellular phone and a web server, the method comprising:***

As discussed above, Trauner discloses "[t]he system 10 includes a microcomputer 20 that controls system operation, a vehicle state/motion sensor 30, an input device 40, a display screen 50, a sound system 60, a wireless communication device 70, and a memory buffer (or alternative storage media, e.g., hard disk, writeable CD) 80." (Ex. 1029, Trauner at ¶0012; Ex.1003, ¶271.) Figure 1 depicting the described system is shown below.



Ex. 1029, Figure 1

Thus, Trauner discloses that the described system includes a microcomputer along with a wireless communication device. Trauner further discloses that "[t]he wireless communication device 70 uses standard cell phone circuitry to allow the system to communicate with cell phones and wireless Internet providers. This technology is now available for PDA's and can be easily integrated into the system." (Ex. 1029, ¶0016.) The '709 Patent states that the "telematic device," i.e.

system, can be a "telephone, PDA, computer, and the like." (Ex. 1001, 16:62-63.) Hence, an ordinary artisan would have understood that the system described in Trauner, which is described as including a computer, cell phone and PDA, would constitute the claimed telematic system. (Ex.1003, ¶272.)

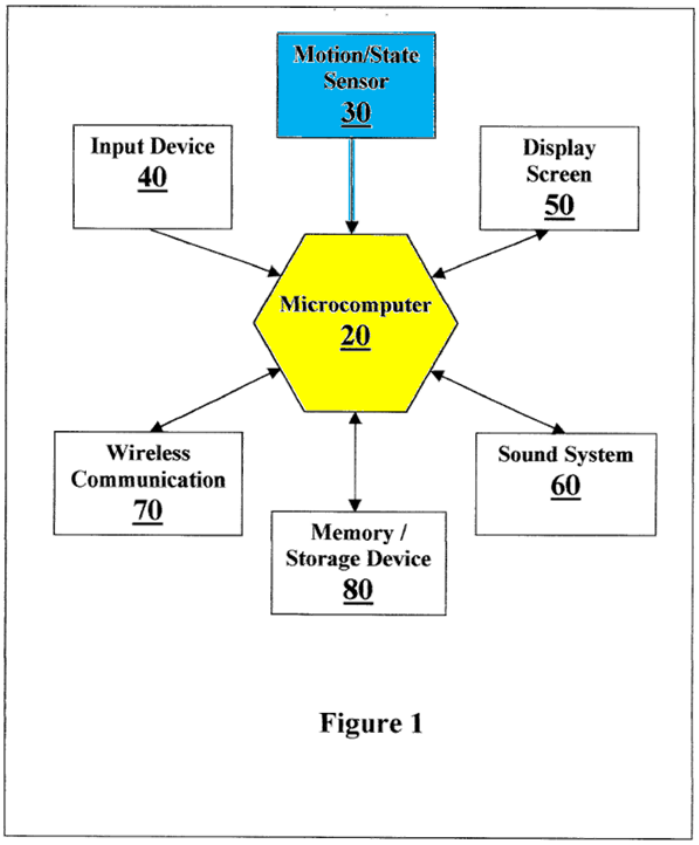
As shown above in Figure 1, and described in its specification, Trauner discloses that the system includes various components all connected to a microcomputer, such as the vehicle state/motion sensor, input device, display screen, wireless communication, etc. (Ex. 1029, ¶0012; Ex.1003, ¶273.) Thus, Trauner discloses connecting the system to sensors (including speed sensors), as well as other devices such as a wireless communication device. (Ex.1003, ¶274.)

As discussed above, an ordinary artisan would have understood that vehicles at the time of the '709 Patent included the use of data buses to connect various devices in the system in order for data to be exchanged between the devices. (Ex.1003, ¶¶275-276.) Gelvin teaches the ability for devices like cellular devices and vehicle sensors, *i.e.*, the devices described in Trauner, to communicate over one or more vehicle buses. (Ex.1027, 27:53-65; Ex.1003, ¶¶279-280.) Thus, element [5.0] would have been obvious to an ordinary artisan in view of Trauner in combination with Gelvin and the knowledge of an ordinary artisan.

… ***[5.1] receiving at a controller a vehicle transmission information and a vehicle movement information from the bus;***

Trauner discloses that "microcomputer 20 includes a microprocessor, memory, and electronics to condition inputs, drive the display, wireless communication device, and memory/storage devices." (Ex. 1029, ¶0013.) Thus, Trauner discloses that the microcomputer is the device that drives the other devices in the system including the display and wireless communication device. An ordinary artisan would have understood that the microcomputer functions as a controller of the system. Indeed, Trauner states that the "system 10 includes a ***microcomputer* 20 *that controls system operation***." (Ex. 1029, ¶0012, emphasis added; Ex.1003, ¶282.)

Trauner discloses that "[t]he system 10 includes a microcomputer 20 that controls system operation, ***a vehicle state/motion sensor* 30**, an input device 40, a display screen 50, a sound system 60, a wireless communication device 70, and a memory buffer (or alternative storage media, e.g., hard disk, writeable CD) 80." (Ex. 1029, ¶0012, emphasis added.) As shown in the annotated version of Figure 1 below the "microcomputer 20" (shown in yellow) is connected to "Motion/State Sensor 30" (shown in blue), which provides the microcomputer the vehicle transmission information and vehicle movement information. (Ex.1003, ¶283.)



Ex. 1029, Figure 1 (annotated)

Trauner expressly discloses receiving transmission information:

> [i]n one embodiment, the ***state/motion sensor 30 can include a monitor of the transmission state.*** In this case the microcomputer could monitor whether the car was in neutral or park and use this to change the state of the system.

(Ex. 1029, ¶0019, emphasis added; Ex.1003, ¶284.)

Thus, Trauner expressly discloses that the telematic system can receive both vehicle movement (speed) and transmission information to determine whether to change the state of the system for determining whether to disable functionality. (Ex.1003, ¶285.) As previously discussed, it would have been obvious to an

ordinary artisan to combine the vehicle bus technology disclosed in Gelvin with the system described in Trauner such that devices like the vehicle state/motion sensor could communicate over a vehicle bus, which was a commonly known technology at the time of the '709 Patent. (Ex.1003, ¶286.)

