

# Exhibit P



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**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

|   |   |                              |
|---|---|------------------------------|
| ARRIVALSTAR S.A. and MELVINO TECHNOLOGIES LIMITED,                  | : |                              |
|   | : |                              |
| Plaintiffs,   | : | Civil Action No. 2:07-CV-415 |
|   | : |                              |
| v.  | : | Honorable Joy Flowers Conti  |
|   | : |                              |
| SHIPMATRIX, INC., UNITED PARCEL SERVICE, INC. and FEDEX CORPORATION | : | Special Master Paul A. Beck  |
|   | : |                              |
| Defendants.   | : |                              |

**RECOMMENDATIONS AND REPORT TO THE COURT  
BY THE SPECIAL MASTER ON CLAIM CONSTRUCTION OF ‘DISPUTED  
CLAIM TERMS OF ’318 PATENT AND ’359 PATENT  
UNDER ORDER OF COURT OF DECEMBER 21, 2007**

**- I -**

**INTRODUCTION**

1. This is the Special Master’s (“Master”) recommendations and report to the Court on claim construction of U.S. Patent 6,748,318 granted June 8, 2004 entitled Advanced Notification Systems And Methods Utilizing A Computer Network (‘318 patent); and U.S. Patent 6,904,359 granted June 7, 2005 entitled Notification Systems and Methods with User – Definable Notifications Based Upon Occurrence Of Events (‘359 patent).

2. The Master was appointed by order of Court (December 21, 2007, [Doc. 63]) in accordance with Federal Rule of Civil Procedure (Fed. R. Civ. P. 53) to perform



claim construction of such disputed claim terms and/or phrases of '318 patent and '359 patent as are set forth in a Joint Disputed Claim Terms to be filed on February 26, 2008 under the Court's Initial Patent Scheduling Order (¶ 5.) December 4, 2007 [Doc. 60].

3. Under the Court's Order [Doc. 63] the Master conferred with the parties on January 7, 2008 and a memorandum of the conference was filed January 17, 2008 by the Master [Doc. 69]. The memorandum identified certain things. Among them was the setting of a process and a schedule for claim construction.

4. With input from the parties, the Master filed SPECIAL MASTER'S PROCESS AND SCHEDULE FOR CLAIM CONSTRUCTION on February 15, 2008 [Doc. 72]. One of the events required the parties to file a Joint Disputed Claim Terms Chart also required by the Initial Scheduling Order [Doc. 60]. The parties filed that Chart (February 26, 2008, [Doc. 73]), and it is referred to as the "Chart" in the Master's Report. Initial briefs were filed by the parties supporting their proposed claim construction set forth in the Chart.

5. The Master was ordered [Doc. 63] to conduct a hearing on the construction 30 days after plaintiff filed its Reply Brief. The format was to be specified by the Master.

6. The Master provided a Draft of the Master's Report on May 16, 2008. The parties were invited to comment on the Draft of the Report and the parties provided their comments.

7. A hearing was conducting by the Master on May 28, 2008; June 4, 2008; and July 23, 2008.

8. During the hearing the plaintiffs stated that “We’re prepared to take the means plus function issues out; that is, not assert those claims” (5/28/08 Tr. 51:22-24). Defendants accepted that offer and those claims are no longer asserted in this litigation.

9. The Master provided a second draft of the Master’s Report on June 19, 2008. This draft had the benefit of the parties’ argument presented on May 28, 2008 and June 4, 2008. The parties were invited to comment on the Master’s Report and the parties provided their comments.

10. Plaintiffs requested an additional hearing. Reasons were given at a conference with the parties. Master granted the request and a hearing was held on July 23, 2008.

11. The Master then filed this Report.

#### **Special Comments by the Master**

The Master wants to report to the Court on the high level of professionalism that counsel for the parties manifested toward each other and toward the Master throughout the entire Markman Hearing Process. It enabled giving the process quality and efficiency. The Master appreciated it.

## **SUBJECT MATTER OF THE PATENTS**

The subject matter of the patents relates to a notification system for notifying a person of an arrival of a vehicle. One practical application of it is the delivery of packages by the vehicle to a user (person to whom the package is to be delivered). The user has the capability to determine certain trigger events which would give a notification to the user on the status of the vehicle with respect to the user's location. The notification can give information of where the vehicle is located; times indicating where the vehicle is located; and distances from the users location e.g. from the last stop.

The system has a vehicle control unit in the vehicle which communicates wirelessly with a base station control unit (e.g. a computer) which is located remotely from the vehicle and the user. The user has a computer that is networked with the base station control unit. The user can tell the types of events to the base station which the user wants to know and when the user wants the notification of an event. For example, the user may want to be notified when the vehicle is a half hour away so the user will be available to receive a package. The base station receives information from the vehicle, processes it, and sends a notification to the user.

## **THE LAW APPLICABLE TO THE CLAIM CONSTRUCTION**

1. What is claim construction? It is the process by which the courts determine the meaning of the claims of a patent.

2. Claims are short and concise statements, expressed with great formality, of the metes and bounds of the patented invention. A claim states the invention in a single sentence. The construction of claims is simply a way of elaborating the normally terse claim language: in order to understand and explain, but not to change, the scope of the claims.

3. Construing the claims of a patent is a question of law which is determined by the Court. *Markman v. Westview Instruments, Inc.* 517 U.S. 370, 372 (1996).

4. A patent is a fully integrated written instrument. By statute, the patent must provide a written description of the invention (the specification) which will enable one of ordinary skill in the art to make and use it. 35 U.S.C. §112 (2008) (para. 1). Section 112, paragraph 2 also requires the applicant for a patent to conclude the specification with claims that particularly point out and distinctly claim the subject matter which the applicant regards as his invention. The claims of the patent, like other provisions in

writing, must be reasonably construed. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). To ascertain the meaning of claims, we must consider three sources: (i) the claims; (ii) the specification; and (iii) the prosecution history. *Id.* at 979. The claims must be read in view of the specification of which they are a part. The specification contains a written description of the invention that must enable one of ordinary skill in the art to make and use the invention. For claim construction purposes the description may act as a dictionary which explains the invention and may define terms in the claims. When the disclosure serves as a dictionary for terms appearing in the claims the disclosure may be used in interpreting the coverage of the claims. A patentee can be his own lexicographer. A caveat is that any special definition given to a word must be clearly defined in the specification. The written description part of the specification itself does not limit the claims. *Id.* at 979-80.

5. To construe claim language we look to the patent's prosecution history. This is considered part of the public record of the proceedings in the Patent Office and is of primary significance in understanding the claims. We can look, as a matter of law, to the prosecution history of the patent in order to ascertain the meaning of the language used in the patent claims. Construction may be confirmed by what the patentee said when he was making his application. *Id.* at 980.

6. Although the prosecution history can be used to understand the language in

the claims, it cannot enlarge, diminish, or vary the limitations in the claims. *Id.* at 980.

7. Ideally, there should be no ambiguity in claim language to one of ordinary skill in the art that would require any resort to evidence outside of the specification and the prosecution history.

8. As stated by the Federal Circuit, claims must be construed in light of the intrinsic evidence which includes the claim, the written description and the prosecution history. Within such intrinsic evidence, there is a hierarchy of analytical tools. The actual words of the claim are the controlling focus. *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1344 (Fed. Cir. 1998).

