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APPLICATION NO.	CONT/PRIOR	CLASS	SUBCLASS	ART UNIT	EXAMINER
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APPLICANTS

Christine Halverson
 Eric Halverson
 214 1/16
 Alan Steyer

TITLE

Method of generation of network-based electronic information using spoken input

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ISSUING CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)					
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
709	218	709	202	217	219	227	
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<input type="checkbox"/> TERMINAL DISCLAIMER	DRAWINGS			CLAIMS ALLOWED	
	Sheets Drwg. 7	Figs. Drwg. 7	Print Fig. 1A	Total Claims 27	Print Claim for O.G. 1
<input type="checkbox"/> The term of this patent subsequent to _____ (date) has been disclaimed.	_____ (Assistant Examiner) (Date)			NOTICE OF ALLOWANCE MAILED	
<input type="checkbox"/> The term of this patent shall not extend beyond the expiration date of U.S. Patent. No. _____	<i>Frante B Jean</i> 3/7/03 (Primary Examiner) (Date)			3-11-03	
<input type="checkbox"/> The terminal _____ months of this patent have been disclaimed.				ISSUE FEE	
	<i>L. Johnson</i> 3-13-03 (Legal Instruments Examiner) (Date)			Amount Due \$1650.00	Date Paid 5/6/03
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ISSUE FEE IN FILE

PATENT APPLICATION



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CONFIRMATION NO. 2382

SERIAL NUMBER 09/608,872	FILING DATE 06/30/2000 RULE	CLASS 709	GROUP ART UNIT 2155	ATTORNEY DOCKET NO. SR11p037B
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APPLICANTS

Christine Halversen, San Jose, CA;
 Luc Julia, Menlo Park, CA;
 Dimitris Voutsas, Thessaloniki, GREECE;
 Adam Cheyer, Palo Alto, CA;

**** CONTINUING DATA *******

THIS APPLICATION IS A CON OF 09/524,095 03/13/2000
 WHICH IS A CIP OF 09/225,198 01/05/1999
 WHICH CLAIMS BENEFIT OF 60/124,718 03/17/1999
 AND SAID 09/524,095 03/13/2000
 CLAIMS BENEFIT OF 60/124,720 03/17/1999
 AND CLAIMS BENEFIT OF 60/124,719 03/17/1999

**** FOREIGN APPLICATIONS *******

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
 ** 08/31/2000

Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	STATE OR COUNTRY CA	SHEETS DRAWING 7	TOTAL CLAIMS 27	INDEPENDENT CLAIMS 3
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged Examiner's Signature: <i>[Signature]</i> Initials: _____				

ADDRESS

THOMASON, MOSER & PATTERSON, LLP
 595 SHREWSBURY AVENUE
 SUITE 100
 SHREWSBURY, NJ 07702

TITLE

mobile navigation of network-based electronic information using spoken input

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Bib Data Sheet

SERIAL NUMBER 09/608,872	FILING DATE 06/30/2000 RULE -	CLASS 704	GROUP ART UNIT 2741	ATTORNEY DOCKET NO. SRllp037B	
APPLICANTS Christine Halversen, San Jose, CA ; Luc Julia, Menlo Park, CA ; Dimitris Voutsas, Thessaloniki, GREECE; Adam Cheyer, Palo Alto, CA ;					
** CONTINUING DATA ***** THIS APPLICATION IS A CON OF 09/524,095 03/13/2000 WHICH IS A CIP OF 09/225,198 01/05/1999 WHICH CLAIMS BENEFIT OF 60/124,718 03/17/1999 WHICH CLAIMS BENEFIT OF 60/124,719 03/17/1999 WHICH CLAIMS BENEFIT OF 60/124,720 03/17/1999					
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ADDRESS 24277					
TITLE Mobile navigation of network-based electronic information using spoken input					
FILING FEE RECEIVED 473	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this paper and the documents and/or fees referred to as attached therein are being deposited with the United States Postal Service on June 30, 2000 in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR §1.10, Mailing Label Number EK858788212US, addressed to the Assistant Commissioner for Patents, Washington, DC 20231.

Attorney Docket No.: SRI1P037B

First Named Inventor:

HALVERSEN, Christine

Kevin J. Zilka



UTILITY PATENT APPLICATION TRANSMITTAL (37 CFR. § 1.53(b))
(Continuation, Divisional or Continuation-in-part application)

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

Duplicate for
fee processing

Sir: This is a request for filing a patent application under 37 CFR: § 1.53(b) in the name of inventors:
Christine Halversen, Luc Julia, Dimitris Voutsas, Adam Cheyer

For: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING
SPOKEN INPUT

This application is a Continuation Divisional Continuation-in-part

of prior Application No.: 09/524,095, from which priority under 35 U.S.C. §120 is claimed.

Application Elements:

- 33 Pages of Specification, Claims and Abstract
- 07 Sheets of Drawings
- Declaration
 - Newly executed (original or copy)
 - Copy from a prior application (37 CFR 1.63(d) for a continuation or divisional).
The entire disclosure of the prior application from which a copy of the declaration is herein supplied is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
 - Deletion of inventors Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).

Accompanying Application Parts:

- Assignment and Assignment Recordation Cover Sheet (recording fee of \$40.00 enclosed)
- Power of Attorney
- 37 CFR 3.73(b) Statement by Assignee

- Information Disclosure Statement with Form PTO-1449 Copies of IDS Citations
 Preliminary Amendment
 Return Receipt Postcard
 Small Entity Statement(s) Statement filed in prior application. Status still proper and desired.
 Other:

Claim For Foreign Priority

- Priority of _____ Application No. _____ filed on _____ is claimed under 35 U.S.C. § 119.
 The certified copy has been filed in prior application U.S. Application No. _____
 The certified copy will follow.

Extension of Time for Prior Pending Application

- A Petition for Extension of Time is being concurrently filed in the prior pending application. A copy of the Petition for Extension of Time is attached.

Amendments

- Amend the specification by inserting before the first line the sentence: "This is a
 Continuation Continuation-in-part Divisional
 application of copending prior
 Application No. _____ filed on _____,
 International Application _____ filed on _____ which
 designated the United States,
 the disclosure of which is incorporated herein by reference."

- Cancel in this application original claims 2-55 of the prior application before calculating the filing fee. (*At least one original independent claim must be retained.*)

Fee Calculation (37 CFR § 1.16)

	(Col. 1) NO. FILED	(Col. 2) NO. EXTRA	SMALL ENTITY RATE	FEE	OR	LARGE ENTITY RATE	FEE
BASIC FEE			\$345	\$ 345	OR	\$690	\$
TOTAL CLAIMS	<u>27</u> -20 = <u>7</u>		x09 = \$	63	OR	x18 = \$	
INDEP CLAIMS	<u>3</u> -03 = <u>0</u>		x39 = \$		OR	x78 = \$	
[] Multiple Dependent Claim Presented			\$130 = \$		OR	\$260 = \$	
* If the difference in Col. 1 is less than zero, enter "0" in Col. 2.			Total \$	408	OR	Total \$	

- Check No. 137 in the amount of \$ 408.00 is enclosed.

The Commissioner is authorized to charge any fees beyond the amount enclosed which may be required, or to credit any overpayment, to Deposit Account No. 50-1351 (Order No. SRI1P037B).

General Authorization for Petition for Extension of Time (37 CFR §1.136)

Applicants hereby make and generally authorize any Petitions for Extensions of Time as may be needed for any subsequent filings. The Commissioner is also authorized to charge any extension fees under 37 CFR §1.17 as may be needed to Deposit Account No. 50-1351 (Order No. SRI1P037B).

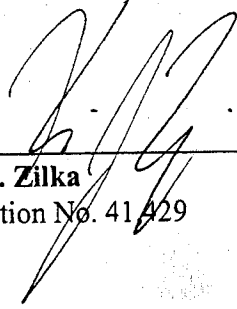
Please send correspondence to the following address:

Kevin J. Zilka
P.O. BOX 721030
San Jose, California 95172-1030

Direct Telephone Calls To:

Kevin J. Zilka at telephone number (408) 505-5100

Date: June 30, 2000



Kevin J. Zilka
Registration No. 41,429

NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN
NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK

BACKGROUND OF THE INVENTION

5 ~~This is~~ a Continuation In Part of co-pending U.S. Patent Application No.
09/225,198, filed January 5, 1999, Provisional U.S. Patent Application No.
60/124,718, filed March 17, 1999, Provisional U.S. Patent Application No.
60/124,720, filed March 17, 1999, and Provisional U.S. Patent Application No.
60/124,719, filed March 17, 1999, from which applications priority is claimed and
10 these application are incorporated herein by reference.

The present invention relates generally to the navigation of electronic data by means of spoken natural language requests, and to feedback mechanisms and methods for resolving the errors and ambiguities that may be associated with such requests.

15 As global electronic connectivity continues to grow, and the universe of electronic data potentially available to users continues to expand, there is a growing need for information navigation technology that allows relatively naïve users to navigate and access desired data by means of natural language input. In many of the most important markets -- including the home entertainment arena, as well as mobile computing -- spoken natural language input is highly desirable, if not ideal. As just
20 one example, the proliferation of high-bandwidth communications infrastructure for the home entertainment market (cable, satellite, broadband) enables delivery of movies-on-demand and other interactive multimedia content to the consumer's home television set. For users to take full advantage of this content stream ultimately requires interactive navigation of content databases in a manner that is too complex
25 for user-friendly selection by means of a traditional remote-control clicker. Allowing spoken natural language requests as the input modality for rapidly searching and accessing desired content is an important objective for a successful consumer entertainment product in a context offering a dizzying range of database content choices. As further examples, this same need to drive navigation of (and transaction
30 with) relatively complex data warehouses using spoken natural language requests applies equally to surfing the Internet/Web or other networks for general information, multimedia content, or e-commerce transactions.

In general, the existing navigational systems for browsing electronic databases and data warehouses (search engines, menus, etc.), have been designed without navigation via spoken natural language as a specific goal. So today's world is full of existing electronic data navigation systems that do not assume browsing via natural spoken commands, but rather assume text and mouse-click inputs (or in the case of TV remote controls, even less). Simply recognizing voice commands within an extremely limited vocabulary and grammar -- the spoken equivalent of button/click input (e.g., speaking "channel 5" selects TV channel 5) -- is really not sufficient by itself to satisfy the objectives described above. In order to deliver a true "win" for users, the voice-driven front-end must accept spoken natural language input in a manner that is intuitive to users. For example, the front-end should not require learning a highly specialized command language or format. More fundamentally, the front-end must allow users to speak directly in terms of what the user ultimately wants -- e.g., "I'd like to see a Western film directed by Clint Eastwood" -- as opposed to speaking in terms of arbitrary navigation structures (e.g., hierarchical layers of menus, commands, etc.) that are essentially artifacts reflecting constraints of the pre-existing text/click navigation system. At the same time, the front-end must recognize and accommodate the reality that a stream of naïve spoken natural language input will, over time, typically present a variety of errors and/or ambiguities: e.g., garbled/unrecognized words (did the user say "Eastwood" or "Easter"?) and under-constrained requests ("Show me the Clint Eastwood movie"). An approach is needed for handling and resolving such errors and ambiguities in a rapid, user-friendly, non-frustrating manner.

What is needed is a methodology and apparatus for rapidly constructing a voice-driven front-end atop an existing, non-voice data navigation system, whereby users can interact by means of intuitive natural language input not strictly conforming to the step-by-step browsing architecture of the existing navigation system, and wherein any errors or ambiguities in user input are rapidly and conveniently resolved. The solution to this need should be compatible with the constraints of a multi-user, distributed environment such as the Internet/Web or a proprietary high-bandwidth content delivery network; a solution contemplating one-at-a-time user interactions at a single location is insufficient, for example.

SUMMARY OF THE INVENTION

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The present invention addresses the above needs by providing a system, method, and article of manufacture for navigating network-based electronic data sources in response to spoken NL input requests. When a spoken natural language input request is received from a user, it is interpreted, such as by using a speech recognition engine to extract speech data from acoustic voice signals, and using a natural language parser to linguistically parse the speech data. The interpretation of the spoken natural language request can be performed on a computing device locally with the user or remotely from the user. The resulting interpretation of the request is thereupon used to automatically construct an operational navigation query to retrieve the desired information from one or more electronic network data sources, which is then transmitted to a client device of the user. If the network data source is a database, the navigation query is constructed in the format of a database query language.

Typically, errors or ambiguities emerge in the interpretation of the spoken NL request, such that the system cannot instantiate a complete, valid navigational template. This is to be expected occasionally, and one preferred aspect of the invention is the ability to handle such errors and ambiguities in relatively graceful and user-friendly manner. Instead of simply rejecting such input and defaulting to traditional input modes or simply asking the user to try again, a preferred embodiment of the present invention seeks to converge rapidly toward instantiation of a valid navigational template by soliciting additional clarification from the user as necessary, either before or after a navigation of the data source, via multimodal input, i.e., by means of menu selection or other input modalities including and in addition to spoken natural language. This clarifying, multi-modal dialogue takes advantage of whatever partial navigational information has been gleaned from the initial interpretation of the user's spoken NL request. This clarification process continues until the system converges toward an adequately instantiated navigational template, which is in turn used to navigate the network-based data and retrieve the user's desired information. The retrieved information is transmitted across the network and presented to the user on a suitable client display device.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention, together with further advantages thereof, may best be understood by reference to the following description taken in conjunction with the accompanying drawings in which:

5 Figure 1a illustrates a system providing a spoken natural language interface for network-based information navigation, in accordance with an embodiment of the present invention with server-side processing of requests;

 Figure 1b illustrates another system providing a spoken natural language interface for network-based information navigation, in accordance with an
10 embodiment of the present invention with client-side processing of requests;

 Figure 2 illustrates a system providing a spoken natural language interface for network-based information navigation, in accordance with an embodiment of the present invention for a mobile computing scenario;

 Figure 3 illustrates the functional logic components of a request processing
15 module in accordance with an embodiment of the present invention;

 Figure 4 illustrates a process utilizing spoken natural language for navigating an electronic database in accordance with one embodiment of the present invention;

 Figure 5 illustrates a process for constructing a navigational query for accessing an online data source via an interactive, scripted (e.g., CGI) form; and

20 Figure 6 illustrates an embodiment of the present invention utilizing a community of distributed, collaborating electronic agents.

DETAILED DESCRIPTION OF THE INVENTION

1. System Architecture

a. Server-End Processing of Spoken Input

5 Figure 1a is an illustration of a data navigation system driven by spoken natural language input, in accordance with one embodiment of the present invention. As shown, a user's voice input data is captured by a voice input device 102, such as a microphone. Preferably voice input device 102 includes a button or the like that can be pressed or held-down to activate a listening mode, so that the system need not continually pay attention to, or be confused by, irrelevant background noise. In one
10 preferred embodiment well-suited for the home entertainment setting, voice input device 102 is a portable remote control device with an integrated microphone, and the voice data is transmitted from device 102 preferably via infrared (or other wireless) link to communications box 104 (e.g., a set-top box or a similar communications device that is capable of retransmitting the raw voice data and/or processing the voice
15 data) local to the user's environment and coupled to communications network 106. The voice data is then transmitted across network 106 to a remote server or servers 108. The voice data may preferably be transmitted in compressed digitized form, or alternatively --particularly where bandwidth constraints are significant-- in analog format (e.g., via frequency modulated transmission), in the latter case being digitized
20 upon arrival at remote server 108.

At remote server 108, the voice data is processed by request processing logic 300 in order to understand the user's request and construct an appropriate query or request for navigation of remote data source 110, in accordance with the interpretation process exemplified in Figure 4 and Figure 5 and discussed in greater detail below.
25 For purposes of executing this process, request processing logic 300 comprises functional modules including speech recognition engine 310, natural language (NL) parser 320, query construction logic 330, and query refinement logic 340, as shown in Figure 3. Data source 110 may comprise database(s), Internet/web site(s), or other electronic information repositories, and preferably resides on a central server or
30 servers -- which may or may not be the same as server 108, depending on the storage

and bandwidth needs of the application and the resources available to the practitioner. Data source 110 may include multimedia content, such as movies or other digital video and audio content, other various forms of entertainment data, or other electronic information. The contents of data source 110 are navigated -- i.e., the contents are
5 accessed and searched, for retrieval of the particular information desired by the user -- using the processes of Figures 4 and 5 as described in greater detail below.

Once the desired information has been retrieved from data source 110, it is electronically transmitted via network 106 to the user for viewing on client display device 112. In a preferred embodiment well-suited for the home entertainment setting,
10 display device 112 is a television monitor or similar audiovisual entertainment device, typically in stationary position for comfortable viewing by users. In addition, in such preferred embodiment, display device 112 is coupled to or integrated with a communications box (which is preferably the same as communications box 104, but may also be a separate unit) for receiving and decoding/formatting the desired
15 electronic information that is received across communications network 106.

Network 106 is a two-way electronic communications network and may be embodied in electronic communication infrastructure including coaxial (cable television) lines, DSL, fiber-optic cable, traditional copper wire (twisted pair), or any other type of hardwired connection. Network 106 may also include a wireless
20 connection such as a satellite-based connection, cellular connection, or other type of wireless connection. Network 106 may be part of the Internet and may support TCP/IP communications, or may be embodied in a proprietary network, or in any other electronic communications network infrastructure, whether packet-switched or connection-oriented. A design consideration is that network 106 preferably provide
25 suitable bandwidth depending upon the nature of the content anticipated for the desired application.

b. Client-End Processing of Spoken Input

Figure 1b is an illustration of a data navigation system driven by spoken natural language input, in accordance with a second embodiment of the present
30 invention. Again, a user's voice input data is captured by a voice input device 102, such as a microphone. In the embodiment shown in Figure 1b, the voice data is

transmitted from device 202 to requests processing logic 300, hosted on a local speech processor, for processing and interpretation. In the preferred embodiment illustrated in Figure 1b, the local speech processor is conveniently integrated as part of communications box 104, although implementation in a physically separate (but communicatively coupled) unit is also possible as will be readily apparent to those of skill in the art. The voice data is processed by the components of request processing logic 300 in order to understand the user's request and construct an appropriate query or request for navigation of remote data source 110, in accordance with the interpretation process exemplified in Figures 4 and 5 as discussed in greater detail below.

The resulting navigational query is then transmitted electronically across network 106 to data source 110, which preferably resides on a central server or servers 108. As in Figure 1a, data source 110 may comprise database(s), Internet/web site(s), or other electronic information repositories, and preferably may include multimedia content, such as movies or other digital video and audio content, other various forms of entertainment data, or other electronic information. The contents of data source 110 are then navigated -- i.e., the contents are accessed and searched, for retrieval of the particular information desired by the user -- preferably using the process of Figures 4 and 5 as described in greater detail below. Once the desired information has been retrieved from data source 110, it is electronically transmitted via network 106 to the user for viewing on client display device 112.

In one embodiment in accordance with Figure 1b and well-suited for the home entertainment setting, voice input device 102 is a portable remote control device with an integrated microphone, and the voice data is transmitted from device 102 preferably via infrared (or other wireless) link to the local speech processor. The local speech processor is coupled to communications network 106, and also preferably to client display device 112 (especially for purposes of query refinement transmissions, as discussed below in connection with Figure 4, step 412), and preferably may be integrated within or coupled to communications box 104. In addition, especially for purposes of a home entertainment application, display device 112 is preferably a television monitor or similar audiovisual entertainment device, typically in stationary position for comfortable viewing by users. In addition, in such

preferred embodiment, display device 112 is coupled to a communications box (which is preferably the same as communications box 104, but may also be a physically separate unit) for receiving and decoding/formatting the desired electronic information that is received across communications network 106.

5 Design considerations favoring server-side processing and interpretation of spoken input requests, as exemplified in Figure 1a, include minimizing the need to distribute costly computational hardware and software to all client users in order to perform speech and language processing. Design considerations favoring client-side processing, as exemplified in Figure 1b, include minimizing the quantity of data sent
10 upstream across the network from each client, as the speech recognition is performed before transmission across the network and only the query data and/or request needs to be sent, thus reducing the upstream bandwidth requirements.

c. Mobile Client Embodiment

A mobile computing embodiment of the present invention may be
15 implemented by practitioners as a variation on the embodiments of either Figure 1a or Figure 1b. For example, as depicted in Figure 2, a mobile variation in accordance with the server-side processing architecture illustrated in Figure 1a may be implemented by replacing voice input device 102, communications box 104, and client display device 112, with an integrated, mobile, information appliance 202 such
20 as a cellular telephone or wireless personal digital assistant (wireless PDA). Mobile information appliance 202 essentially performs the functions of the replaced components. Thus, mobile information appliance 202 receives spoken natural language input requests from the user in the form of voice data, and transmits that data (preferably via wireless data receiving station 204) across communications
25 network 206 for server-side interpretation of the request, in similar fashion as described above in connection with Figure 1. Navigation of data source 210 and retrieval of desired information likewise proceeds in an analogous manner as described above. Display information transmitted electronically back to the user across network 206 is displayed for the user on the display of information appliance
30 202, and audio information is output through the appliance's speakers.

Practitioners will further appreciate, in light of the above teachings, that if mobile information appliance 202 is equipped with sufficient computational processing power, then a mobile variation of the client-side architecture exemplified in Figure 2 may similarly be implemented. In that case, the modules corresponding to request processing logic 300 would be embodied locally in the computational resources of mobile information appliance 202, and the logical flow of data would otherwise follow in a manner analogous to that previously described in connection with Figure 1b.

As illustrated in Figure 2, multiple users, each having their own client input device, may issue requests, simultaneously or otherwise, for navigation of data source 210. This is equally true (though not explicitly drawn) for the embodiments depicted in Figures 1a and 1b. Data source 210 (or 100), being a network accessible information resource, has typically already been constructed to support access requests from simultaneous multiple network users, as known by practitioners of ordinary skill in the art. In the case of server-side speech processing, as exemplified in Figures 1a and 2, the interpretation logic and error correction logic modules are also preferably designed and implemented to support queuing and multi-tasking of requests from multiple simultaneous network users, as will be appreciated by those of skill in the art.

It will be apparent to those skilled in the art that additional implementations, permutations and combinations of the embodiments set forth in Figures 1a, 1b, and 2 may be created without straying from the scope and spirit of the present invention. For example, practitioners will understand, in light of the above teachings and design considerations, that it is possible to divide and allocate the functional components of request processing logic 300 between client and server. For example, speech recognition -- in entirety, or perhaps just early stages such as feature extraction -- might be performed locally on the client end, perhaps to reduce bandwidth requirements, while natural language parsing and other necessary processing might be performed upstream on the server end, so that more extensive computational power need not be distributed locally to each client. In that case, corresponding portions of request processing logic 300, such as speech recognition engine 310 or portions

thereof, would reside locally at the client as in Figure 1b, while other component modules would be hosted at the server end as in Figures 1a and 2.

Further, practitioners may choose to implement the each of the various embodiments described above on any number of different hardware and software computing platforms and environments and various combinations thereof, including, by way of just a few examples: a general-purpose hardware microprocessor such as the Intel Pentium series; operating system software such as Microsoft Windows/CE, Palm OS, or Apple Mac OS (particularly for client devices and client-side processing), or Unix, Linux, or Windows/NT (the latter three particularly for network data servers and server-side processing), and/or proprietary information access platforms such as Microsoft's WebTV or the Diva Systems video-on-demand system.

2. Processing Methodology

The present invention provides a spoken natural language interface for interrogation of remote electronic databases and retrieval of desired information. A preferred embodiment of the present invention utilizes the basic methodology outlined in the flow diagram of Figure 4 in order to provide this interface. This methodology will now be discussed.

a. Interpreting Spoken Natural Language Requests

At step 402, the user's spoken request for information is initially received in the form of raw (acoustic) voice data by a suitable input device, as previously discussed in connection with Figures 1-2. At step 404 the voice data received from the user is interpreted in order to understand the user's request for information. Preferably this step includes performing speech recognition in order to extract words from the voice data, and further includes natural language parsing of those words in order to generate a structured linguistic representation of the user's request.

Speech recognition in step 404 is performed using speech recognition engine 310. A variety of commercial quality, speech recognition engines are readily available on the market, as practitioners will know. For example, Nuance Communications offers a suite of speech recognition engines, including Nuance 6, its current flagship product, and Nuance Express, a lower cost package for entry-level

applications. As one other example, IBM offers the ViaVoice speech recognition engine, including a low-cost shrink-wrapped version available through popular consumer distribution channels. Basically, a speech recognition engine processes acoustic voice data and attempts to generate a text stream of recognized words.

5 Typically, the speech recognition engine is provided with a vocabulary lexicon of likely words or phrases that the recognition engine can match against its analysis of acoustical signals, for purposes of a given application. Preferably, the lexicon is dynamically adjusted to reflect the current user context, as established by the preceding user inputs. For example, if a user is engaged in a dialogue with the system
10 about movie selection, the recognition engine's vocabulary may preferably be adjusted to favor relevant words and phrases, such as a stored list of proper names for popular movie actors and directors, etc. Whereas if the current dialogue involves selection and viewing of a sports event, the engine's vocabulary might preferably be adjusted to favor a stored list of proper names for professional sports teams, etc. In addition, a
15 speech recognition engine is provided with language models that help the engine predict the most likely interpretation of a given segment of acoustical voice data, in the current context of phonemes or words in which the segment appears. In addition, speech recognition engines often echo to the user, in more or less real-time, a transcription of the engine's best guess at what the user has said, giving the user an
20 opportunity to confirm or reject.

In a further aspect of step 404, natural language interpreter (or parser) 320 linguistically parses and interprets the textual output of the speech recognition engine. In a preferred embodiment of the present invention, the natural-language interpreter attempts to determine both the meaning of spoken words (semantic processing) as
25 well as the grammar of the statement (syntactic processing), such as the Gemini Natural Language Understanding System developed by SRI International. The Gemini system is described in detail in publications entitled "Gemini: A Natural Language System for Spoken-Language Understanding" and "Interleaving Syntax and Semantics in an Efficient Bottom-Up Parser," both of which are currently available
30 online at <http://www.ai.sri.com/natural-language/projects/arpa-sls/nat-lang.html>. (Copies of those publications are also included in an information disclosure statement submitted herewith, and are incorporated herein by this reference). Briefly, Gemini

applies a set of syntactic and semantic grammar rules to a word string using a bottom-up parser to generate a logical form, which is a structured representation of the context-independent meaning of the string. Gemini can be used with a variety of grammars, including general English grammar as well as application-specific grammars. The Gemini parser is based on "unification grammar," meaning that grammatical categories incorporate features that can be assigned values; so that when grammatical category expressions are matched in the course of parsing or semantic interpretation, the information contained in the features is combined, and if the feature values are incompatible the match fails.