… ***[5.2] determining from at least one of the vehicle transmission information and the vehicle movement information, that a predetermined condition has been met;***

Trauner discloses determining from at least one of the vehicle transmission information and the vehicle movement information that a predetermined condition has been met. Trauner discloses that the vehicle display is disabled when the vehicle is in motion. (Ex. 1029, ¶0007; Ex.1003, ¶288.)

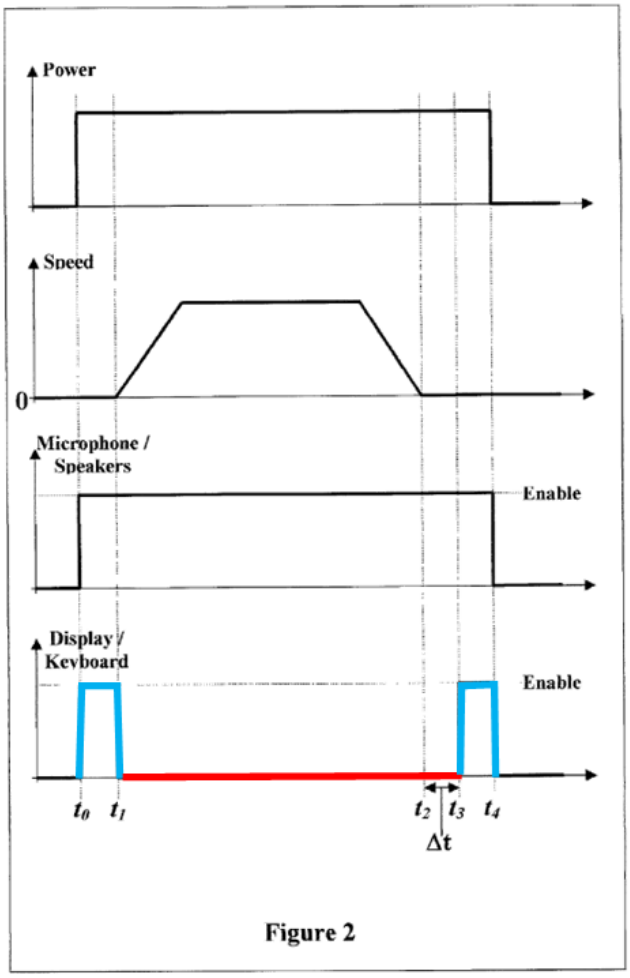
Trauner similarly discloses "[t]he state/motion sensor 30 can be simply a direct electrical connection to the vehicle speedometer, which provides a signal that is proportional to the speed. In this case the microprocessor compares the vehicle speed to the maximum allowable speed and if the speed is lower, then the display and input devices are enabled." (Ex. 1029, ¶0017.) Thus, Trauner discloses that when the vehicle is stopped the driver has full use of the keyboard input and display, but when the vehicle is in motion (vehicle movement information is provided), those functions are automatically inhibited. Trauner determines, based on vehicle movement information, whether the predetermined condition (e.g., in

motion or not) is met, and enables or disables the display accordingly. (Ex.1003, ¶289.)

Trauner also discloses determining whether a predetermined condition has been met based on vehicle transmission information.

> [i]n one embodiment, the state/motion sensor 30 can include a monitor of the transmission state. In this case the microcomputer could monitor whether the car was in neutral or park and use this to change the state of the system.

(Ex. 1029, ¶0019; Ex.1003, ¶291.) Trauner further discloses, in Figure 2 annotated below, enabling (shown in blue) and disabling (shown in red) the keyboard and display based on vehicle movement and transmission information. (Ex. 1029, ¶0020; Ex.1003, ¶291.)



Ex. 1029, Figure 2 (annotated)

Thus, Trauner discloses that when the vehicle is in park the driver has full use of the keyboard input and display, but when the vehicle is in drive (and moving) (vehicle transmission information is provided), those functions are automatically inhibited. An ordinary artisan would recognize that whether the vehicle is in park or drive is another predetermined condition taught by Trauner. (Ex.1003, ¶292.)

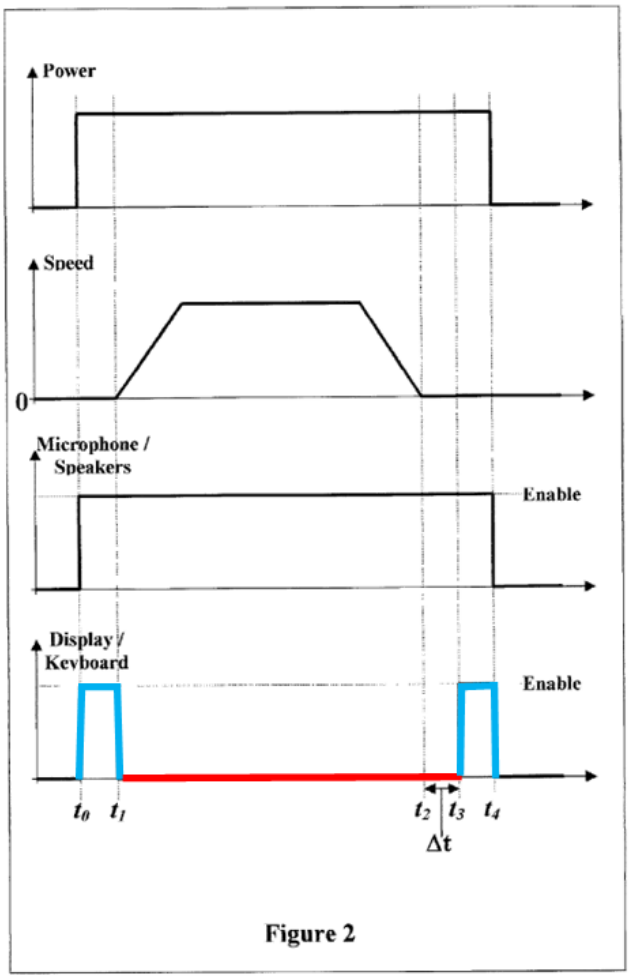
… ***[5.3] the controller, in response to determining that the predetermined condition has been met, switching between a first mode of operation having at least one feature wherein the at least one feature includes an output and a reduced distractions mode;***