The sequence of the approach for construing the claims is as follows:

- (i) first, we look to the words of the claims themselves. The words in the claim are generally given their ordinary and customary meaning. However, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, so long as that definition is clearly set forth in the patent specification or the file history;
- (ii) then, we review the specification to determine whether the patentee used terms in the claim in a manner inconsistent with their ordinary

meaning. In that case, the specification acts as a dictionary when it expressly defines the term used in the claim; and

(iii) then we may also consider the prosecution history.

*Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

These three categories of information sources concerning the claim language are collectively called the intrinsic evidence regarding claim construction. *Vitronics*, 90 F.3d at 1582. The remaining categories in the hierarchy of sources fall within the body of extrinsic evidence. Extrinsic evidence is that evidence which is external to the patent and file history, such as expert testimony, inventor testimony, dictionaries, and technical treatises and articles. Dictionary definitions provide evidence of a claim term's "ordinary meaning." *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 308 F.3d 1167, 1177-78 (Fed. Cir. 2002). Extrinsic evidence, such as expert and inventor testimony, "may not be used to vary, contradict, expand, or limit the claim language from how it is defined, even by implication, in the specification or file history." *Bell Atlantic Network Servs., Inc. v. Covad Commc'ns. Group, Inc.*, 262 F.3d 1258, 1269 (Fed. Cir. 2001).

9. Words used in a claim are given their ordinary meaning unless the specification or the file history indicate a different meaning. This canon of claim construction establishes a presumption in favor of applying the ordinary meaning to a

claim term. *Northern Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1292 (Fed. Cir. 2000); *Johnson Worldwide Assocs. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999); *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 308 F.3d 1167, 1177 (Fed. Cir. 2002); *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001) (citing *Toro Co. v. White Consol. Indus.*, 199 F.3d 1295, 1299 (Fed. Cir. 1999)).

10. Claims are interpreted in light of the specification. That does not mean that everything expressed in the specification must be read into the claims. If that were the situation there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985). Limitations from the specification or file history cannot be read into a claim where there is no basis for doing so. *Serrano v. Telular Corp.*, 111 F.3d 1578, 1584 (Fed. Cir. 1997).

11. A term used in several claims is construed as having the same meaning in each of the claims. *Georgia-Pacific Corp. v. United States Gypsum Co.*, 195 F. 3d 1322, 1331 (Fed. Cir. 1999); *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1579 (Fed. Cir. 1995).

12. While examples disclosed in a preferred embodiment may aid in the proper interpretation of the claim, the scope of the claim is not limited by the examples. *Ekchian*



*v. Home Depot, Inc.*, 104 F.3d 1299, 1303 (Fed. Cir. 1997). “And, even where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004). The law does not require the impossible. It does not require that an applicant describe in the specification every conceivable and possible future embodiment of the invention. The law recognizes that patent specifications are written for those skilled in the art and requires only that the inventor describe in the specification the best mode known to him at the time of making and using the invention. *SRI Int’l*, 775 F.2d at 1121. The controlling focus of proper claim construction analysis is the language of the claims themselves. *Digital Biometrics*, 149 F.3d at 1344. One cannot import an extraneous limitation from the specification into the claims. An extraneous limitation is one read into a claim from the specification wholly and apart from any need to interpret what the patentee meant by the particular words or phrases in the claim. *Key Pharms., Inc. v. Hercon Labs. Corp.*, 981 F. Supp. 299, 309 (D.Del. 1997).

13. On the other side of the equation, the prosecution history limits the interpretation of claim terms so as to exclude any interpretation that the patentee would disclaim during the prosecution. Included within that analysis of the file history may be an examination of the prior art cited. In its broader sense, use of such material in the file

history gives us a clue as to what the claims do not cover. *Vitronics Corp.*, 90 F.3d at 1583; *Ekchian*, 104 F.3d at 1304.

14. “A court construing a patent claim seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention.”

*Innova/Pure Water, Inc.*, 381 F.3d at 1116.

**CLAIM CONSTRUCTION FOLLOWING *PHILLIPS* AND ITS PROGENY:**

15. Under *Phillips* and its progeny, the specification necessarily informs the proper construction of the claims and is usually dispositive in establishing the meaning of a disputed claim term. *Conoco, Inc. v. Energy & Envtl. Int'l.*, 460 F.3d 1349, 1362 (Fed. Cir. 2006); *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1337-38 (Fed. Cir. 2006); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315-16 (Fed. Cir. 2005) (en banc). The specification is dominant in understanding the scope and defining the limits of the terms used in the claim. *Conoco*, 460 F.3d at 1362; *On Demand*, 442 F.3d at 1337-38; *Phillips*, 415 F.3d at 1315.

16. Pursuant to the long-established principle that the patentee has both the duty and right to describe and claim the invention, the meaning of the claim terms must be determined within the context of the specification. *Conoco*, 460 F.3d at 1362; *On*

*Demand*, 442 F.3d at 1338; *Phillips*, 415 F.3d at 1312. Therefore, the scope and outer boundary of the claims is primarily set by the patentee's description of the invention in the specification. *On Demand*, 442 F.3d at 1338; *Phillips*, 415 F.3d at 1313-14. The claims cannot be of broader scope than the invention that is set forth in the specification. *On Demand*, 442 F.3d at 1340; *Phillips*, 415 F.3d at 1321.

17. Although extrinsic evidence such as treatises or dictionaries may still be useful to the Court, it is less significant than the intrinsic record in determining the legally operative meaning of claim language. *Conoco*, 460 F.3d at 1362; *On Demand*, 442 F.3d at 1340; *Phillips*, 415 F.3d at 1317. Extrinsic evidence may not be used to contradict claim meaning that is unambiguous in light of the intrinsic evidence. *Phillips*, 415 F.3d at 1324. The sequence of steps (whether to look at dictionary or specification first) used by the judge in consulting various sources is not important; what matters is for the court to attach the appropriate weight to be assigned to those sources. *Id.*

18. The inquiry into how a person of ordinary skill in the art understands a claim term at the time of invention provides an objective baseline from which to begin claim interpretation. *Conoco*, 460 F.3d at 1357; *On Demand*, 442 F.3d at 1337; *Phillips*, 415 F.3d at 1313. The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. *Conoco*, 460 F.3d at 1362;

*On Demand*, 442 F.3d at 1337; *Phillips*, 415 F.3d at 1313.

19. Upon reading the specification, the Court must determine whether the patentee intended any embodiment to be coextensive or merely an example to teach and enable those of skill in the art to make and use the invention. *Conoco*, 460 F.3d at 1358; *On Demand*, 442 F.3d at 1340; *Phillips*, 415 F.3d at 1323. Inclusion of a single preferred embodiment does not necessarily limit the claim to only that embodiment. *Conoco*, 460 F.3d at 1358; *On Demand*, 442 F.3d at 1340; *Phillips*, 415 F.3d at 1323. The manner in which the patentee uses a term in the specification will inform construction of the term to be either coextensive or one of several possible embodiments. *On Demand*, 442 F.3d at 1340; *Phillips*, 415 F.3d at 1323.

With these principles of law, the Master has prepared a construction of the claims, taking into account the arguments and evidence presented by the parties.

**MASTER'S RECORD**

The Order of Court (December 21, 2007) [Doc. 63] appointing the Special Master required a record to be made which is to include all materials and evidence considered by the Master.