It is possible for some applications to achieve a significant reduction in speech recognition error by using the natural-language processing system to re-score recognition hypotheses. For example, the grammars defined for a language parser like Gemini may be compiled into context-free grammar that, in turn, can be used directly as language models for speech recognition engines like the Nuance recognizer. Further details on this methodology are provided in the publication "Combining Linguistic and Statistical Knowledge Sources in Natural-Language Processing for ATIS" which is currently available online through <http://www.ai.sri.com/natural-language/projects/arpa-sls/spnl-int.html>. A copy of this publication is included in an information disclosure submitted herewith, and is incorporated herein by this reference.

In an embodiment of the present invention that may be preferable for some applications, the natural language interpreter "learns" from the past usage patterns of a particular user or of groups of users. In such an embodiment, the successfully interpreted requests of users are stored, and can then be used to enhance accuracy by comparing a current request to the stored requests, thereby allowing selection of a most probable result.

b. Constructing Navigation Queries

In step 405 request processing logic 300 identifies and selects an appropriate online data source where the desired information (in this case, current weather reports for a given city) can be found. Such selection may involve look-up in a locally stored table, or possibly dynamic searching through an online search engine, or other online

search techniques. For some applications, an embodiment of the present invention may be implemented in which only access to a particular data source (such as a particular vendor's proprietary content database) is supported; in that case, step 405 may be trivial or may be eliminated entirely.

5 Step 406 attempts to construct a navigation query, reflecting the interpretation of step 404. This operation is preferably performed by query construction logic 330.

A "navigation query" means an electronic query, form, series of menu selections, or the like; being structured appropriately so as to navigate a particular data source of interest in search of desired information. In other words, a navigation
10 query is constructed such that it includes whatever content and structure is required in order to access desired information electronically from a particular database or data source of interest.

For example, for many existing electronic databases, a navigation query can be embodied using a formal database query language such as Standard Query
15 Language (SQL). For many databases, a navigation query can be constructed through a more user-friendly interactive front-end, such as a series of menus and/or interactive forms to be selected or filled in. SQL is a standard interactive and programming language for getting information from and updating a database. SQL is both an ANSI and an ISO standard. As is well known to practitioners, a Relational Database
20 Management System (RDBMS), such as Microsoft's Access, Oracle's Oracle7, and Computer Associates' CA-OpenIngres, allow programmers to create, update, and administer a relational database. Practitioners of ordinary skill in the art will be thoroughly familiar with the notion of database navigation through structured query, and will be readily able to appreciate and utilize the existing data structures and
25 navigational mechanisms for a given database, or to create such structures and mechanisms where desired.

In accordance with the present invention, the query constructed in step 406 must reflect the user's request as interpreted by the speech recognition engine and the NL parser in step 404. In embodiments of the present invention wherein data source
30 110 (or 210 in the corresponding embodiment of Figure 2) is a structured relational database or the like, step 406 of the present invention may entail constructing an

appropriate Structured Query Language (SQL) query or the like, or automatically filling out a front-end query form, series of menus or the like, as described above.

In many existing Internet (and Intranet) applications, an online electronic data source is accessible to users only through the medium of interaction with a so-called
5 Common Gateway Interface (CGI) script. Typically the user who visits a web site of this nature must fill in the fields of an online interactive form. The online form is in turn linked to a CGI script, which transparently handles actual navigation of the associated data source and produces output for viewing by the user's web browser. In other words, direct user access to the data source is not supported, only mediated
10 access through the form and CGI script is offered.

For applications of this nature, an advantageous embodiment of the present invention "scrapes" the scripted online site where information desired by a user may be found in order to facilitate construction of an effective navigation query. For example, suppose that a user's spoken natural language request is: "What's the weather
15 in Miami?" After this request is received at step 402 and interpreted at step 404, assume that step 405 determines that the desired weather information is available online through the medium of a CGI-scripted interactive form. Step 406 is then preferably carried out using the expanded process diagrammed in Figure 5. In particular, at sub-step 520, query construction logic 330 electronically "scrapes" the
20 online interactive form, meaning that query construction logic 330 automatically extracts the format and structure of input fields accepted by the online form. At sub-step 522, a navigation query is then constructed by instantiating (filling in) the extracted input format -- essentially an electronic template -- in a manner reflecting the user's request for information as interpreted in step 404. The flow of control then
25 returns to step 407 of Figure 4. Ultimately, when the query thus constructed by scraping is used to navigate the online data source in step 408, the query effectively initiates the same scripted response as if a human user had visited the online site and had typed appropriate entries into the input fields of the online form.

In the embodiment just described, scraping step 520 is preferably carried out
30 with the assistance of an online extraction utility such as WebL. WebL is a scripting language for automating tasks on the World Wide Web. It is an imperative,

interpreted language that has built-in support for common web protocols like HTTP and FTP, and popular data types like HTML and XML. WebL's implementation language is Java, and the complete source code is available from Compaq. In addition, step 520 is preferably performed dynamically when necessary -- in other
5 words, on-the-fly in response to a particular user query -- but in some applications it may be possible to scrape relatively stable (unchanging) web sites of likely interest in advance and to cache the resulting template information.

It will be apparent, in light of the above teachings, that preferred embodiments of the present invention can provide a spoken natural language interface atop an
10 existing, non-voice data navigation system, whereby users can interact by means of intuitive natural language input not strictly conforming to the linear browsing architecture or other artifacts of an existing menu/text/click navigation system. For example, users of an appropriate embodiment of the present invention for a video-on-demand application can directly speak the natural request: "Show me the movie
15 'Unforgiven'" -- instead of walking step-by-step through a typically linear sequence of genre/title/actor/director menus, scrolling and selecting from potentially long lists on each menu, or instead of being forced to use an alphanumeric keyboard that cannot be as comfortable to hold or use as a lightweight remote control. Similarly, users of an appropriate embodiment of the present invention for a web-surfing application in
20 accordance with the process shown in Figure 5 can directly speak the natural request: "Show me a one-month price chart for Microsoft stock" -- instead of potentially having to navigate to an appropriate web site, search for the right ticker symbol, enter/select the symbol, and specify display of the desired one-month price chart, each of those steps potentially involving manual navigation and data entry to one or more
25 different interaction screens. (Note that these examples are offered to illustrate some of the potential benefits offered by appropriate embodiments of the present invention, and not to limit the scope of the invention in any respect.)

c. Error Correction

Several problems can arise when attempting to perform searches based on
30 spoken natural language input. As indicated at decision step 407 in the process of Figure 4, certain deficiencies may be identified during the process of query

construction, before search of the data source is even attempted. For example, the user's request may fail to specify enough information in order to construct a navigation query that is specific enough to obtain a satisfactory search result. For example, a user might orally request "what's the weather?" whereas the national
5 online data source identified in step 405 and scraped in step 520 might require specifying a particular city.

Additionally, certain deficiencies and problems may arise following the navigational search of the data source at step 408, as indicated at decision step 409 in Figure 4. For example, with reference to a video-on-demand application, a user may
10 wish to see the movie "Unforgiven", but perhaps the user can't recall name of the film, but knows it was directed by and starred actor Clint Eastwood. A typical video-on-demand database might indeed be expected to allow queries specifying the name of a leading actor and/or director, but in the case of this query -- as in many cases -- that will not be enough to narrow the search to a single film, and additional user input in
15 some form is required.

In the event that one or more deficiencies in the user's spoken request, as processed, result in the problems described, either at step 407 or 409, some form of error handling is in order. A straightforward, crude technique might be for the system to respond simply *"input not understood / insufficient; please try again."* However,
20 that approach will likely result in frustrated users, and is not optimal or even acceptable for most applications. Instead, a preferred technique in accordance with the present invention handles such errors and deficiencies in user input at step 412, whether detected at step 407 or step 409, by soliciting additional input from the user in a manner taking advantage of the partial construction already performed and via
25 user interface modalities in addition to spoken natural language ("multi-modality"). This supplemental interaction is preferably conducted through client display device 112 (202, in the embodiment of Figure 2), and may include textual, graphical, audio and/or video media. Further details and examples are provided below. Query refinement logic 340 preferably carries out step 412. The additional input received
30 from the user is fed into and augments interpreting step 404, and query construction step 406 is likewise repeated with the benefit of the augmented interpretation. These operations, and subsequent navigation step 408, are preferably repeated until no

remaining problems or deficiencies are identified at decision points 407 or 409. Further details and examples for this query refinement process are provided immediately below.

5 Consider again the example in which the user of a video-on-demand application wishes to see "Unforgiven" but can only recall that it was directed by and starred Clint Eastwood. First, it bears noting that using a prior art navigational interface, such as a conventional menu interface, will likely be relatively tedious in this case. The user can proceed through a sequence of menus, such as Genre (select "western"), Title (skip), Actor ("Clint Eastwood"), and Director ("Clint Eastwood").
10 In each case --especially for the last two items -- the user would typically scroll and select from fairly long lists in order to enter his or her desired name, or perhaps use a relatively couch-unfriendly keypad to manually type the actor's name twice.

Using a preferred embodiment of the present invention, the user instead speaks aloud, holding remote control microphone 102, "I want to see that movie starring and
15 directed by Clint Eastwood. Can't remember the title." At step 402 the voice data is received. At step 404 the voice data is interpreted. At step 405 an appropriate online data source is selected (or perhaps the system is directly connected to a proprietary video-on-demand provider). At step 406 a query is automatically constructed by the query construction logic 330 specifying "Clint Eastwood" in both the actor and
20 director fields. Step 407 detects no obvious problems, and so the query is electronically submitted and the data source is navigated at step 408, yielding a list of several records satisfying the query (e.g., "Unforgiven", "True Crime", "Absolute Power", etc.). Step 409 detects that additional user input is needed to further refine the query in order to select a particular film for viewing.

25 At that point, in step 412 query refinement logic 340 might preferably generate a display for client display device 112 showing the (relatively short) list of film titles that satisfy the user's stated constraints. The user can then preferably use a relatively convenient input modality, such as buttons on the remote control, to select the desired title from the menu. In a further preferred embodiment, the first title on
30 the list is highlighted by default, so that the user can simply press an "OK" button to choose that selection. In a further preferred feature, the user can mix input modalities

by speaking a response like "I want number one on the list." Alternatively, the user can preferably say, "Let's see Unforgiven," having now been reminded of the title by the menu display.

Utilizing the user's supplemental input, request processing logic 300 iterates
5 again through steps 404 and 406, this time constructing a fully-specified query that specifically requests the Eastwood film "Unforgiven." Step 408 navigates the data source using that query and retrieves the desired film, which is then electronically transmitted in step 410 from network server 108 to client display device 112 via communications network 106.

10 Now consider again the example in which the user of a web surfing application wants to know his or her local weather, and simply asks, "what's the weather?" At step 402 the voice data is received. At step 404 the voice data is interpreted. At step 405 an online web site providing current weather information for major cities around the world is selected. At step 406 and sub-step 520, the online
15 site is scraped using a WebL-style tool to extract an input template for interacting with the site. At sub-step 522, query construction logic 330 attempts to construct a navigation query by instantiating the input template, but determines (quite rightly) that a required field -- name of city -- cannot be determined from the user's spoken request as interpreted in step 404. Step 407 detects this deficiency, and in step 412
20 query refinement logic 340 preferably generates output for client display device 112 soliciting the necessary supplemental input. In a preferred embodiment, the output might display the name of the city where the user is located highlighted by default. The user can then simply press an "OK" button -- or perhaps mix modalities by saying "yes, exactly" -- to choose that selection. A preferred embodiment would further
25 display an alphabetical scrollable menu listing other major cities, and/or invite the user to speak or select the name of the desired city.

Here again, utilizing the user's supplemental input, request processing logic 300 iterates through steps 404 and 406. This time, in performing sub-step 520, a
30 cached version of the input template already scraped in the previous iteration might preferably be retrieved. In sub-step 522, query construction logic 330 succeeds this time in instantiating the input template and constructing an effective query, since the

desired city has now been clarified. Step 408 navigates the data source using that query and retrieves the desired weather information, which is then electronically transmitted in step 410 from network server 108 to client display device 112 via communications network 106.

5 It is worth noting that in some instances, there may be details that are not explicitly provided by the user, but that query construction logic 330 or query refinement logic 340 may preferably deduce on their own through reasonable assumptions, rather than requiring the use to provide explicit clarification. For example, in the example previously described regarding a request for a weather
10 report, in some applications it might be preferable for the system to simply assume that the user means a weather report for his or her home area and to retrieve that information, if the cost of doing so is not significantly greater than the cost of asking the user to clarify the query. Making such an assumption might be even more strongly justified in a preferred embodiment, as described earlier, where user histories
15 are tracked, and where such history indicates that a particular user or group of users typically expect local information when asking for a weather forecast. At any rate, in the event such an assumption is made, if the user actually intended to request the weather for a different city, the user would then need to ask his or her question again. It will be apparent to practitioners, in light of the above teachings, that the choice of
20 whether to program query construction logic 330 and query refinement logic 340 to make make particular assumptions will typically involve trade-offs involving user convenience that can be assessed in the context of specific applications.

3. Open Agent Architecture (OAA®)

Open Agent Architecture™ (OAA®) is a software platform, developed by the assignee of the present invention, that enables effective, dynamic collaboration among communities of distributed electronic agents. OAA is described in greater detail in co-pending U.S. Patent Application No. 09/225,198, which has been incorporated herein by reference. Very briefly, the functionality of each client agent is made available to the agent community through registration of the client agent's capabilities with a facilitator. A software "wrapper" essentially surrounds the underlying application program performing the services offered by each client. The common infrastructure for constructing agents is preferably supplied by an *agent library*. The agent library is preferably accessible in the runtime environment of several different programming languages. The agent library preferably minimizes the effort required to construct a new system and maximizes the ease with which legacy systems can be "wrapped" and made compatible with the agent-based architecture of the present invention. When invoked, a client agent makes a connection to a facilitator, which is known as its *parent facilitator*. Upon connection, an agent registers with its parent facilitator a specification of the capabilities and services it can provide, using a high-level, declarative Interagent Communication Language ("*ICL*") to express those capabilities. Tasks are presented to the facilitator in the form of ICL goal expressions. When a facilitator determines that the registered capabilities of one of its client agents will help satisfy a current goal or sub-goal thereof, the facilitator delegates that sub-goal to the client agent in the form of an ICL request. The client agent processes the request and returns answers or information to the facilitator. In processing a request, the client agent can use *ICL* to request services of other agents, or utilize other infrastructure services for collaborative work. The facilitator coordinates and integrates the results received from different client agents on various sub-goals, in order to satisfy the overall goal.

OAA provides a useful software platform for building systems that integrate spoken natural language as well as other user input modalities. For example, see the above-referenced co-pending patent application, especially Figure 13 and the corresponding discussion of a "multi-modal maps" application, and Figure 12 and the

corresponding discussion of a "unified messaging" application. Another example is the InfoWiz interactive information kiosk developed by the assignee and described in the document entitled "InfoWiz: An Animated Voice Interactive Information System" available online at <http://www.ai.sri.com/~oaa/applications.html>. A copy of the
5 InfoWhiz document is provided in an Information Disclosure Statement submitted herewith and incorporated herein by this reference. A further example is the "CommandTalk" application developed by the assignee for the U.S. military, as described online at <http://www.ai.sri.com/~lesaf/commandtalk.html> and in the following publications, copies of which are provided in an Information Disclosure
10 Statement submitted herewith and incorporated herein by this reference:

- "CommandTalk: A Spoken-Language Interface for Battlefield Simulations", 1997, by Robert Moore, John Dowding, Harry Bratt, J. Mark Gawron, Yonael Gorfu and Adam Cheyer, in "Proceedings of the Fifth Conference on Applied Natural Language Processing", Washington, DC, pp. 1-7, Association for
15 Computational Linguistics
- "The CommandTalk Spoken Dialogue System", 1999, by Amanda Stent, John Dowding, Jean Mark Gawron, Elizabeth Owen Bratt and Robert Moore, in "Proceedings of the Thirty-Seventh Annual Meeting of the ACL", pp. 183-
20 190, University of Maryland, College Park, MD, Association for Computational Linguistics
- "Interpreting Language in Context in CommandTalk", 1999, by John Dowding and Elizabeth Owen Bratt and Sharon Goldwater, in "Communicative Agents: The Use of Natural Language in Embodied Systems", pp. 63-67, Association
25 for Computing Machinery (ACM) Special Interest Group on Artificial Intelligence (SIGART), Seattle, WA

For some applications and systems, OAA can provide an advantageous platform for constructing embodiments of the present invention. For example, a
30 representative application is now briefly presented, with reference to Figure 6. If the statement "show me movies starring John Wayne" is spoken into the voice input device, the voice data for this request will be sent by UI agent 650 to facilitator 600, which in turn will ask natural language (NL) agent 620 and speech recognition agent 610 to interpret the query and return the interpretation in *ICL* format. The resulting
35 *ICL* goal expression is then routed by the facilitator to appropriate agents -- in this case, video-on-demand database agent 640 -- to execute the request. Video database agent 640 preferably includes or is coupled to an appropriate embodiment of query construction logic 330 and query refinement logic 340, and may also issue *ICL*

requests to facilitator 600 for additional assistance -- e.g., display of menus and capture of additional user input in the event that query refinement is needed -- and facilitator 600 will delegate such requests to appropriate client agents in the community. When the desired video content is ultimately retrieved by video database agent 640, UI agent 650 is invoked by facilitator 600 to display the movie.

Other spoken user requests, such as a request for the current weather in New York City or for a stock quote, would eventually lead facilitator to invoke web database agent 630 to access the desired information from an appropriate Internet site. Here again, web database agent 630 preferably includes or is coupled to an appropriate embodiment of query construction logic 330 and query refinement logic 340, including a scraping utility such as WebL. Other spoken requests, such as a request to view recent emails or access voice mail, would lead the facilitator to invoke the appropriate email agent 660 and/or telephone agent 680. A request to record a televised program of interest might lead facilitator 600 to invoke web database agent 630 to return televised program schedule information, and then invoke VCR controller agent 680 to program the associated VCR unit to record the desired television program at the scheduled time.

Control and connectivity embracing additional electronic home appliances (e.g., microwave oven, home surveillance system, etc.) can be integrated in comparable fashion. Indeed, an advantage of OAA-based embodiments of the present invention, that will be apparent to practitioners in light of the above teachings and in light of the teachings disclosed in the cited co-pending patent applications, is the relative ease and flexibility with which additional service agents can be plugged into the existing platform, immediately enabling the facilitator to respond dynamically to spoken natural language requests for the corresponding services.

- 1 4. The method of claim 3, wherein the step of extracting an input
2 template includes dynamically scraping the online scripted interface.

- 1 5. The method of claim 1, wherein the navigation query is constructed in
2 the format of a database query language.

- 1 6. The method of claim 1, wherein the step of rendering an interpretation
2 and the step of constructing a navigation query are performed, at least in part, on a
3 computing device located locally with the user.

- 1 7. The method of claim 1, wherein the step of rendering an interpretation
2 and the step of constructing a navigation query are performed, at least in part, on a
3 network computing device located remotely from the user.

- 1 8. The method of claim 1, wherein the step of soliciting additional input
2 is performed in response to one or more deficiencies encountered during the step of
3 constructing a navigation query.

- 1 9. The method of claim 8, wherein the deficiencies include unresolved
2 words of the spoken NL request.

- 1 10. The method of claim 8, wherein the deficiencies include one or more
2 required elements of the navigational query not determinable from the interpretation
3 of the spoken NL request.

- 1 11. The method of claim 1, wherein the step of soliciting additional input
2 is performed in response to one or more deficiencies encountered after a first
3 navigation of the data source using the navigation query constructed in step (c).

- 1 12. The method of claim 11, wherein the deficiencies include existence of
2 more than one data record within the data source responsive to the navigation query.

- 1 13. The method of claim 11, wherein the deficiencies include failure to
2 identify a single data record within the data source responsive to the navigation query.

- 1 14. The method of claim 1, wherein the input modality of step (d) includes
2 selecting from a displayed option menu.

1 15. The method of claim 14, wherein the act of selecting from the
2 displayed option menu is performed by speaking.

1 16. The method of claim 1, wherein the method is performed with respect
2 to a plurality of simultaneous users and corresponding client devices.

1 17. The method of claim 1, further including the step of selecting the data
2 source from among a plurality of candidate electronic data sources, in response to the
3 interpretation of the spoken NL request.

1 18. The method of claim 1, wherein the electronic data source stores
2 multimedia content including at least one of video content and audio content.

1 19. A system for utilizing spoken natural language to navigate an
2 electronic data source, the electronic data source being located at one or more network
3 servers located remotely from a user, the system comprising:

- 4 (a) a portable microphone operable to receive a spoken natural language
5 ("NL") request for desired information from the user;
- 6 (b) spoken language processing logic, operable to render an interpretation
7 of the spoken natural language request;
- 8 (c) query construction logic, operable to construct a navigation query in
9 response to the interpretation of the spoken natural language request;
- 10 (d) user interaction logic, operable to solicit additional input from the user,
11 including user interaction in a modality different than the original
12 request;
- 13 (e) query refining logic, operable to refine the navigation query, based
14 upon the additional input;
- 15 (f) navigation logic, operable to select a portion of the electronic data
16 source using the navigation query; and

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- 17 (g) electronic communications infrastructure for transmitting the selected
18 portion of the electronic data source from the network server to a
19 primarily stationary, display device located locally with the user.

- 1 20. The system of claim 19, wherein the spoken language processing logic
2 includes speech recognition logic and an NL parsing logic for deriving linguistic
3 information.

- 1 21. The system of claim 19, wherein the spoken language processing logic
2 extracts an input template for an online scripted interface to the data source, and uses
3 the input template to construct the navigation query.

- 1 22. The system of claim 21, wherein the spoken language processing logic
2 dynamically scrapes the online scripted interface.

- 1 23. The system of claim 19, wherein the query construction logic
2 constructs the query in the format of a database query language.

- 1 24. The system of claim 19, wherein at least a portion of the spoken
2 language processing logic is hosted on a computing device located locally with the
3 user, and wherein the portable microphone is electronically coupled to the local
4 computing device.

- 1 25. The system of claim 19, wherein at least a portion of the spoken
2 language processing logic is hosted on a network computing device located remotely
3 from the user, and wherein the portable microphone sends data to the remote network
4 computing device via the communications infrastructure.

- 1 26. The system of claim 19, wherein the user interaction logic solicits
2 additional input in response to one or more deficiencies encountered during
3 construction of the navigation query.

- 1 27. The system of claim 26, wherein the deficiencies include unresolved
2 words of the spoken NL request.

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3 electronic data source being located at one or more network servers located remotely
4 from a user, comprising:

- 5 (a) a code segment that receives a spoken natural language ("NL") request
6 for desired information from the user;
- 7 (b) a code segment that renders an interpretation of the spoken natural
8 language request;
- 9 (c) a code segment that constructs at least part of a navigation query based
10 upon the interpretation;
- 11 (d) a code segment that solicits additional input from the user, including
12 user interaction in a modality different than the original request;
- 13 (e) a code segment that refines the navigation query, based upon the
14 additional input;
- 15 (f) a code segment that uses the refined navigation query to select a
16 portion of the electronic data source; and
- 17 (g) a code segment that transmits the selected portion of the electronic data
18 source from the network server to a primarily stationary, display
19 device located locally with the user.

1 39. The computer program of claim 38, further comprising a code segment
2 that derives linguistic information by using a speech recognition engine and an NL
3 parser.

1 40. The computer program of claim 38, further comprising a code segment
2 that extract an input template for an online scripted interface to the data source, and a
3 code segment that uses the input template to construct the navigation query.

1 41. The computer program of claim 40, further comprising a code segment
2 that dynamically scrapes the online scripted interface.

1 42. The computer program of claim 38, wherein the navigation query is
2 constructed in the format of a database query language.

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1 43. The computer program of claim 38, wherein rendering of the
2 interpretation and the construction of the navigation query are performed, at least in
3 part, on a computing device located locally with the user.

1 44. The computer program of claim 38, wherein the rendering of the
2 interpretation and the construction of a navigation query are performed, at least in
3 part, on a network computing device located remotely from the user.

1 45. The computer program of claim 38, wherein code segment that solicits
2 additional input solicits the additional input in response to one or more deficiencies
3 encountered during the constructing of the navigation query.

1 46. The computer program of claim 45, wherein the deficiencies include
2 unresolved words of the spoken NL request.

1 47. The computer program of claim 45, wherein the deficiencies include
2 one or more required elements of the navigational query not determinable from the
3 interpretation of the spoken NL request.

1 48. The computer program of claim 38, wherein the code segment that
2 solicits the additional input solicits the additional input in response to one or more
3 deficiencies encountered after a first navigation of the data source.

1 49. The computer program of claim 48, wherein the deficiencies include
2 existence of more than one data record within the data source responsive to the
3 navigation query.

1 50. The computer program of claim 48, wherein the deficiencies include
2 failure to identify a single data record within the data source responsive to the
3 navigation query.

1 51. The computer program of claim 38, wherein code segment that solicits
2 additional input displays an option menu.

1 52. The computer program of claim 51, wherein the act of selecting from
2 the displayed option menu is performed by speaking.

1 53. The computer program of claim 38, wherein the code segments of the
2 computer program operate with respect to a plurality of simultaneous users and
3 corresponding client devices.

1 54. The computer program of claim 38, further comprising a code segment
2 that selects the data source from among a plurality of candidate electronic data
3 sources, in response to the interpretation of the spoken NL request.

1 55. The computer program of claim 38, wherein the electronic data source
2 stores multimedia content including at least one of video content and audio content.

add
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NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN
NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK

ABSTRACT OF THE INVENTION

5

BIB

A system, method, and article of manufacture are provided for navigating an
electronic data source by means of spoken natural language. When a spoken natural
language input request is received from a user, it is interpreted. Additional input is
solicited from the user in a modality different than the original request and used to
10 refine the navigation query. The resulting interpretation of the request is thereupon
used to automatically construct an operational navigation query to retrieve the desired
information from one or more electronic network data sources.

