

Commissioner's Decision # 1332

Décision du Commissaire # 1332

TOPIC: O00, J-80, B-22, B-00

SUJET: O00, J-80, B-22, B-00

Application No. : 2,195,252

Demande m : 2,195,252

COMMISSIONER'S DECISION SUMMARY

CD 1332

Navigation Technologies Corporation

Patent application 2,195,252 relates to a system and method for updating navigation systems installed in vehicles. In response to a Final Action, the claim set was amended to comprise 30 claims.

Obviousness

Claims 1-30 were considered by the Examiner to be obvious in view of several cited prior art references contravening section 28.3 of the *Patent Act*.

Non-statutory subject matter

Claims 1-30 were considered by the Examiner not to comply with section 2 of the *Patent Act* for being directed to non-statutory subject matter.

Lack of support

Claims 24 and 26 were considered by the Examiner not to be supported by the description in contravention of section 84 of the *Patent Rules*.

Indefiniteness

Claims 1, 14, 16, 20 and 23 were considered by the Examiner to be indefinite and contravening subsection 27(4) of the *Patent Act*.

Held: The Commissioner found that claims 1-30 were obvious on the claim date in view of the state of the art and common general knowledge. Claims 1-30 were found to be directed to statutory subject matter. Claims 24 and 26 were found to be supported by the description. And claims 1, 14, 16, 20 and 23 were found to be definite.

The Commissioner refused to grant a patent on the application.

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,195,252, having been rejected under subsection 30(3) of the *Patent Rules*, has subsequently been reviewed in accordance with subsection 30(6) of the Rules by the Patent Appeal Board and by the Commissioner of Patents. The findings of the Board and the decision of the Commissioner are as follows:

Agent for the Applicant

Cassan Maclean

401-80 Aberdeen Street

Ottawa, Ontario

K1S 5R5

INTRODUCTION

[1] This decision deals with a review by the Commissioner of Patents of the Examiner's rejection in a Final Action of patent application no. 2,195,252 entitled "System and Method for Distributing Information for Storage Media". The Applicant is Navigation Technologies Corporation. The inventors are John Ahrens, John Jasper, Joseph Kohler and T. Russell Shields. The application relates to a system and method for updating navigation systems installed in vehicles.

BACKGROUND

[2] The subject application was filed on January 16, 1997. It is based on a United States priority application, no. 08/592,737, which was filed January 26, 1996.

[3] At the time of the Final Action, the application contained 33 claims. In the Final Action, the Examiner identified the following defects:

- X claims 1-13 and 23-33 did not comply with section 28.3 of the *Patent Act* for comprising subject matter that would have been obvious on the claim date to a person skilled in the art;
- X claims 1-33 contravened section 2 of the Act for being directed to non-statutory subject matter;
- X claims 1, 6, 14, 21, 22, 23, and 27 contravened section 84 of the *Patent Rules* for not being supported by the description; and
- X claims 1, 14, 16, 20 and 23 did not comply with subsection 27(4) of the Act for being indefinite.

[4] In a response to the Final Action, the Applicant replaced the claims on file with amended claims 1-30, and presented arguments against the positions taken by the Examiner.

[5] In a Summary of Reasons submitted to the Patent Appeal Board, the Examiner indicated that the defects identified in the Final Action were applicable to the new claim set, as follows:

- X claims 1-30 were obvious and did not comply with section 28.3 of the *Patent Act*;

- X claims 1-30 were directed to non-statutory subject matter, ie, falling outside the definition of invention as set out in section 2 of the Act;
- X claims 24 and 26 were not supported by the description and thus contravened section 84 of the *Patent Rules*; and
- X claims 1, 13 and 15 were indefinite and contravened subsection 27(4) of the Act.

[6] Accordingly, the rejection of the application was maintained.

[7] A hearing was held, at which the Applicant was represented by Mr. Allen Millard of Cassan Maclean. Mr. John Cavar and Mr. Murray Wilson were members of the board at that hearing, but they have since retired from the public service and were consequently unavailable to sign the recommendation.

THE CLAIMS UNDER CONSIDERATION: 1-30

[8] The claims under consideration include six independent claims: claims 1, 24 and 26 are directed to a system, claim 30 relates to a product, and claims 13 and 22 are method claims. Independent system claims 1, 24 and 26 appear as follows:

1. A system for updating navigation systems installed in vehicles, said system being for use by owners of said vehicles and for use with available subscription information, said system comprising:

a plurality of local repositories accessible to owners of said vehicles and located in a geographical area, wherein each of said plurality of local repositories includes updated versions of navigation data for said navigation systems;

a program and data processing means for executing said program in each of said plurality of local repositories, said program for determining entitlement to said updated versions of navigation data based on said subscription information available to the local repositories and version information included in said navigation systems; and

updating means for copying said updated versions of navigation data to storage devices in said navigation systems.

24. A system for upgrading navigation systems, wherein each of said navigation systems is installed in a vehicle and comprises a navigation application program and geographical data information stored on a storage medium of said navigation system, said upgrading system comprising:

a plurality of local repositories, wherein each one of said local repositories comprises:

updated versions of geographical data information stored on a storage medium of said one of local repositories;

a means for communicating between said storage medium of said one of said local repositories and said storage medium of said navigation system, wherein said means for communicating facilitates copying the updated geographical data information from said storage medium of said one of said local repositories to said storage medium of said navigation system; and

a program that identifies the type of navigation system for which updated data is sought, whereby updated data appropriate for said type of navigation system can be selected for said copying the updated geographical data information from said storage medium of said one of said local repositories to said storage medium of said navigation system.