Trauner discloses switching between a first mode of full operation and a reduced distractions mode based on vehicle movement information. Trauner discloses that "[i]n normal use, the driver when stopped would have complete access to the system and the information that would be downloaded. However, when the vehicle is in motion the keyboard input and display are inhibited preventing the driver from being distracted while driving." (Ex. 1029, ¶0007.) Trauner similarly discloses "[t]he state/motion sensor 30 can be simply a direct electrical connection to the vehicle speedometer, which provides a signal that is proportional to the speed. In this case the microprocessor compares the vehicle speed to the maximum allowable speed and if the speed is lower, then the display and input devices are enabled." (Ex. 1029, ¶0017.) Thus, Trauner discloses that when the vehicle is stopped the driver has full use of the keyboard input and display, but when the vehicle is in motion (vehicle movement information is provided), those functions are automatically inhibited. (Ex.1003, ¶294.)

Trauner discloses switching between a first mode of full operation and a reduced distractions mode based on vehicle transmission information. Trauner

discloses "[i]n one embodiment, the state/motion sensor 30 can include a monitor of the transmission state. In this case the microcomputer could monitor whether the car was in neutral or park and use this to change the state of the system." (Ex. 1029, ¶0019; Ex.1003, ¶295.)

Trauner also discloses, in Figure 2 annotated below, enabling (shown in blue) and disabling (shown in red) the keyboard and display based on transmission position. (Ex. 1029, ¶0020; Ex.1003, ¶296.)



Ex. 1029, Figure 2 (annotated)

Trauner discloses that when the vehicle is in park the driver has full use of the keyboard input and display, but when the vehicle is in drive (and moving) (vehicle transmission information is provided), those functions are automatically inhibited. (Ex.1003, ¶297.)

… ***[5.4] wherein in the reduced distractions mode of operation the at least one feature is disabled and at least a portion of the output is suppressed;***

As discussed above, Trauner discloses that when the vehicle is in motion, both the keyboard and display is disabled. (Ex. 1029, ¶¶0007, 0017.) Similarly, Trauner discloses that when the vehicle transmission is moved from park to drive, the keyboard and display are disabled. (Ex. 1029, ¶¶0019-0020.) Hence, Trauner discloses that the display and keyboard features are disabled and at least the outputs coming from the display are suppressed. (Ex.1003, ¶299.)

… ***[5.5] and the controller providing at least one indicium from the motor vehicle that the reduced distractions mode of operation is active.***

Because limitation [5.5] is substantively identical to limitation [1.7], Petitioner reasserts its argument for limitation [1.7]. (Ex.1003, ¶¶259-263, 301-305.)

6. Claim 6

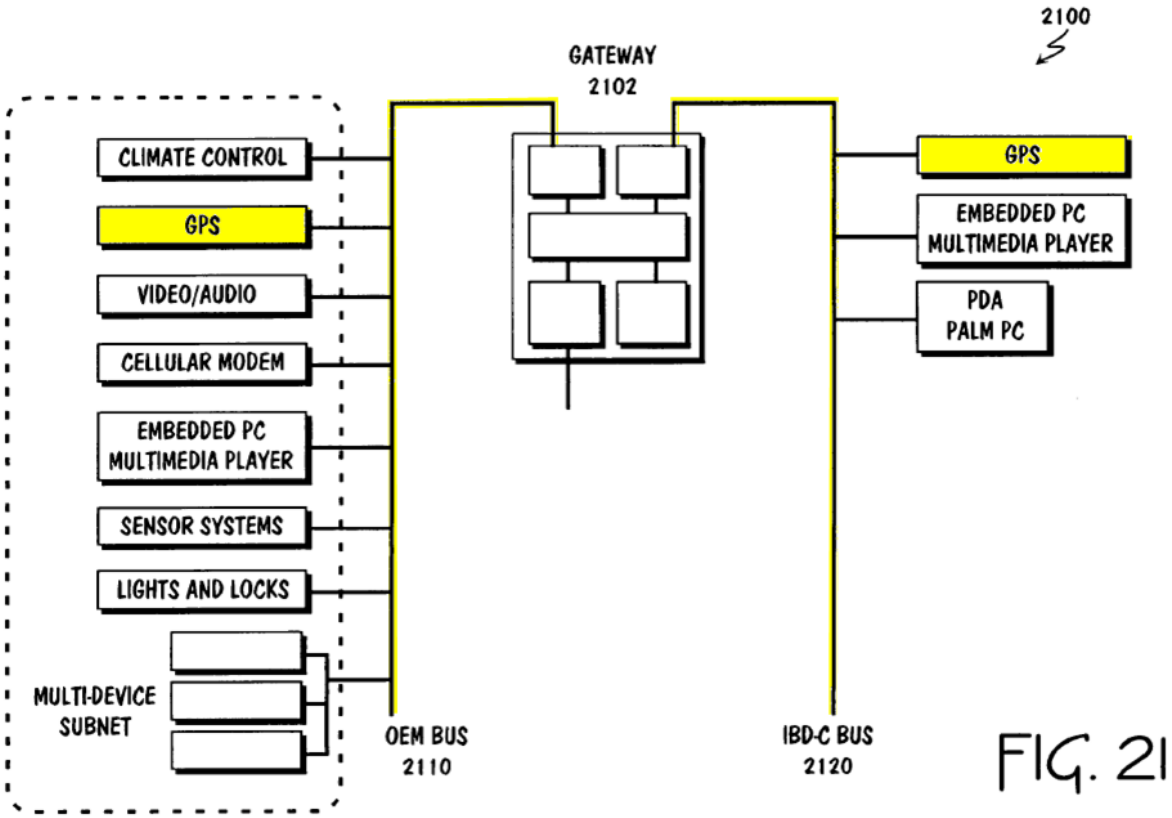
… ***[6] The method according to claim 5 further including the controller receiving at least one setting from the web server.***

Because claim [6] is substantively identical to claim [3], Petitioner reasserts its argument for limitation [3]. (Ex.1003, ¶¶267-270, 306-310.)