Post-It® Fax Note: 7671	Date 6/29/00	# of pages 7
To Domenic Notab	From K. Elorini	
Co./Dept.	Co. SRI Intl.	
Phone # 408-971-4660	Phone # 650-859-6631	
Fax # 408-971-4660	Fax # 650-859-6420	

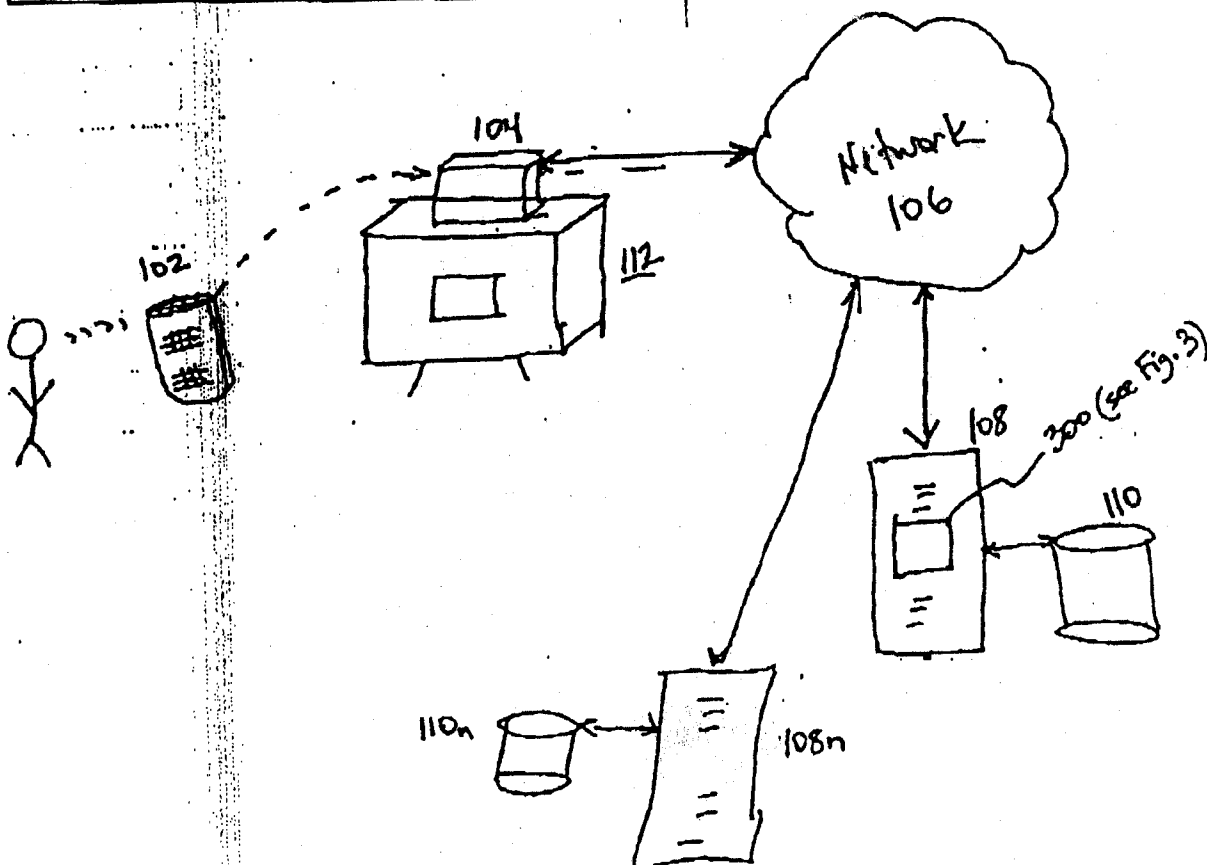
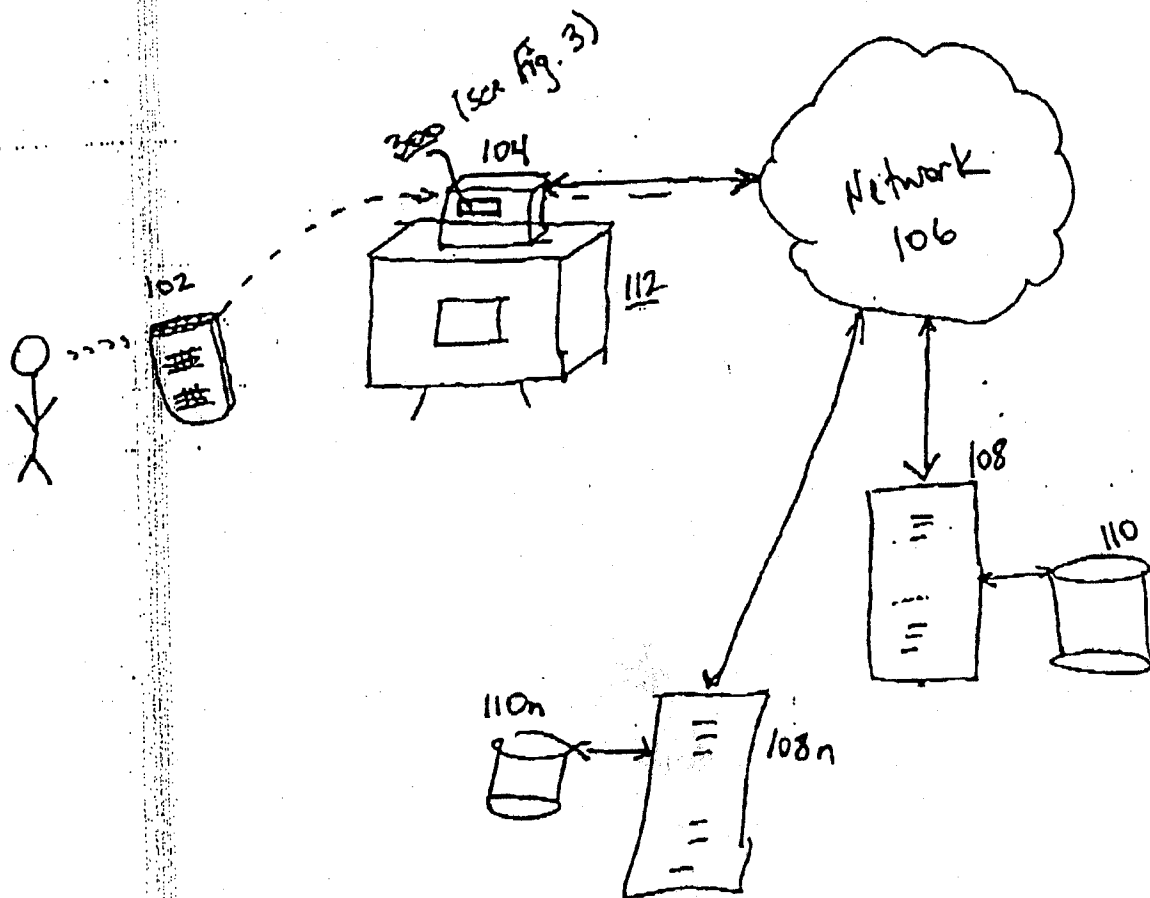


Fig. 1a



0000000000000000000000

Fig. 1b

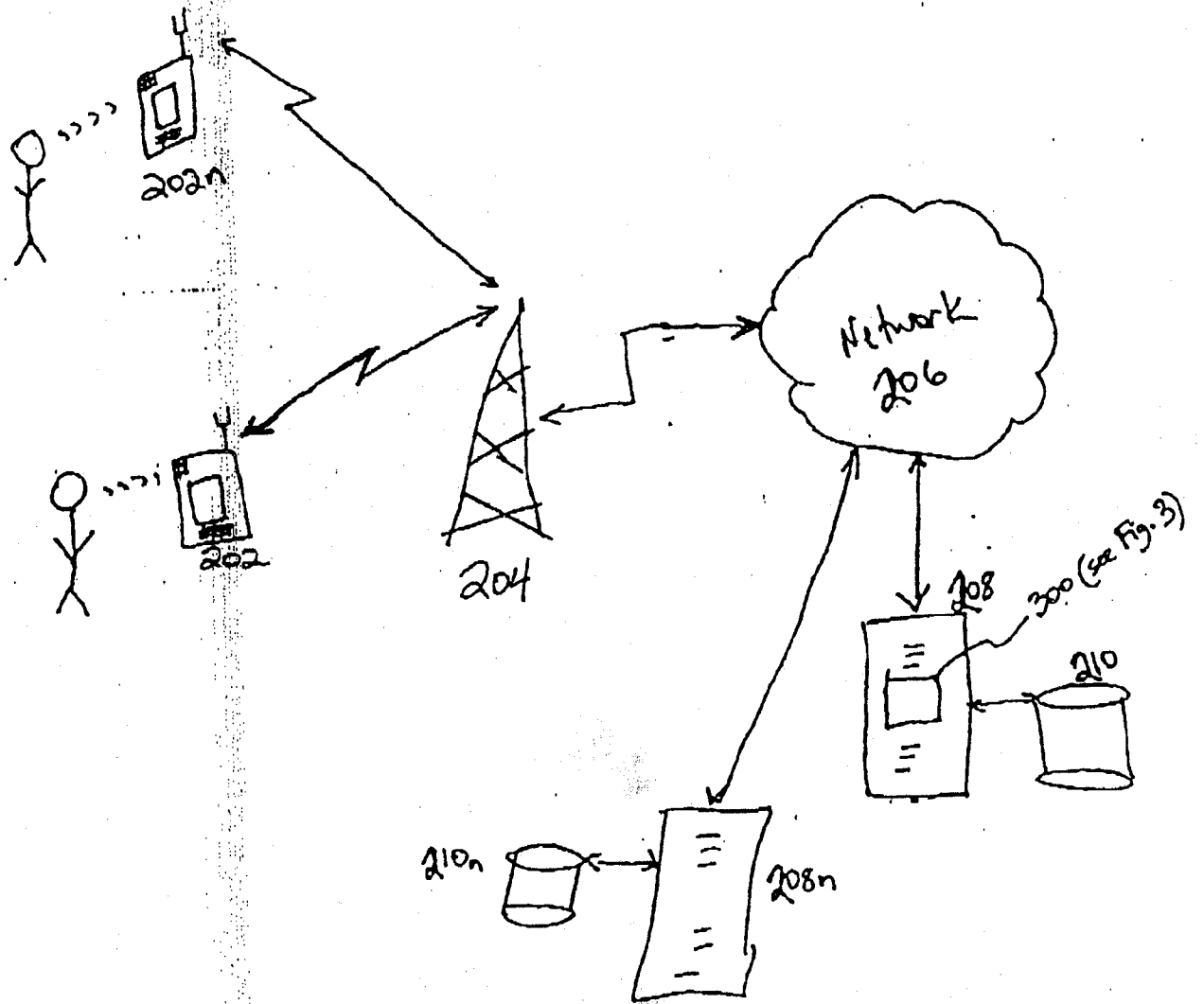


Fig. 2

Request Processing Logic 300

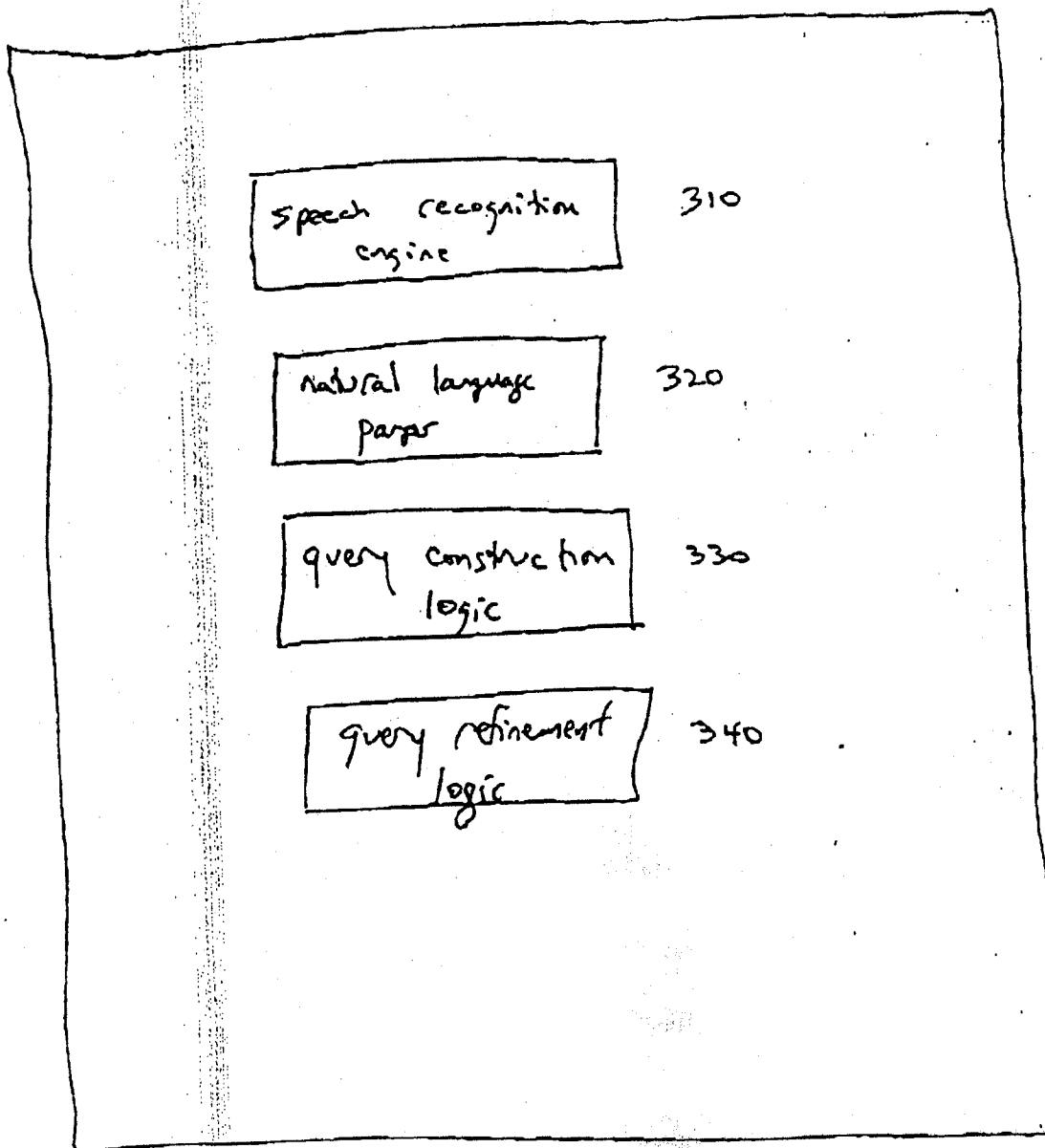


Fig. 3

00000000000000000000

(from step 406, fig. 4)



Scrape the online scripted form,
to extract an input template

520



instantiate the input template,
using interpretation of step 404

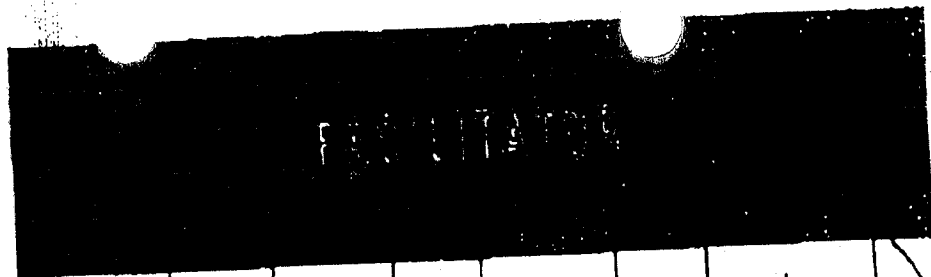
522



(to step 407, fig. 4)

Fig. 5

000000000000000000000000000000000000



600

Video Database Agent
640

User Interface Agents

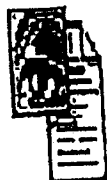
650



Speech Recognition Agent
610



Natural Language Agent



620

Electronic Mail Agent
660



Notify Agent



Calendar Agent



Web Database Agent
630



Text To Speech Agent



Telephone Agent
670



VCR Agent
680

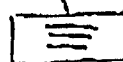


Fig. 6

**PRINT OF DRAWINGS
AS ORIGINALLY FILED**

Post-It® Fax Note # 7671	Date 6/29/00	# of pages 7
To Domenic Martab	From K. Elovski	
Co./Dept.	Co. SEI Intl.	
Phone # 408-971-4660	Phone # 650-859-6631	
Fax # 408-971-4400	Fax # 650-859-6420	

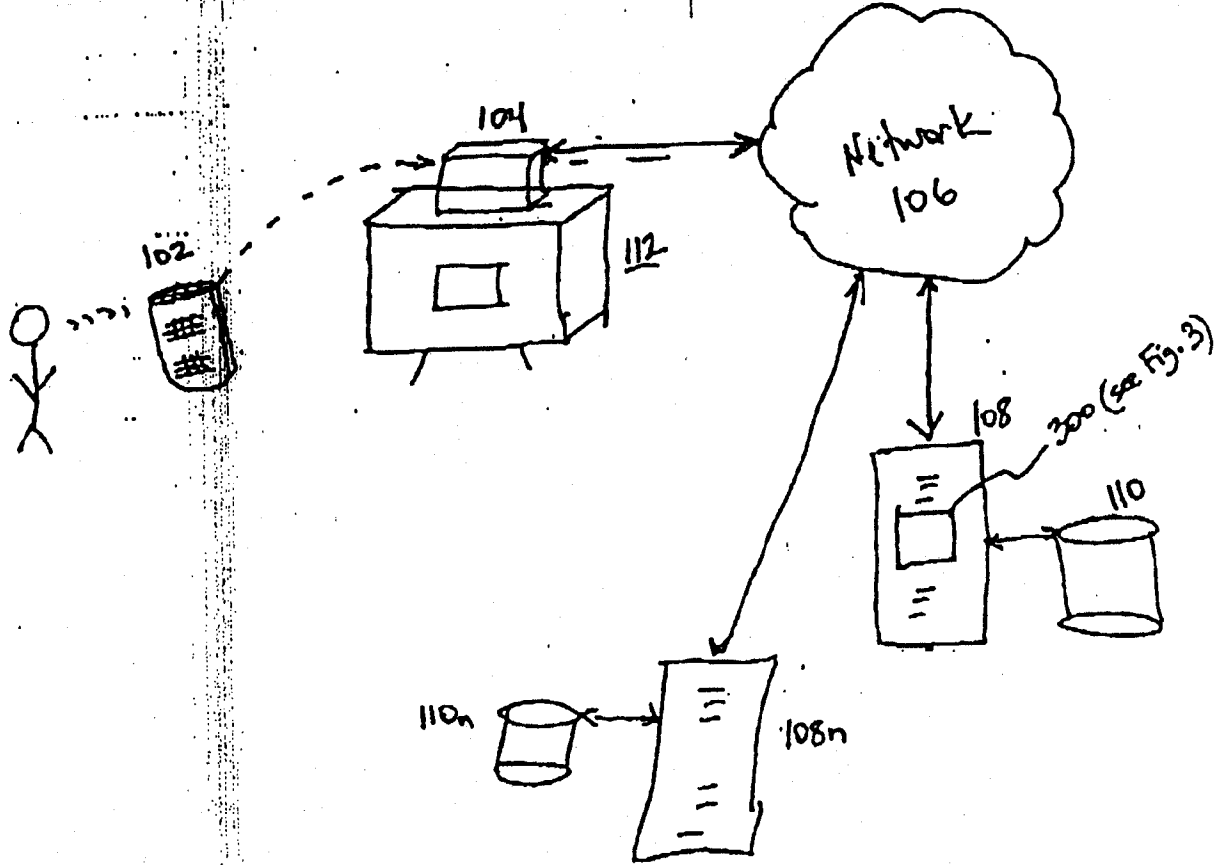


Fig. 1a

000500 2/200050

PRINT OF DRAWINGS
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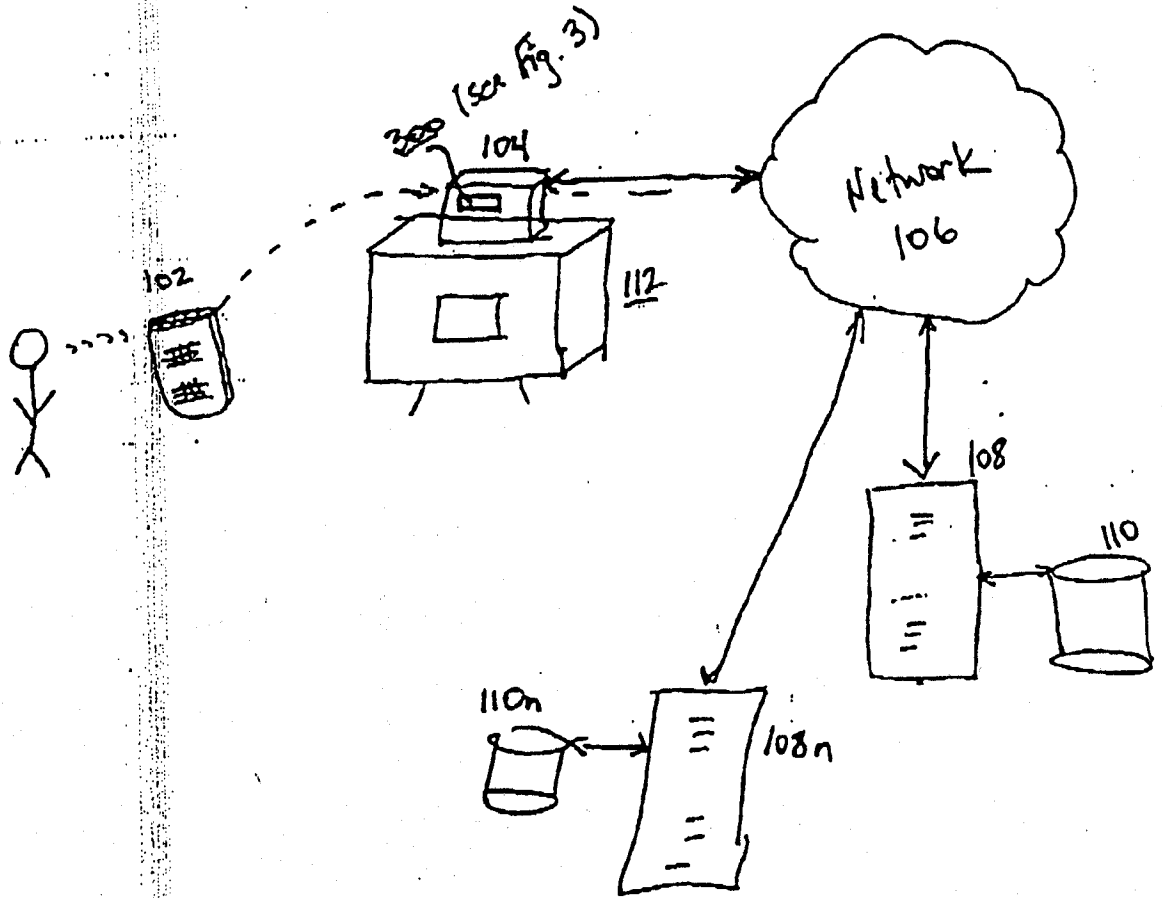