The Master conducted a hearing on May 28, 2008; June 4, 2008; and July 23, 2008. The hearing was transcribed by a court reporter and it is the Master's understanding that the transcript has been filed.

With one exception, all documents considered by the Master were provided by the parties and represented to the Master as being served by the party providing and served by the ECF System.

These documents included all the briefs, exhibits attached to the briefs and correspondence from the parties to the Master.

During the hearing:

- (i) powerpoint presentations were given to the parties and copies provided to the Master and opposing counsel; and
- (ii) copies of cases were given to the Master and opposing counsel.

The one exception mentioned above for documents considered by the Master that were not provided by the parties is *The New Oxford American Dictionary* (Oxford University Press 2001).

## **THE MASTER'S CLAIM CONSTRUCTION**

### **The Format of the Master's Construction**

**“The Master’s Construction”** is solely directed to the terms and phrases that appear in the “**Chart**” [Doc. #73]. Each term/phrase is sequentially numbered in the Chart. That same numbering system with corresponding terms appears in the following construction as “# (the number)” e.g. “#1”. The numbering in the Chart and in the following Master’s Construction appears in #1 to #19. Each numbered term begins on a new page at the top. This is for convenience and simplicity. The citation to the plaintiffs’ and defendants’ term numbers and page numbers in their briefs that correspond to the “Chart #\_\_” are identified at the top of the page with the Chart “#\_\_”.

**#1**

[Chart # 1, p. 2] [Pltfs' Opening Br. # A.1., p. 12] [Dfts' Resp. # A.1., p. 12]

#1 - - - "impending arrival" - - - (appears in at least claim 1 of '318 patent).

**MASTER'S CONSTRUCTION**

#1 - - - "impending arrival" - - - means when a vehicle is on an approach to a stop and has not yet arrived at the stop.

**Plaintiffs' construction** - - - "*to be about to reach a destination*" - - -

**Defendants' construction** - - - "*As or shortly before a vehicle approaches a vehicle stop*" - - -

**Defendants' first modified construction** - - - "a time sufficiently close to the arrival at a stop so that the user can adjust his or her schedule to avoid arriving too early or too late" - - -

**Defendants' second modified construction** - - - "the vehicle is in route to and is approaching a vehicle stop" - - -

## REASONS FOR MASTER'S CONSTRUCTION

The specification of the '318 patent refers to:

“notifying users in advance of the impending arrival of a vehicle \*\*\* to or at a particular stop”

(col. 1, ls. 45-49)

“notifying a user of an impending arrival of a vehicle as the vehicle approaches a particular location”

(col. 3, ls. 7-10)

“communicating a message of the impending arrival of a \*\*\* vehicle before it arrives”

(Abstract, ls. 12-14)

“The user computer displays information associated with the impending arrival of a vehicle \*\*\* the miles before a stop, the time before arriving”

(Abstract, ls. 23-27)

“generally, it would be desirable for a user to know when a vehicle \*\*\* is (\*\*\*) example, number of minutes or seconds) away from arriving at a destination \*\*\* so that the user can adjust \*\*\* schedule and avoid arriving too early or too late”

(col. 2, ls. 46-54)

“allows \*\*\* the user as an example, to receive an impending arrival message from a school bus when the school bus is five minutes away \*\*\* truck when the vehicle is two miles away”

(col. 8, ls. 58-63)

“Person's Computer 29 linked \*\*\* for receiving impending arrival messages when vehicles 19 are approaching”

(col. 15, ls. 51-53)

“messaging capabilities for sending or displaying impending arrival messages \*\*\* before a particular vehicle 19 arrives”

(col. 17, ls. 5-7)

“impending arrival message, e.g., ‘UPS has 3 packages for delivery and is 1 mile from your stop at this time. The vehicle has 2 other stops before reaching your location.’”

(col. 20, ls. 31-33)



“the ANS software can display the vehicle \*\*\* impending arrival time \*\*\* the user computer 29 reschedules the impending arrival distance, time \*\*\* with each update, as the vehicle approaches”

(col. 28, ls. 18-26)

“generating impending arrival messages when vehicles are approaching their address”

(col. 29, ls. 6-7)

“BSCU 14 can determine \*\*\* when to send impending arrival message \*\*\* as the vehicle 19 starts and continues its route”

(col. 31, ls. 23-27)

“message timing and activation of impending arrival messages to users can be set at the start of the route or day, or in some cases the day/s before the vehicle is to arrive. By sending impending arrival messages early, users can rearrange their schedules for meeting a delivery vehicle/driver when he arrives. As an example, a person taking a lunch break or leaving a delivery area, will know of particular deliveries scheduled in a certain day and the impending arrival time/s”

(col. 37, ls. 59-66)

The specification tells a person of skill in this art that message timing and activation of impending arrival messages can be set at the start of the route or even days before the vehicle is to arrive. The users are notified by the impending arrival messages in advance of the impending arrival of the vehicle while the vehicle approaches the location.

The language says that the “timing” and “activation” of the message can be “set” at start of route or day or in some cases days before the vehicle is to arrive. What this says to a person of skill in the art is that a user can decide (or “set”) days in advance when the messages are to be sent and activated. It does not say that after the setting of the “timing” and “activation” of the messages that the actual messages are activated (or sent) days before the vehicle arrives. This last statement should not be interpreted that the message

cannot be sent days in advance. Messages can be sent days in advance provided the vehicle is on its way toward a stop.

The language gives the example of a benefit of activating messages of impending arrival early so one will know of particular deliveries scheduled a certain day and impending arrival times (e.g. a person taking a lunch break or leaving the delivery area can rearrange their schedule to meet the vehicle when it arrives). The inference drawn is that the earlier the message is sent in the day, the more it will benefit the user to rearrange the user's schedule).

The specification refers to notifying users in advance of the impending arrival at a stop. This tells one that the vehicle is going to a stop. The language makes reference to notification of an impending arrival as the vehicle approaches a location before it arrives. Information regarding the impending arrival can be given miles before a stop before arriving at the stop or it can be given when the vehicle is minutes or seconds away. All of this can occur when the vehicle is approaching a stop from the time the vehicle starts and continues its route to the stop. This tells one that the vehicle is on an approach toward the stop and that approach can be miles or only minutes away from the stop.

The plaintiffs in the hearing on July 23, 2008 argued that the Master's construction of "impending arrival" that requires the vehicle to be on an approach did not take into account a situation where the vehicle had not left and was delayed.

The Master disagrees. Claim 1 refers to "communicating a message \*\*\* to indicate impending arrival of the vehicle". Dependant claim 23 refers to "method of claim 1

wherein the message indicates that the vehicle is delayed and thus will not arrive at a predetermined scheduled arrival time”. Note claim 23 does not say “wherein the impending arrival message”. It says “the message”. The “the message” that claim 23 refers to is the “a message” to indicate “impending arrival” referred to in claim 1.

Claim 1 states that the “message” indicates “impending arrival”.

Claim 23 as a claim depending from claim 1 claims a message:

- (i) “to indicate impending arrival; and
- (ii) “that the vehicle is delayed.”

Claim 23 is now claiming that the message can indicate two separate things namely “impending arrival” and “delay”.

If indication of “impending arrival” also means delay information claim 23 would be irrelevant. Therefore, “impending arrival” is something different than indicating “that the vehicle is delayed”.