26. A system for updating navigation data stored on navigation systems installed in vehicles, wherein each of said navigation systems includes identification information indicating whether said navigation system is entitled to be updated, said updating system comprising:

a repository at which updated versions of said navigation data for said navigation systems are stored; and

a plurality of local terminal stations accessible to owners of said vehicles and located in a geographical area, wherein each of said plurality of local terminal stations comprises:

a communication link to said repository;

means for confirming entitlement of each of said navigation systems to be updated, said confirming means responsive to said identification information on each of said navigation systems; and

a device for updating one of said navigation systems with one of said updated versions of said navigation data received over said communication link to said repository, said updating device responsive to said confirming means.

[9] Independent product claim 30 reads:

30. A system for updating data stored on a storage medium, wherein said storage medium comprises a hard drive and an EPROM, said data is stored on said hard drive, and said EPROM includes information stored thereon indicating entitlement to said updating of said data.

[10] And independent method claims 13 and 22 appear as follows

13. A method of updating vehicular navigation data stored on storage media in vehicles, wherein said vehicles include a plurality of different types of navigation systems, comprising the steps of:

providing a plurality of computers located in a geographical area, each of said plurality of

computers having a device that can read and write to one of said storage media;

removing one of said storage media from a vehicle;

placing said one storage medium into said device;

reading information stored on said one storage medium to determine which of said different types of navigation systems is used by said vehicle from which said storage medium was removed;
and

updating the navigation data on said storage medium.

22. A method of updating vehicular navigation data stored on removable storage media associated with in-vehicle navigation systems, wherein said vehicles include a plurality of different types of navigation systems, comprising the steps of:

providing updated versions of navigation data on a server;

providing on-line access to said server for owners of said navigation systems via respective personal computers associated with respective owners, said personal computers communicating with said server;

removing a selected vehicle storage medium and inserting said selected vehicle storage medium into said personal computer;

receiving information from said selected vehicle storage medium, wherein said information includes data identifying the type of navigation system for which updated data is sought; and

uploading updated versions of said navigation data from said server to said selected vehicle storage medium.

ISSUES

[11] As stated above, the issues to be resolved are whether:

- (1) claims 1-30 are obvious;
- (2) claims 1-30 are directed to non-statutory subject matter;
- (3) claims 24 and 26 lack support in the description; and
- (4) claims 1, 13 and 15 are indefinite.

OBVIOUSNESS: THE LAW

[12] Section 28.3 of the *Patent Act* sets out the conditions against which a claim is assessed in an obviousness inquiry:

28.3 The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to

(a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and

(b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

[13] In *Sanofi-Synthelabo Canada Inc v Apotex Inc*, 2008 SCC 61 [*Sanofi*], a decision released

subsequent to the Final Action in this case, the Court stated that it will be useful in an obviousness inquiry to follow the four-step approach first outlined in *Windsurfing International Inc v Tabur Machine (Great Britain) Ltd*, [1985] RPC 59 (CA), and updated in *Pozzoli SpA v BDMO SA*, [2007] EWCA Civ 588. This approach reads as follows:

- (1) (a) Identify the notional "person skilled in the art";
 - (b) Identify the relevant common general knowledge of that person;

- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

- (3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

- (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

OBVIOUSNESS: ANALYSIS

[14] In following the four-step *Sanofi* framework, it is understood that the exercise should normally be carried out for each claim at issue. The board will commence with an analysis of the independent claims in dispute, and next consider the narrower dependent claims.

(1)(a) The person skilled in the art

[15] The identification of the relevant person of skill in the art (POSITA) serves several purposes in regard to the application. It provides the lens through which the specification is construed, and through which the questions of obviousness, statutory subject matter, insufficient support for claims in the description, and ambiguity will be considered.

- [16] According to the Applicant, the POSITA is a skilled workman in the art of vehicle navigation systems@: p 3 of Applicant=s response to the Final Action; and the field of the invention is Avehicle navigation systems and the updating of geographic data and navigation application programs contained in such systems@: p 7 of Applicant=s Memorandum of Oral Argument.
- [17] However, after a careful reading of the specification and the claims the board is of the view that the POSITA is not merely a skilled workman in the art of vehicle navigation systems. As will be discussed in the following analysis, the subject matter of the claims relates only minimally to technical aspects of navigation systems. The focus of the specification, including the claims, is on various aspects of carrying on a business. Accordingly the board considers the POSITA to be knowledgeable of vehicle navigation systems, but also, as detailed below, versed in routine aspects of operating such a business, both generally and in an electronic environment.

(1)(b) The relevant common general knowledge

- [18] The common general knowledge of the POSITA in 1996 that is relevant to the subject matter of the claims included knowledge of conventional vehicle navigation systems. The knowledge also included common methods of transferring electronic information from one location to another, including making a hard copy of the information on a storage medium and physically delivering the storage medium to a recipient, or downloading and uploading the information electronically using conventional devices for reading data from, and writing data to, storage media using cables, wireless technology or the Internet. Regarding the general business aspects of the invention, it included knowledge of various payment methods, such as by individual transaction and by subscription. As for the electronic business environment in particular, the common knowledge included knowledge of services provided by businesses in the information field, including provision of data, software and technical support, as well as methods of facilitating and verifying payment for services rendered.