Fig. 1b

**PRINT OF DRAWINGS
AS ORIGINALLY FILED**

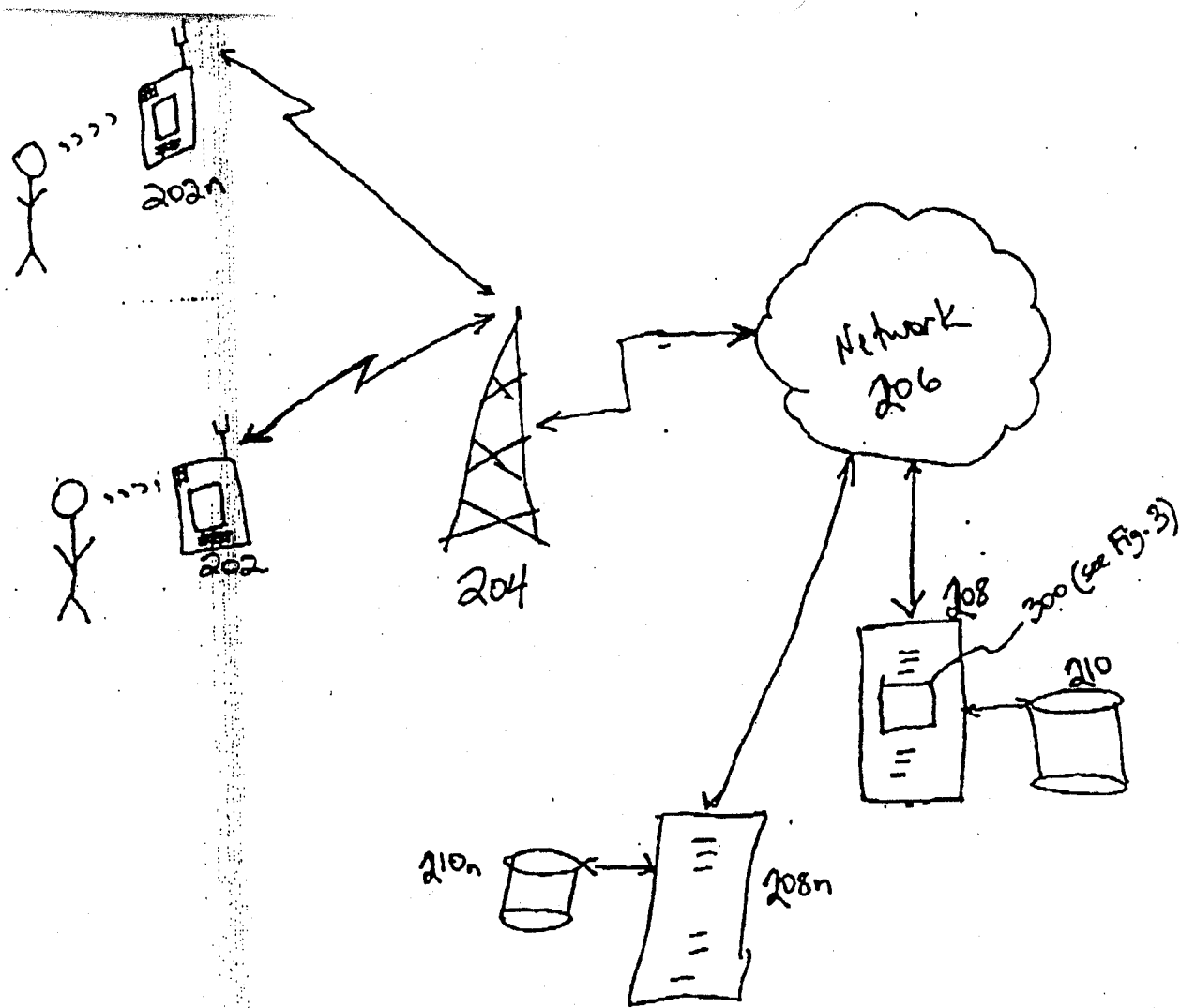


Fig. 2

00000000000000000000000000000000

PRINT OF DRAWINGS
AS ORIGINALLY FILED

Request Processing logic 300

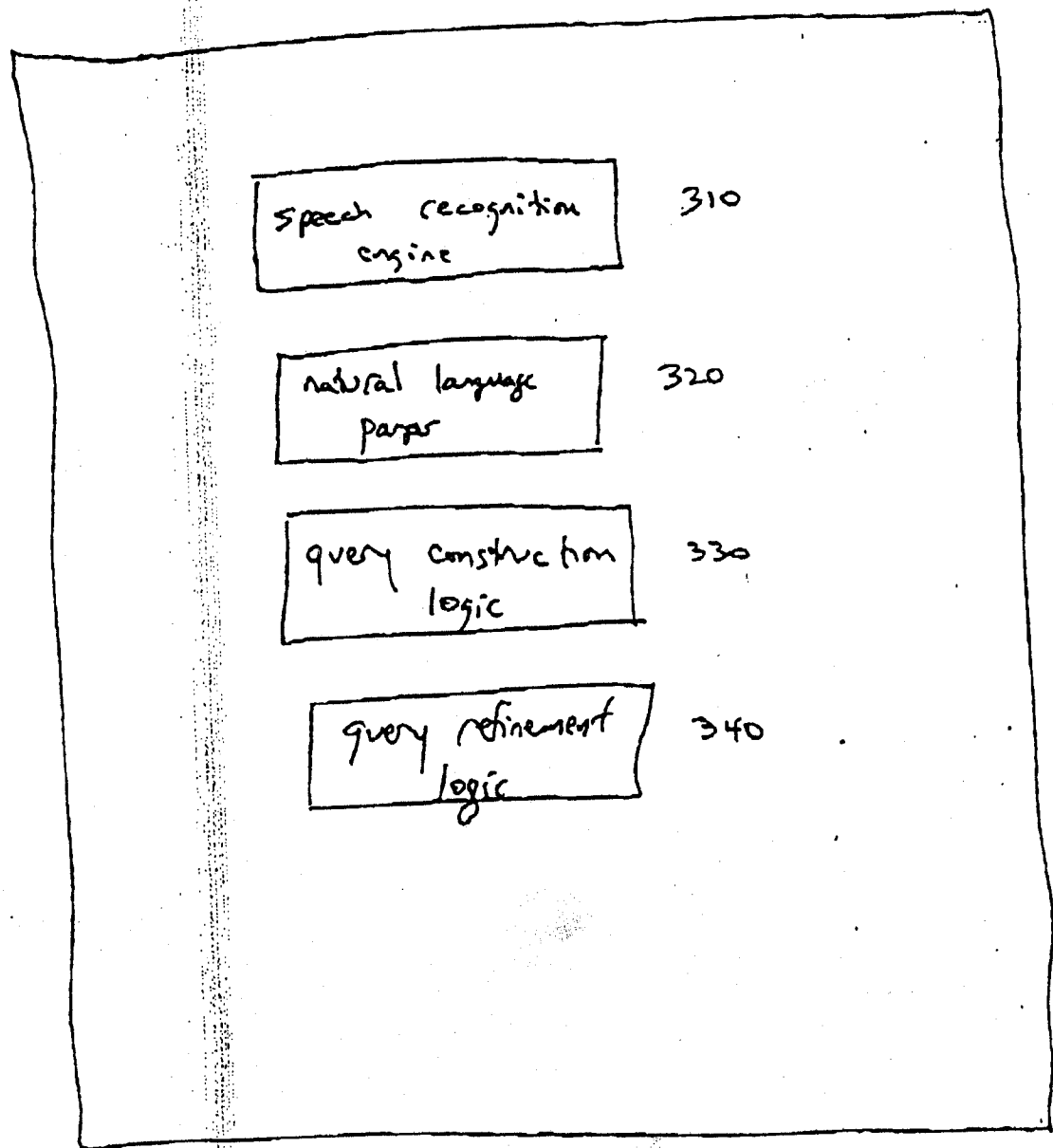


Fig. 3

PRINT OF DRAWINGS
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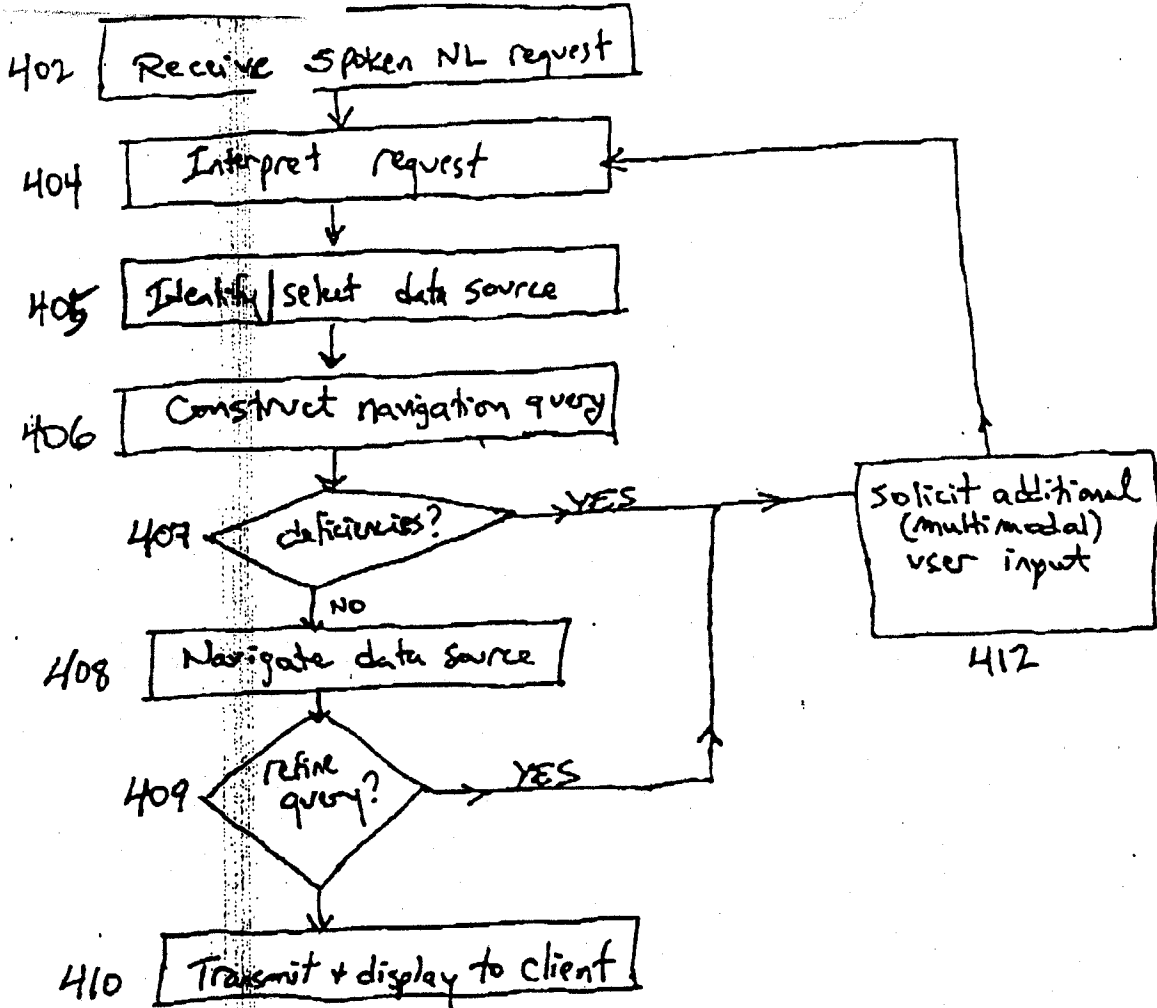


Fig. 4

PRINT OF DRAWINGS
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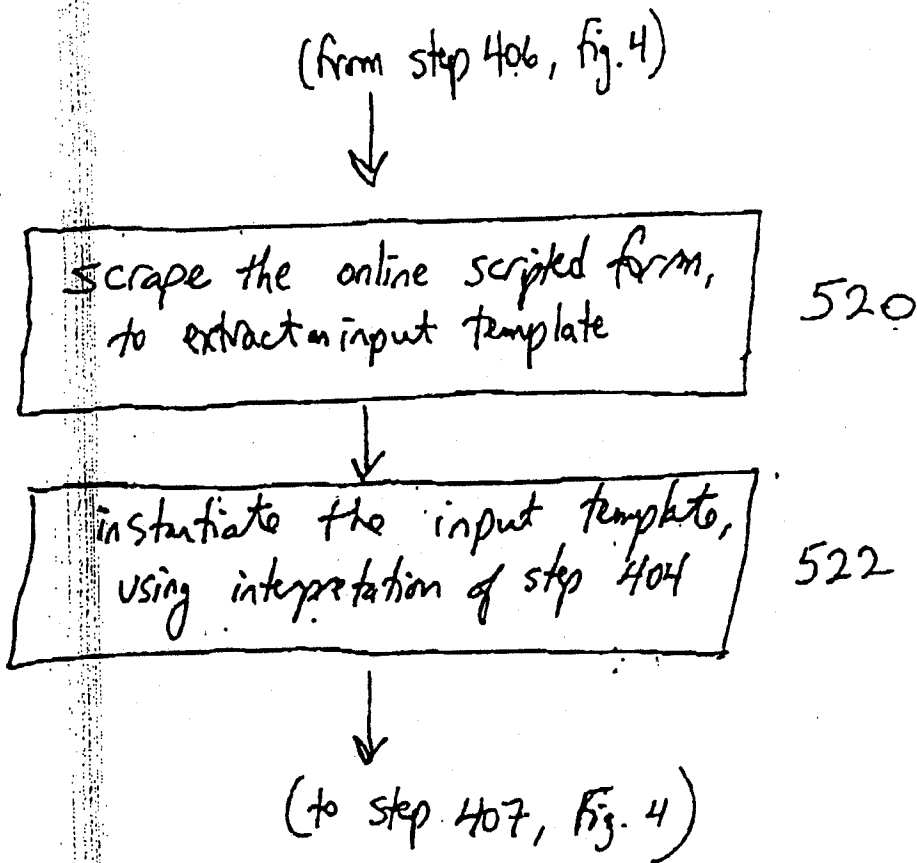


Fig. 5

PRINT OF DRAWINGS
AS ORIGINALLY FILED

600

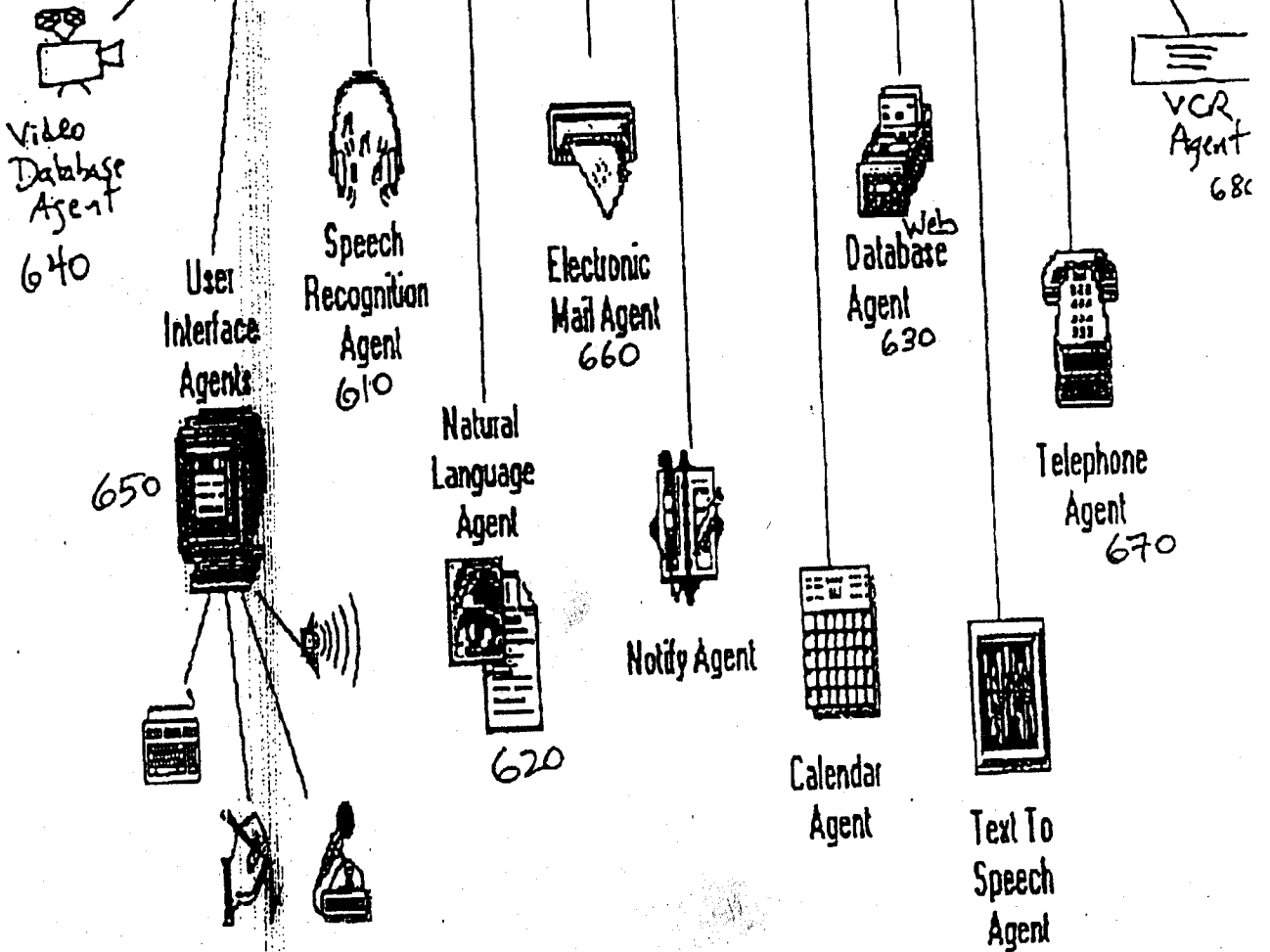


Fig. 6



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COMMISSIONER FOR PATENTS
 UNITED STATES PATENT AND TRADEMARK OFFICE
 WASHINGTON, D.C. 20231
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APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/608,872	06/30/2000	Christine Halversen	SR11p037B

Kevin J Zilka
 P O Box 721030
 San Jose, CA 95172-1030

FORMALITIES LETTER



OC00000005370740

Date Mailed: 09/01/2000

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 65.

*A copy of this notice **MUST** be returned with the reply.*

Customer Service Center
 Initial Patent Examination Division (703) 308-1202

PART 3 - OFFICE COPY



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of)
Halverson et al.) Examiner: Not Assigned
Application No. 09/608,872) Art Unit: 2741
Filed: June 30, 2000) Atty. Docket No. SRI1P037B
For: MOBILE NAVIGATION OF NETWORK-) Date: October 30, 2000
BASED ELECTRONIC INFORMATION)
USING SPOKEN INPUT)

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on October 30, 2000.

Signed: 
Julie A. Curts

RESPONSE TO NOTICE TO FILE MISSING PARTS

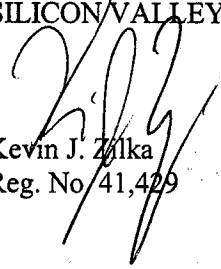
Assistant Commissioner for Patents
Box: Missing Parts
Washington, D.C. 20231

Sir:

In response to the Notice to File Missing Parts of Application--Filing Date Granted dated September 1, 2000, Applicants hereby attach an original executed Declaration and Power of Attorney, and the copy of the Notice to be returned with this response.

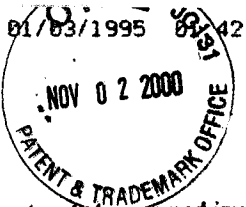
Applicants are also attaching Check No. 238 for \$65.00 in payment of the surcharge fee. The Commissioner is authorized to charge any other fees that may be due to our Deposit Account No. 50-1351 (Order No. SRI1P037B). A copy of this sheet is enclosed for this purpose.

Respectfully submitted,
SILICON VALLEY IP LAW GROUP


Kevin J. Zilka
Reg. No. 41,429

P.O. Box 721030
San Jose, CA 95172-1030
(408) 505-5100

Attorney Docket No. SRI1P037B



DECLARATION AND POWER OF ATTORNEY FOR ORIGINAL U.S. PATENT APPLICATION

Attorney's Docket No. SR11P037

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK, the specification of which,

(check one)

- 1. [] is attached hereto.
2. [X] was filed on March 13, 2000 as U.S. Application Serial No. 09/524,095 and was amended on
3. [] was filed on as International PCT Application Serial No. and was amended on

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, CFR § 1.56.

I hereby claim foreign priority benefits under Title 35, United States code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed:

Table with 4 columns: Prior Foreign Application(s), (Appl. No.), (Country), (Filing Date), Priority Benefits Claimed? (Yes/No). Three rows of data.

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

Table with 2 columns: (Application Serial No.), (Filing Date). Two rows of data.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U.S. Application(s)

(Application Serial No.)	(Filing Date)	(Status - patented, pending, abandoned)

And I hereby appoint the law firm of Hickman Stephens Coleman & Hughes, including Paul L. Hickman (Reg. No. 28,516); L. Keith Stephens (Reg. No. 32,632); Brian R. Coleman (Reg. No. 39,145); Michael J. Hughes (Reg. No. 29,077); Michael E. Melton (Reg. No. 32,276); Raymond E. Roberts (Reg. No. 38,597); Vidya R. Bhakar (Reg. No. 42,323); Larry B. Guernsey (Reg. No. 40,008); Douglas E. Mackenzie (Reg. No. 38,935); Michael D. Plimier (Reg. No. 43,004); Ronald B. Feece (Reg. No. P46,327); Stefanie M. Howell (Reg. No. P45,929); and Robert D. Hayden (Reg. No. 42,645) as my principal attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Send Correspondence To: **HICKMAN STEPHENS COLEMAN & HUGHES, LLP**
P.O. BOX 52037
Palo Alto, California 94303-0746

Direct Telephone Calls To: **Raymond E. Roberts at telephone number (408) 558-9950**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Typewritten Full Name of Sole or First Inventor: Christine Halverson Citizenship: USA
 Inventor's signature: *Christine Halverson* Date of Signature: 6-16-00
 Residence: (City) San Jose (State/Country) California/USA
 Post Office Address: 1623 Fairorchard Avenue, San Jose, California 95125

Full Name of Second Joint Inventor (if any): Luc Julia Citizenship: USA FRANCE
 Inventor's signature: *[Signature]* Date of Signature: 6-21-00
 Residence: (City) Menlo Park (State/Country) California/USA
 Post Office Address: 607 Menlo Avenue, Menlo Park, California 94025

Full Name of Third Joint Inventor (if any): Dimiter Voutsas Citizenship: Greece
 Inventor's signature: *[Signature]* Date of Signature: 6/16/00
 Residence: (City) Thessaloniki (State/Country) Greece
 Post Office Address: 14 M. Pyrza Street, Neoi Eoivates, Thessaloniki 57019, Greece

Full Name of Fourth Joint
Inventor (if any):

Adam Cheyer

Citizenship:

USA

Inventor's signature:

Adam J. Cheyer

Date of Signature:

6/22/00

Residence:

(City)

Palo Alto

(State/Country)

California /USA

Post Office Address:

757 Cereza Drive, Palo Alto, California 94306

SECTORS
#3



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
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APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/608,872	09/01/2000	Christine Halversen	SR11p037B

Kevin J Zilka
P O Box 721030
San Jose, CA 95172-1030



FORMALITIES LETTER



Date Mailed: 09/01/2000

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 65.

A copy of this notice **MUST** be returned with the reply.

[Handwritten signature]

Customer Service Center
Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

11/03/2000 HNDOR1 00000067 09608872

01 FC:205 65.00 GP

07-03-00

A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF EXPRESS MAILING

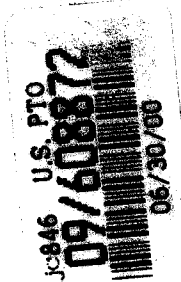
I hereby certify that this paper and the documents and/or fees referred to as attached therein are being deposited with the United States Postal Service on June 30, 2000 in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR §1.10, Mailing Label Number EK858788212US, addressed to the Assistant Commissioner for Patents, Washington, DC 20231.

Attorney Docket No.: SRI1P037B

First Named Inventor:

HALVERSEN, Christine

#4/A
LST
4-2001
entered



Kevin J. Zillya

UTILITY PATENT APPLICATION TRANSMITTAL (37 CFR. § 1.53(b))
(Continuation, Divisional or Continuation-in-part application)

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

Duplicate for
fee processing

Sir: This is a request for filing a patent application under 37 CFR. § 1.53(b) in the name of inventors:
Christine Halversen, Luc Julia, Dimitris Voutsas, Adam Cheyer

For: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING
SPOKEN INPUT

This application is a Continuation Divisional Continuation-in-part

of prior Application No.: 09/524,095, from which priority under 35 U.S.C. §120 is claimed.

Application Elements:

- 33 Pages of Specification, Claims and Abstract
- 07 Sheets of Drawings
- Declaration
 - Newly executed (original or copy)
 - Copy from a prior application (37 CFR 1.63(d) for a continuation or divisional).
The entire disclosure of the prior application from which a copy of the declaration is herein supplied is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
 - Deletion of inventors Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).

Accompanying Application Parts:

- Assignment and Assignment Recordation Cover Sheet (recording fee of \$40.00 enclosed)
- Power of Attorney
- 37 CFR 3.73(b) Statement by Assignee

(Revised 12/97, Pat App Trans 53(b) ContDivCIP)

Page 1 of 3

- Information Disclosure Statement with Form PTO-1449 Copies of IDS Citations
- Preliminary Amendment
- Return Receipt Postcard
- Small Entity Statement(s) Statement filed in prior application. Status still proper and desired.
- Other:

Claim For Foreign Priority

- Priority of _____ Application No. _____ filed on _____ is claimed under 35 U.S.C. § 119.
- The certified copy has been filed in prior application U.S. Application No. _____
- The certified copy will follow.

Extension of Time for Prior Pending Application

- A Petition for Extension of Time is being concurrently filed in the prior pending application. A copy of the Petition for Extension of Time is attached.

Amendments

- Amend the specification by inserting before the first line the sentence: "This is a
 - Continuation Continuation-in-part Divisional application of copending prior
 - Application No. _____ filed on _____,
 - International Application _____ filed on _____ which designated the United States, the disclosure of which is incorporated herein by reference."

- Cancel in this application original claims 2-55 of the prior application before calculating the filing fee. (*At least one original independent claim must be retained.*)

Fee Calculation (37 CFR § 1.16)

	(Col. 1)	(Col. 2)	SMALL ENTITY		OR	LARGE ENTITY	
	NO. FILED	NO. EXTRA	RATE	FEE		RATE	FEE
BASIC FEE			\$345	\$ 345	OR	\$690	\$
TOTAL CLAIMS	<u>27</u> -20 = <u>7</u>		x09 = \$	63	OR	x18 = \$	
INDEP CLAIMS	<u>3</u> -03 = <u>0</u>		x39 = \$		OR	x78 = \$	
[] Multiple Dependent Claim Presented			\$130 = \$		OR	\$260 = \$	
* If the difference in Col. 1 is less than zero, enter "0" in Col. 2.			Total \$	408	OR	Total \$	

- Check No. 137 in the amount of \$ 408.00 is enclosed.

The Commissioner is authorized to charge any fees beyond the amount assessed which may be required, or to credit any overpayment, to Deposit Account No. 50-1351 (Order No. SRIIP037B).

General Authorization for Petition for Extension of Time (37 CFR §1.136)

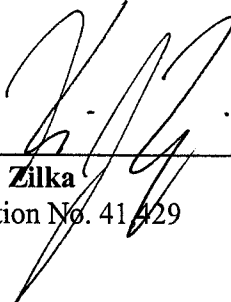
Applicants hereby make and generally authorize any Petitions for Extensions of Time as may be needed for any subsequent filings. The Commissioner is also authorized to charge any extension fees under 37 CFR §1.17 as may be needed to Deposit Account No. 50-1351 (Order No. SRIIP037B).

Please send correspondence to the following address:

Kevin J. Zilka
P.O. BOX 721030
San Jose, California 95172-1030

Direct Telephone Calls To: Kevin J. Zilka at telephone number (408) 505-5100

Date: June 30, 2000



Kevin J. Zilka
 Registration No. 41429

2000/06/30 14:50

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#5/B
LWJ
4-20-01
entered

In re the application of)
Christine HALVERSEN et al.)
Application No. 09/^{608,872}~~524,095~~)
Filed: March 13, 2000)
For: NAVIGATING NETWORK BASED)
ELECTRONIC INFORMATION USING SPOKEN)
NATURAL LANGUAGE INPUT WITH MULTIMODAL)
ERROR FEEDBACK)

Docket:
SRI1P037B

Date: June 30, 2000

Preliminary Amendment

Assistant Commissioner for Patents
and Trademarks
Washington, DC 20231

Dear Sir:

In regard to the above-named patent application, please enter the following amendments.

IN THE TITLE:

Please delete "NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK", and insert therefore, --MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN INPUT--.

IN THE ABSTRACT:

Please delete the Abstract and insert therefore --A system, method, and article of manufacture are provided for navigating an electronic data source by means of spoken language where a portion of the data link between a mobile information appliance of the user and the data

SRI1P037B

- 1 -

27

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source utilizes wireless communication. When a spoken input request is received from a user who is using the mobile information appliance, it is interpreted. The resulting interpretation of the request is thereupon used to automatically construct an operational navigation query to retrieve the desired information from one or more electronic network data sources, which is transmitted to the mobile information appliance.

B1
end

IN THE SPECIFICATION:

On page 1, line 5, please delete "This is" and insert therefore, --This application is a continuation of an application entitled NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK which was filed on March 13, 2000 under serial number 09/524,095 and which is--

B2

Please delete page 3, lines 3 to 32, and insert therefore, --The present invention addresses the above needs by providing a system, method, and article of manufacture for mobile navigation of network-based electronic data sources in response to spoken input requests. When a spoken input request is received from a user using a mobile information appliance that communicates with a network server via an at least partially wireless communications system, it is interpreted, such as by using a speech recognition engine to extract speech data from acoustic voice signals, and using a language parser to linguistically parse the speech data. The interpretation of the spoken request can be performed on a computing device locally with the user, such as the mobile information appliance, or remotely from the user. The resulting interpretation of the request is thereupon used to automatically construct an operational navigation query to retrieve the desired information from one or more electronic network data sources, which is then transmitted to a client device of the user. If the network data source is a database, the navigation query is constructed in the format of a database query language.

Typically, errors or ambiguities emerge in the interpretation of the spoken request, such that the system cannot instantiate a complete, valid navigational template. This is to be expected occasionally, and one preferred aspect of the invention is the ability to handle such errors and ambiguities in relatively graceful and user-friendly manner. Instead of simply rejecting such input and defaulting to traditional input modes or simply asking the user to try again, a preferred embodiment of the present invention seeks to converge rapidly toward instantiation of a valid navigational template by soliciting additional clarification from the user as necessary, either before or after a navigation of the data source, via multimodal input, i.e., by means of menu

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selection or other input modalities including and in addition to spoken input. This clarifying, multi-modal dialogue takes advantage of whatever partial navigational information has been gleaned from the initial interpretation of the user's spoken request. This clarification process continues until the system converges toward an adequately instantiated navigational template, which is in turn used to navigate the network-based data and retrieve the user's desired information. The retrieved information is transmitted across the network and presented to the user on a suitable client display device.