## #2

[Chart # 2, p. 8] [Pltfs' Opening Br. # A.2., p. 13] [Dfts' Resp. # A.2., p. 14]

#2 - - - "travel data/travel status"- - - (appears in at least claim 1 (travel data) and claim 14 (travel status) of '318 patent).

### MASTER'S CONSTRUCTION

#2 - - - "travel data/travel status"- - - means information corresponding to a vehicle moving from one place to another place.

Plaintiffs' construction - - - "*information associated with moving from one place to another, such as e.g., time, route, distance and/or location information*" - - -

Defendants' construction - - - "*live vehicle location information*"- - -

### REASONS FOR MASTER'S CONSTRUCTION

The plaintiffs and defendants appear to have agreed to construct the meaning of two separate phrases simultaneously. The parties by implication are asking for a construction of characteristics common to both phrases. The parties agree that "information" is part of the meaning.

The claims refer to travel data corresponding to a vehicle.

The specification refers to “travel data” only once (col. 13, 1.57) and it refers to “to analyze travel data for best communication methods”. This is not helpful to determine the meaning of the term. The specification does not refer to travel status.

Claims that depend from claim 1 further specify characteristics of travel data - - - such as:

scheduled stop information – claim 5

distance information – claim 6

timing information – claim 8

One of skill in the art would understand that travel data means information corresponding to a vehicle moving from one place to another place. It should not be limited a specific type of information. The specific types of information are limited in the dependent claims.

The specification refers to a notification system for notifying one of an impending arrival of a vehicle. There is a variety of types of information that are discussed in the specification. [‘318 patent Abstract lists a number of types of information such as “time”, “distance”, “prior stop”, “location point”].

The Abstract and specification do not dwell on any one type of information as being critical or essential. The Abstract refers to information associated with impending arrival; when the vehicle has finished a delivery; miles before a stop; time before arriving; and location.

The specification throughout refers to notifying users in advance of arrival of a

vehicle regarding distance, time, location, route information (specification, col. 28, ls. 18-60). No one or more particular types of information are required.



# #3

[Chart # 3, p. 17] [Pltfs' Opening Br. #A.3., p.14] [Dfts' Resp. # A.3., p. 15]

#3 - - - "automated"- - - (appears in at least claim 1 of '318 patent).

## MASTER'S CONSTRUCTION

#3 - - - "automated"- - - means a process working by itself with no manual operation.

Plaintiffs' construction - - - "*making use of automated options*" - - -

Defendants' construction - - - "*operating automatically without human intervention*" -

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Defendants' modified construction - - - "operating without human intervention the steps of 'monitoring travel data corresponding to a vehicle at a computer system' and 'based upon the travel data and in advance of the vehicle's arrival at the vehicle stop, communicating a message from the computer system to a remote, portable, computer based, personal communications device'"

## REASONS FOR MASTER'S CONSTRUCTION

The specification does not use the term automated. It is only used in the claims. The term automatically is in the specification as follows:

“In this configuration, the location sensor 25 can automatically accomplish the \*\*\* functions of the switches \*\*\* in a simple configuration, the delivery driver has no user functions”

(col. 12, ls. 9-12)

“vehicle 19 location information can be sent over a computer network \*\*\* at predefined times and automatically received by each Person’s computer”

(col. 16, ls. 48-50)

“At the beginning of each route, the system 10 could be configured to automatically initialize itself upon power up of the VCU”

(col. 19, ls. 34-36)

“Additional directions can be activated by the drivers’ input or automatically after a predefined time”

(col. 22, ls. 36-38)

One of skill in the art reading the portions of the specification would equate automatically with automated. When the patentee used automatically it was distinguished from a drivers input. The specific application for example “directions can be activated by the driver’s input or automated” is not cited by the Master for the specific application of “directions” but rather is to acknowledge that the inventor knew the clear distinction between a “manual” input and an “automatic” operation. One of skill in reading the specification would infer that when the inventor used “automatically”, he meant automatically and not semi-automatically with some manual intervention.

For that reason when automated is used it excludes manual intervention or operation.

What is meant in the claim by “the method implemented by an automated notification system” is beyond the disputed term construction. It is a phrase. The Master has not been asked to construct phrase and the phrase has not been briefed by the parties.



The word automated as used in claim 1 modifies “notification system”. Whatever the scope or meaning of “notification system” it is going to mean a notification system that is automated as the word “automated” is constructed by the Master from the specification.

The plaintiffs argue that the Master has disregarded numerous disclosed embodiments as well as description of the invention itself that demonstrate some manual activity to operate.

The plaintiffs would not object to the Master’s Construction “if” the Master’s Construction is that:

once data has been acquired and input into the system by any means including manual means such as barcode scanner/ hand held data entry devices, the system then uses automated processes to monitor travel data concerning a vehicle and communicate to a user a message concerning impending arrival of a vehicle.

Plaintiffs do object if:

The Master construes automated to require data acquisition and input processes must not have any human interaction.

The plaintiffs argue that common sense makes it clear that the word automated be limited to “monitoring” and “communication” steps of the process.

It appears to the Master from what the plaintiffs are arguing that there could be two parts of a notification system – an automated part and a non-automated part. If that is the case, the word “automated” as used in the claim is referring to the “automated part of the system” and not the non-automated part of the system.



# #4

[Chart # 4, p. 18] [Pltfs' Opening Br. # A.4., p. 16] [Dfts' Resp. # A.4., p. 16]

#4 - - - “**monitoring**”- - - (appears in at least claim 1 of '318 patent).

## MASTER'S CONSTRUCTION

#4 - - - “**monitoring**”- - - means keeping track of something over a period of time.

Plaintiffs' construction - - - “*keeping track of*” - - -

Defendants' construction - - - “*continually determining*” - - -

## REASONS FOR MASTER'S CONSTRUCTION

The specification refers to:

“vehicle monitoring process for determining the location of vehicle's remotely”  
(col. 5, ls. 41-42)

“vehicle location is calculated from past route data \*\*\* traffic monitoring systems”  
(col. 7, ls. 45-47)

“vehicle tracking is accomplished by monitoring control switches”  
(col. 11, ls. 24-25)

“tracking each vehicles' package delivery attempt, by monitoring User Input Controls”  
(col. 13, ls. 65-67)

“By monitoring each vehicle’s 19 attempted delivery and \*\*\* route, \*\*\* advance notification can be set for a prior stop”  
(col. 14, ls. 1-3)

These are just a few of the many ways that the patentee has used the term monitoring.

The above language in the specification shows a person of skill in the art that monitoring is used in many different situations. The term is used in an ordinary manner. It shows that one is trying to track something that is related to:

- location of a vehicle;
- traffic systems;
- control switches;
- user input controls;
- vehicle attempted delivery and route order

One of skill in the art would consider it to mean keeping track of something over some time frame.



# #5

[Chart # 5, p. 31] [Pltfs' Opinion Br., # A.5., p. 17] [Dfts' Resp. # A.5., p. 17]

#5 - - - "message" - - - (appears in at least claim 1 of '318 patent).

## MASTER'S CONSTRUCTION

#5 - - - "message" - - - means a communication of information related to an impending arrival of a vehicle.