(2) The inventive concept of the claims

- [19] Before considering the inventive concept of the individual claims, the board finds it helpful to focus the exercise by first considering the problem(s) to be overcome and the solution provided by the application. The only information on the record is that provided by the

Applicant's description. At p 3 of the description the Applicant states the following with respect to problems in the prior art:

One problem associated with providing detailed geographical data for in-vehicle navigation systems is that the data becomes out-of-date (i.e. geographical information is "perishable"). For example, new roads are built, businesses change locations, road construction closes roads, detours are established, museum and restaurant hours change, etc. Another problem associated with navigation systems is that different automobile owners may want to have different collections of geographical data. For example, some automobile owners located in Chicago may want to have geographical information about Wisconsin or Indiana. Other Chicago automobile owners might also want to have information about California or Florida. Some automobile owners might want data listings of restaurants, while others might want data listings of movie theaters or businesses. Thus, not only does the information in the geographical data sets become out-of-date, but the collections of geographical data sets in the in-vehicle navigation systems of different vehicle owners may be significantly different. Another problem associated with in-vehicle navigation systems is that geographical data files represent a relatively large amount of data that needs to be updated. Still another problem associated with updating in-vehicle navigation systems is that there are a number of different navigation systems that are available, and that the navigation data and/or formats may differ among at least some of the different navigation systems.

Accordingly, there is a need for a system and method for updating and distributing data for in-vehicle navigation systems, such as updated geographical data or navigation application programs.

Further, more generally, there is a need for a system that permits the updating of consumer software products, as needed.

[20] At p 4 of the description the Applicant describes generally a proposed solution to said problems:

To achieve the foregoing and other objectives and in accordance with the purposes of the present invention, there is provided an improved method and system that provides for distributing data for storage media, and in particular, the present invention provides for the updating and/or upgrading of data, such as geographical data and navigation application programs, used in in-vehicle navigation systems. A plurality of local repositories are located in a geographical area. Each of the local repositories includes updated versions of navigation data for the in-vehicle navigation systems. The navigation data may include geographical data files and navigation application programs. Owners of vehicles having in-vehicle navigation systems may visit any of the local repositories from time to time to obtain updated versions of the navigation data for their in-vehicle navigation systems. Subscriptions for obtaining updated navigation data would be available to owners of in-vehicle navigation systems entitling them to obtain updated navigation data from the local repositories. Procedures for updating the local repositories are also provided. The system and method can be used for updating other types of data and/or software.

[21] While the application relates to in-vehicle navigation systems, neither the description nor the claims pertain to the technology behind how such navigation systems function. Rather, the description and claims (except claim 30, as discussed below) focus on systems and methods for providing updated data to such systems.

[22] At p 42 of the description the Applicant contemplate the invention having different applications:

The embodiments of the system described above are particularly useful for distributing updated geographical data sets for in-vehicle navigation systems used in automobiles. However, the system could also be used to update other types of software or data, including software for personal computers, computer game storage devices, etc.

[23] While the description discusses the invention in the context of updating in-vehicle navigation systems, and the Applicant has (with the exception of claim 30) chosen to limit the scope of protection being sought to updating such systems, the POSITA would appreciate, as did the Applicant, that the type of data being transferred has no material effect on the method for providing updated data to the system, and that almost any type of data or program could be communicated using the claimed system. Therefore, the particularity of the data recited in certain claims does not form part of the inventive concept of those claims.

[24] Furthermore, the skilled person would appreciate that the particular type of system, ie, an in-vehicle navigation system, recited in the claims (with the exception of claim 30) has no material effect on the claimed method of updating data to the system, but that the method could be effected for various systems, related to vehicles or otherwise.

The system claims

Claim 1

[25] The inventive concept of claim 1 is a system for distributing updated data to a subscriber=s system, comprising:

- § a plurality of local repositories containing updated versions of data;
- § means for determining entitlement to said updated versions of data based on subscription information available to the local repositories and version information included in the subscriber=s system; and
- § means for copying the updated versions of data to storage devices in the subscriber=s system.

Claim 24

[26] The inventive concept of claim 24 is a system for distributing updated data to a user=s system, comprising:

- § a plurality of local repositories having a storage medium containing updated

- versions of data;
- § means for copying the updated versions of data from the storage medium of any of the repositories to a storage medium in the user=s system; and
- § means for identifying the type of system for which updated data is sought, and selecting updated data appropriate for said type.

Claim 26

[27] The inventive concept of claim 26 is a system for distributing updated data to a user=s system, comprising:

- § a repository containing updated versions of data;
- § a plurality of local terminal stations having a communication link to the repository;
- § means for determining entitlement to said updated versions of data based on identification information in the user=s system; and
- § means for copying the updated versions of data from the repository, via a local terminal station, to the user=s system.

Product claim 30

[28] Claim 30 sets forth a storage medium comprising a hard drive and an EPROM, the hard drive containing data and the EPROM containing information indicating entitlement to receiving updated data.