B3
end

IN THE CLAIMS:

Please delete claims 1-55, and insert therefore the following claims ^{56 82} ~~1-27~~:

~~1. (New) A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication, comprising the steps of:~~

- ~~(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user;~~
- ~~(b) rendering an interpretation of the spoken request;~~
- ~~(c) constructing a navigation query based upon the interpretation;~~
- ~~(d) utilizing the navigation query to select a portion of the electronic data source; and~~
- ~~(e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user.~~

^{2 57} ~~2.~~ (New) The method of claim ^{1 56} ~~1~~, wherein the step of rendering the interpretation of the spoken request is performed at the one or more network servers.

^{3 58} ~~3.~~ (New) The method of claim ^{1 56} ~~1~~, wherein the step of rendering the interpretation of the spoken request is performed by the mobile information appliance.

^{4 59} ~~4.~~ (New) The method of claim ^{1 56} ~~1~~, further comprising the steps of soliciting additional input from the user, including user interaction in a modality different than the original request;

SRI1P037B

refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source.

5 ~~100~~ / 8. (New) The method of claim 1, wherein the data link includes a cellular telephone system.

6 ~~101~~ / 8. (New) The method of claim 1, wherein steps (a)-(d) are performed with respect to multiple users.

7 ~~102~~ / 8. (New) The method of claim 1, wherein the mobile information appliance is a wireless telephone.

8 ~~103~~ / 8. (New) The method of claim 1, wherein the mobile information appliance is a portable computing device.

9 ~~104~~ / 8. (New) The method of claim 8, wherein the portable computing device is a personal digital assistant.

Sub 105 / 8. (New) A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication, comprising:

- (a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user;
- (b) a code segment that renders an interpretation of the spoken request;
- (c) a code segment that constructs a navigation query based upon the interpretation;
- (d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and
- (e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user.

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(c) query construction logic, operable to construct a navigation query based upon the interpretation;

(d) navigation logic, operable to select a portion of the electronic data source using the navigation query; and

(e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of a data link of the electronic communications infrastructure between a mobile information appliance of the user and the one or more network servers utilizes wireless communication.

~~20~~
~~75~~
~~20.~~

(New) The system of claim ~~19~~, wherein the spoken language processing logic renders the interpretation of the spoken request at the one or more network servers.

~~21~~
~~76~~
~~21.~~

(New) The system of claim ~~19~~, wherein the spoken language processing logic renders the interpretation of the spoken request at the mobile information appliance.

~~22~~
~~77~~
~~22.~~

(New) The system of claim ~~19~~, further comprising user interaction logic operable to solicit additional input from the user, including user interaction in a modality different than the original request; and query refining logic operable to refine the navigation query based upon the additional input; wherein the navigation logic uses the refined navigation query to select a portion of the electronic data source.

~~23~~
~~78~~
~~23.~~

(New) The system of claim ~~19~~, wherein the data link includes a cellular telephone system.

~~24~~
~~79~~
~~24.~~

(New) The system of claim ~~19~~, wherein the system operates with respect to multiple users.

~~25~~
~~80~~
~~25.~~

(New) The system of claim ~~19~~, wherein the mobile information appliance is a wireless telephone.

~~26~~
~~81~~
~~26.~~

(New) The system of claim ~~19~~, wherein the mobile information appliance is a portable computing device.

Rule 1106
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end

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(New) The system of claim 26, wherein the portable computing device is a personal digital assistant.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 505-5100. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-1351 (Order No. SRI1P037B). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,

Kevin J. Zilka
Registration No. 41,429

P.O. Box 721030
San Jose, CA 95172
Telephone: (408) 505-5100

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- 7 -

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**UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Handwritten signature

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/608,872	06/30/00	HALVERSEN	C SRILP037B

024277
 Kevin J. Zilka
 PO Box 721030
 San Jose CA 95172

TM02/0424

EXAMINER

BACKER, F

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 04/24/01

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SM

Office Action Summary	Application No. 09/608,872	Applicant(s) HALVERSEN ET AL.	
	Examiner Firmin Backer	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 June 2000.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 56-82 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 56-82 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) Interview Summary (PTO-413) Paper No(s) _____
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other:

DETAILED ACTION

This is in response to a letter for patent filed on June 30th, 2000 in which claims 56-82 are presented for examination. Claims 56-82 are pending in the letter.

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 56-82 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 56-126 of copending Application No. 09/524,095. Although the conflicting claims are not identical, they are not patentably distinct. It would have been obvious to one of ordinary skill in the art to observe that the omission of the limitations "*soliciting additional input from the user, including user interaction in a modality different than the original request and, refining the navigation query, based upon the additional input*", of applicant claims 56-82 are already in the Co-pending application 09/524,095, as such they are obvious variations of the inventive concept defined in claims 56-126 of the Co-pending application 09/524,095. See *In re Karlson*, 136 USPQ 184 (CCPA 1963). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 56-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Levin et al. (U.S. Patent No. 6,173,279).

5. As per claim 56, Levin et al teach a method for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising receiving a spoken request (*receive a natural language query*) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user; rendering an interpretation (*creating a semantic representation*) of the spoken request, constructing a navigation (*generating search*) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22)

6. As per claim 57, 58, 62-64, Levin et al teach a method of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).
7. As per claim 59, Levin et al teach a method of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).
8. As per claim 60, Levin et al teach a method wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).
9. As per claim 61, Levin et al teach a method wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).
10. As per claim 65, Levin et al teach a computer system for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising a code segment receiving a

spoken request (*receive a natural language query*) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user; a code segment rendering an interpretation (*creating a semantic representation*) of the spoken request, a code segment constructing a navigation (*generating search*) query based upon the interpretation; a code segment utilizing the navigation query to select a portion of the electronic data source; and a code segment transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22)

11. As per claim 66, 67, 71-73, Levin et al teach a system of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).

12. As per claim 68, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

13. As per claim 69, Levin et al teach a system wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

14. As per claim 70, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

15. As per claim 74, Levin et al teach a system for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising receiving a spoken request (*receive a natural language query*) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user; rendering an interpretation (*creating a semantic representation*) of the spoken request, constructing a navigation (*generating search*) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22)

16. As per claim 75, 76, 80-81, Levin et al teach a method of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).

17. As per claim 77, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the

navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

18. As per claim 78, Levin et al teach a system wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

19. As per claim 79, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

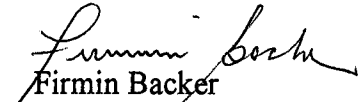
Conclusion


20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (6,192,338).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Firmin Backer whose telephone number is 703-305-0624. The examiner can normally be reached on Mon-Thu 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sheikh Ayaz can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3718 for regular communications and 703-305-5352 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Firmin Backer
April 9, 2001


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

FORM PTO-892	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	SERIAL NO. 09/608,872	GROUP ART UNIT <u>215</u> 2781	ATTACHMENT TO PAPER NO. 10
NOTICE OF REFERENCES CITED		APPLICANT(S) HALVERSEN ET AL.		

U.S. PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
A	6,192,338	2/2001	Haszto et al	704	257	
B	6,173,279	1/2001	Levin et al.	707	5	
C						
D						
E						
F						
G						
H						
I						
J						
K						

FOREIGN PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS
L						
M						
N						
O						
P						
Q						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

R	
S	
T	
U	

EXAMINER Firmin Backer	DATE April 9, 2001	Form892ccs2106b
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* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05(a).)



2155

PATENT

#7
LDS
S-8-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:)
)
 Halverson et al.)
)
 Application No. 09/608,872)
)
 Filed: 06/30/2000)
)
 For: MOBILE NAVIGATION OF NETWORK)
 -BASED ELECTRONIC INFORMATION)
 USING SPOKEN INPUT)

Group Art Unit: 2741
 Examiner: Unassigned
 Atty. Docket No. SRI1P037B/
 44454/03450

Date: April 27, 2001
RECEIVED
 MAY 4 - 2001
 Technology Center 2100

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on

April 27, 2001
 Signed: Erica L. Mann
 Erica L. Mann

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.56 AND 1.97(c)

Assistant Commissioner for Patents
 Washington, DC 20231

Dear Sir:

The references listed in the attached PTO Form 1449, copies of which are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§ 1.56 and 1.97. The Examiner is requested to make these references of official record in this application.

Attny Dkt No. SRI1P037B/44454/03450

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This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is believed to be filed before the mailing date of a first Office Action on the merits. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 03-0683 (Order No. 44454/03450/SRI1P037B).

Respectfully submitted,
CARLTON FIELDS

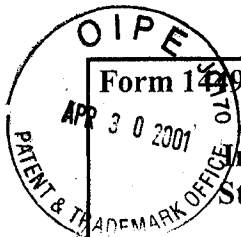


Dominic M. Kotab
Reg. No. 42,762

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MAY 4 - 2001
Technology Center 2100

P.O. Box 721030
San Jose, CA 95172-1030
Telephone: (408) 271-2300

#7



Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No. SRIIP037B Applicant: Halverson et al. Filing Date: 06/30/2000	Application No.: 09/608,872 Group Art Unit: 2741 2155
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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	A	6,026,388	02/15/00	Liddy et al.	707	1	08/14/96
	B	6,102,030	01/04/00	French- St. George et al.	704	275	04/21/98
	C	6,003,072	12/14/99	Gerritsen et al.	709	218	06/30/94
	D	5,890,123	03/30/99	Brown et al.	704	275	06/05/95
	E	5,855,002	12/29/98	Armstrong	704	270	08/14/96
	F	5,963,940	10/05/99	Liddy et al.	707	5	08/14/96
	G	5,805,775	09/08/98	Eberman et al.	395	12	02/02/96
	H	5,802,526	09/01/98	Fawcett et al.	707	1	04/18/96
	I	5,794,050	08/11/98	Dahlgren et al.	395	708	01/03/95
	J	5,774,859	06/30/98	Houser et al.	704	275	01/03/95
	K	5,748,974	05/05/98	Johnson	395	759	12/13/94

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Technology Center 2100

Foreign Patent or Published Foreign Patent Application

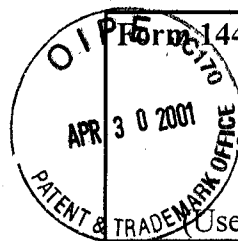
Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	L							
	M							
	N							
	O							
	P							

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
FO	R	Stent, Amanda et al., "The CommandTalk Spoken Dialogue System", SRI International
FO	S	Moore, Robert et al., "CommandTalk: A Spoken-Language Interface for Battlefield Simulations", October 23, 1997, SRI International
FO	T	Dowding, John et al., "Interpreting Language in Context in CommandTalk", February 5, 1999, SRI International
Examiner		
	Date Considered	9/27/02

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

#7



Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)		Atty. Docket No. SRI1P037B Applicant: Halverson et al. Filing Date: 06/30/2000	Application No.: 09/608,872 Group Art Unit: 2741 2155
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U.S. Patent Documents

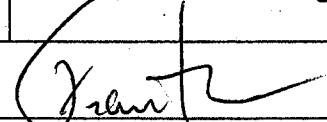
Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
FO	A	5,729,659	03/17/98	Potter	395	2.79	06/06/95
	B	5,721,938	02/24/98	Stuckey	395	754	06/07/95
	C	5,608,624	03/04/97	Luciw	395	794	05/18/92
	D	5,519,608	05/21/96	Kupiec	364	419.08	05/24/93
	E	5,434,777	07/18/95	Luciw	364	419.13	03/18/94
	F	5,386,556	01/31/95	Hedin et al.	395	600	05/23/92
	G	5,197,005	03/23/93	Shwartz et al.	364	419	05/01/89
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	J						
	K						

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 May 13 2001
 Technology Center 2100

Foreign Patent or Published Foreign Patent Application

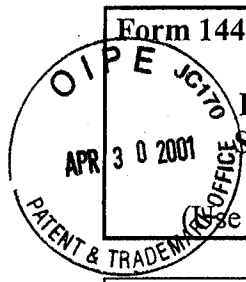
Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	L							
	M							
	N							
	O							
	P							

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
FO	R	http://www.ai.sri.com/~oaa/infowiz.html , "InfoWiz: An Animated Voice Interactive Information System, May 8, 2000
FO	S	Dowding, John, "Interleaving Syntax and Semantics in an Efficient Bottom-up Parser", SRI International
FO	T	Moore, Robert et al., "Combining Linguistic and Statistical Knowledge Sources in Natural-Language Processing for ATIS", SRI International
Examiner		
	Date Considered	9/27/02

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

#7



Form 1449 (Modified)	Atty. Docket No. SRI1P037B	Application No.: 09/608,872
Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Applicant: Halverson et al.	Group Art Unit: 2741 2155
	Filing Date: 06/30/2000	

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	A						
	B						
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MAY 4 - 2001
Technology Center 2100

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	L							
	M							
	N							
	O							
	P							

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
JO	R	Dowding, John et al., "Gemini: A Natural Language System For Spoken-Language Understanding", SRI International
	S	
	T	
Examiner	Date Considered	

Grant 9/27/02

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



4B17

GAU-2155 #8

Attorney Docket No.: SRI1P037B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: HALVERSON, CHRISTINE
SERIAL NO.: 09/608,872
FILED: 6/30/00
TITLE: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN INPUT

ASSOCIATE POWER OF ATTORNEY

Assistant Commissioner for Patents
Washington, DC 20231

Dear Sir:

I hereby appoint: C. Douglas McDonald (Reg. No. 26,659)

whose post office address is

Carlton Fields, P.A.
P. O. Box 3239
Tampa, Florida 33601-3239

as my associate attorney in the above-entitled application, to prosecute this application, to make alterations and amendments therein, and to transact all business in the Patent and Trademark Office connected therewith.

Please continue to address all future communications to:

Carlton Fields, LLP
P. O. Box 721030
San Jose, CA 95172-1030

Respectfully submitted

Date: MAY 2, 2001

Kevin J. Zilka (Reg. No. 41,429)
Dominic Kotab (Reg. No. 42,762)
Carlton Fields LLP
P.O. Box 721030
San Jose, CA 95172-1030
Telephone: (408) 271-2300
Fax: (408) 275-9579

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MAY 17 2001
Technology Center 2100



#9

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.: 09/608,872
 INVENTOR: Halverson, Christine
 TITLE: MOBILE NAVIGATION OF NETWORK-BASED
 ELECTRONIC INFORMATION USING SPOKEN INPUT

FILING DATE: 6/30/00
 ATTORNEY DOCKET NO. SRI1P037B

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 MAY 17 2001
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NOTICE OF CHANGE OF
 CORRESPONDENCE ADDRESS

Assistant Commissioner for Patents
 Washington, DC 20231

Sir:

Please change the correspondence address relating to the above-identified application as follows:

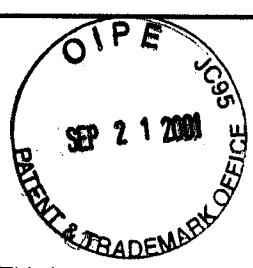
C. Douglas McDonald, Esq.
 Carlton Fields, et al.
 P.O. Box 3239
 Tampa, FL 33601-3239

Respectfully submitted,

C. Douglas McDonald
 Reg. No. 26,659
 CARLTON FIELDS, P.A.
 P.O. Box 3239
 Tampa, FL 33601-3239
 (813) 223-7000
 Attorney of Record

Date: May 10, 2001

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a) Deposit Number (Optional)
SRI 1P037B



In re Application of HALVERSON, et al	
Application Number 09/608,872	Filed June 30, 2000
For Mobile Navigation of Network-Based Electronic Information Using Spoken Input	
Group Art Unit 2155	Examiner F. Backer

#10
LDT
10-01-0

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response in the above identified application.

The requested extension and appropriate non-small-entity fee are as follows (check time period desired):

- One month (37 CFR 1.17(a)(1)) \$
 - Two months (37 CFR 1.17(a)(2)) \$390.00
 - Three months (37 CFR 1.17(a)(3)) \$
 - Four months (37 CFR 1.17(a)(4)) \$
 - Five months (37 CFR 1.17(a)(5)) \$
- Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$ 195.00.
- A check in the amount of the fee is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Commissioner has already been authorized to charge fees in this application to a Deposit Account.
- The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 20-0782.
I have enclosed a duplicate copy of this sheet.

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- I am the applicant/inventor.
- assignee of record of the entire interest. See 37 CFR 3.71
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).
- attorney or agent of record.
- attorney or agent under 37 CFR 1.34(a).
Registration number if acting under 37 CFR 1.34(a). _____

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

September 19, 2001
Date

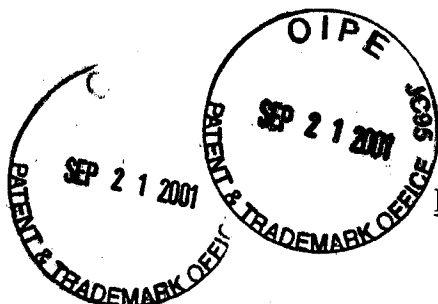
Signature
KIN-WAH TONG, Reg. No. 39,400
Typed or printed name

09/25/2001 MWOLDEK1 00000030 09608872
01 FC:216 195.00 OP

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.
 *Total of _____ forms are submitted.

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SRI/4116-6



#11
LST
10-01-01

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicant(s): **HALVERSON, et al.** Atty. Docket No. **SRI 1P037B**
Serial No.: **09/608,872** Group Art Unit: **2155**
Filed: **June 30, 2000** Examiner: **F. Backer**
Title: **MOBILE NAVIGATION OF NETWORK-BASED
ELECTRONIC INFORMATION USING SPOKEN INPUT**

Assistant Commissioner for Patents
Washington, D.C. 20231

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Technology Center 2100

Sir:

**REVOCATION OF PREVIOUS POWER
OF ATTORNEY AND NEW APPOINTMENT**

The undersigned assignee of the above-identified application hereby revokes all previous Powers of Attorney and appoints the following attorneys with full power to prosecute the application, to make alterations and amendments therein, and to transact all business in the United States Patent and Trademark Office connected therewith and with full power of substitution and revocation:

Raymond R. Moser, Jr.; Reg. No. 34,682; Kin-Wah Tong, Reg. No. 39,400;
Robert Brush, Reg. No. 45,710; Steven Weiner, Reg. No. 38,360; and Edward E.
Davis, Reg. No. 35,112.

CHANGE OF CORRESPONDENCE ADDRESS

Please change the correspondence address for the above-identified application to:

Thomason, Moser & Patterson, LLP
595 Shrewsbury Avenue – Suite 100
Shrewsbury, New Jersey 07702

Please direct all telephone calls to: Kin-Wah Tong, telephone # (732) 530-9404



CERTIFICATE UNDER 37 C.F.R. § 3.73(B)

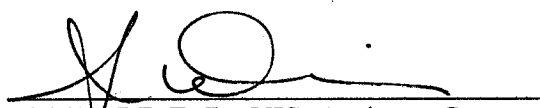
SRI International, a corporation of the State of California, certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of:

An Assignment from the inventor(s) of the parent patent application that is claimed as priority in the above-identified patent application. The Assignment was recorded in the United States Patent and Trademark Office, for which a copy thereof is attached.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

Respectfully submitted,

Date: 9/11/01


~~EDWARD E. DAVIS, Assistant Secretary~~
STEVEN WRINER, VICE PRESIDENT

SRI International
333 Ravenswood Avenue
Menlo Park, CA 94025
Telephone No.: 650-859-3115

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ASSIGNMENT OF PATENT APPLICATION
(Not Accompanying Application)

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:



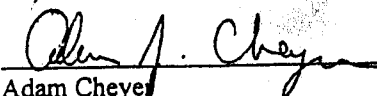
**NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN
NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK**

for which I/we have executed an application for a United States Letters Patent which was filed in the U.S. Patent and Trademark Office on March 13, 2000, and which bears the Application No. 09/524,095.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we the undersigned inventor(s) hereby:

- 1) Sell(s), assign(s) and transfer(s) to **SRI International**, a California non-profit corporation having a place of business at 333 Ravenswood Avenue, Menlo Park, California 94025, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date(s) indicated beside my (our) signature(s).

- | | | |
|----|---|----------------------|
| 1) | Signature: <u></u> | Date: <u>6-16-00</u> |
| | Typed Name: Christine Halverson | |
| 2) | Signature: _____ | Date: _____ |
| | Typed Name: Luc Julia | |
| 3) | Signature: <u></u> | Date: <u>6/16/00</u> |
| | Typed Name: Dimitris Voutsas | |
| 4) | Signature: <u></u> | Date: <u>6/22/00</u> |
| | Typed Name: Adam Cheyer | |

Attnv Docket No. SRI1P037

ASSIGNMENT OF PATENT APPLICATION

(Not Accompanying Application)

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:


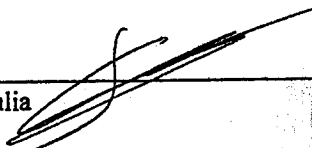
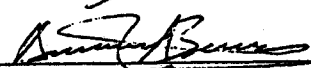
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- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date(s) indicated beside my (our) signature(s).

- 1) Signature:  Date: 6-16-00
Typed Name: Christine Halverson
- 2) Signature:  Date: 6-20-00
Typed Name: Luc Julia
- 3) Signature:  Date: 6/16/00
Typed Name: Dimitris Voutsas
- 4) Signature: _____ Date: _____
Typed Name: Adam Cheyer

ASSIGNMENT OF PATENT APPLICATION

(Not Accompanying Application)

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:


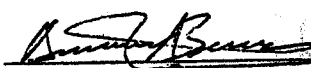
NAVIGATING NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN NATURAL LANGUAGE INPUT WITH MULTIMODAL ERROR FEEDBACK

for which I/we have executed an application for a United States Letters Patent which was filed in the U.S. Patent and Trademark Office on March 13, 2000, and which bears the Application No. 09/524,095.

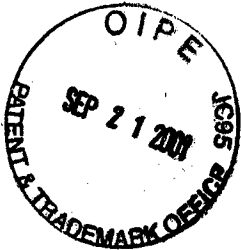
For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we the undersigned inventor(s) hereby:

- 1) Sell(s), assign(s) and transfer(s) to **SRI International**, a California non-profit corporation having a place of business at 333 Ravenswood Avenue, Menlo Park, California 94025, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.
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- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date(s) indicated beside my (our) signature(s).

- 1) Signature:  Date: 6-16-00
Typed Name: Christine Halverson
- 2) Signature: _____ Date: _____
Typed Name: Luc Julia
- 3) Signature:  Date: 6/16/00
Typed Name: Dimitris Voutsas
- 4) Signature: _____ Date: _____
Typed Name: Adam Cheyer

09/608,872



IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

#12
LBO
10-01-01

Applicant: **Halverson et al.**

Case: **SRI1P037B**

Serial No.: **09/608,872**

Filed: **June 30, 2000**

Group Art Unit: **2155**

Examiner: **Firmin Backer**

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Title: **MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION
USING SPOKEN INPUT**

ASSISTANT COMMISSIONER FOR PATENTS
Box Non-Fee Amendment
Washington, D. C. 20231

S I R:

RESPONSE UNDER 37 C.F.R. § 1.111

This response addresses the Office Action dated April 24, 2001 (Paper No. 10).

REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 56-82 UNDER DOUBLE PATENTING

The Examiner provisionally rejected claims 56-82 in Paragraphs 1-2 of the Office Action based on statutory type double patenting under 35 U.S.C. § 101 as claiming the same invention as that of claims 56-126 of copending Application No. 09/524,095. Applicants respectfully traverse the rejection.

First, the Examiner noted that "it would have been obvious to one of ordinary skill in the art to observe that the omission of the limitations 'soliciting additional input

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from the user, including user interaction in a modality different tha[n] the original request and, refining the navigation query, based upon the additional input'. After noting the differences between the scope of the claims between the two applications, the Examiner then concluded that claims 56-82 "are obvious variation of the inventive concept defined in claims 56-126 of co-pending application 09/524,095".

Applicants direct the Examiner's attention to the fact that there are two types of double patenting rejections: "statutory" and "non-statutory (obviousness-type)". MPEP 804 states that "[i]n determining whether a statutory basis for a double patenting rejection exists, the question to be asked is: Is the same invention being claimed twice?" "A reliable test for double patenting under 35 U.S.C. 101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent". Given the substantial differences between the claims of the two applications as noted by the Examiner, Applicants respectfully submit that applying the statutory double patenting test as promoted in the MPEP would not produce a statutory double patenting rejection in the present application. As such, Applicants submit that the present statutory double patenting rejection against claims 56-82 is inappropriate.

Second, it should be noted that the present application is a continuation of the co-pending application 09/524,095. As such, if and when these two applications mature into issued patents, both patents will have the same term. Thus, given the differences between the scope of the claims of both applications and the fact that both applications will expire at the same time (if issued), Applicants respectfully submit that statutory double patenting rejection against claims 56-82 is inappropriate.

II. REJECTION OF CLAIMS 56-82 UNDER 35 U.S.C. § 102

The Examiner has rejected claims 56-82 in Paragraphs 4-19 of the Office Action as being anticipated by the Levin et al. patent (US Patent 6,173,279 issued January 9, 2001, hereinafter referred to as Levin). The rejection is respectfully traversed.

Levin teaches "a method of using at least one natural language query to retrieve information from one or more data resources and further performing a requested action using the retrieved information is disclosed". (See Levin, Column 2, lines 15-18)

Namely, Levin teaches a method for using natural language query to obtain information, where upon receipt of the requested information, a desired action is executed based upon the requested information. To illustrate, Levin provides the example, where a user employs natural language to request the telephone number of a restaurant. Upon receipt of the telephone number, the telephone number is actually dialed for the user. (See Levin, Column 3 line 62 to Column 4, line 1)

In contrast, Levin fails to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where, in turn, the selected electronic data source from the network server is transmitted to the mobile information appliance of the user. Specifically, Applicants' independent claims 56, 65 and 74 positively recite:

56. A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilize wireless communication, comprising the steps of:

(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user;

(b) rendering an interpretation of the spoken request;

(c) constructing a navigation query based upon the interpretation;

(d) utilizing the navigation query to select a portion of the electronic data source; and

(e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

65. A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication, comprising:

(a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user;

(b) a code segment that renders an interpretation of the spoken request.

(c) a code segment that constructs a navigation query based upon the

- interpretation;
- (d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and
- (e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

74. A system for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, comprising:

- (a) a mobile information appliance operable to receive a spoken request for desired information from the user;
- (b) spoken language processing logic, operable to render an interpretation of the spoken request;
- (c) query construction logic, operable to construct a navigation query based upon the interpretation;
- (d) navigation logic, operable to select a portion of the electronic data source using the navigation query, and
- (e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of a data link of the electronic communications infrastructure between a mobile information appliance of the user and the one or more network servers utilizes wireless communication. (emphasis added)

Applicants' invention teaches a novel method and apparatus for speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where, in turn, the selected electronic data source from the network server is transmitted to the mobile information appliance of the user. Specifically, Applicants address the criticality of providing speech-based navigation via a mobile, i.e., wireless communication, approach in addition to spoken natural language. It has been noted that with the proliferation of various mobile appliances, it would be advantageous to allow these mobile appliances to access the same vastness of electronic data sources that are available to hard-wired appliances like a desktop computer. However, the very essence of a mobile appliance is its portability, small size and ease of use. As such, unlike hard-wired appliances, mobile appliances are not equipped with large bulky input devices. In fact, even if the mobile appliance is equipped with extensive input devices, most users would still find

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these “shrunk” input devices to be cumbersome and difficult to use, e.g., an electronic representation of a keyboard on a PDA and the like.