Plaintiffs' construction - - - "*words and a symbol representing an idea*" - - -

Defendant's construction - - - "*a communication that advises a user of the impending arrival of a vehicle at a vehicle stop*" - - -

## REASONS FOR MASTER'S CONSTRUCTION

The specification uses the term message as follows:

"communicating a message of impending arrival of a \*\*\* vehicle before it arrives"  
(Abstract, ls. 12-14)

"message is to advise of impending arrival"  
(Abstract, ls. 14-15)

"send an impending arrival message by preferences"  
(Abstract, ls. 20-21)

“in determining when a vehicle is to arrive at a stop is effective in some cases, a more precise method using a pre-warning message can be more helpful”  
(col. 2, ls. 37-39)

“advance notification message is to advise a user of the impending arrival of the vehicle”  
(col. 4, ls. 51-52)

“sending an impending arrival message”  
(col. 5, ls. 48-49)

“a message when a vehicle is approaching”  
(col. 6, ls. 10-11)

“information taken from the vehicle 19 can be utilized in the message of the impending arrival of the vehicle”  
(col. 38, ls. 6-8)

The specification has numerous references to message in which the word  
“message” is tied or related to impending arrival of a vehicle.

One of skill in the art reading the specification would understand a message to  
mean a communication of information related to an impending arrival of a vehicle.



**#6** [Chart # 6, p. 36] [Pltfs' Opening Br. # A.6., p.18] [Dfts' Resp. # A.6., p. 18]

#6 - - - “predetermined scheduled arrival time” - - - (appears in at least claim 23 of ‘318 patent).

**MASTER’S CONSTRUCTION**

#6 - - - “predetermined scheduled arrival time” - - - means a time indicative of a planned or expected arrival of a vehicle at a vehicle stop.

**Plaintiffs’ construction** - - - “*establishing, in advance, a planned time to reach a destination*” - - -

**Defendants’ construction** - - - “*a time, in minutes and/or hours, indicative of a planned or expected arrival of a vehicle at a vehicle stop*” - - -

**Defendants’ modified construction** - - - “a time indicative of a planned or expected arrival of the vehicle at the vehicle stop” - - -

**REASONS FOR MASTER’S CONSTRUCTION**

The plaintiffs in their brief (Pltfs’ Opening Br. p. 18) indicate that with the exception of the defendants’ time limitation identified in terms of minutes and hours the

parties would agree. Subsequently the defendants submitted a modified construction which aligns with the Master's construction.

There is no reference in the specification to the phrase. It only appears in the claims.





# #7

[Chart # 7, p. 43] [Plfts' Opinion Br., # A.7., p. 18] [Dfts' Resp. # A.7., p. 20]

#7 - - - “**permitting the party to define one or more preferences criteria**” - - - (appears in at least in Claim 17, ‘318 patent).

## MASTER’S CONSTRUCTION

#7 - - - “**permitting the party to define one or more preferences criteria**” - - - means allowing a user to define one or more criteria by which something will be activated or happen. It includes selection from among choices.

Plaintiffs’ construction - - - “*allowing the user to select one or more conditions*” - - -

Defendants’ construction - - - “*to make possible for a user to identify either a geographic location or a specific point in time in relation to a vehicle stop associated with the future travel of a vehicle*” - - -

Defendants’ modified construction - - - “allowing a user to define one or more criteria by which something will be activated or happen” - - -

## REASONS FOR MASTER’S CONSTRUCTION

The phrase is not in the specification. The phrase is only in the claims.

The specification refers to the following:

“determines when to send an impending arrival message by preferences, normally chosen by the \*\*\* user preparing to receive the advance notification message”  
(Abstract ls. 20-23)

“ability to notify a user computer as the **pre-selected** advance notification preferences are activated”  
(col. 6, ls. 48-50)

“preferences for activation of advance notification warnings are shown in Figs. 33, **34**, 35, 36, 37 and 38. After a preference is **selected** from the end user”  
(col. 20, ls. 63-65)

Fig. 34 shows a **form of selection of preference** “would you like this time as a default NO YES HELP”

“When a person **selects** to **define** a particular area for impending arrival activation”  
(col. 36, ls. 53-54)

“Fig. 39 is a diagram and example of an on-screen display for user options and needed for **selecting** methods of receiving impending arrival messages”  
(col. 9, ls. 31-34)

“the user is prompted to agree with the location or **choose the next one from a list** until their location on a map \*\*\* the next area allows the user to **select** different activation and messaging methods”  
(col. 36, ls. 37-40)

“the **selected** preferences are referenced with past route data \*\*\* a person may **select** a phone telephone call”  
(col. 37, ls. 4-10)

The preferences are intended to mean criteria that must be met and that when met will initiate or cause something to happen. One example, in this environment and described in the specification, is that when the criteria are met it will cause an initiation of a notification message to a user (see claim 17).

The defendants at the hearing argued that defining is not the same thing as selecting. Defendants argue that selecting is choosing among choices and that defining is identifying by a quality or feature.

One reading the specification finds reference to:

“pre-selected advance notification \*\*\* preferences”;  
Figure 34 gives the user a choice of time default “yes” or “no”;  
“after a preference is selected from the end user”;  
“when a person selects to define a particular area for impending arrival activation”;  
“selecting methods of receiving impending arrival messages”;  
“chose the next one from a list”  
“allows the user to select different activation of messaging methods”;  
“the selected preference”; and  
“person may select”

This tells one that the invention was not to exclude the act of selecting from choices and limit the scope to defining. For example, the act of selecting is included in the choice given in Figure 34 to select between “yes” or “no” for time default.

One of skill in the art would infer from the specification that selection among choices was not to be excluded and that selection from choices should be within the scope of the invention.

Defendants’ acknowledge that the specification teaches both “select” and “define”. Defendants’ argue that ‘318 patent differentiates between “select” and “define”. Defendants argue that select refers to user’s choice among predefined categories such as whether notification should be based on time, distance, location or number of steps. Then after the user “selects” a category the user then “define” his “preference criteria” such as how many minutes, how many miles or at which location. Defendants’ argue that the step

of defining the preferences is separate and occur at a later point in time.

The term is “permitting the party to define preferences”. One skilled in the art would understand that part of the process of defining has a component of “selection”. The user is first given an opportunity to “select” a category such as time. Then after this selection is made the user can insert the amount of time. Selection is part of the defining process which permits the user to define. Define includes selection and does not exclude selection.



**#8** [Chart # 8, p. 52]

**#8 --- “vehicle progress report” ---**

**#9** [Chart # 9, p. 61]

**#9 --- “data pertaining to travel status” ---**

These two phrases #8 and # 9 appear in claim of ‘320 patent which has been withdrawn. (Email March 21, 2008, 3:25 p.m. McAndrews to Beck & Counsel).

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# #10

[Chart # 10, p. 70] [Pltfs' Opening Br. # B.1., p. 28] [ Dft's Resp. # C. 1., p. 50]

#10 - - - "to predefine" - - - (appears in at least claim 1 of '359 patent).

## MASTER'S CONSTRUCTION

#10 - - - "to predefine" - - - means to initially set the conditions for.

## REASONS FOR MASTER'S CONSTRUCTION

The parties had proposed different constructions in the Chart. The plaintiffs have since agreed to defendants' construction. The Master has accepted the agreed construction.