The method claims

Claim 13

[29] The inventive concept of claim 13 is a method for distributing updated data to a user=s system, the method comprising:

- § providing a plurality of computers, each computer having a device for reading and writing to a storage medium in a user=s system;
- § removing the storage medium from the user=s system;
- X placing the storage medium into the device;
- § reading information stored on the storage medium to determine the type of system

- possessed by the user; and.
- X updating the data on the storage medium.

Claim 22

[30] The inventive concept of claim 22 is a method for distributing updated data to a user=s system, the user=s system including a storage medium, the method comprising:

- § providing updated versions of data on a server;
- X providing on-line access to the server for system users via their respective personal computers;
- § removing the storage medium from the user=s system;
- X placing the storage medium into the personal computer;
- § reading information stored on the storage medium to determine the type of system possessed by the user; and.
- X uploading an updated version of the data from the server to the storage medium.

(3) Differences between the "state of the art" and the inventive concept of the claims

[31] In the Final Action and Summary of Reasons, the following references were cited:

Patents

US 5,327,066	issued 05 Jul 1994 Smith
US 5,278,759	issued 11 Jan 1994 Berra et al.
US 4,774,671	issued 27 Sep 1988 Itoh et al.

The Smith patent

- [32] Smith discloses a system and method for dispensing electrical power to an electrically-powered vehicle.
- [33] The system includes a plurality of battery charging stations within a geographic area, a central control centre, an authorization centre, means for dispensing electrical power to an

electric vehicle=s battery, means for determining authorization to obtain electrical power, means for initiating battery charging upon confirmation of authorization, means for identifying the type of battery for which power is sought, and means for setting parameters for charging the battery, such as voltage level or battery charging rate, based on the type of battery identified.

- [34] The means for determining authorization to obtain electrical power involves: (i) computer means, including a storage medium, in the vehicle; (ii) computer means, including a storage medium, at the battery charging station; (iii) detachable, bi-directional data communication means between the vehicle and the charging station; and (iv) bi-directional data communication means between the charging station and the central control centre and between the central control centre and the authorization centre, whereby authorization is facilitated by providing information such as an account number or a personal identification number (PIN). The information is stored on the storage medium in a vehicle and is transferred to the station via the detachable data communications means when connected to the vehicle. The data communications means involves a direct electrical connection or a wireless connection. In alternative embodiments, the information is provided to the station by inserting a card (such as a conventional credit card, an ATM card, or a card issued by the power supply company) containing a memory device into a card reader, or the information is inputted using a keypad located at the station or in the vehicle (in the latter case the information is transferred to the station via the detachable communications means). The information is then transferred from the station to the central control centre and the authorization centre via the communications means. In alternative embodiments, a local station communicates directly with the authorization centre, or operates autonomously to authorize a battery charge and to process the payment using the information stored on the card memory.
- [35] User-specific information (such as accounting-related indicia) is electronically maintained within the vehicle, and is updated to include information received from the battery charging station regarding each transaction, including an indication of the dispensed power.
- [36] In another embodiment, the system further provides for the transmission of additional information between the central control centre, a charging station and a vehicle, such as advertisements for restaurants and lodgings, and messages to and from occupants of a

vehicle.

The Berra patent

- [37] Berra discloses a system and method for reprogramming on-board vehicle computer systems controlling various systems in the vehicle such as the engine, transmission, brakes, suspension, operator control panels and motorized seats. The system is intended to be used as required in view of a diagnostic assessment of a vehicle=s computer systems typically carried out by a service technician at one of a plurality of dealership locations.
- [38] According to the background in Berra, a plurality of vehicle computers controlling the various systems were typically connected in a bus structure to provide data communications links between the computers. Diagnostic assessments of vehicle computer systems were typically performed using an off-board diagnostic computer connected to the bus in a vehicle via a detachable bi-directional communications means.
- [39] Berra=s system for updating software programs for the on-board vehicle computer systems includes: (i) storage means on the off-board diagnostic computer containing updated versions of a plurality of software programs, each program controlling a computer system in a vehicle; (ii) means for copying an updated version of a program from the off-board diagnostic computer to a storage device in a corresponding computer system on the vehicle; (iii) means for identifying the version of software program stored on the on-board vehicle computer system; and (iv) means for initiating copying of an updated version of the program when the version stored on the vehicle is out of date but skipping the copying step when the version stored on the vehicle is up to date.

The Itoh patent

- [40] Itoh relates to an in-vehicle navigation system. This reference provides a general background for such systems, describing one such system and how it works, but it does not disclose a system and method for providing updated data to a system.

Summary of the state of the art

- [41] Smith and Berra are both relevant to the problem to which the instant application is directed in that they deal with providing updated information to a user=s computer system.

[42] The state of the art on the claim date thus included, regarding updating data on a user=s system:

- § a plurality of stations;
- § each station having a computer and a storage medium containing updated versions of data;
- § means for copying the updated versions of data from a station=s storage medium to a storage medium of a user=s system;
- § means for identifying the version of data stored on the user=s system; and
- § means for initiating copying of an updated version of the data when the version stored on the user=s system is out of date, but skipping the copying step when the version stored on the user=s system is up to date.

[43] As for authorization of transactions prior to updating the data, the state of the art included:

- § a plurality of stations;
- § each station having a communications link with a control centre and a communications link with an authorization centre; and
- § means for authorizing a transaction based on identification information stored on vehicle computer systems.