To further exacerbate the problem, obtaining information from an electronic data source may require extensive and complex interaction between the user’s mobile appliance and the system holding the electronic data source. Thus, the limited or cumbersome input/output capability of a mobile appliance presents a substantial barrier to its ability to access a data resource that requires extensive and complex interaction.

To address this criticality, Applicants disclose a speech-based navigation method that is deployed in conjunction with mobile appliances. To illustrate, the user can request via a mobile appliance, e.g., a cellular telephone, all the names of a particular ethnic restaurant on a particular street. Clearly, this request is rather complex given the limited input capability (generally a numeric keypad) of a cellular phone. Without additional input devices, this complex request may require numerous interactions between the user and a remote data resource, e.g., long repeated sequences of presenting a menu, scrolling within the menu and selecting the desired information within the menu and so on for the next menu and beyond. Such tedium discourages a user from attempting to acquire complex information via mobile appliances.

In contrast, Applicants’ invention allows the complex request to be received as a spoken request directly via the user’s mobile information appliance, thereby substantially reducing the amount of interaction of the user with the remote data resource. The present method will interpret and construct a navigation query that is utilized to obtain the selected data. For example, if the navigation query produces three possible results, then the results can be simply transmitted to the user via a menu on the screen of the mobile appliance.

In contrast, Levin teaches that “[u]sing a personal computer (PC) 102, a user establishes a connection with packet network 108 via an access server 106”. Levin then states that “[t]he user may also use a telephone 103 to connect to the packet network 108” and that “[t]ypically a modem connection (not shown) may be used to connect the PC 102 to the packet 108 in a conventional manner”. (emphasis added) (See Levin, Column 3, lines 5-10). Additionally, Levin states that “[t]he PC 102 dials

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into an access server 106 that is connected to the Internet or other database service via a logical network interface (not shown)" and that "[t]he logical network interface may be a local area network (LAN), a Serial Line Internet Protocol (SLIP) connection over a modem, an ISDN port or via a connection to a special LAN such as an ATM LAN or a LAN that offers bandwidth reservation". (See Levin, Column 4, lines 23-29) It is respectfully submitted that none of Levin's statements provides any specific teaching as to mobile appliances or wireless communication. In fact, terms such as "modem connection" and "ISDN port" are typically associated with hard-wired appliances. Thus, Levin does not teach or disclose a method that receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where, in turn, the selected electronic data source from the network server is transmitted to the mobile information appliance of the user. Namely, the scope of Applicants' claims is specifically directed to speech-based navigation via mobile information appliances. This novel concept is not disclosed by the Levin reference and Applicants' claims would not read on the Levin reference.

Therefore, the Applicants respectfully submit that independent claims 56, 65 and 74 are not anticipated by the Levin reference. As such, claims 56, 65 and 74 fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Claims 57-64, 66-73 and 75-82 depend, either directly or indirectly, from claims 56, 65 and 74 and recite additional features therefor. Since Levin fails to anticipate Applicants' invention as recited in Applicants' independent claims 56, 65 and 74, dependent claims 57-64, 66-73 and 75-82 are also not anticipated under 35 U.S.C. § 102 and are allowable for the same reason noted above.

Conclusion

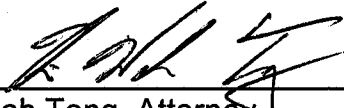
Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §102. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

09/608,872

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

9/19/01



Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

Moser, Patterson & Sheridan, LLP
595 Shrewsbury Avenue
First Floor,
Shrewsbury, New Jersey 07702

CALL 2155

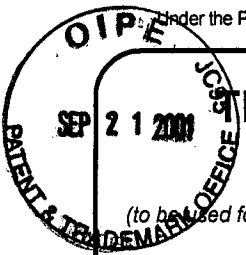
PTO/SB/21 (08-00)

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Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number		09/608,872
Filing Date		June 30, 2000
First Named Inventor		HALVERSON
Group Art Unit		2155
Examiner Name		F. BACKER
Total Number of Pages in This Submission	Attorney Docket Number	SRI 1 P 037B

ENCLOSURES (check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):		
<table border="1"> <tr> <td style="width: 150px;">Remarks</td> <td></td> </tr> </table>			Remarks	
Remarks				

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	KIN-WAH TONG
Signature	
Date	September 19, 2001

CERTIFICATE OF MAILING

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Typed or printed name	Linda DeNardi
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Date	September 19, 2001

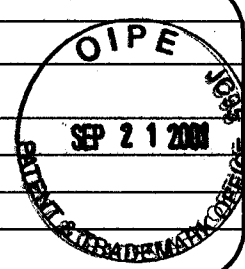
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FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.
DURING PENDENCY, PLEASE CHARGE DEPOSIT ACCOUNT 20-0782 FOR ANY 37 C.F.R. 1.16 AND/OR 37 C.F.R. 1.17 FEES DUE AND NOT OTHERWISE AUTHORIZED. PLEASE CREDIT DEPOSIT ACCOUNT 20-0782 FOR ANY OVERPAYMENTS

Complete if Known

Application Number 09/608,872
Filing Date June 30, 2000
First Named Inventor HALVERSON
Examiner Name F. BACKER
Group / Art Unit 2155
Attorney Docket No. SRI 1P037B



TOTAL AMOUNT OF PAYMENT (\$) 195.00

METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)																																																																																																																																																																															
1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: Deposit Account Number: 20-0782 Deposit Account Name: <input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		3. ADDITIONAL FEES																																																																																																																																																																															
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Technology Center 2100

SUBMITTED BY		Complete (if applicable)			
Name (Print/Type)	KIN-WAH TONG	Registration No. Attorney/Agent	39,400	Telephone	(732) 530-9404
Signature	<i>[Signature]</i>	Date	SEPTEMBER 19, 2001		

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#13



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COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/608,872	06/30/2000	Christine Halversen	SRIIp037B

CONFIRMATION NO. 2382

* OC000000006829467*

OC000000006829467

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

Date Mailed: 10/02/2001

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the Power of Attorney filed 09/21/2001.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.


 LAVINIA D JOHNSON
 2100 7033085229

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#11



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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/608,872	06/30/2000	Christine Halversen	SRIIp037B

CONFIRMATION NO. 2382

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OC000000006829442

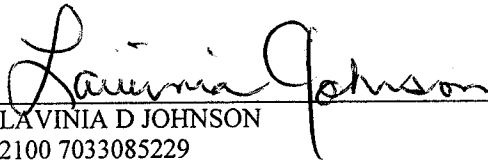
C. DOUGLAS McDONALD, ESQ.
CALTON FIELDS, et al.
P. O. BOX 3239
TAMPA,, FL 33601-3239

Date Mailed: 10/02/2001

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the Power of Attorney filed 09/21/2001.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).


 LAVINIA D JOHNSON
 2100 7033085229

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**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/608,872 06/30/00 HALVERSEN

C SRILP037B

EXAMINER

TM02/1010

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY NJ 07702

ART UNIT	PAPER NUMBER
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2155
DATE MAILED:

14

10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Response to Request for Reconsideration

This is in response to a request for reconsideration file on September 26th, 2001. Claims 56-82 are being reconsidered in this action.

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 56-82 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 56-126 of copending Application No. 09/524,095. Although the conflicting claims are not identical, they are not patentably distinct. It would have been obvious to one of ordinary skill in the art to observed that the omission of the limitations "**soliciting additional input from the user, including user interaction in a modality different that the original request and, refining the navigation query, based upon the additional input**", of applicant claims 56-82 are already in the Co-pending application 09/524,095, as such they are obvious variation of the inventive concept defined in claims 56-126 of the Co-pending application 09/524,095. See *In re Karlson*, 136USPQ 184 (CCPA 1963). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 56-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Levin et al. (U.S. Patent No. 6,173,279).

5. As per claim 56, Levin et al teach a method for speech-based navigation (*information server, 110*) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising receiving a spoken request (*receive a natural language query*) for desired information from the user (*user, 112*) utilizing the mobile information appliance (*PC, 102*) of the user; rendering an interpretation (*creating a semantic representation*) of the spoken request, constructing a navigation (*generating search*) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting (*sending*) the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22)

6. As per claim 57, 58, 62-64, Levin et al teach a method of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).
7. As per claim 59, Levin et al teach a method of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).
8. As per claim 60, Levin et al teach a method wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).
9. As per claim 61, Levin et al teach a method wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).
10. As per claim 65, Levin et al teach a computer system for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising a code segment receiving a

Art Unit: 2155

spoken request (*receive a natural language query*) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user; a code segment rendering an interpretation (*creating a semantic representation*) of the spoken request, a code segment constructing a navigation (*generating search*) query based upon the interpretation; a code segment utilizing the navigation query to select a portion of the electronic data source; and a code segment transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22)

11. As per claim 66, 67, 71-73, Levin et al teach a system of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).

12. As per claim 68, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

13. As per claim 69, Levin et al teach a system wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

14. As per claim 70, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

15. As per claim 74, Levin et al teach a system for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising receiving a spoken request (*receive a natural language query*) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user; rendering an interpretation (*creating a semantic representation*) of the spoken request, constructing a navigation (*generating search*) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22)

16. As per claim 75, 76, 80-81, Levin et al teach a method of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).

17. As per claim 77, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the

navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

18. As per claim 78, Levin et al teach a system wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

19. As per claim 79, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

Response to Arguments

1. Applicant's arguments filed on September 26th, 2001 have been fully considered but they are not persuasive. ***

a. Applicant argues that the statutory-type obviousness double patenting is not appropriate. Examiner respectfully disagrees with applicant characterization of the statutory-type obviousness double patenting concept. The inventive concepts in the applications are not patently different. Different variation of the same inventive concept is being claimed twice. According to MPEP in determining whether a statutory basis for a double patenting rejection exists, the question to be asked is: Is the same invention being claimed twice? 35 U.S.C. 101 prevents two patents from issuing on the same invention. "Same invention" means identical subject matter. *Miller v. Eagle Mfg. Co.*, 151 U.S.

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186 (1984); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Ockert, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

b. Applicant further argues that the prior art "fails to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where in turn the selected electronic data source from the network server is transmitted to the mobile information appliance of the user." Examiner respectfully disagrees with the applicant perspective and characterization of Levin inventive concept. Levin teach that use of a personal computer, a user establishes connection with a network. In the field of the network communication, a personal computer is not limited to desktop, but also handheld computer as well as laptop which are considered to be mobile appliances. In Levin inventive concept, an information server 110 receives natural language which is the same as spoken word. One the natural language query is process, the service host then transmit the result of the query to the pc. (see column 3 lines 5-35, 6 lines 25-59).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

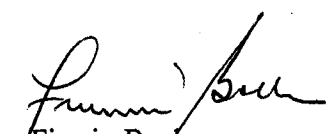
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

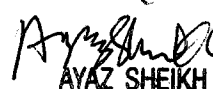
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Firmin Backer whose telephone number is 703-305-0624. The examiner can normally be reached on Mon-Thu 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sheikh Ayaz can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3718 for regular communications and 703-305-5352 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Firmin Backer
October 2, 2001


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SRIIp037B	2382

7590 01/16/2002

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

BACKER, FIRMIN

ART UNIT	PAPER NUMBER
2155	15

DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Interview Summary	Application No.	Applicant(s)	
	09/608,872	HALVERSEN ET AL.	
	Examiner	Art Unit	
	Firmin Backer	2155	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Firmin Backer (3) Kin-Wah Tong
(2) Ario Etienne (4) _____

Date of Interview: 08 January 2002.

Type: a) Telephonic b) Video Conference
c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.
If Yes, brief description: _____.

Claim(s) discussed: 56.

Identification of prior art discussed: 6,173,279.

Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.


Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant argues that the statutory double patenting rejection is improper and should be withdrawn. Applicant argues that the prior art fails to teach all the limitations of the inventive concept especially the use of wireless communication...

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) It is not necessary for applicant to provide a separate record of the substance of the interview (if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.



Examiner's signature, if required

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IN THE UNITED STATES
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PATENT APPLICATION

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JAN 1 2002

Technology Center 2100

Applicant: Halverson et al.

Case: SRI1P037B

Serial No.: 09/608,872

Filed: June 30, 2000

Group Art Unit: 2155

Examiner: Firmin Backer

Title: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION
USING SPOKEN INPUT

ASSISTANT COMMISSIONER FOR PATENTS
Box AF
Washington, D. C. 20231

S I R:

RESPONSE UNDER 37 C.F.R. § 1.116

This response addresses the Final Office Action dated October 10, 2001 (Paper No. 14).

IN THE CLAIMS

Please amend claims 56 and 65 as shown below. These claims are "clean version" of the amended claims, i.e., with changes incorporated into the claims, whereas the Appendix to this Amendment illustrates the amended claims using underlines and brackets to indicate addition and deletion, respectively.

56. (Amended) A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

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*Sub
10/01*

- (a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user;
 - (b) rendering an interpretation of the spoken request;
 - (c) constructing a navigation query based upon the interpretation;
 - (d) utilizing the navigation query to select a portion of the electronic data source;
- and
- (e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication.

*Sub
10/02*

65. (Amended) A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising:
- (a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user;
 - (b) a code segment that renders an interpretation of the spoken request;
 - (c) a code segment that constructs a navigation query based upon the interpretation;
 - (d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and
 - (e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication.

REMARKS

Applicants' representative would like to thank Examiner Backer and Primary Examiner Etienne for kindly taking a substantial amount of time on January 8, 2002 to

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discuss the merits of the subject invention. Applicants' representative is aware of the time constraint that is placed on the Examiners and is appreciative of the Examiners' willingness to devote such large quantity of time to discuss the case on the merit.

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 56-82 UNDER DOUBLE PATENTING

The Examiner provisionally rejected claims 56-82 in Paragraphs 1-2 of the Final Office Action based on statutory type double patenting under 35 U.S.C. § 101 as claiming the same invention as that of claims 56-126 of copending Application No. 09/524,095. Applicants respectfully traverse the rejection.

First, the Examiner noted that "it would have been obvious to one of ordinary skill in the art to observe that the omission of the limitations **'soliciting additional input from the user, including user interaction in a modality different than the original request and, refining the navigation query, based upon the additional input'**. After noting the differences between the scope of the claims between the two applications, the Examiner then concluded that claims 56-82 "are obvious variation of the inventive concept defined in claims 56-126 of co-pending application 09/524,095".

Pursuant to the Examiner Interview, Applicants again directed Examiner's attention to the fact that there are two types of double patenting rejections: "statutory" and "non-statutory (obviousness-type)". MPEP 804 states that "[i]n determining whether a statutory basis for a double patenting rejection exists, the question to be asked is: Is the same invention being claimed twice?" "A reliable test for double patenting under 35 U.S.C. 101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent". Given the substantial differences between the claims of the two applications as noted by the Examiner, Applicants respectfully submit that applying the statutory double patenting test as promoted in the MPEP would not produce a statutory double patenting rejection in the present application.

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Second, it should be noted that the present application is a continuation of the co-pending application 09/524,095. As such, if and when these two applications mature into issued patents, both patents will have the same term.

As such, Applicants submit that the present statutory double patenting rejection against claims 56-82 is inappropriate. The Examiners Indicated that they will reconsider the present statutory type double patenting under 35 U.S.C. § 101.

II. REJECTION OF CLAIMS 56-82 UNDER 35 U.S.C. § 102

The Examiner has rejected claims 56-82 in Paragraphs 4-19 of the Final Office Action as being anticipated by the Levin et al. patent (US Patent 6,173,279 issued January 9, 2001, hereinafter referred to as Levin). The rejection is respectfully traversed.

Levin teaches "a method of using at least one natural language query to retrieve information from one or more data resources and further performing a requested action using the retrieved information is disclosed". (See Levin, Column 2, lines 15-18) Namely, Levin teaches a method for using natural language query to obtain information, where upon receipt of the requested information, a desired action is executed based upon the requested information. To illustrate, Levin provides the example, where a user employs natural language to request the telephone number of a restaurant. Upon receipt of the telephone number, the telephone number is actually dialed for the user. (See Levin, Column 3 line 62 to Column 4, line 1)

In contrast, Levin fails to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where, in turn, the selected electronic data source from the network server is transmitted to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication. Specifically, Applicants' independent claims 56, 65 and 74 positively recite:

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56. A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

- (a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user;
- (b) rendering an interpretation of the spoken request;
- (c) constructing a navigation query based upon the interpretation;
- (d) utilizing the navigation query to select a portion of the electronic data source; and
- (e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication. (emphasis added)

65. A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising:

- (a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user;
- (b) a code segment that renders an interpretation of the spoken request;
- (c) a code segment that constructs a navigation query based upon the interpretation;
- (d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and
- (e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication. (emphasis added)

74. A system for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, comprising:

- (a) a mobile information appliance operable to receive a spoken request for desired information from the user;
- (b) spoken language processing logic, operable to render an interpretation of the spoken request;
- (c) query construction logic, operable to construct a navigation query based upon the interpretation;
- (d) navigation logic, operable to select a portion of the electronic data source using the navigation query, and

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(e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of a data link of the electronic communications infrastructure between a mobile information appliance of the user and the one or more network servers utilizes wireless communication. (emphasis added)

Applicants' invention teaches a novel method and apparatus for speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where, in turn, the selected electronic data source from the network server is transmitted to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication. Specifically, Applicants address the criticality of providing speech-based navigation via a mobile, i.e., wireless communication, approach in addition to spoken natural language. It has been noted that with the proliferation of various mobile appliances, it would be advantageous to allow these mobile appliances to access the same vastness of electronic data sources that are available to hard-wired appliances like a desktop computer. However, the very essence of a mobile appliance is its portability, small size and ease of use. As such, unlike hard-wired appliances, mobile appliances are not equipped with large bulky input devices. In fact, even if the mobile appliance is equipped with extensive input devices, most users would still find these "shrunk" input devices to be cumbersome and difficult to use, e.g., an electronic representation of a keyboard on a PDA and the like.

To further exacerbate the problem, obtaining information from an electronic data source may require extensive and complex interaction between the user's mobile appliance and the system holding the electronic data source. Thus, the limited or cumbersome input/output capability of a mobile appliance presents a substantial barrier to its ability to access a data resource that requires extensive and complex interaction.

In contrast, Levin teaches that "[u]sing a personal computer (PC) 102, a user establishes a connection with packet network 108 via an access server 106". Levin then states that "[t]he user may also use a telephone 103 to connect to the packet

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network 108" and that "[t]ypically a modem connection (not shown) may be used to connect the PC 102 to the packet 108 in a conventional manner". (emphasis added) (See Levin, Column 3, lines 5-10). Additionally, Levin states that "[t]he PC 102 dials into an access server 106 that is connected to the Internet or other database service via a logical network interface (not shown)" and that "[t]he logical network interface may be a local area network (LAN), a Serial Line Internet Protocol (SLIP) connection over a modem, an ISDN port or via a connection to a special LAN such as an ATM LAN or a LAN that offers bandwidth reservation". (See Levin, Column 4, lines 23-29) It is respectfully submitted that none of Levin's statements provides any specific teaching as to mobile appliances or wireless communication. In fact, terms such as "modem connection" and "ISDN port" are typically associated with hard-wired appliances. Thus, Levin does not teach or disclose a method that receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where, in turn, the selected electronic data source from the network server is transmitted to the mobile information appliance of the user via wireless communication over at least a portion of the data link. Namely, the scope of Applicants' claims is specifically directed to speech-based navigation via mobile information appliances. This novel concept is not disclosed by the Levin reference and Applicants' claims would not read on the Levin reference.

Pursuant to the Examiner Interview, Applicants have agreed to incorporate the term "wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication", into the body of the independent claims. This term previously existed in the preamble of the independent claims. Thus, since this term previously existed in the originally filed independent claims, the present amendment is not implemented in view of the cited prior art. In fact, Applicants take the position that the scope of the independent claims did not change as a result of this amendment and that this amendment served to clarify the claims to the Examiner's satisfaction.

Additionally, it should be noted that no amendment was applied to independent claim 74, since the above-identified term is already in the body of the independent claim

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74.

Therefore, the Applicants respectfully submit that independent claims 56, 65 and 74 are not anticipated by the Levin reference. As such, claims 56, 65 and 74 fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

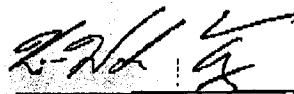
Claims 57-64, 66-73 and 75-82 depend, either directly or indirectly, from claims 56, 65 and 74 and recite additional features therefor. Since Levin fails to anticipate Applicants' invention as recited in Applicants' independent claims 56, 65 and 74, dependent claims 57-64, 66-73 and 75-82 are also not anticipated under 35 U.S.C. § 102 and are allowable for the same reason noted above.

Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §102. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of the present final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

1/10/02

Moser, Patterson & Sheridan, LLP
595 Shrewsbury Avenue
First Floor,
Shrewsbury, New Jersey 07702

09/608,872

**Appendix
(Marked-up copy of amended claims)**

56. (Amended) A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein [at least a portion of] a data link is established between a mobile information appliance of the user and the one or more network servers [utilize wireless communication], comprising the steps of:

(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user;

(b) rendering an interpretation of the spoken request;

(c) constructing a navigation query based upon the interpretation;

(d) utilizing the navigation query to select a portion of the electronic data source;

and

(e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication.

65. (Amended) A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein [at least a portion of] a data link is established between a mobile information appliance of the user and the one or more network servers [utilizes wireless communication], comprising:

(a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user;

(b) a code segment that renders an interpretation of the spoken request.

(c) a code segment that constructs a navigation query based upon the interpretation;

(d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and

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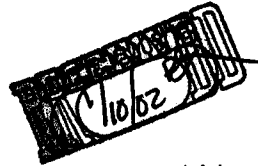
(e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication.

TELEFAX COVER SHEET

MOSER, PATTERSON & SHERIDAN

ATTORNEYS AT LAW
595 SHREWSBURY AVENUE
FIRST FLOOR
SHREWSBURY, NJ 07702
TELEPHONE (732) 530-9404
TELEFAX (732) 530-9808

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TO: Assistant Commissioner of Patents
FAX NO.: 703-746-7238
FROM: Kin-Wah Tong
DATE: January 10, 2002
MATTER: Serial No. 09/608,872 Filed: June 30, 2000
DOCKET NO.: SRI 1P037B
APPLICANT: HALVERSON, et al

The following has been received in the U.S. Patent and Trademark Office on the date of this facsimile:

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Drawings (sheets) informal
X Response Under 37 CFR 1.116
X Transmittal Letter (2 copies)
Fee Transmittal (2 copies)
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TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	09/608,872	
	Filing Date	June 30, 2000	
	First Named Inventor	HALVERSON	
	Group Art Unit	2155	
	Examiner Name	F. BACKER	
Total Number of Pages in This Submission	13	Attorney Docket Number	SRI 1 P 037B

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		It is believed no fee is due. However, in the event a fee is due, kindly charge that fee to deposit account number 20-0782. To facilitate that charge, a duplicate copy of this letter is enclosed

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	PATRICIA A. VERLANGIERI, Reg. No. 42,201
Signature	<i>Patricia A. Verlangieri</i>
Date	January 10, 2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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PTO/SB/21 (08-00)

Please type a plus sign (+) inside this box →

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/808,872	
	Filing Date	June 30, 2000	
	First Named Inventor	HALVERSON	
	Group Art Unit	2155	
	Examiner Name	F. BACKER	
Total Number of Pages in This Submission	13	Attorney Docket Number	SRJ 1 P 037B

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		It is believed no fee is due. However, in the event a fee is due, kindly charge that fee to deposit account number 20-0782. To facilitate that charge, a duplicate copy of this letter is enclosed

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	PATRICIA A. VERLANGIERI, Reg. No. 42,201
Signature	<i>Patricia A. Verlangieri</i>
Date	January 10, 2001

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Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SR11p037B	2382

7590 01/28/2002

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

BACKER, FIRMIN

ART UNIT	PAPER NUMBER
2155	17

DATE MAILED: 01/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/608,872	Applicant(s) HALVERSEN ET AL.	
	Examiner Firmin Backer	Art Unit 2155	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 January 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) The period for reply expires 3 months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. The proposed amendment(s) will not be entered because:
- (a) they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) they raise the issue of new matter (see Note below);
- (c) they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. Applicant's reply has overcome the following rejection(s): _____.
4. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 56-82.

Claim(s) withdrawn from consideration: _____.

8. The proposed drawing correction filed on _____ is a) approved or b) disapproved by the Examiner.
9. Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. Other: _____.

Continuation of 2. NOTE: The proposed amendments will not be entered because the raised new issue such as in claims 56 and 65 "wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network utilizes wireless communication" that require further search and/or consideration .



AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

PTO/SB/30 (08-00)

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2-8-02

<p align="center">REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL</p> <p>Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000, provides for continued examination of an utility or plant application filed on or after June 8, 1995. See The American Inventors Protection Act of 1999 (AIPA).</p>	Application Number	09/608,872
	Filing Date	June 30, 2000
	Examiner Name	F. Becker
	First Named Inventor	Halversen
	Group Art Unit	2155
	Attorney Docket Number	SRI 1P037B

This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.
NOTE: 37 C.F.R. § 1.114 is effective on May 29, 2000. If the above-identified application was filed prior to May 29, 2000, applicant may wish to consider filing a continued prosecution application (CPA) under 37 C.F.R. § 1.53 (d) (PTO/SB/29) instead of a RCE to be eligible for the patent term adjustment provisions of the AIPA. See Changes to Application Examination and Provisional Application Practice, Interim Rule, 65 Fed. Reg. 14865 (Mar. 20, 2000), 1233 Off. Gaz. Pat. Office 47 (Apr. 11, 2000), which established RCE practice.

1. Submission required under 37 C.F.R. § 1.114

a. Previously submitted

i. Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on 1/10/02
(Any unentered amendment(s) referred to above will be entered).

ii. Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

iii. Other _____

b. Enclosed

i. Amendment/Reply

ii. Affidavit(s)/Declaration(s)

iii. Information Disclosure Statement (IDS)

iv. Other _____

2. Miscellaneous

a. Suspension of action on the above-identified application is requested under 37 C.F.R. § 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. § 1.17(i) required)

b. Other Extension Request and Fee Transmittal Sheet

3. Fees

The RCE fee under 37 C.F.R. § 1.17(e) is required by 37 C.F.R. § 1.114 when the RCE is filed.

a. The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. 20-0782

i. RCE fee required under 37 C.F.R. § 1.17(e)

ii. Extension of time fee (37 C.F.R. §§ 1.136 and 1.17)

iii. Other _____

b. Check in the amount of \$ _____ enclosed

c. Payment by credit card (Form PTO-2036 enclosed)

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	KIN-WAH TONG	Registration No. (Attorney/Agent)	39,400
Signature		Date	February 8, 2002

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND Fees and Completed Forms to the following address: Commissioner for Patents, Box RCE, Washington, DC 20231.