7. Claim 7

… ***[7] The method according to claim 5, further including the controller receiving a navigation information from the bus.***

As shown below in yellow for Figure 21, Gelvin discloses that GPS devices communicate over both the OEM Bus 2110 and IBD-C Bus 2120. (Ex. 1027, 27:53-65.) An ordinary artisan would have understood that this disclosure shows that the buses described in Gelvin support communicating navigation information (e.g., GPS position information) from those GPS devices over the network. (Ex. 1003, ¶311.) Indeed, Gelvin discloses that: (1) "[v]ehicle functions supported by the OEM network 2110 include. . .Global Positioning System (GPS)," and (2) "[d]evices supported on the IDB-C bus 2120 include. . . GPS units." (Ex. 1027, 27:57-59, 27:63-64.)



Ex. 1027, Fig. 21 (annotated)

Trauner discloses various navigation information—like the information Gelvin discloses – that could be communicated over the buses in Gelvin: "'GPS map' plots the current car position, 'traffic monitor' generates a traffic search for the current GPS position and 'check e-mail account x' checks account x e-mail." (Ex. 1029, ¶0021.) An ordinary artisan would have understood that the GPS position data, e.g., navigation information, used in Trauner could be communicated over the vehicle buses described in Gelvin. (Ex. 1003, ¶312.)

8. Claim 14

… ***[14.0] A telematics system for a motor vehicle, wherein the motor vehicle has a bus and the telematics system is operable by a driver of the motor vehicle, the telematics system comprising:***

Because element [14.0] is substantively identical to limitation [1.0], Petitioner reasserts its argument for limitation [1.0]. (Ex.1003, ¶¶219-229, 314-324.)

… ***[14.1] a first mode of operation and a reduced distractions mode of operation;***

Because element [14.1] is substantively identical to limitation [1.1], Petitioner reasserts its argument for limitation [1.1]. (Ex.1003, ¶¶230-233, 325-328.)

… ***[14.2] the telematics system configured to be operatively coupled with a cellular phone having at least one feature and an output;***

Because element [14.2] is substantively identical to limitation [1.2], Petitioner reasserts its argument for limitation [1.2]. (Ex.1003, ¶¶234-238, 329-330.)

… ***[14.3] the telematics system configured to be operatively coupled with a web server;***

Because element [14.3] is substantively identical to limitation [1.3],

Petitioner reasserts its argument for limitation [1.3]. (Ex.1003, ¶¶239-243, 331-335.)

… ***[14.4] the telematics system being operatively coupled to the motor vehicle's bus and being configured to receive a vehicle transmission information from the bus;***

Trauner discloses that "[t]he system 10 includes a microcomputer 20 that controls system operation, ***a vehicle state/motion sensor 30***, an input device 40, a display screen 50, a sound system 60, a wireless communication device 70, and a memory buffer (or alternative storage media, e.g., hard disk, writeable CD) 80." (Ex.1029, ¶0012, emphasis added.) Hence, Trauner discloses that the system includes, and therefore is operatively coupled to among other devices "vehicle state/motion sensor 30." (Ex.1003, ¶336.) Trauner also discloses that the system is configured to receive at least transmission information. (Ex.1029, ¶0019; Ex.1003, ¶337.) Thus, Trauner expressly discloses that the telematic system can receive transmission information to determine whether to change the state of the system for determining whether to disable functionality. (Ex.1003, ¶338.)

As discussed above, it would have been obvious to an ordinary artisan to combine the vehicle bus technology disclosed in Gelvin with the system described in Trauner such that devices like the vehicle state/motion sensor could communicate over a vehicle bus, which was a commonly known technology at the

time of the ‘709 Patent. An ordinary artisan would have understood that the vehicle state (e.g., whether the vehicle in park or drive) constitutes vehicle transmission information. (Ex.1003, ¶339.)

… ***[14.5] the telematics system configured to automatically switch between the first mode of operation and the reduced distractions mode of operation, as a result of at least one predetermined condition being met by the vehicle transmission information; and,***

Trauner discloses automatically switching between a first mode of full operation and a reduced distractions mode based on vehicle transmission information, e.g. whether the vehicle is in neutral or park. (Ex.1029, ¶0019; Ex.1003, ¶341.) For example, Trauner teaches:

> At a time t_3, which occurs after a predefined minimum time interval Δt, or ***when the driver changes the driving state (e.g., when the driver puts the transmission into park, or neutral*** with a foot on the break, or just in any gear or idle, but not moving or exceeding a predetermined speed e.g., 2 mph), the “Display/Keyboard” state changes to enabled, once again allowing the driver to view the display and use the hand activated input devices.

(Ex. 1029, Trauner at ¶0020, emphasis added; Ex.1003, ¶342.)

Therefore, Trauner discloses that when the vehicle is in park (vehicle transmission information) the driver has full use of the keyboard input and display, but when the

vehicle transmission is in drive (and moving) (vehicle transmission information is provided), those functions are automatically inhibited. (Ex.1003, ¶343.)

… ***[14.6] wherein the telematics system, while operating in the reduced distractions mode of operation, is configured to disable the at least one feature, suppress at least a portion of the output and***

As discussed above, Trauner discloses that when the vehicle transmission is moved from park to drive, the keyboard and display are disabled. (Ex.1029, ¶¶0019-0020.) Therefore, Trauner discloses that the display and keyboard features are disabled and at least the outputs coming from the display are suppressed. (Ex.1003, ¶345.)