# #11 [Chart # 11, p. 80]

#11 --- “proximity” ---

This term was in a claim of ‘320 patent which has been withdrawn. (email March 21, 2008 at 3:25 p.m., McAndrews to Beck & Counsel).



**#12** [Chart # 12, p. 80] [Pltfs' Opening Br. # B.2., p. 29] [Dfts' Resp. # C.1., p. 50]

**#12 - - - “distance information specified by the user that is indicative of a distance between the vehicle and the location” - - -** (appears in at least claim 1 of ‘359 patent).

**MASTER’S CONSTRUCTION**

**#12 - - - “distance information specified by the user that is indicative of [a]\* distance between the vehicle and the location” - - -** means a non-zero number input by the user defining a distance separating a vehicle and a location.

**REASONS FOR MASTER’S CONSTRUCTION**

The plaintiffs have accepted the defendants’ proposed construction and the Master has accepted it.





# #13

[Chart # 13, p. 83] [Pltfs' Opening Br. # B.3., p. 29] [Dfts' Resp. # C.3., p. 52]

#13 - - - “location information specified by the user that is indicative of a location or region that the vehicle achieves during travel” - - - (appears in at least claim 1 of ‘359 patent).

## MASTER’S CONSTRUCTION

#13 - - - “location information specified by the user that is indicative of a location or region that the vehicle achieves during travel” - - - means location information identified by the user for indicating a location (other than the location) or region that the vehicle achieves during travel prior to arriving at the location.

Plaintiffs’ construction - - - “*location information identified by the user relating to a location or region that the vehicle achieves during travel*” - - -

Defendants’ construction - - - “*a perimeter, street marker, stop on a route, or latitude/longitude input by the user defining a location that a vehicle achieves during travel prior to arriving at the location*” - - -

Defendants’ modified construction - - - “location information identified by the user for indicating a location or region that the vehicle achieves during travel prior to arriving

at the location” - - -

### REASONS FOR MASTER’S CONSTRUCTION

The defendants argue that the crux of the dispute is whether or not “location or region that the vehicle achieves during travel” can include arrival of the vehicle at the user’s location.

This is what the parties are asking the Master to decide.

Defendants contend that the vehicle’s actual arrival should not be included and that the “location or region” must be achieved prior to the vehicle’s arrival at the user’s location. The Master agrees.

We will start with the claim (col. 35, l. 21). The preamble of the claim refers to:

[method for a notification system]

[allowing a user to define when the user is to receive a status report of a vehicle in relation to A LOCATION.]

(ls. 21-24)

**Comment:** For purposes of labeling, we define this “a location” in the preamble of the claim as the ultimate location of interest. It could be the user location and we will refer to it (or label it) as the user location.

The claim then sets out the steps of the method. There are a number of steps and within those steps there are sub-steps.

The first step is - - - that the user defines events that will create and communicate the status report referred to in the preamble of the claim - - -

(ls. 26-28)

There are two sub-steps. One of the two sub-steps includes receiving at the host computer the identification of events relating to the status.

(ls. 33-36)

There are four events that the user would identify (ls. 36-45):

1. “distance information” between the vehicle and **“THE LOCATION”**

**Comment:** The antecedent for “the location” is the one referred to in the preamble above that we labeled user location.

2. *“location information” specified by the user that is indicative of “a location” or region that the vehicle achieves during travel”*

( This is the phrase the Master must construct. )

**Comment:** The “a location or region” here at this point in the claim is where the dispute occurs. Plaintiffs argue that the “a location” is capable of being interpreted broadly to cover both a location different from the location we have labeled as user location and it can also cover the location we have labeled as user location.

3. time information specified by the user that is indicative of a time for travel of the vehicle to “the location” (the one labeled as the user location)
4. or a number of one or more stops that the vehicle accomplishes prior to arriving at “the location” (the one we labeled as the user location).

The words “achieves during travel” in the claimed phrase causes one to infer a

continuous process such as when a vehicle reached a location or region while it is traveling to the user's location. The location or region would not be interpreted to mean a stop. Stops are covered as one of the other four events set forth in the claim.

The specification tells one that there are many situations when it is desirable for people to know:

“arrival time”;  
“distance of vehicle approaching”;  
“**when a vehicle crosses particular location points**”; and  
“**when the vehicle is leaving the last stop, all shortly before the vehicle is to arrive at a particular destination.**”  
(col. 1, ls. 39-45)

These four points appear to mirror the same four events identified in the claim. The Master decides that the “a location” in question is not the user location but is rather a location other than the user location that the vehicle crosses during travel toward the user location.

Because “a location” is a location that the vehicle crosses before the vehicle reaches the user location, the Master agrees with the defendants that the phrase for construction means that it is a location (other than user location) that the vehicle achieves during travel prior to arriving at the location (user location).

The plaintiffs want the Master to eliminate language that indicates that location or region that is achieved during travel is - - - before arriving at “the location” (user's location) - - - . Plaintiffs argue that ‘359 patent teaches that location information includes the destination location (the user's location).

Claim 1 at 1(a)(2) refers to a series of events relating to a vehicle status report. Those four events in the claim are identified above, e.g.

“distance information \*\*\*,  
location information \*\*\*,  
time information \*\*\*, or  
a number of one or more stops  
that the vehicle accomplishes prior to arriving at the  
location.”

Plaintiffs further argue that the defendants’ construction violates the Federal Circuit’s doctrine of the last antecedent and English grammar. The plaintiffs argue that where a series of antecedents are not set off by a comma (as in the case of the four events [above] in this patent) the words “prior to arriving at the location” refer only to the last immediately preceding antecedent (e.g. “number of one or more stops that the vehicle accomplishes”).

The plaintiffs argue that as a matter of law the “prior to arriving at the location” following “one or more stops” does not apply to all of the four events in series but only applies to the last “one or more stops”.

The Master accepts the defendants’ above argument. However the specification referenced refers to the series of events. The last event is when the vehicle is “leaving the last stop, all shortly before the vehicle is to arrive at a particular destination”. A comma does follow the last event “stop” before the phrase continues “all \*\*\* before the vehicle is to arrive”. (col. 1, ls 39-45) The Master does not rely upon importing the language that modifies the “number of stops” in the last (4<sup>th</sup>) event in the claim to limit the “location”

event.

There are two “a location”(s).

The term “a location” is used twice in the claim. The first time is in the preamble of the claim. The second time it is in the phrase that the Master must construct.

The Master believes that one of skill in the art would see an ambiguity created by using the identical term twice. This would occur if the “a location” is to mean one thing in the first use in the preamble and another different thing when used a second time. One could read this claim and ask does the second use of the term “a location” mean:

- (i) the same location as the “a location” stated in the preamble;
- (ii) a different location from the “a location” stated in the preamble; or
- (iii) any location that could include “a location” used in the preamble as well as any other location.

In trying to understand what one of skill in the art would do to resolve the ambiguity the Master analyzed the phrase to be constructed in the context of the claim as a whole and looked to the specification to get an indication of what is meant in the patent.

Figure 36 is an example of setting activation (trigger points) for activating an impending arrival message. The example is an on-screen display for adjusting a predefined area for activation of an impending arrival message. The illustration shows setting a circle perimeter around a stop or location. The activation points are at the outside areas of the circle and matching road/street addresses (col. 7, ls. 11-16; col. 33, ls. 58-68; col. 34, ls. 1-15 and figures 36, 37 and 38). The specification tells one that there

are many situations when it is desirable to know when a vehicle crosses particular locations points (col. 1, ls. 39-45).