02/12/2002 09:01:11 00000003 200782 09608872
 01 FC:015 55.00 CR
 02 FC:279 370.00 CR

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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) SRI 1P037B
In re Application of HALVERSEN		
Application Number 09/608,872	Filed June 30, 2000	
For Mobile Navigation of Network-Based Electronic Information Using Spoken Input		
Group Art Unit 2155	Examiner F. Backer	

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response in the above identified application.

The requested extension and appropriate non-small-entity fee are as follows (check time period desired):

<input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$110.00
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$
<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$

Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$ 55.00 .

A check in the amount of the fee is enclosed.

Payment by credit card. Form PTO-2038 is attached.

The Commissioner has already been authorized to charge fees in this application to a Deposit Account.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 20-0782 .
I have enclosed a duplicate copy of this sheet.

I am the applicant/inventor.

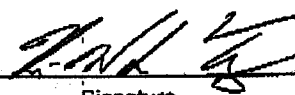
assignee of record of the entire interest. See 37 CFR 3.71
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

attorney or agent of record.

attorney or agent under 37 CFR 1.34(a).
Registration number if acting under 37 CFR 1.34(a) _____ .

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

February 8, 2002
Date


Signature
KIN-WAH TONG
Typed or printed name

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

*Total of _____ forms are submitted.

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)	Docket Number (Optional) SRI 1P037B
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- Three months (37 CFR 1.17(a)(3)) \$
- Four months (37 CFR 1.17(a)(4)) \$
- Five months (37 CFR 1.17(a)(5)) \$

- Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$ 55.00.
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- The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 20-0782.
I have enclosed a duplicate copy of this sheet.

I am the applicant/inventor.

- assignee of record of the entire interest. See 37 CFR 3.71
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).
- attorney or agent of record.
- attorney or agent under 37 CFR 1.34(a).
Registration number if acting under 37 CFR 1.34(a): _____

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February 8, 2002

Date

Signature

KIN-WAH TONG

Typed or printed name

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

<input type="checkbox"/> Total of _____ forms are submitted.
--

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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<h2 style="margin: 0;">FEE TRANSMITTAL for FY 2002</h2> <p style="font-size: small; margin-top: 10px;">Patent fees are subject to annual revision.</p>	<i>Complete if Known</i>	
	Application Number	09/608,872
	Filing Date	June 30, 2000
	First Named Inventor	Halvorsen
	Examiner Name	F. Backer
Group / Art Unit	2155	
TOTAL AMOUNT OF PAYMENT (\$)	425	Attorney Docket No. SRI 1P037B

<p>METHOD OF PAYMENT (check one)</p> <p>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number: 20-0782</p> <p>Deposit Account Name: _____</p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17</p> <p><input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27</p> <p>2. <input type="checkbox"/> Payment Enclosed:</p> <p style="font-size: x-small;"><input type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other</p>	<p>FEE CALCULATION (continued)</p> <p>3. ADDITIONAL FEES</p> <table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>106</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>216</td><td>55</td><td>Extension for reply within first month</td><td>55.00</td></tr> <tr><td>116</td><td>400</td><td>216</td><td>200</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>920</td><td>217</td><td>460</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,440</td><td>218</td><td>720</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,960</td><td>228</td><td>980</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>320</td><td>219</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>320</td><td>220</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>280</td><td>221</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,280</td><td>241</td><td>640</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,280</td><td>242</td><td>640</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>460</td><td>243</td><td>230</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>620</td><td>244</td><td>310</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Processing fee under 37 CFR 1.17 (g)</td><td></td></tr> <tr><td>126</td><td>180</td><td>126</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>740</td><td>246</td><td>370</td><td>Filing a submission after final rejection (37 CFR § 1.129(a))</td><td></td></tr> <tr><td>149</td><td>740</td><td>249</td><td>370</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr> <tr><td>179</td><td>740</td><td>279</td><td>370</td><td>Request for Continued Examination (RCE)</td><td>370.00</td></tr> <tr><td>169</td><td>900</td><td>169</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> </tbody> </table> <p>Other fee (specify): _____</p> <p>*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 425</p>	Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	Fee Paid	106	130	205	65	Surcharge - late filing fee or oath		127	50	227	25	Surcharge - late provisional filing fee or cover sheet		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing a request for reexamination		112	920*	112	920*	Requesting publication of SIR prior to Examiner action		113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action		115	110	216	55	Extension for reply within first month	55.00	116	400	216	200	Extension for reply within second month		117	920	217	460	Extension for reply within third month		118	1,440	218	720	Extension for reply within fourth month		128	1,960	228	980	Extension for reply within fifth month		119	320	219	160	Notice of Appeal		120	320	220	160	Filing a brief in support of an appeal		121	280	221	140	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive - unavoidable		141	1,280	241	640	Petition to revive - unintentional		142	1,280	242	640	Utility issue fee (or reissue)		143	460	243	230	Design issue fee		144	620	244	310	Plant issue fee		122	130	122	130	Petitions to the Commissioner		123	50	123	50	Processing fee under 37 CFR 1.17 (g)		126	180	126	180	Submission of Information Disclosure Stmt		581	40	581	40	Recording each patent assignment per property (times number of properties)		146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))		149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))		179	740	279	370	Request for Continued Examination (RCE)	370.00	169	900	169	900	Request for expedited examination of a design application	
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138	1,510	138	1,510	Petition to institute a public use proceeding																																																																																																																																																																											
140	110	240	55	Petition to revive - unavoidable																																																																																																																																																																											
141	1,280	241	640	Petition to revive - unintentional																																																																																																																																																																											
142	1,280	242	640	Utility issue fee (or reissue)																																																																																																																																																																											
143	460	243	230	Design issue fee																																																																																																																																																																											
144	620	244	310	Plant issue fee																																																																																																																																																																											
122	130	122	130	Petitions to the Commissioner																																																																																																																																																																											
123	50	123	50	Processing fee under 37 CFR 1.17 (g)																																																																																																																																																																											
126	180	126	180	Submission of Information Disclosure Stmt																																																																																																																																																																											
581	40	581	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																											
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))																																																																																																																																																																											
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))																																																																																																																																																																											
179	740	279	370	Request for Continued Examination (RCE)	370.00																																																																																																																																																																										
169	900	169	900	Request for expedited examination of a design application																																																																																																																																																																											

SUBMITTED BY					<i>Complete if applicable</i>	
Name (Print/Type)	KIN-WAH TONG	Registration No. Attorney/Agent	39,400	Telephone	(732)530-9404	
Signature				Date	FEBRUARY 8, 2002	

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

TELEFAX COVER SHEET

MOSER, PATTERSON & SHERIDAN, LLP
ATTORNEYS AT LAW
595 SHREWSBURY AVENUE
FIRST FLOOR
SHREWSBURY, NJ 07702
TELEPHONE (732) 530-9404
TELEFAX (732) 530-9808

Official



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THIS MESSAGE HAS 6 PAGES INCLUDING THIS SHEET

TO: Assistant Commissioner of Patents
FAX NO.: 703-746-7238
FROM: Kin-Wah Tong
DATE: February 8, 2002
MATTER: Serial No. 09/608,872 Filed: June 30, 2000
DOCKET NO.: SRI 1P037B
APPLICANT: HALVERSON, et al

The following has been received in the U.S. Patent and Trademark Office on the date of this facsimile:

- Petition
Disclosure Statement & PTO-1449
Priority Document
Drawings (sheets) informal
X Petition for Extension of Time (2 copies)
X RCE Transmittal Letter
X Fcc Transmittal (2 copies)
X Deposit Account Transaction
X Facsimile Transmission Certificate dated February 8, 2002

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.6

I hereby certify that this correspondence is being transmitted by facsimile to the Assistant Commissioner for Patents, Box AF, Washington, DC 20231 on February 8, 2002. Facsimile No. 703-746-7238

Linda DeNardi
Name of person signing this certificate

Linda DeNardi February 8, 2002
Signature and date



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: 400 M STREET, S.W., Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SRIIp037B	2382

7590 02/19/2002
 THOMASON, MOSER & PATTERSON, LLP
 595 SHREWSBURY AVENUE
 SUITE 100
 SHREWSBURY, NJ 07702

EXAMINER

BACKER, FIRMIN

ART UNIT	PAPER NUMBER
2155	19

DATE MAILED: 02/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/608,872	Applicant(s) HALVERSEN ET AL.	
	Examiner Firmin Backer	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 February 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 56-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 56-82 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) Interview Summary (PTO-413) Paper No(s). _____.
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other:

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 8th, 2002 has been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 56-82 are provisionally rejected under the judicially created doctrine of double patenting over claims 56-126 of copending Application No. 09/524,095. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows. Although the conflicting claims are not identical, they are not

Art Unit: 2155

patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to observed that the omission of the limitations “**soliciting additional input from the user, including user interaction in a modality different that the original request and, refining the navigation query, based upon the additional input**”, of applicant claims 56-82 are already in the Co-pending application 09/524,095, as such they are obvious variation of the inventive concept defined in claims 56-126 of the Co-pending application 09/524,095. See In re Karlson, 136USPQ 184 (CCPA 1963). This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 56-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Levin et al. (U.S. Patent No. 6,173,279).

6. As per claim 56, Levin et al teach a method for speech-based navigation (*information server, 110*) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (*see abstract, fig*

1, column 3 lines 5-35), comprising receiving a spoken request (*receive a natural language query*) for desired information from the user (*user, 112*) utilizing the mobile information appliance (*PC, 102*) of the user; rendering an interpretation (*creating a semantic representation*) of the spoken request, constructing a navigation (*generating search*) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting (*sending*) the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (*see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22*)

7. As per claim 57, 58, 62-64, Levin et al teach a method of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (*see abstract, fig 1, column 3 lines 5-35*).

8. As per claim 59, Levin et al teach a method of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (*see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22*).

9. As per claim 60, Levin et al teach a method wherein the data link includes a cellular telephone system (*see fig 1, column 2 line 61-67*).

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10. As per claim 61, Levin et al teach a method wherein steps (a)-(d) are performed with respect to multiple users (*see abstract, fig 1, column 3 lines 5-35*).

11. As per claim 65, Levin et al teach a computer system for speech-based navigation (*information server, 110*) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (*see abstract, fig 1, column 3 lines 5-35*), comprising a code segment receiving a spoken request (*receive a natural language query*) for desired information from the user (*user*) utilizing the mobile information appliance (*PC, 102*) of the user; a code segment rendering an interpretation (*creating a semantic representation*) of the spoken request, a code segment constructing a navigation (*generating search*) query based upon the interpretation; a code segment utilizing the navigation query to select a portion of the electronic data source; and a code segment transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (*see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22*).

12. As per claim 66, 67, 71-73, Levin et al teach a system of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (*see abstract, fig 1, column 3 lines 5-35*).

13. As per claim 68, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (*see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22*).

14. As per claim 69, Levin et al teach a system wherein the data link includes a cellular telephone system (*see fig 1, column 2 line 61-67*).

15. As per claim 70, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (*see abstract, fig 1, column 3 lines 5-35*).

16. As per claim 74, Levin et al teach a system for speech-based navigation (*information server, 110*) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (*see abstract, fig 1, column 3 lines 5-35*), comprising receiving a spoken request (*receive a natural language query*) for desired information from the user (*user*) utilizing the mobile information appliance (*PC, 102*) of the user; rendering an interpretation (*creating a semantic representation*) of the spoken request, constructing a navigation (*generating search*) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting the selected portion of the electronic data source from the network server to the

mobile information appliance of the user. (*see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22*)

17. As per claim 75, 76, 80-81, Levin et al teach a method of rendering the interpretation of the spoken request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (*see abstract, fig 1, column 3 lines 5-35*).

18. As per claim 77, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (*see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22*).

19. As per claim 78, Levin et al teach a system wherein the data link includes a cellular telephone system (*see fig 1, column 2 line 61-67*).

20. As per claim 79, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (*see abstract, fig 1, column 3 lines 5-35*).

Response to Arguments

21. Applicant's arguments filed on September 26th, 2001 have been fully considered but they are not persuasive.

a. Applicant argues that the prior art "fails to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where in turn the selected electronic data source from the network server is transmitted to the mobile information appliance of the user." Examiner respectfully disagrees with the applicant perspective and characterization of Levin inventive concept. Levin teach that the URL for a data resource is inputted into PC 102 either by typing the request using a keyboard 104 or by speaking the request into a microphone 105, which is considered to be a mobile appliance of the user. Furthermore, Levin et al indicate that the spoken requests either from a PC microphone 105 or from a telephone 103 can be handled by a speech recognition system residing at the information server (*see column 4 lines 7-22*). Applicant further argues that the prior art "fails to teach or suggest that the selected electronic data source from the network server is transmitted to the mobile information appliance of the user." Examiner respectfully disagrees with the applicant perspective and characterization of Levin inventive concept. Levin teach that once an information server is accessed, the user can send a text or a spoken query requesting a particular action or service (step 204), for example: "call the pizza place on Main Street in Westfield". The query is received by the access server 106 and the natural language query is sent to the information server 110 via packet network 108. It is to be understood that the packet


network 108 may be connected to a plurality of information servers which each relate to one or more particular information services, or there may be a single centralized information server 110 which is accessed by all information services which are capable of receiving and processing natural language queries and contains at least some of the data resources (e.g., URLs and associated site/service-specific grammars) *capable of receiving and responding to a natural language query*. It is obvious inventive concept referring to *response* is in the field of sending or transmitting the requested information to the user. Moreover, it is understood in the art of information request, in order to complete the transaction, the host must transmit to the requester the requested information.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Firmin Backer whose telephone number is 703-305-0624. The examiner can normally be reached on Mon-Thu 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sheikh Ayaz can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Firmin Backer
February 14, 2002


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKETT NO.
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EXAMINER

ART UNIT	PAPER NUMBER
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20

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

(1) David Wiley (3) _____

(2) Kia-kan Tong 39,400 (4) _____

Date of interview 5/23/2002

Type: Telephonic Personal (copy is given to applicant applicant's representative).

Exhibit shown or demonstration conducted: Yes No. If yes, brief description: _____

Agreement was reached with respect to some or all of the claims in question. was not reached.

Claims discussed: 56-82

Identification of prior art discussed: Levin et al.

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: The applicant agreed to amend the claims to further identify the mobile device to overcome the Levin Reference.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

1. It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph below has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

2. Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the substance of the interview unless box 1 above is also checked.

Examiner's Signature

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) SRI 1P037B
in re Application of Halverson, et al		
Application Number 09/608,872	Filed June 30, 2000	
For Mobile Navigation of Network-Based Electronic Information Using Spoken Output		
Group Art Unit 2155	Examiner F. Backer	

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response in the above identified application.

The requested extension and appropriate non-small-entity fee are as follows (check time period desired):

<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$
<input checked="" type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$400.00
<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$

Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$ 200.00.

A check in the amount of the fee is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Commissioner has already been authorized to charge fees in this application to a Deposit Account.
 The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 20-0782.
 I have enclosed a duplicate copy of this sheet.

I am the applicant/inventor.
 assignee of record of the entire interest. See 37 CFR 3.71
 Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).
 attorney or agent of record.
 attorney or agent under 37 CFR 1.34(a).
 Registration number if acting under 37 CFR 1.34(a). _____

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

July 17, 2002 _____
 Date
 00000002 200782 09608872
 Signature
 Kin-Wah Tong
 Typed or printed name

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below".
 *Total of _____ forms are submitted.

#21
S. Cotton,
7/18/02

07/19/2002 SCOTTON
01 FC:116

400.00 CH

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Received from < 732 530 9808 > at 7/17/02 5:23:40 PM [Eastern Daylight Time]

09/608,872

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicant: Halverson et al.

Case: SRI1P037B

Serial No.: 09/608,872

Filed: June 30, 2000

Group Art Unit: 2155

Examiner: Firmin Backer

Title: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION
USING SPOKEN INPUT

ASSISTANT COMMISSIONER FOR PATENTS
Box Non-Fee Amendment
Washington, D. C. 20231

S I R:

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111

This amendment addresses the Office Action dated February 19, 2002 (Paper No. 19).

IN THE CLAIMS

Please amend claims 56, 65 and 74 as shown below. These claims are "clean version" of the amended claims, i.e., with changes incorporated into the claims, whereas the Appendix to this Amendment illustrates the amended claims using underlines and brackets to indicate addition and deletion, respectively.

56. (Twice Amended) A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

34

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22/20
S. Cotton
7-18-02

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09/608,872

(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) rendering an interpretation of the spoken request;

(c) constructing a navigation query based upon the interpretation;

(d) utilizing the navigation query to select a portion of the electronic data source;

and

(e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user.

10 ~~85~~. (Twice Amended) A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising:

(a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) a code segment that renders an interpretation of the spoken request;

(c) a code segment that constructs a navigation query based upon the interpretation;

(d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and

(e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user.

19 ~~74~~. (Amended) A system for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, comprising:

(a) a mobile information appliance operable to receive a spoken request for desired information from the user, wherein said mobile information appliance comprises

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a portable remote control device or a set-top box for a television;

(b) spoken language processing logic, operable to render an interpretation of the spoken request;

(c) query construction logic, operable to construct a navigation query based upon the interpretation;

(d) navigation logic, operable to select a portion of the electronic data source using the navigation query, and

(e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user.

REMARKS

Applicants' representative would like to thank Primary Examiner David Wiley for kindly taking a substantial amount of time on May 23, 2002 to discuss the merits of the subject invention in a face-to-face Examiner Interview. Applicants' representative is aware of the time constraint that is placed on the Examiner and is appreciative of the Examiner's willingness to devote such large quantity of time to discuss the case on the merit.

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 56-82 UNDER DOUBLE PATENTING

The Examiner provisionally rejected claims 56-82 in Paragraphs 2-3 of the Office Action based on the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 56-126 of copending Application No. 09/524,095.

Responsive to the Examiner, Applicants provisionally agree to file a terminal disclaimer to resolve the present judicially created doctrine of obviousness-type double patenting rejection if and when one of the applications is finally allowed. In accordance with MPEP 804 I.B, "if the 'provisional' double patenting rejection in one application is

09/608,872

the only rejection remaining in that application, the examiner should then withdraw that rejection and permit the application to issue as a patent, thereby converting the 'provisional' doubling patenting rejection in the other application(s) into a double patenting rejection at the time the one application issues as a patent". As such, Applicants will file a terminal disclaimer in the future, if necessary.

II. REJECTION OF CLAIMS 56-82 UNDER 35 U.S.C. § 102

The Examiner has again rejected claims 56-82 in Paragraphs 4-20 of the Office Action as being anticipated by the Levin et al. patent (US Patent 6,173,279 issued January 9, 2001, hereinafter referred to as Levin). The rejection is respectfully traversed.

Levin teaches "a method of using at least one natural language query to retrieve information from one or more data resources and further performing a requested action using the retrieved information is disclosed". (See Levin, Column 2, lines 15-18) Namely, Levin teaches a method for using natural language query to obtain information, where upon receipt of the requested information, a desired action is executed based upon the requested information. To illustrate, Levin provides the example, where a user employs natural language to request the telephone number of a restaurant. Upon receipt of the telephone number, the telephone number is actually dialed for the user. (See Levin, Column 3 line 62 to Column 4, line 1)

In contrast, Levin fails to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television. Specifically, Applicants' independent claims 56, 65 and 74 positively recite:

56. A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile

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information appliance comprises a portable remote control device or a set-top box for a television;

- (b) rendering an interpretation of the spoken request;
- (c) constructing a navigation query based upon the interpretation;
- (d) utilizing the navigation query to select a portion of the electronic data source; and
- (e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

65. A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising:

(a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

- (b) a code segment that renders an interpretation of the spoken request;
- (c) a code segment that constructs a navigation query based upon the interpretation;
- (d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and
- (e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

74. A system for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, comprising:

- (a) a mobile information appliance operable to receive a spoken request for desired information from the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;
- (b) spoken language processing logic, operable to render an interpretation of the spoken request;
- (c) query construction logic, operable to construct a navigation query based upon the interpretation;
- (d) navigation logic, operable to select a portion of the electronic data source using the navigation query, and
- (e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

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Applicants' invention teaches a novel method and apparatus for speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television. This teaching is completely absent in the Levin reference.

During the Examiner Interview, Primary Examiner David Wiley indicated that a specific identification of the mobile information appliance that comprises a portable remote control device or a set-top box for a television would likely overcome the Levin reference.

Therefore, the Applicants respectfully submit that independent claims 56, 65 and 74 are not anticipated by the Levin reference. As such, claims 56, 65 and 74 fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Claims 57-64, 66-73 and 75-82 depend, either directly or indirectly, from claims 56, 65 and 74 and recite additional features therefor. Since Levin fails to anticipate Applicants' invention as recited in Applicants' independent claims 56, 65 and 74, dependent claims 57-64, 66-73 and 75-82 are also not anticipated under 35 U.S.C. § 102 and are allowable for the same reason noted above.

Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §102. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

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Respectfully submitted,

7/17/02



Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

Moser, Patterson & Sheridan, LLP
595 Shrewsbury Avenue
First Floor,
Shrewsbury, New Jersey 07702

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**Appendix
(Marked-up copy of amended claims)**

56. (Twice Amended) A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) rendering an interpretation of the spoken request;

(c) constructing a navigation query based upon the interpretation;

(d)utilizing the navigation query to select a portion of the electronic data source;

and

(e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user[, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication].

65. (Twice Amended) A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising:

(a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) a code segment that renders an interpretation of the spoken request.

(c) a code segment that constructs a navigation query based upon the interpretation;

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(d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and

(e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user[, wherein at least a portion of said data link between said mobile information appliance of the user and the one or more network servers utilizes wireless communication].

74. (Amended) A system for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, comprising:

(a) a mobile information appliance operable to receive a spoken request for desired information from the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) spoken language processing logic, operable to render an interpretation of the spoken request;

(c) query construction logic, operable to construct a navigation query based upon the interpretation;

(d) navigation logic, operable to select a portion of the electronic data source using the navigation query, and

(e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user[, wherein at least a portion of a data link of the electronic communications infrastructure between a mobile information appliance of the user and the one or more network servers utilizes wireless communication].

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TELEFAX COVER SHEET

MOSEY, PATTERSON & SHERIDAN, LLP

ATTORNEYS AT LAW
595 SHREWSBURY AVENUE
FIRST FLOOR
SHREWSBURY, NJ 07702
TELEPHONE (732) 530-9404
TELEFAX (732) 530-9808

THIS TELEFAX MESSAGE IS ADDRESSED TO THE PERSON OR COMPANY LISTED BELOW.
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LISTED ABOVE AT (732) 530-9404

THIS MESSAGE HAS 13 PAGES INCLUDING THIS SHEET

TO: Assistant Commissioner of Patents

FAX NO.: 703-746-7239

FROM: Kin-Wah Tong

DATE: July 17, 2002

MATTER: Serial No. 09/608.872 Filed: June 30, 2000

DOCKET NO.: SRI 1P037B

APPLICANT: HALVERSON, et al

The following has been received in the U.S. Patent and Trademark Office on the date of this facsimile:

- Petition
Disclosure Statement & PTO-1449
Priority Document
Drawings (sheets) informal
X Petition for Extension of Time (2 copies)
X Amendment and Response
X Transmittal Letter
Fee Transmittal (2 copies)
X Deposit Account Transaction
X Facsimile Transmission Certificate dated July 17, 2002

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being transmitted by facsimile to the Assistant Commissioner for Patents, Box Non-Fee Amendment, Washington, DC 20231 on July 17, 2002. Facsimile No. 703-746-7239

Linda DeNardi
Name of person signing this certificate

Linda DeNardi July 17, 2002
Signature and date



Official

PTO/SB/21 (08-00)

Please type a plus sign (+) inside this box → +

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/608,872	
	Filing Date	June 30, 2000	
	First Named Inventor	HALVERSON	
	Group Art Unit	2155	
	Examiner Name	F. BACKER	
Total Number of Pages in This Submission	13	Attorney Docket Number	SRI 1 P 037B

ENCLOSURES <i>(check all that apply)</i>		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers <i>(for an Application)</i> <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i> <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) <i>(please identify below):</i> <p style="text-align: center;">Certificate of Facsimile Transmission</p>
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	KIN-WAH TONG, ESQ., Reg. No. 39,400
Signature	
Date	July 17, 2002

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Received from <732 530 9808 > at 7/17/02 5:23:40 PM [Eastern Daylight Time]

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2155

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Docket No.
SRI1P037B

Group Art Unit
2155

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
Under 37 CFR 1.97(b), (c), or (d)

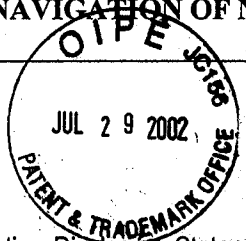
In re Application of: **Halverson, et al.**

Serial No.
09/608,872

Filing Date
June 30, 2000

Examiner
Firmin Backer

Title: **MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN INPUT**



Address to:
Assistant Commissioner for Patents
Washington, D.C. 20231

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JUL 31 2002

Technology Center 2100

37 CFR 1.97(b)

- 1. The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits; or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

37 CFR 1.97(c)

- 2. The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), but prior to the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by the statement or fee as indicated below.

37 CFR 1.97(d)

- 3. The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(c), but on or before payment of the issue fee and is accompanied by the statement and fee as indicated below.

Required Statements and/or Fees Under 37 CFR 1.97(c) or (d)

- Each item of information contained in the accompanying Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement. (37 CFR 1.97(e)(1))
- No item of information in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned person, after making reasonable inquiry, no item of information contained in the accompanying Information Disclosure Statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the Information Disclosure Statement. (37 CFR 1.97(e)(2))
- The fee set forth in 37 CFR 1.17(p). Please credit any overpayment or charge any insufficiencies to deposit account number 20-0782.