… ***[14.7] provide at least one indicium to the driver that the reduced distractions mode of operation is active.***

Because element [14.7] is substantively identical to limitation [1.7], Petitioner reasserts its argument for limitation [1.7]. (Ex.1003, ¶¶259-263, 247-351.)

D. Ground 3: Claims 15-16 are obvious over Tan in view of Gelvin and the General Knowledge of an Ordinary Artisan

1. Overview of Tan

As explained below and in the accompanying declaration of Mr. Andrews, claims 15-16 are obvious under 35 U.S.C. §103 in view of U.S. Patent No. 6,574,531 ("Tan") and the general knowledge of an ordinary artisan. Tan has a

filing date of July 25, 2001. Tan is therefore prior art under at least 35 U.S.C. §102(e) based on the October 24, 2001 priority date for Provisional Application No. 60/336,293 from which the '709 Patent claims priority. (Ex.1001, 1:19-20.)

As discussed in more detail by Mr. Andrews, claims 15 and 16 are not fully supported by the '293 Provisional Application, nor the June 21, 2002 Provisional Application No. 60/390,877. (Ex.1001, 1:20-21; Ex.1003, ¶¶40-51.) Neither the '293 provisional application nor the '877 provisional application disclose multiple operating modes wherein different sets of telematics features are disabled as required by claims 15 and 16 of the '709 Patent. (Ex.1003, ¶¶42-45.) Further, neither of the provisional applications disclose first and second output formats for substantially the same information, as required by claim 16. (Ex.1003, ¶¶46-50.) Thus, claims 15 and 16 should not be given priority dates based on the '293 or '877 provisional applications. (Ex.1003, ¶51); *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008) ("It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. §112.") Thus, Tan is also prior art against at least claims 15-16 under 35 U.S.C. §102(b).

A complete summary of Tan is included in Mr. Andrews' Declaration. (Ex.1003, ¶¶114-122.)

2. Claim 15

… ***[15.0] A telematics system for a motor vehicle, wherein the motor vehicle has a bus and the telematics system is operable by a driver of the motor vehicle, the telematics system comprising:***

Tan discloses a vehicle computer system that can have limited functionality such that the computer can function without causing distraction to the vehicle operator:

> A vehicle computer system and method of providing information to an occupant of a vehicle that minimizes complete feature lock out are provided. ***The operating system of the computer is adapted to selectively display full and limited functionality versions of a particular screen, preferably based on whether the vehicle is in motion***. A text-to-speech engine can automatically generate audio based on a particular screen once motion is detected. ***The availability of a limited functionality version of the screen and audio, either independently or together, allow a vehicle occupant to retrieve information from the computer system without distraction***.

(Ex.1025, Abstract, emphasis added; Ex.1003, ¶363.)

Tan discloses a vehicle computer system that receives inputs from a vehicle occupant and can output information, which can interact with external networks such as the Internet and utilizes integrated mobile phones and an integrated personal computer. (Ex.1025, 2:38-55; Ex.1003, ¶364; *see also* Fig.1.)

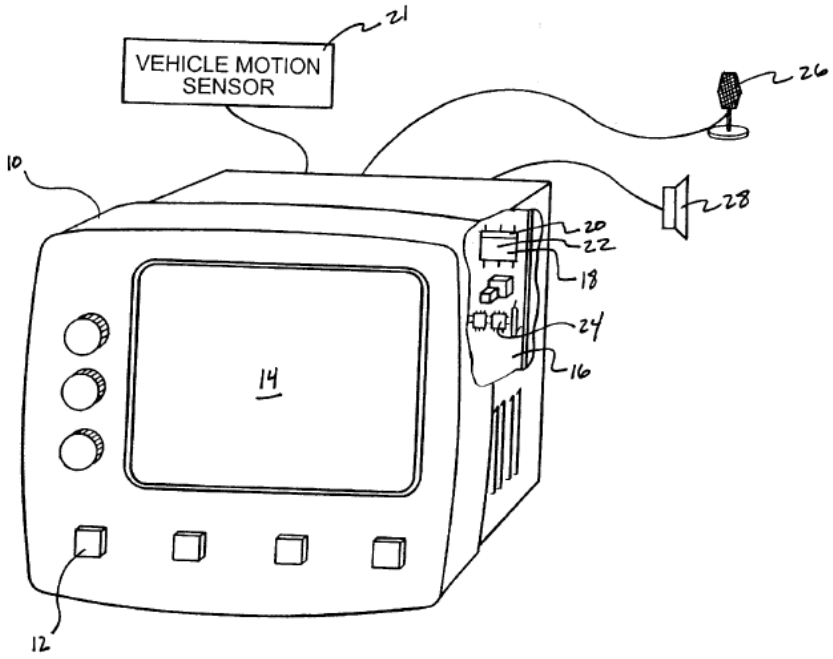


FIG. 1

Ex.1025, Fig. 1

The '709 Patent states that the "telematic device" can be a "telephone, PDA, computer, and the like." (Ex.1001, 16:62-63.) Tan describes the vehicle computer system as being a computer and including integrated mobile phone. (Ex.1025, 2:44-46.) Therefore, the vehicle computer system described in Tan constitutes the claimed "telematic system." (Ex.1003, ¶365.)

Tan further discloses that the system "preferably includes one or more sensors 21 capable of determining whether the vehicle is in motion. The sensors 21 are preferably associated with the axles, wheels, speedometer, parking brake or any other component of the vehicle that indicates vehicle motion or lack thereof."

(Ex.1025, 4:4-9.) Hence, Tan discloses a system that includes sensors that are in communication with the vehicle computer. (Ex.1003, ¶366.)

As explained previously in Section VI.A, it would have been obvious to an ordinary artisan to connect the sensor, vehicle computer, and other devices described in Tan using a vehicle data bus as described in Gelvin. (Ex.1027, 27:53-65; Ex.1003, ¶¶353-362, 367-371.)