[44] Regarding storage media used in electronic devices in the computer industry, it is apparent from the description, eg at p 22 thereof, that the state of the art included conventional PC Card storage devices comprising a re-writable hard disk portion for storing data and a re-writable EPROM memory for storing information concerning the electronic device, such as manufacturer, serial number, part number, etc.

Differences between the state of the art and the inventive concept of ...

... Claim 1

[45] The difference between the state of the art and the inventive concept of claim 1 is that the means for determining entitlement to the updated versions of data is based on subscription information.

... *Claim 24*

- [46] The difference between the state of the art and the inventive concept of claim 24 is the means for identifying the type of system for which updated data is sought and selecting updated data appropriate for said type.

... *Claim 26*

- [47] The difference between the state of the art and the inventive concept of claim 26 is the means for copying the updated versions of data from the repository, via a local terminal station, to the user=s system.

... *Claim 30*

- [48] The potential difference between the state of the art and claim 30 is the particular information stored on the storage medium indicating entitlement to the updated data.

... *Claim 13*

- [49] The differences between the state of the art and the inventive concept of claim 13 are the steps of removing the storage medium from a user=s system, placing the storage medium into a device for reading and writing data to a storage medium, and reading information stored on the storage medium to determine the type of system possessed by the user.

... *Claim 22*

- [50] The differences between the state of the art and the inventive concept of claim 22 are the steps of providing updated versions of data on a server, providing on-line access to the server for system users via their respective personal computers, removing the storage medium from a user=s system, placing the storage medium into the personal computer, reading information stored on the storage medium to determine the type of system possessed by the user, and uploading an updated version of the data from the server to the storage medium.

(4) Do the differences constitute steps that would have been obvious?

Claim 1

[51] As noted at _ 45, the difference between the state of the art and the inventive concept of claim 1 is that the means for determining entitlement to the updated versions of data is based on subscription information. This represents making an obvious choice from among alternative payment methods well known to the POSITA in this case, choosing the subscription model rather than, say, the transaction fee model followed by the routine implementation of the means for determining entitlement using subscription information. It would be apparent to the skilled person that there would be no difficulties in enabling the particular means once it was decided to adopt the subscription model. The lack of technical detail in the Applicant's specification with respect to this feature supports the board's finding that enabling this feature was within the expected skill of the POSITA. Thus, these steps would have been obvious to the POSITA on the claim date.

Claim 24

[52] Regarding the difference identified at _ 46, the means for identifying the type of system for which updated data is sought, and selecting updated data appropriate for said type, this would be expected skill of the POSITA, who would be aware that different systems have different system requirements. Further, it is analogous to means for identifying the type of battery for which power is sought, and setting parameters for charging the battery, such as voltage level or battery charging rate, based on the type of battery identified, as disclosed by Smith. Accordingly, these steps would have been obvious to the POSITA on the claim date.

Claim 26

[53] Regarding the difference identified at _ 47, the means for copying the updated versions of data from the repository, via a local terminal station, to the in-vehicle navigation system, this simply entails choosing from among a finite number of well-known alternative ways of transferring information from one location to another. Obvious alternatives on the relevant date would have included physically delivering a hard copy of the information, and sending the information electronically using cables, wireless technology or the Internet. Choosing any one of such alternatives, which were known and would be easily enabled by the POSITA, cannot be viewed as inventive. These steps would have been obvious to the

POSITA on the claim date.

Claim 30

[54] Regarding the difference identified at _ 48, ie the particular information stored on the storage medium indicating entitlement to the updated data, the skilled person would appreciate that the identification information typically stored on storage media would have been suitable for this purpose. Thus, this step would have been (at least) obvious to the POSITA on the claim date.

Claim 13

[55] Regarding the differences identified at _ 49, the steps of removing the storage medium from a vehicle and placing the storage medium into a device for reading and writing data to a storage medium merely represent choosing from among a finite number of well-known ways of transferring information electronically from the storage medium of one device to another, and thus cannot be seen as inventive. As for the step of reading information stored on the storage medium to determine the type of navigation system used in the vehicle, this has been dealt with above with respect to claim 24. Taken together, these steps would have been obvious to the POSITA on the claim date.

Claim 22

[56] Regarding the differences identified at _ 50, the lack of significance of the data relating to in-vehicle navigation systems has been dealt with above at _ 22-24. Concerning the steps of providing updated versions of data on a server, providing on-line access to the server for owners of navigation systems via their respective personal computers, removing the storage medium from a vehicle, placing the storage medium into the personal computer, and uploading an updated version of the data from the server to the storage medium, this merely comprises choosing from among a finite number of well-known ways of transferring information from one location to another, as discussed above having regard to claim 26. As for the step of reading information stored on the storage medium to determine the type of navigation system used in the vehicle, this has been dealt with above with respect to claim 24. Taken together, these steps would have been obvious to the POSITA on the claim date.

*The dependent claims*System claims 2-12 (dependent on claim 1)

- [57] These claims include, in addition to the features of the inventive concept of claim 1, the further features of specific details regarding the elements provided at the local repositories (in particular, means for replacing defective storage devices from subscriber=s systems, slots for receiving storage devices, cabling for connecting to the storage devices, means for updating the versions of data, personal computers, and means for storing initial copies of data in subscriber=s systems.
- [58] These features, however, merely comprise the use of hardware and software well known for the purpose of storing and transferring information electronically, which cannot be viewed as inventive.
- [59] Accordingly, these steps would have been obvious to the POSITA on the claim date.