Reading the claim it refers to predefining events relating to the status of a vehicle and to receive a status report based upon those events. One of those predefined events is location information that the user specifies that is indicative of “a location or region that the vehicle achieves during travel”.

One could read the “location or region that the vehicle achieves during travel” is a different location than the other “a location” in the preamble of the claim. In view of the above and applying common sense a person of skill in the art would favor selecting this option of the possible three choices referred to above rather than either of the other of two possible choices listed above.

Why? The first possibility stated above as to what the second “a location” means – namely the same location as the “a location” stated in the preamble. If one looks at the claim there are four events related to the status. Each of those events are dealt with in the specification. They are:

- (i) time before arriving;
- (ii) distance before arriving;
- (iii) “locations of choice”; and
- (iv) minutes before a stop to be selected (col. 33, ls. 50-67; col. 34, ls. 1-15).

The specification tells one that it is desirable to know:

- (i) arrival time;
- (ii) distance of vehicle approaches;
- (iii) “when a vehicle crosses particular location points”; or
- (iii) when the vehicle leaves its last stop (all of the above before the vehicle is to arrive at a particular destination (col. 1, ls. 38-45)).

Making the second “a location” the same as the first “a location” in the preamble is difficult to accept in view of what is taught in the specification. If that were the choice, then that would mean the user wanted to know when the vehicle crosses the user’s own location (the first “a location” in the preamble). It is possible that the user would want to know when the vehicle crosses the user’s own location. Balanced against a user’s wanting to know when the vehicle reaches a location outside of the user’s location to give an advanced notice on the one hand with a user wanting to know when the vehicle crosses the user’s location on the other hand, one skilled in the art is more likely to choose wanting to know the former. Otherwise what is the point of putting activation points near the perimeter of a circle drawn around a stop? For that reason the choice to make the second “a location” the same as the first “a location” carries less weight than the choice to make the second “a location” different than the first “a location” in the preamble.

The third possibility is the second “a location” includes any location including the first “a location” in the preamble. For the same reason as above, one would have difficulty including the first “a location” with the second “a location”.



When the person of skill reaches the decision that the second “a location” does not include the first “a location” one must further state what the phrase means in the context of the claim. Does the “information specified by the user that is indicative of a location or region” that the vehicle achieves during travel mean “a location” achieved during travel:

- (i) before reaching the first “a location” in the preamble; or
- (ii) before, during, or after arrival at the “a location” in the preamble.

A person of skill in the art would understand the second “a location” reached during travel must only be location reached during travel and before reaching the first “a location” referred to in the preamble.

During the hearing on July 23, 2008 the Master indicated that he believed that the subject matter of the invention was directed to an advanced notification system and asked the plaintiffs to indicate where the disclosure showed notification when the vehicle arrived instead of in advance of the vehicle arriving. The plaintiffs did not cite any specific references. The plaintiffs also argued that the inventor intended a notification system in the ‘359 patent that is not limited to an advanced notification invention as opposed to a broader notification system that can include “arrival” and “post arrival”.

After the hearing the Master found evidence in the specification of the ‘318 patent of a message being sent at the time of arrival of a vehicle.

“Preferably, a computer can exhibit a distinctive video and sound so that the message recipient will be informed of the arrival of a vehicle. A user computer may exhibit a display on the monitor or attached television of a video and/or sound, so that the recipient may be notified of the vehicle time of arrival, distance before arriving, particular location, and/or its last stop, all of which are predefined by the user, passenger, or service provider.”

Column 4 lines 51 -58 ‘318 patent which is incorporated by reference into the ‘359 patent. This section does not define the second “a location” and does not remedy the ambiguity created by using the term “a location” more than once in the claim. It does distinguish between “time of arrival” and “particular location” as two different events.

The evidence the Master found does not change the construction with respect to the second “a location.” It seems to support the Master’s construction because the second “a location” would be the same as the “particular location” in the specification referred to above which is different than “time of arrival”.

The Master accepts that the inventor intended to claim any location. However, claim 1 does not achieve the inventor’s goal. The Master finds that a person of ordinary skill in the art would construe the second “a location” to not include the first “a location”.

The ambiguity created by the claim is such that when a user selects “a location the vehicle achieves during travel” as a prompt for sending a message the first “a location” is excluded.

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# #14

[Chart # 14, p. 88] [Pltfs' Opening Br., # B.3., p. 31] [Dfts' Resp. # C.1., p. 50]

**#14 - - - “time information specified [by the]\* user that is indicative of a time for travel of the vehicle to the location” - - - (appears in at least claim 1 of ‘359 patent).**

## MASTER’S CONSTRUCTION

**#14 - - - “time information specified [by the]\* user that is indicative of a time for travel of the vehicle to the location” - - - means a non-zero number input by the user defining an amount of time prior to arrival of the vehicle at the location.**

## REASONS FOR MASTER’S CONSTRUCTION

The defendants proposed a claim construction that is different from the plaintiffs’ construction. To eliminate disagreement and streamline the construction process, the plaintiffs have agreed to the defendants’ construction. The Master therefore accepts the defendants’ construction.

**\*NOTE:** This was added by the Master because it was missing in the language in the Chart.



# #15

[Chart # 15, p. 91] [Ptf's Opening Br. # B.5., p. 31] [Dfts' Resp. # C.2., p. 50]

**#15 - - - “a number of one or more stops that the vehicle accomplishes prior to arriving at the location” - - - (appears in at least claim 1 of ‘359 patent)**

## MASTER’S CONSTRUCTION

**#15 - - - “a number of one or more stops that the vehicle accomplishes prior to arriving at the location” - - - means a non-zero number input by the user defining the number of stops that the vehicle makes prior to arrival of the vehicle at the location.**

**Plaintiffs’ construction - - - “a non-zero number input by the user defining the number of stops the vehicle makes prior to arrival of the vehicle at the location” - - -**

**Defendants’ construction - - - “a non-zero number input by the user defining the number of stops on a predetermined route prior to arrival of the vehicle at the location”**

- - -

**Defendants’ modified construction - - - “a non-zero number input by the user defining the number of stops on a route prior to arrival of the vehicle at the location” - - -**

## REASONS FOR THE MASTER'S CONSTRUCTION

The Master believes that one of skill in the art reading the language in the specification would not require that there must be “a route”. The claim does require “storing the predefined one or more events” which includes “a number of \*\*\* stops that the vehicle accomplishes prior to arriving at the location”.

The defendants argue that “on a route” is necessary in the construction. The defendants cite an example to support their position.

The example – if a user selects to be notified two stops before arrival at user location the argument is made that in order for the host computer to know which stop is number two stop before arrival the vehicle must be on a route. The defendants argue that it does not matter when the route is set or if the route changes after the vehicle's journey begins as long as the host computer knows the most up to date route information before determining when the user's predefined condition is met. The question is: what if there is a way? If there is a way, then should the invention be limited to “on a route”? The Master believes that the phrase should not be limited to “on a route”.



# #16

[Chart # 16, p. 94] [Pltfs' Opening Br. # A.8., p. 19] [Ptf's Resp. # A.8., p. 24]

#16 - - - "notification" - - - (appears in at least claim 1 of '318 patent and claim 1 of '359 patent).