… ***[15.1] a first mode of operation, a second mode of operation, and a third mode of operation each being respectively configured to operate a first, a second, and a third set of telematics features;***

As shown below in Figure 2, Tan discloses a first mode of operation in which the full functionality of the Internet news screen is provided. (Ex.1025, 4:10-38, 2:19-21; Ex.1003, ¶374.)

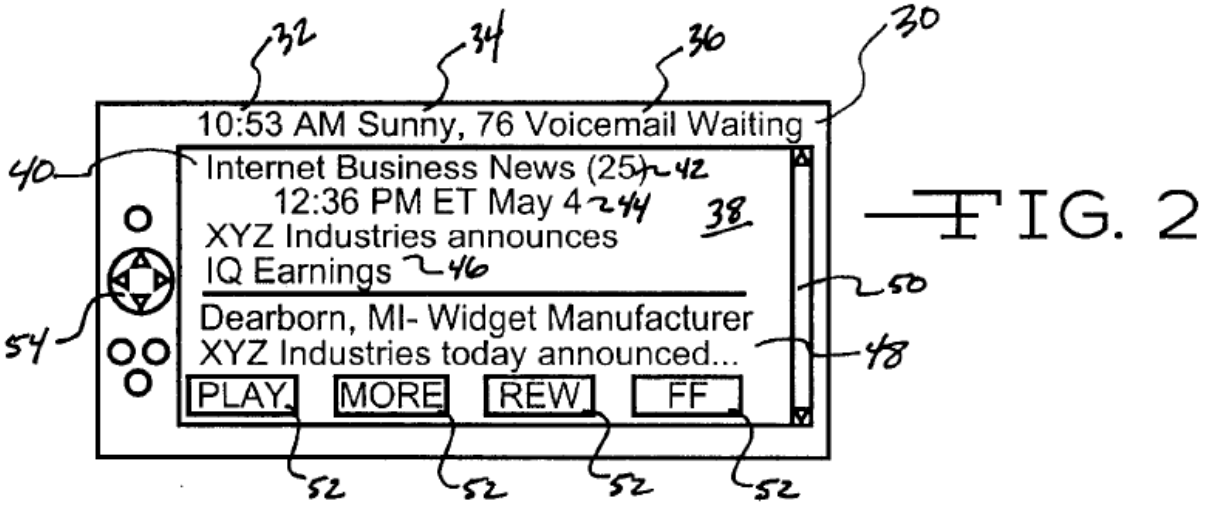


FIG. 2

Ex.1025, Fig. 2

As shown below in Figure 3, Tan discloses a second mode of operation in which a limited functionality of the Internet new screen is provided. (Ex.1025, 2:22-24, 4:35-60; Ex.1003, ¶375.)

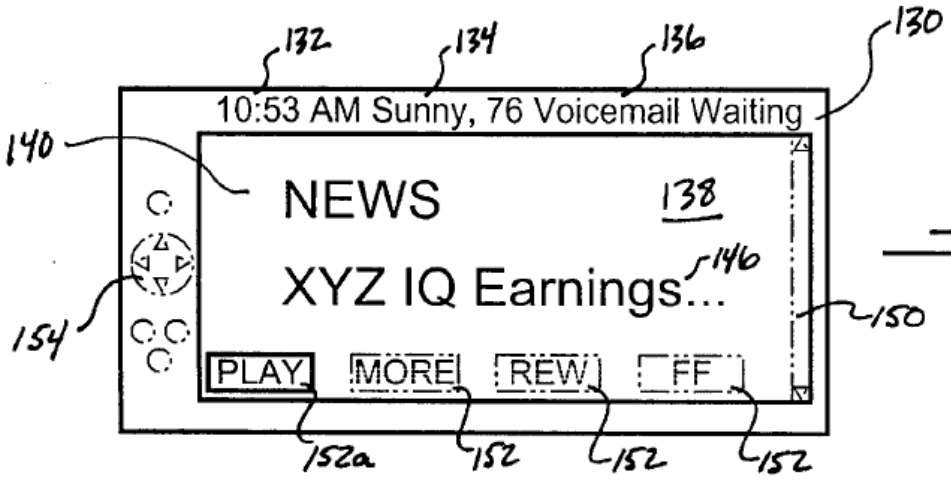


FIG. 3

Ex.1025, Fig. 3

For this screen Tan discloses: "The content window 138 of the ***limited functionality version 130 preferably contains abbreviated or truncated versions of some of the information presented in the full functionality version.***" (Ex.1025, 4:47-50; Ex.1003, ¶376, emphasis added.)

As shown below in Figure 4, Tan discloses a third mode of operation, which is a "common screen for displaying on the output when a limited functionality version of the screen is not available." (Ex.1025, 4:61-63.) Tan discloses that the common screen is used when the limited functionality screen is unavailable. (Ex.1003, ¶377; Ex.1025, 5:1-7.) Tan discloses in this third mode of operation that the device operates the feature of notifying the driver that the vehicle is in motion

and provides information on how to return back to the limited functionality screen. (Ex.1003, ¶378.)

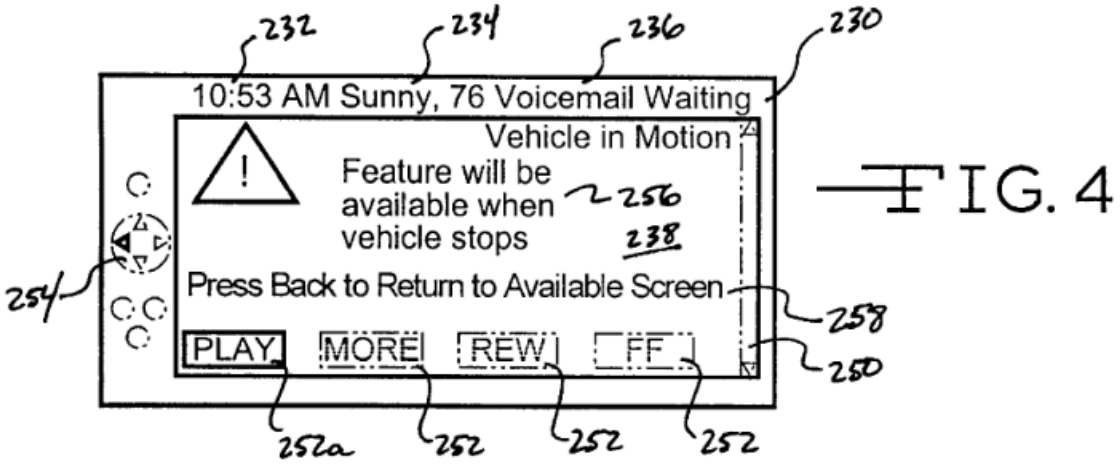


FIG. 4

Ex.1025, Fig. 4

… ***[15.2] wherein at least the first set of telematics features is disabled in the second mode of operation and at least the second set of telematics features is disabled in the third mode of operation;***