System claim 25 (dependent on claim 24)

- [60] The inventive concept of this claim includes, in addition to the features of the inventive concept of claim 24, a verification system at the local repository to determine whether a storage medium of a user=s system is entitled to be updated. This feature has been dealt with above having regard to claim 1. Taken together, these steps would have been obvious to the POSITA on the claim date.

System claims 27-29 (dependent on claim 26)

- [61] The further features set out in these claims pertain to the particularity of navigation data being updated, which, as stated at _ 22-24, cannot be viewed as part of an inventive concept in this case. Thus the inventive concepts of claims 27-29 are the same as that of claim 26 and, accordingly, these claims would also have been obvious to the POSITA on the claim date.

Method claims 14-21 (dependent on claim 13)

- [62] The inventive concept of these claims include, in addition to the features of the inventive

concept of claim 13, the further steps of reading information on the storage medium from the user=s system to determine the version of the information contained thereon, testing the storage medium for defects and replacing it if it is deemed to be defective, updating the system application on the storage medium, and travelling to each of the plurality of computers and updating each computer with information carried thereto, and the further features of the storage medium including both a system application program and a data set, the current data set being stored on each of the plurality of computers, the current data set being updated periodically, and the current data set being updated by an electronic communication connection to a remote location.

- [63] Regarding the step of reading information on the storage medium from the user=s system to determine the version of the information contained thereon, this merely represents common practice where programs are periodically updated, as taught, for example, by Berra.
- [64] Concerning the step of testing the storage medium for defects and replacing it if it is deemed to be defective, this would appear to be common-sense practice for any business operating in an electronic environment, and cannot be viewed as inventive.
- [65] As for the step of updating the system application on the storage medium, again, this merely represents common practice where programs are periodically updated, as taught, for example, by Berra.
- [66] Regarding the step of travelling to each of the plurality of computers and updating each computer with information carried thereto, this feature has been dealt with above having regard to claim 26.
- [67] As for the feature of the storage medium including both a system application program and a data set, this merely represents a choice to include data sets on the same storage medium as an application program. The POSITA would be aware that data and programs could be stored on a single storage medium without having an effect on the way it operated, and so making such a choice would not require invention.
- [68] Concerning the features of the current data set being stored on each of the plurality of computers, the current data set being updated periodically, and the current data set being updated by an electronic communication connection to a remote location, once again, these

merely represent common practice for businesses operating in an electronic environment, and cannot be viewed as inventive.

[69] Taken together, these steps would have been obvious to the POSITA on the claim date.

Method claim 23 (dependent on claim 22)

[70] The inventive concept of this claim includes, in addition to the features of the inventive concept of claim 22, the further step of receiving information from owners indicating entitlement to the updated versions of data. This feature has been dealt with above having regard to claim 1. Taken together, these steps would have been obvious to the POSITA on the claim date.

OBVIOUSNESS: SUMMARY

[71] For the foregoing reasons, the board is led to the conclusion that the subject matter of the claims 1-30 would have been obvious to the skilled worker on the claim date.

NON-STATUTORY SUBJECT MATTER

[72] Not all inventions that are useful, new and unobvious are entitled to patent protection. Certain types of subject matter are excluded from patentability.

[73] The definition of invention is set out in section 2 of the *Patent Act*:

"invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter.

[74] In the Final Action and Summary of Reasons, the claims were considered to contravene section 2 of the Act based on an interpretation of Canadian jurisprudence concerning the exclusion from patentability of professional skills. As stated in the Final Action, the claims necessarily involved the intervention, actions or interpretive or judgmental reasoning of a skilled professional in order to achieve the desired result of updating the data in vehicle navigation systems, and the claimed subject matter was unpatentable because it covered an

area that was the prerogative of the skilled professional.

- [75] The Applicant argued that the claimed subject matter was not objectionable under section 2 of the Act because, although the claims were partially reliant on human steps (the remainder of the steps being performed by computer elements of the system), the human steps required to achieve the result of providing updated data—including removing the storage medium from a vehicle and placing it into a device—did not involve professional skill or judgment, but were rudimentary in nature. Further, the result was reproducible. (The latter point would appear to be relevant to the issue of utility, an aspect of section 2 that is not in dispute in the present case, rather than statutory subject matter.)
- [76] Having considered the claims, in view of the description, the board finds that the human steps set out (expressly or implicitly) in the claims do not render the subject matter of the claims non-patentable. The claims do not purport to fence off an exclusive right over an area for which professional skill or judgment is expected to be exercised, and thus they are not objectionable on the basis of professional skills.
- [77] However, in order to make a final determination with respect to the section 2 question, the board will consider the most recent Canadian decision concerning patentable subject matter in the area of computer-implemented inventions, *Canada (Attorney General) v Amazon.com Inc*, 2011 FCA 328.
- [78] In this decision, the Federal Court of Appeal stated, at ¶ 62-63:

[62] *Schlumberger* exemplifies an unsuccessful attempt to patent a method of collecting, recording and analysing seismic data using a computer programmed according to a mathematical formula. That use of the computer was a practical application, and the resulting information was useful. But the patent application failed for want of patentable subject-matter because the Court concluded that the only novel aspect of the claimed invention was the mathematical formula which, as a "mere scientific principle or abstract theorem", cannot be the subject of a patent because of the prohibition in subsection 27(8).