## MASTER'S CONSTRUCTION

#16 - - - "notification" - - - means something used to inform regarding something.

Notification has the same meaning as message.

Plaintiffs' construction - - - "*something by which notice is given*" - - -

Defendants' construction - - - "*message specifying a time of arrival, distance before arriving or geographic location of a vehicle*" - - -

## REASONS FOR MASTER'S CONSTRUCTION

This is the meaning of the phrase that has been used in the specification and the claims '318 and '359 patents. Claims 1 of each refer to a "notification system". Adding more limitations to the word which is used to modify "system" in the claims would be improperly limiting the term to a specific embodiment of the invention.



# #17

[Chart # 17, p. 99] [Pltfs' Opening Br., # B.6., p. 32] [Dfts' Resp. # C.4., p.

57]

#17 - - - "when appropriate" - - - (appears in at least claim 1 of '359 patent).

## MASTER'S CONSTRUCTION

#17 - - - "when appropriate" - - - means after the user's one or more predefined events have occurred and before arrival of the vehicle at the location.

### Plaintiffs' construction - - - "when appropriate" - - -

Plaintiffs' modified construction - - - "when the user's predefined one or more events have occurred" - - -

Defendants' construction - - - "*When the status of a mobile vehicle in relation to a location in a particular time period (for example a number of minutes or seconds) away from arriving at a destination; a particular distance (for example a number of miles or height) away from the destination; or at a particular location among a set of location points prior to the destination*" - - -

Defendants' modified construction - - - "after the user's one or more predefined events have occurred and before arrival of the vehicle at the location" - - -



## REASONS FOR MASTER'S CONSTRUCTION

The phrase is found only in the claims of the patent. It is used in the claim when referring to initiating a second communication link from the host computer“\*\*\* when appropriate, based upon \*\*\* events \*\*\*”.

The defendants agree with the portion of the plaintiffs' construction that the phrase is tied to “events”.

The dispute appears to be whether or not the phrase is to be limited to “before arrival of the vehicle at the location”.

The defendants state that the parties have agreed that the only time it is “appropriate” to establish a second communication for delivery of the notification is “when” the user's one or more predefined events have occurred. The defendants point out that the term “when” can have several meanings (e.g. just at the moment that something occurs; any time after the time that something occurs). The defendants argue that the term “when appropriate” means after the user's one or more predefined events have occurred.

The claim tells one that the delivery of the status report from the host computer indicates the occurrence of one of the events. Therefore, it is “appropriate” after the event has occurred.

The second point the defendants want to include is that it is also “appropriate” before arrival of the vehicle at the location. The Master has made a construction of term #13. That construction required “prior to arriving at the location”. One reading the claim would infer that “appropriate” also means events that occurred prior to arrival of the

vehicle at the location.



# #18

[Chart # 18, p. 102] [Pltfs' Opening Br. # B.7., p. 32] [Dfts' Resp. # C.5., p. 58]

#18 - - - “the status of a mobile vehicle, in relation to a location” - - - (appears in claim 1 of '359 patent)

## MASTER'S CONSTRUCTION

#18 - - - “the status of a mobile vehicle, in relation to a location” - - - means information related to the occurrence of one or more events associated with a mobile vehicle with respect to a location.

Plaintiffs' construction - - - “*the current information about a mobile vehicle in relation to a location*” - - -

Plaintiffs' modified construction - - - “one or more of the subsequently identified events related to a mobile vehicle” - - -

Defendants' construction - - - “*The location of a vehicle, prior to the arrival of the vehicle at a destination; or the distance, position, or number of stops between a current position of a vehicle and the next stop of the vehicle prior to the arrival of the vehicle at a destination; or the period of time a vehicle is determined to be away from arrival at*

*the destination” - - -*

### **REASONS FOR MASTER’S CONSTRUCTION**

Language in the claim refers to permitting the user to define events that will cause creation and communication of the vehicle status report.

The language in the specification under a section entitled as “Summary of the Invention” refers to the invention providing methods and systems for a vehicle status reporting system. The system allows a user to define when the user will receive a vehicle status report about the status of the vehicle in relation to a location. The status report indicates the occurrence of one or more events in a vehicle’s relation to a location (col. 2, ls. 61- 67; col. 3, ls. 1- 2).

The defendants’ construction is importing specific characteristics from an embodiment in the specification. This improperly limits the term within its meaning of the scope of the specification.



# #19

[Chart # 19, p. 115] [Pltfs' Opening Br. # B.8., p. 33] [Dft's Resp. # C.6., p. 59]

**#19 - - - “Analyzing data indicative of travel” - - -** (appears in at least claim 1 of ‘359 patent)

**NOTE:** The word “Analyze” is used in the Chart. “Analyzing” is used in the claims. It is an error with no difference.

## **MASTER’S CONSTRUCTION**

**#19 - - - “Analyzing data indicative of travel” - - -** means the process of one or more of calculating, determining, averaging, or comparing - information indicative of travel of a vehicle with respect to a location.

**Plaintiffs’ construction - - - “analyzing data relating to travel of the mobile vehicle” - -**

—

**Defendants’ construction - - - “comparing actual vehicle location in relation to scheduled vehicle location” - - -**

**Defendants’ modified construction - - - “examining data indicative of travel and determining whether or not the user’s one or more predefined events have occurred” - - -**

## REASONS FOR MASTER'S CONSTRUCTION

The phrase appears in the claims and nowhere in the specification.

The specification states:

“vehicle location/time is calculated from past route data”  
(col. 5, ls. 44-45)

“Because the (BSCU) 14 controls the communication protocols (ability to analyze travel data for best communication methods, then down loaded to VCU 12).”  
(col. 11, ls. 47-49)

“The (VLDB) 14a also analyzes route data by averaging past routes with time from one location to the next.”  
(col. 14, ls. 17-19)

“Determining vehicle location, between communication updates, is achieved by comparing times of prerecorded route information, actual live traffic monitoring systems, and statistical data.”  
(col. 18, ls. 37-41)

“BSCU 14 \*\*\* determines if the delivery vehicle 19 is on the planned route and stop schedule by analyzing the vehicle location \*\*\* and comparing it to the actual stops”  
(col. 19, ls. 34-36)

“prior route records of past deliveries provide additional data for determining the vehicle's location.”  
(col. 22, ls. 13-15)

“route data 64 and the information listed above \*\*\* can determine the location of the vehicle \*\*\* and determine when to send impending arrival messages.”  
(col. 28, ls. 35-39)

The words “analyzing” and “data” appear in the specification. It gives a clue what is meant by “analyzing” in context with data. The operative words are:

- (i) calculate location and time;
- (ii) determine best communication methods; vehicle location; if vehicle is on route and stop schedule
- (iii) analyzing past routes with time;
- (iv) comparing times of route information like traffic systems and statistical data; planned route and stop schedule to actual stops

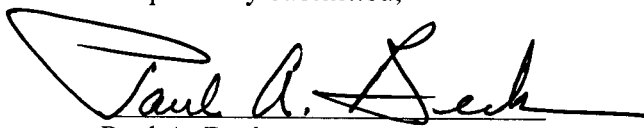
The above formed the reasons for the Master’s opinion of what one of skill in the art would understand the phrase to mean in the context of the specification.



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Respectfully submitted,



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