Tan discloses that in the limited functionality screen of Figure 2, in the claimed "second mode of operation," features that are available in the full functionality screen, in the claimed "first mode of operation, are disabled. Specifically, Tan discloses that "the content window 138 of the limited functionality version 130 ***preferably contains abbreviated or truncated versions of some of the information presented in the full functionality version.***" (Ex.1025, 4:46-50; Ex.1003, ¶380, emphasis added.) Hence, in the second mode of operation, Tan discloses that certain informational displays are abbreviated or truncated. In

other words, the full versions of the informational display are disabled. Further, Tan discloses that interactive features of the screen are disabled in the limited functionality screen (second mode of operation). (Ex.1003, ¶381.)

Tan discloses that in the common screen, in the third mode of operation, features from the limited functionality screen, the second mode of operation, are disabled. Indeed, Tan discloses that "[t]he system also preferably includes a common screen ***for displaying on the output when a limited functionality version of the screen is not available***." (Ex.1025, 4:61-63, emphasis added.) Hence, the common screen exists when the limited functionality screen is not available, i.e. is disabled. (Ex.1003, ¶382.)

… ***[15.3] the telematics system configured to be operatively coupled with a cellular phone;***

Tan discloses a vehicle computer system, which can interact with external networks such as the Internet and utilizes "integrated mobile phones." (Ex.1025, 2:41-45; Ex.1003, ¶384.) Thus, element [15.3] would have been obvious to an ordinary artisan in view of Tan in combination with Gelvin and the knowledge of an ordinary artisan.

… ***[15.4] the telematics system configured to be operatively coupled with a web server;***

Tan discloses that the vehicle computer system can be operatively coupled to the Internet to retrieve information for the vehicle occupant:

> []the present invention is particularly well-suited for incorporation into systems that ***interact with external computer networks, such as the Internet,*** to retrieve information of interest to an occupant of the vehicle, such as news stories and/or electronic mail.

(Ex.1025, 2:49-54; Ex.1003, ¶386, emphasis added.)

An ordinary artisan would have understood that the interacting with the Internet in order to "retrieve information of interest to an occupant" would have included coupling with web servers in order to communicate with and download information from the various Internet-based web servers that provide such information. (Ex.1003, ¶387.)

… ***[15.5] the telematics system being operatively coupled to the motor vehicle's bus and being configured to receive at least one of a vehicle transmission information and a vehicle movement information from the bus;***

Tan discloses the use of motion sensors to determine when the vehicle is in motion and to send data to the operating system of the vehicle computer system:

> Preferably, the operating system selectively chooses which version of the screen to display based on whether the vehicle is in motion. The operating system can receive data related to vehicle motion from a motion sensor placed appropriately in the vehicle, as described above.

(Ex.1025, 5:16-20; *see also* 4:4-9; Ex.1003, ¶¶389-390.) As discussed above, it would have been obvious to an ordinary artisan to combine the vehicle bus technology disclosed in Gelvin with the system in Tan such that the sensors and other devices discussed in Tan could communicate over a vehicle bus to the vehicle computer system, which was a commonly known technology at the time of the '709 Patent. (Ex.1003, ¶391.)

… ***[15.6] the telematics system configured to automatically switch between the first, the second, and the third modes of operation based on at least one of the transmission information and the vehicle movement information.***

As discussed above, Tan teaches that the display will switch between a full functionality screen (Figure 2), a limited functionality screen (Figure 3), and a common screen that disables the limited functionality screen (Figure 4). (Ex.1025, 4:10-5:7, Figs. 2-4.) An ordinary artisan would understand that the switching occurs automatically to assure that the concerning distractions are avoided as soon as possible when the vehicle is in use. An ordinary artisan would have understood this to be the case, since the objective of Tan's different screens is to avoid

distracting the driver, and such an artisan would have understood that requiring the driver to manually switch between these screens would *increase* distraction. As a result, an ordinary artisan would have found it obvious to (and would have assumed that) Tan's screen switching would be automatic. (Ex.1003, ¶393.)