[63] It is arguable that the patent claims in issue in this case could fail on the same reasoning,

depending upon whether a purposive construction of the claims in issue leads to the conclusion that *Schlumberger* cannot be distinguished because the only inventive aspect of the claimed invention is the algorithm—a mathematical formula—that is programmed into the computer to cause it to take the necessary steps to accomplish a one-click online purchase. On the other hand, it is also arguable that a purposive construction of the claims may lead to the conclusion that *Schlumberger* is distinguishable because a new one-click method of completing an online purchase is not the whole invention but only one of a number of essential elements in a novel combination. In my view, the task of purposive construction of the claims in this case should be undertaken anew by the Commissioner, with a mind open to the possibility that a novel business method may be an essential element of a valid patent claim.

Claims 1-29

[79] Having considered the guidance provided in the above passages, and having purposively construed the claims in this case, the board finds that system claims 1-12 and 24-29, and method claims 13-23, comprise a number of essential elements in a novel combination: *Amazon.com [FCA]* at ¶ 63. The elements comprise technical features and physical steps sequenced to achieve the practical result of providing updated data to in-vehicle navigation systems. The computer limitations of the elements are essential, ie, they can not be omitted, or substituted for mental means, without having a material effect on the operation of the invention. Upon such a purposive construction, the claimed subject matter is not excluded for being abstract, since it comprises a physical embodiment, a mode of practical application. And it does not relate to subject matter that is excluded from patentability as not relating to the useful arts. Accordingly, claims 1-29 are directed to statutory subject matter.

Claim 30

[80] Claim 30, as presented, purports to define a system for updating data stored on a storage

medium. However, the only elements set forth in the claim are those that define the storage medium. As drafted, the claim contains insufficient elements to deliver the promised result of a system for updating data stored on a storage medium. It may be that the Applicant intended claim 30 to be a dependent claim, depending upon one or more of system claims 1-12 and 24-29, but the claim has not been drafted this way.

- [81] As currently drafted, claim 30 is an independent claim setting forth a storage medium comprising a hard drive and an EPROM, the hard drive containing data and the EPROM containing information indicating entitlement to receiving updated data.
- [82] If it is presumed that the purposively construed claim comprises a number of essential elements in a novel combination, the claim is directed to statutory subject matter (albeit subject matter that is considered to be obvious, if not anticipated, see ¶ 54). For the purposes of this recommendation, given the conclusion reached with respect to this claim on the question of obviousness, the board so presumes, and concludes.
- [83] If it were not presumed that the claim defined a combination, in the sense in which that term is used in patent law, an analysis would be required as to whether or not there is a functional relationship between the data/information and the substrate. Absent a functional relationship between these elements, an argument could potentially be made that the stored information is the only inventive aspect of the claimed invention (*Amazon.com [FCA]* at ¶ 63) and is directed to non-statutory matter. However, the issue was not framed in this manner in the present case and, at this late stage and in view of the conclusion on obviousness, it is unnecessary to consider such an analysis.

LACK OF SUPPORT FOR CLAIMS IN THE DESCRIPTION

- [84] A consideration of this alleged defect brings into play two related requirements: subsection 27(3) of the *Patent Act* and section 84 of the *Patent Rules*. Subsection 27(3) of the Act reads:

27.(3) The specification of an invention must

(a) correctly and fully describe the invention and its operation or use as contemplated by the inventor;

- (b) set out clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it pertains, or with which it is most closely connected, to make, construct, compound or use it;
- (c) in the case of a machine, explain the principle of the machine and the best mode in which the inventor has contemplated the application of that principle; and
- (d) in the case of a process, explain the necessary sequence, if any, of the various steps, so as to distinguish the invention from other inventions.

[85] And section 84 of the Rules reads:

84. The claims shall be clear and concise and shall be fully supported by the description independently of any document referred to in the description.

[86] Claims 24 and 26 (set out in _ 8, above) were considered by the Examiner to be defective in that they lacked support in the description. In particular, the communication link between the vehicle navigation system and the local repositories were alleged to lack support in the description. In the Summary of Reasons, the Examiner stated:

Claims 24 and 26 recite a communication link between the vehicle navigation system and the local repositories, for automated updating of navigation data. Page 10, lines 12-17 mention the use of appropriate connection capability, and access via cabling. This mode of operation has not been further described with respect to hardware, software, or communication protocols as required under Section 27(3) of the Patent Act. There are no drawings showing this embodiment and the remaining pages of the description do not mention this embodiment. Therefore, claims 24 and 26 are lacking proper support and description for this communication link feature because the claimed technical solution has not been properly disclosed.

[87] The feature in claim 24 (amended former claim 27) of a means for communicating between

the storage medium of a vehicle navigation system and the storage medium of a local repository was included in the claim by way of amendment in response to the Final Action. The identification of a defect in claim 26 (former claim 29) appears to have been made for the first time in the Summary of Reasons.

[88] The relevant portion of the description is found on p 10:

Referring to FIG. 4, each local repository (such as local repository 82) has one or more drives or slots 92, 93 into which the storage device 76 can be received. Each drive 92 may be a conventional drive or slot for receiving PCMCIA cards. The local repository 82 has the appropriate hardware and software to read information from and write information to a PC Card hard disk inserted into the drive 92. To provide for updating, upgrading, replacing, or repairing the geographical data set 70, the storage device 76 is preferably removable from the vehicle 22, as illustrated in FIG. 4. (In an alternative embodiment, the in-vehicle navigation system 60 may include appropriate connection capability, such as a data port, so that the storage device 76 can be accessed by the local repository 82 via cabling without removing it from the vehicle.)

[89] The board finds that the aforementioned communication link is adequately supported by the description. In the board's view, the description of the particular feature is sufficient to enable the POSITA to successfully carry out the invention as contemplated by the inventor. No inventive effort would be required on the part of the POSITA to put the invention into effect using the teaching of the description.

[90] Regarding the Examiner's comments concerning the lack of specificity with respect to the hardware, software and communication protocols, the board would point out that a patent specification need not provide minute details of features that are well known to the POSITA, who is the intended reader. In a case where the invention is a new feature, then of course the level of detail required to describe it would be higher, because the POSITA would not be expected to have knowledge of it. But that does not appear to be the case here. It is evident from the specification that the inventor contemplates using conventional technology in the usual way to provide this aspect of the claimed combination, ie, a communication link between the storage medium of a repository and the storage medium of a navigation system.

[91] In summary, claims 24 and 26 comply with section 84 of the *Patent Rules*, and the description complies with subsection 27(3) of the *Patent Act*.

CLAIMS INDEFINITENESS

[92] Subsection 27(4) of the *Patent Act* requires that the claims be drafted in clear language:

27.(4) The specification must end with a claim or claims defining distinctly and in explicit terms the subject-matter of the invention for which an exclusive privilege or property is claimed.

[93] Claims 1, 13 and 15 were considered by the Examiner to be indefinite. Claims 1 and 13 were set out in _ 8 and 9, above. Claim 15 reads as follows:

15. The method of claim 13 further comprising:
 testing the storage medium for defects; and
 replacing said storage medium if it is determined to be defective.

[94] In the Summary of Reasons, the Examiner stated:

Claim 1 includes two possible modes of operation. On the one hand claim 1 reads as if the copying of updated data to storage devices happens when the storage devices are physically attached to the vehicle navigation systems. On the other hand the application discloses a storage device 76 (Figure 4) which is physically inserted into a local repository 82 as described in claim 13. Since two contradictory concepts of updating navigation systems are included in claim 1, the claimed invention cannot be clearly grasped and claim 1 is indefinite. Similarly claims 13 and 15 remain indefinite and do not comply with Section 27(4) of the Patent Act.

[95] The reasons for considering claims 13 and 15 to be indefinite appear in the Final Action:

Claim 14 [amended claim 13]: ARemoving one of said storage media from a vehicle@ (line

9) and "placing said one storage medium into said device" (line 10) are inexplicit regarding how these steps are performed or achieved.

Claim 16 [amended claim 15]: "Testing the storage medium" is inexplicit regarding how this testing is performed.

- [96] Regarding claim 1, the board sees nothing indefinite in the expression, "updating means for copying said updated versions of navigation data to storage devices in said navigation systems." The language is broad, as the Applicant wants the claim to be of sufficient breadth to encompass the embodiments noted by the Examiner in the Summary of Reasons, and set out in dependent claims 7 and 8, respectively. But broad language does not equate to indefinite language. It seems that the meaning is clear enough for the skilled person to ascertain the scope of protection being sought.
- [97] Concerning claim 13, and the expressions, "removing one of said storage media from a vehicle" and "placing said one storage medium into said device", once again, the meaning seems clear enough. For example, it may be that the storage medium could be removed by hand, or it may transpire that a particular tool is needed, depending on the design of the navigation system. As drafted, the claim covers both possibilities. Again, the language may be somewhat broad, but it would be clear to the skilled person where the Applicant wishes the fences around the invention to be placed.
- [98] As for claim 15, the expression, "testing the storage medium", despite its breadth, does not appear to lack clarity. The claim is not restricted to a preferred embodiment, a particular manner of testing the storage medium, but subsection 27(4) does not impose such a requirement. As with claims 1 and 13, it is clear to the reader where the Applicant wishes the fences surrounding the invention to be placed.
- [99] In summary, claims 1, 13 and 15 are definite and comply with subsection 27(4) of the *Patent Act*.

SUMMARY

[100] The board concludes that, having regard to claims 1-30 currently on file:

- X claims 1-30 are obvious and do not comply with s. 28.3 of the *Patent Act*;
- X claims 1-30 fall within the definition of invention set out in s. 2 of the Act;
- X claims 24 and 26 have support in the description and thus comply with s. 84 of the *Patent Rules*; and
- X claims 1, 13 and 15 are definite and thus comply with s. 27(4) of the Act.

RECOMMENDATION OF THE BOARD

[101] In view of the above findings, the board recommends to the Commissioner that he refuse to grant a patent on this application.

Michael Gillen
Member

DECISION OF THE COMMISSIONER

[102] Having reviewed the application file and the reasons of the Patent Appeal Board, I concur with the findings and recommendation. Accordingly, I refuse to grant a patent on this application.

[103] Under section 41 of the *Patent Act*, the Applicant has six months within which to appeal my decision to the Federal Court of Canada.

Sylvain Laporte
Commissioner of Patents

Dated at Gatineau, Quebec,
this 29th day of October, 2012