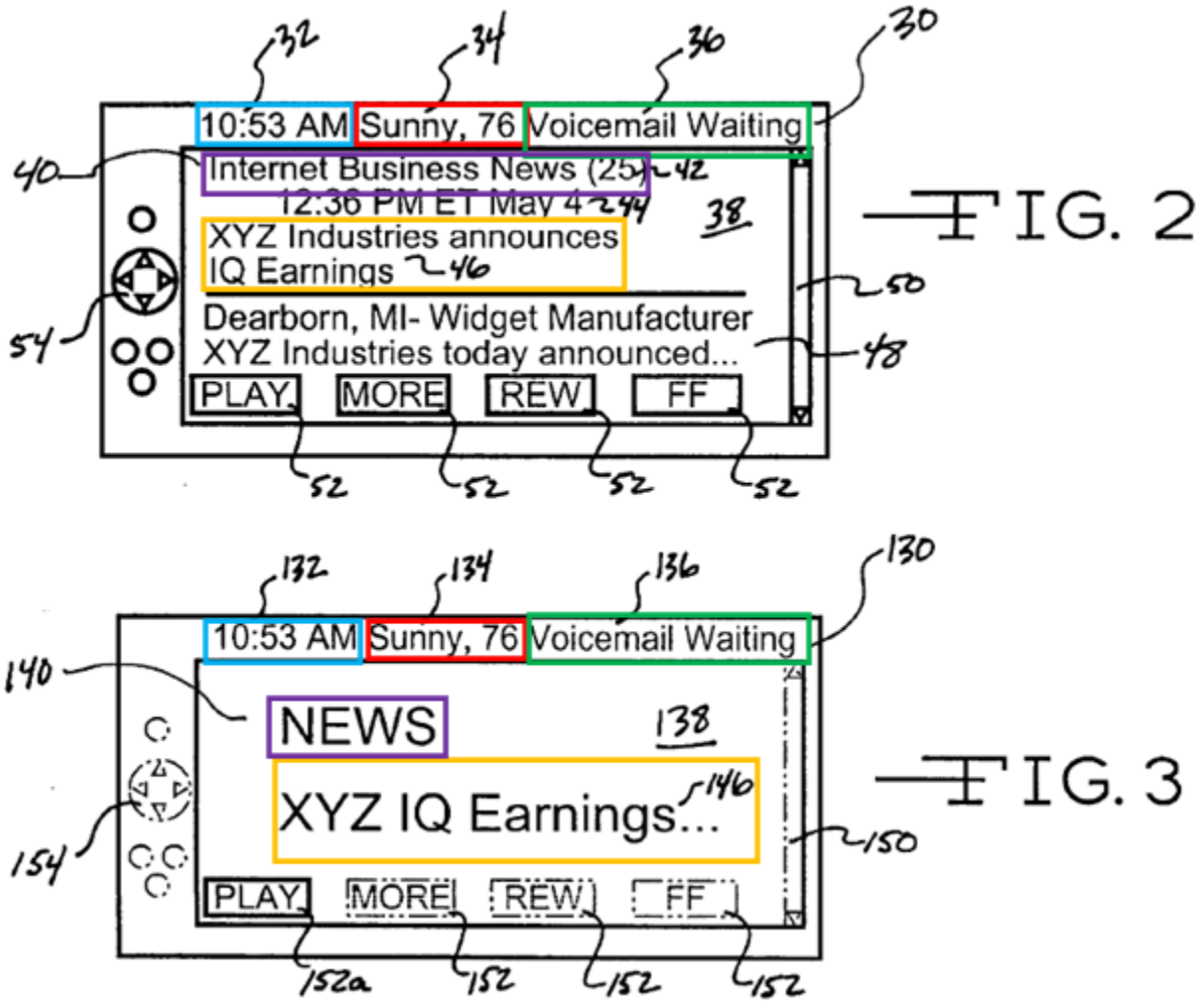
Also, Tan discloses that in the context of switching into "text-to-speech" mode the "operating system ***automatically*** initiates the generation of audio, through the text-to-speech engine, based on the information associated with the screen currently being displayed as soon as the sensor detects motion of the vehicle." (Ex.1025, 5:41-45, emphasis added.) This further indicates, using this text-to-speech example, that the disclosed vehicle computer system automatically switches into these limited functionality modes as soon as movement of the vehicle is sensed to ensure that the distraction reduction methods are implemented as soon as possible. (Ex.1003, ¶394.)

3. Claim 16

… ***[16] The telematics system of claim 15, wherein the first and the second sets of telematics features respectively include a first and a second output format for substantially the same information, and the first output format is disabled in the second set.***

As shown below in Figures 2 and 3 of Tan, both the first output associated with the full functionality display (Figure 2) and the output associated with the

limited functionality display (Figure 3), include an output format for substantially the same information. Indeed, both formats include the "clock" (blue box), "weather summary" (red box) and "voice mail indicator" (green box). Additionally, they both display "news category" (purple box) and the story title (orange box), however, in the limited functionality screen (second output) the first output format for this information is disabled. Indeed, Tan states that "the figure illustrates a limited functionality version 130 that only includes a brief category name 140 and a brief title 146." (Ex.1025, 4:50-52.) Thus, Tan teaches that both output formats include substantially the same information, i.e., clock, weather summary, voice mail indicator, story title and new category, but the first output format is disabled in the second set of features shown in the second output format—specifically with respect to the "new category" and story title displays. **(**Ex.1003, ¶396.)



Ex.1025, Figs. 2 and 3 (annotated)

VII. Conclusion

There is a reasonable likelihood that Petitioner will prevail on the claims 1-7 and 14-16 of the '709 Patent. *Inter partes* review should be instituted for each of these identified claims.

VIII. Fee Statement - 37 C.F.R. §42.15(a)

The filing fees associated with this Petition are being charged to Deposit Account 06-1510. The Board is authorized to charge any additional fees or credit any refunds pertaining to this Petition to Deposit Account 06-1510.

Respectfully submitted,

Dated: August 6, 2021

/ John S. LeRoy /

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Certificate of Service

The undersigned hereby certifies that the foregoing **PETITION FOR *INTER PARTES* REVIEW UNDER 35 U.S.C. § 311 *ET SEQ*. AND 37 C.F.R. § 42.100 *ET SEQ.* (CLAIMS 1-7 and 14-16 OF U.S. PATENT NO. 10,532,709)**, including all exhibits and supporting evidence, was served by overnight courier in its entirety on **August 6, 2021**, upon the following correspondence address as shown for the '709 Patent:

Vivacqua Crane
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Ann Arbor MI 48108

The undersigned also certifies that on the same date a courtesy copy was served it its entirety on the following parties via electronic service:

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Certificate of Compliance Pursuant to 37 C.F.R. § 42.24

This paper complies with the type-volume limitation of 37 C.F.R. § 42.24. The paper contains 12,916 words, excluding the parts of the paper exempted by §42.24(a).

This paper also complies with the typeface requirements of 37 C.F.R. § 42.6(a)(ii) and the type style requirements of § 42.6(a)(iii)&(iv).

Respectfully submitted,

Dated: August 6, 2021

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