37 CFR §1.704(d)

- 4. Each item of information in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 CFR §1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

[Signature]

Dated: July 23, 2002

Kin-Wah Tong, Attorney
Reg. No. 39,400

Moser, Patterson & Sheridan, LLP
Attorneys at Law
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702
732-530-9404

Certificate of Mailing by First Class Mail

I certify that this document is being deposited on July 23, 2002 with the U.S. Postal Service as first class mail under 37 CFR §1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

[Signature]
Signature of Person Mailing Correspondence

Darby Jackson
Typed or Printed Name of Person Mailing Correspondence

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)	Docket No. SRI1P037B	Serial No. 09/608,872
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Applicant Halversen, et al. #23	Confirmation No.: 2382
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(Use several sheets if necessary)	Filing Date June 30, 2000	Group 2155
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COPY OF PAPERS
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U.S. Patent Documents

*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
FJ	A1 6,016,476	01/18/2000	Maes, et al.	705	1	
	A2					
	A3					
	A4					
	A5					
	A6					
	A7					
	A8					
	A9					
	A10					
	A11					
	A12					
	A13					

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Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
FJ	B1 0 867 861	09/30/1998	EPO	G10L	5/06	<input type="checkbox"/>	<input type="checkbox"/>
FJ	B2 99/50826	10/07/1999	WIPO	G10L	3/00	<input type="checkbox"/>	<input type="checkbox"/>
FJ	B3 00/05638	02/03/2000	WIPO	G06F	—	<input type="checkbox"/>	<input type="checkbox"/>
	B4					<input type="checkbox"/>	<input type="checkbox"/>
	B5					<input type="checkbox"/>	<input type="checkbox"/>

OTHER ART

*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.
FJ	C1 International Search Report, Intl Appl No. PCT/US01/07987
	C2
	C3
Examiner	Date Considered

Grant 9/27/02

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

To:
CARLTON, FIELDS, WARD, EMMANUEL,
SMITH & CUTLER, P.A.
Attn. TONG, Kin-Wah
P.O. Box 3239
TAMPA, FL 33601-3239
UNITED STATES OF AMERICA

Date of mailing
(day/month/year) 03/07/2002

Applicant's or agent's file reference
SRI1P037B.P

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.
PCT/US 01/07987

International filing date
(day/month/year) 12/03/2001

Applicant
SRI INTERNATIONAL et al.

1. The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report, however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.


no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

<p>Name and mailing address of the International Searching Authority</p>  <p>European Patent Office, P.B. 5818 Patentiaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016</p>	<p>Authorized officer</p> <p>Claude Berthon</p>
--	---

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference SRI1P037B.P	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 01/ 07987	International filing date (day/month/year) 12/03/2001	(Earliest) Priority Date (day/month/year) 13/03/2000
Applicant SRI INTERNATIONAL et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.
 It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. **Certain claims were found unsearchable** (See Box I).

3. **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1A

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.
- None of the figures.

I NTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/07987

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04M3/493 G10L15/22 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04M G10L G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 05638 A (MOTOROLA INC) 3 February 2000 (2000-02-03) page 4, line 30 -page 5, line 11 page 6, line 13 - line 32 page 22, line 28 -page 23, line 15 figures 3,5A	1-27
A	EP 0 867 861 A (OCTEL COMMUNICATIONS CORP) 30 September 1998 (1998-09-30) column 2, line 33 -column 3, line 48	1-27
A	WO 99 50826 A (ANDREA ELECTRONICS CORP ;ANDREA DOUGLAS (US); MARIANO JOSEPH (US)) 7 October 1999 (1999-10-07) page 3, line 13 - line 17 figure 1A	1-27
	-/--	

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
E earlier document but published on or after the international filing date	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
O document referring to an oral disclosure, use, exhibition or other means	*Z* document member of the same patent family
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 26 June 2002	Date of mailing of the international search report 03/07/2002
---	--

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Schweitz, M
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II INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/07987

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 016 476 A (SEDIVY JAN ET AL) 18 January 2000 (2000-01-18) column 3, line 17 - line 37 -----	1-27

II INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 01/07987

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
WO 0005638	A	03-02-2000	US 2002006126 A1	17-01-2002
			AU 5006799 A	14-02-2000
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			EP 1099146 A2	16-05-2001
			EP 1099213 A1	16-05-2001
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			TW 385400 B	21-03-2000

56



UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SR11p037B	2382

7590 10/04/2002

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
2155	24

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Handwritten mark

Office Action Summary	Application No.	Applicant(s)	
	09/608,872	HALVERSEN ET AL.	
	Examiner	Art Unit	
	Frantz B. Jean	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 7/29/2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 56-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 56-82 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7,23</u> . | 6) <input type="checkbox"/> Other: |

Art Unit: 2155

DETAILED ACTION

1. This office action is in response to an amendment received on 7/18/02. Claims 56, 65 and 74 were amended. Claims 56-82 are still pending in this application.

Information Disclosure Statement

2. The IDS received on 7/29/02 have been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 56-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levin et al.

(U.S. Patent No. 6,173,279) in view of Bailey, III US patent No. 6,353,66.

5. As per claim 56, Levin et al teach a method for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising receiving a request (receive a natural language query) for desired information from the user (user, 112) utilizing the mobile appliance (PC, 102) of the user

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wherein said mobile information comprises a portable remote control device or top-box for a television; rendering an interpretation (creating a semantic representation) of the request, constructing a navigation (generating search) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting (sending) the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

Although Levin teaches natural language, Levin does not explicitly elaborate on a spoken request for desired information from a user. Bailey III is directed to a network and communication access system which includes a spoken (audible) request for desired information from a user (col. 9 lines 47 et seq; col. 3 lines 21 et seq). It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined Bailey's, III features to Levin's because they would have speeded up the communication process while providing a secure system (see Bailey, III col. 4 lines 41 et seq).

6. As per claims 57, 58, 62-64, Levin et al teach a method of rendering the interpretation of the request is performed at the one or more network servers by the mobile information appliance including a Wireless telephone, a portable computer that is a personal digital assistance (See abstract, fig 1, column 3 lines 5-35).

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7. As per claim 59, Levin et al teach a method of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

8. As per claim 60, Levin et al teach a method wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

9. As per claim 61, Levin et al teach a method wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

10. As per claim 65, Levin et al teach a computer system for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising a code segment receiving a request (receive a natural language query) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user- a code segment rendering an interpretation (creating a semantic representation) of the request, a code segment constructing a navigation (generating search) query based upon the interpretation; a code segment utilizing the

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navigation query to select a portion of the electronic data source; and a code segment transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22). Although Levin teaches natural language, Levin does not explicitly elaborate on a spoken request for desired information from a user. Bailey III is directed to a network and communication access system which includes a spoken (audible) request for desired information from a user (col. 9 lines 47 et seq; col. 3 lines 21 et seq). It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined Bailey's, III features to Levin's because they would have speeded up the communication process while providing a secure system (see Bailey, III col. 4 lines 41 et seq).

11. As per claims 66, 67, 71-73, Levin et al teach a system of rendering the interpretation of the request is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).

12. As per claim 68, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion

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of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

13. As per claim 69, Levin et al teach a system wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

14. As per claim 70, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

15. As per claim 74, Levin et al teach a system for speech-based navigation (information server, 110) of an electronic data source located at one or more network servers located remotely from a user, wherein at least a portion of a data link between a mobile information appliance of the user and the one or more network servers utilizes wireless communication (see abstract, fig 1, column 3 lines 5-35), comprising receiving a request (receive a natural language query) for desired information from the user (user) utilizing the mobile information appliance (PC, 102) of the user; rendering an interpretation (creating a semantic representation) of the request, constructing a navigation (generating search) query based upon the interpretation; utilizing the navigation query to select a portion of the electronic data source; and transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22). Although

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Levin teaches natural language, Levin does not explicitly elaborate on a spoken request for desired information from a user. Bailey III is directed to a network and communication access system which includes a spoken (audible) request for desired information from a user (col. 9 lines 47 et seq; col. 3 lines 21 et seq). It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined Bailey's, III features to Levin's because they would have speeded up the communication process while providing a secure system (see Bailey, III col. 4 lines 41 et seq).

16. As per claims 75, 76, 80-81, Levin et al teach a method of rendering the interpretation of a request that is performed at the one or more network servers by the mobile information appliance including a wireless telephone, a portable computer that is a personal digital assistance (see abstract, fig 1, column 3 lines 5-35).

17. As per claim 77, Levin et al teach a system of soliciting additional input from the user, including user interaction in a modality different than the original request; refining the navigation query, based upon the additional input; and using the refined navigation query to select a portion of the electronic data source (see abstract, fig. 1-3, column 3 line 36-9 line 5, see also claim 1, 10, 22).

18. As per claim 78, Levin et al teach a system wherein the data link includes a cellular telephone system (see fig 1, column 2 line 61-67).

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19. As per claim 79, Levin et al teach a system wherein steps (a)-(d) are performed with respect to multiple users (see abstract, fig 1, column 3 lines 5-35).

Response to Arguments

20. Applicant's arguments filed on 7/18/02 have been fully considered but they are not persuasive. a. Applicant argues that the prior art "falls to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user and where in turn the selected electronic data source from the network server is transmitted to the mobile information appliance of the user." Examiner respectfully disagrees with the applicant perspective and characterization of Levin inventive concept. Levin teach that the URL for a data resource is inputted into PC 102 either by typing the request using a keyboard 104 or by speaking the request into a microphone 105, which is considered to be a mobile appliance of the user. Furthermore, Levin et al indicate that the spoken requests either from a PC microphone 105 or from a telephone 103 can be handled by a speech recognition system residing at the information server (see column 4 lines 7-22). Applicant further argues that the prior art "falls to teach or suggest that the selected electronic data source from the network server is transmitted to the mobile information appliance of the user." Examiner respectfully disagrees with the applicant perspective and characterization of Levin inventive concept. Levin teach that once an information server is accessed, the user can

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send a text or a spoken query requesting a particular action or service (step 204), for example: "call the pizza place on Main Street in Westfield". The query is received by the access server 106 and the natural language query is sent to the information server I 10 via packet network 108. It is to be understood that the packet network 108 may be connected to a plurality of information servers which each relate to one or more particular information services, or there may be a single centralized information server 110 which is accessed by all information services which are capable of receiving and processing natural language queries and contains at least some of the data resources (e.g., URLs and associated site/service-specific grammars) capable of receiving and responding to a natural language query. It is obvious inventive concept referring to response is in the field of sending or transmitting the requested information to the user. Moreover, it is understood in the art of information request, in order to complete the transaction, the host must transmit to the requester the requested information.

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is (703) 305-3970. The examiner can normally be reached on Monday thru Friday from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh, can be reached on (703) 305-9648. The fax phone numbers for this Group are

Application/Control Number: 09/608,872:

Page 10

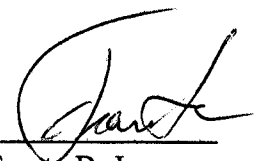
Art Unit: 2155

(703) 746-7238 for After-Final, (703) 746-7239 for Official, and (703) 746-7240 for Non-Official/Draft.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Ayaz.Sheikh@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Frantz B. Jean
September 29, 2002
FBJ/

Notice of References Cited

Application/Control No.

09/608,872

Applicant(s)/Patent Under Reexamination
HALVERSEN ET AL.

Examiner

Frantz B. Jean

Art Unit

2155

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,317,684 B1	11-2001	Roeseler et al.	340/990
*	B	US-6,349,257 B1	02-2002	Liu et al.	340/5.6
*	C	US-6,314,365 B1	11-2001	Smith, Nicholas E.	340/988
	D	US-6,353,661 B1	03-2002	Bailey, III, John Edson	379/88.17
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

#25

09/608,872

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicant: Halverson et al.

Case: SRI1P037B

Serial No.: 09/608,872

Filed: June 30, 2000

Group Art Unit: 2155

Examiner: Frantz Jean

Title: **MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION
USING SPOKEN INPUT**

ASSISTANT COMMISSIONER FOR PATENTS
Box Non-Fee Amendment
Washington, D. C. 20231

S I R:

RESPONSE UNDER 37 C.F.R. § 1.111

This response addresses the Office Action dated October 4, 2002 (Paper No. 24).

REMARKS

Applicants' representative would like to thank Primary Examiner Frantz Jean for kindly taking a substantial amount of time on December 23, 2002 to discuss the merits of the subject invention in a face-to-face Examiner Interview. Applicants' representative is aware of the time constraint that is placed on the Examiner and is appreciative of the Examiner's willingness to devote such large quantity of time to discuss the case on the merit.

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In view of the following discussion, the Applicants submit that none of the claims now pending in the application are made obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 56-82 UNDER 35 U.S.C. § 103

The Examiner rejected claims 56-82 in Paragraphs 4-19 of the Office Action as being unpatentable over Levin et al. patent (US Patent 6,173,279 issued January 9, 2001, hereinafter referred to as Levin) in view of Bailey III (US Patent 6,353,661 issued March 5, 2002, hereinafter referred to as Bailey). The rejection is respectfully traversed.

Levin teaches "a method of using at least one natural language query to retrieve information from one or more data resources and further performing a requested action using the retrieved information is disclosed". (See Levin, Column 2, lines 15-18) Namely, Levin teaches a method for using natural language query to obtain information, where upon receipt of the requested information, a desired action is executed based upon the requested information. To illustrate, Levin provides the example, where a user employs natural language to request the telephone number of a restaurant. Upon receipt of the telephone number, the telephone number is actually dialed for the user. (See Levin, Column 3 line 62 to Column 4, line 1)

Bailey teaches a system for using a telephone to interact with a remote system. Specifically, Bailey teaches the use of a conventional phone to allow users to browse, search, store, and create information stored on the Internet. (See Bailey, Abstract; Column 3, lines 8-39)

In contrast, the alleged combination of Levin and Bailey (either singly or in any permissible combination) fails to teach or suggest the novel concept of speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television. Specifically, Applicants' independent claims 56, 65 and 74 positively recite:

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56. A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

(a) receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) rendering an interpretation of the spoken request;

(c) constructing a navigation query based upon the interpretation;

(d) utilizing the navigation query to select a portion of the electronic data source; and

(e) transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

65. A computer program embodied on a computer readable medium for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising:

(a) a code segment that receives a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) a code segment that renders an interpretation of the spoken request;

(c) a code segment that constructs a navigation query based upon the interpretation;

(d) a code segment that utilizes the navigation query to select a portion of the electronic data source; and

(e) a code segment that transmits the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

74. A system for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, comprising:

(a) a mobile information appliance operable to receive a spoken request for desired information from the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;

(b) spoken language processing logic, operable to render an

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- interpretation of the spoken request;
- (c) query construction logic, operable to construct a navigation query based upon the interpretation;
- (d) navigation logic, operable to select a portion of the electronic data source using the navigation query, and
- (e) electronic communications infrastructure for transmitting the selected portion of the electronic data source from the network server to the mobile information appliance of the user. (emphasis added)

Applicants' invention teaches a novel method and apparatus for speech-based navigation where the method receives spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television. This teaching is completely absent in the Levin and Bailey references.

During the Examiner Interview, Applicants' representative indicated to the Examiner that the present claims specifically recite said mobile information appliance comprises a portable remote control device or a set-top box for a television. Applicants' specification (e.g., on page 2) describes a need for a user interface that does not require the user to learn a highly specialized command language or format. In describing Applicants' invention in the context of a home entertainment setting, Applicants disclose the present invention within the context of a portable remote control device or a set-top box for a television. (e.g., See Applicants' specification, page 6, lines 4-20; and page 18, line 4 to page 19, line 9). In sum, Applicants' novel speech-based navigation method is claimed specifically within the context of a portable remote control device or a set-top box for a television.

During the Examiner Interview, Applicants' representative presented to the Examiner that the combination of Levin and Bailey will fall short of making Applicants' invention obvious. Namely, both references do not disclose Applicants' novel speech-based navigation method within the context of a portable remote control device or a set-top box for a television. For example, Bailey states that "the present invention generally relates to a method and system for combining the power, flexibility, and access to information and communications of the Internet with the simplicity, reliability and wide

09/608,872

availability of the existing plain old telephone system (POTS)." (See Bailey, Column 1, lines 5-9) Specifically, the entire purpose of Bailey is to salvage the use of a plain old telephone system to access the Internet. Thus, Bailey does not disclose or suggest Applicants' novel speech-based navigation method within the context of a portable remote control device or a set-top box for a television.

Second, the alleged combination (as taught by Bailey) states that "once the information is obtained the system presents the information to the user by transforming the downloaded text into speech in a manner emulating the behavior of a web browser." (Emphasis added) (See Bailey, Column 3, lines 21-25) Bailey then discloses a complicated method of notifying content, e.g., hyperlinks, of a web page to a user via audible signals. (See Bailey, Column 7, line 5 to Column 8, line 10). In sum, Bailey converts a telephone into a user interface that serves as a web browser as positively asserted by Bailey. This teaching is directly contrary to Applicants' invention which recites "receiving a spoken request for desired information from the user utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television" and interpreting the spoken request. Applicants' invention is intended to address the criticality of not having to navigate the electronic data source, whereas Bailey simply converts the web page content so that the user is required to manually navigate the data source by listening to different audible signals. Thus, Bailey teaches away from Applicants' novel speech-based navigation method.

During the Examiner Interview, the Examiner indicated that he will re-evaluate the cited references and reconsider the present rejections. Therefore, the Applicants respectfully submit that independent claims 56, 65 and 74 are not made obvious by the Levin and Bailey references. As such, claims 56, 65 and 74 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Claims 57-64, 66-73 and 75-82 depend, either directly or indirectly, from claims 56, 65 and 74 and recite additional features therefor. Since Levin and Bailey fail to make Applicants' invention obvious as recited in Applicants' independent claims 56, 65

09/608,872

and 74, dependent claims 57-64, 66-73 and 75-82 are also not made obvious under 35 U.S.C. § 103 and are allowable for the same reason noted above.

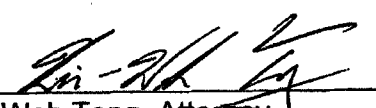
Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

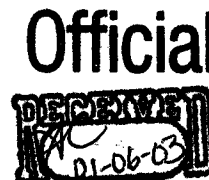
1/6/03


Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

Moser, Patterson & Sheridan, LLP
595 Shrewsbury Avenue
First Floor,
Shrewsbury, New Jersey 07702

TELEFAX COVER SHEET

MOSEY, PATTERSON & SHERIDAN, LLP
ATTORNEYS AT LAW
595 SHREWSBURY AVENUE
FIRST FLOOR
SHREWSBURY, NJ 07702
TELEPHONE (732) 530-9404
TELEFAX (732) 530-9808



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THIS MESSAGE HAS 9 PAGES INCLUDING THIS SHEET

TO: Commissioner of Patents

FAX NO.: 703-746-7239

FROM: Kin-Wah Tong

DATE: January 6, 2003

MATTER: Serial No. 09/608,872 Filed: June 30, 2000

DOCKET NO.: SRI 1P037B

APPLICANT: HALVERSON, et al

The following has been received in the U.S. Patent and Trademark Office on the date of this facsimile:

- Petition
Disclosure Statement & PTO-1449
Priority Document
Drawings (sheets) informal
Petition for Extension of Time (2 copies)
X Response
X Transmittal Letter (2 copies)
Fee Transmittal (2 copies)
Deposit Account Transaction
X Facsimile Transmission Certificate dated January 6, 2003

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being transmitted by facsimile to the Commissioner for
Patents, Box Non-Fee Amendment, Washington, DC 20231 on January 6, 2003, Facsimile No.
703-746-7239

Kin-Wah Tong
Name of person signing this certificate

[Signature] January 6, 2003
Signature and date

Please type a plus sign (+) inside this box →

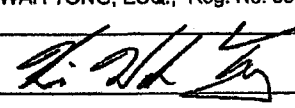
PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/608,872
	Filing Date	June 30, 2000
	First Named Inventor	HALVERSON
	Group Art Unit	2155
	Examiner Name	FRANTZ JEAN
Total Number of Pages in This Submission	Attorney Docket Number	SRI 1 P 037B

ENCLOSURES <i>(check all that apply)</i>		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers <i>(for an Application)</i> <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i> <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) <i>(please identify below):</i> <p style="text-align: center;">Certificate of Facsimile Transmission</p>
Remarks		<p>It is believed no fee is due. However, in the event a fee is due, kindly charge that fee to deposit account number 20-0782. To facilitate that charge, a duplicate copy of this letter is enclosed</p>

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	KIN-WAH TONG, ESQ., Reg. No. 39,400
Signature	
Date	January 6, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

PTO/SB/21 (08-00)

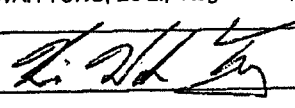
Please type a plus sign (+) inside this box →

Approved for use through 10/31/2002. OMB 0651-0031
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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/608,872
	Filing Date	June 30, 2000
	First Named Inventor	HALVERSON
	Group Art Unit	2155
	Examiner Name	FRANTZ JEAN
Total Number of Pages in This Submission	Attorney Docket Number	SRI 1 P 037B

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <p style="text-align: center;">Certificate of Facsimile Transmission</p>
Remarks It is believed no fee is due. However, in the event a fee is due, kindly charge that fee to deposit account number 20-0782. To facilitate that charge, a duplicate copy of this letter is enclosed		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	KIN-WAH TONG, ESQ., Reg. No. 39,400
Signature	
Date	January 6, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SR11p037B	2382

7590 01/09/2003

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

JEAN, FRANTZ B

ART UNIT PAPER NUMBER 26

2155

DATE MAILED: 01/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Interview Summary	Application No. 09/608,872	Applicant(s) HALVERSEN ET AL.	
	Examiner Frantz B. Jean	Art Unit 2155	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Frantz B. Jean. (3) _____
(2) Kin-Wah Tong. (4) _____

Date of Interview: 23 December 2002.

Type: a) Telephonic b) Video Conference
c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.
If Yes, brief description: _____

Claim(s) discussed: Independent claims.

Identification of prior art discussed: Levine & Bailey.

Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: see below.

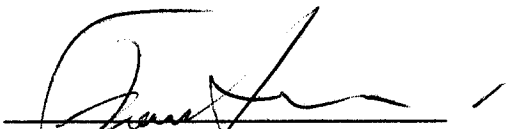
(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) It is not necessary for applicant to provide a separate record of the substance of the interview (if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Applicants' representative believes that the invention as claimed does define over the prior art of record Levine & Bailey. Examiner disagrees. Examiner has decided to review & go through Levine & Bailey prior art for further consideration.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

5

Notice of Allowability	Application No.	Applicant(s)	
	09/608,872	HALVERSEN ET AL.	
	Examiner	Art Unit	
	Frantz B. Jean	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to the response filed on 1/06/2003.
- 2. The allowed claim(s) is/are 56-82.
- 3. The drawings filed on _____ are accepted by the Examiner.
- 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

- 5. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) The translation of the foreign language provisional application has been received.
- 6. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

- 7. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 8. CORRECTED DRAWINGS must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No. _____.
 - (b) including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

- 9. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 Notice of References Cited (PTO-892)
- 3 Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 5 Information Disclosure Statements (PTO-1449), Paper No. _____.
- 7 Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 Notice of Informal Patent Application (PTO-152)
- 4 Interview Summary (PTO-413), Paper No. _____.
- 6 Examiner's Amendment/Comment
- 8 Examiner's Statement of Reasons for Allowance
- 9 Other

Art Unit: 2155

1. Claims 56-82 are allowable over the prior art made of record and in light of Applicants' arguments..
2. The response filed on 01/08/2003 has been entered.

Reasons for Allowance

3. The examiner respectfully submits that the specific techniques of providing a speech-based navigation where a spoken request for desired information is received from a user utilizing a mobile information appliance of the user, wherein the mobile information appliance comprises a portable remote control device or a set-top box for a television; in conjunction with the other limitations of the dependent and independent claims 56-82 were not shown by, would not have been obvious over, nor would have been fairly suggested by the prior art made of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is (703) 305-3970. The examiner can normally be reached on Monday thru Friday from 8:30 to 6:00.

Art Unit: 2155

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh, can be reached on (703) 305-9648. The fax phone numbers for this Group are (703) 746-7238 for After-Final, (703) 746-7239 for Official, and (703) 746-7240 for Non-Official/Draft.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Ayaz.Sheikh@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Frantz B. Jean
March 07, 2003
FBJ/

09/608872

**NOTICE OF DRAFTSPERSON'S
PATENT DRAWING REVIEW**

The drawing(s) filed (insert date) 6-30-00 are:

- A. approved by the Draftsperson under 37 CFR 1.84 or 1.152.
- B. objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawing must be submitted according to the instructions on the back of this notice.

<p>1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color. <input type="checkbox"/> Color drawings are not acceptable until petition is granted. Fig(s) _____ <input type="checkbox"/> Pencil and non black ink not permitted. Fig(s) _____</p> <p>2. PHOTOGRAPHS. 37 CFR 1.84(b) <input type="checkbox"/> 1 full-tone set is required. Fig(s) _____ <input type="checkbox"/> Photographs may not be mounted. 37 CFR 1.84(e) <input type="checkbox"/> Poor quality (half-tone). Fig(s) _____</p> <p>3. TYPE OF PAPER. 37 CFR 1.84(e) <input type="checkbox"/> Paper not flexible, strong, white, and durable. Fig(s) _____ <input type="checkbox"/> Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) _____ <input type="checkbox"/> Mylar, velum paper is not acceptable (too thin). Fig(s) _____</p> <p>4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: <input type="checkbox"/> 21.0 cm by 29.7 cm (DIN size A4) <input type="checkbox"/> 21.6 cm by 27.9 cm (8 1/2 x 11 inches) <input type="checkbox"/> All drawing sheets not the same size. Sheet(s) _____ <input type="checkbox"/> Drawings sheets not an acceptable size. Fig(s) _____</p> <p>5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11 <input type="checkbox"/> Margins not acceptable. Fig(s) _____ <input type="checkbox"/> Top (T) _____ Left (L) _____ <input type="checkbox"/> Right (R) _____ Bottom (B) _____</p> <p>6. VIEWS. 37 CFR 1.84(h) REMINDER: Specification may require revision to correspond to drawing changes. Partial views. 37 CFR 1.84(h)(2) <input type="checkbox"/> Brackets needed to show figure as one entity. Fig(s) _____ <input type="checkbox"/> Views not labeled separately or properly. Fig(s) _____ <input type="checkbox"/> Enlarged view not labeled separately or properly. Fig(s) _____</p> <p>7. SECTIONAL VIEWS. 37 CFR 1.84 (h)(3) <input type="checkbox"/> Hatching not indicated for sectional portions of an object. Fig(s) _____ <input type="checkbox"/> Sectional designation should be noted with Arabic or Roman numbers. Fig(s) _____</p>	<p>8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i) <input type="checkbox"/> Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____</p> <p>9. SCALE. 37 CFR 1.84(k) <input type="checkbox"/> Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____</p> <p>10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) <input checked="" type="checkbox"/> Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s) <u>ALL</u></p> <p>11. SHADING. 37 CFR 1.84(m) <input type="checkbox"/> Solid black areas pale. Fig(s) _____ <input checked="" type="checkbox"/> Solid black shading not permitted. Fig(s) <u>6</u> <input type="checkbox"/> Shade lines, pale, rough and blurred. Fig(s) _____</p> <p>12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p) <input checked="" type="checkbox"/> Numbers and reference characters not plain and legible. Fig(s) <u>ALL</u> <input checked="" type="checkbox"/> Figure legends are poor. Fig(s) <u>ALL</u> <input type="checkbox"/> Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1) Fig(s) _____ <input type="checkbox"/> English alphabet not used. 37 CFR 1.84(p)(2) Figs _____ <input type="checkbox"/> Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig(s) _____</p> <p>13. LEAD LINES. 37 CFR 1.84(q) <input type="checkbox"/> Lead lines cross each other. Fig(s) _____ <input type="checkbox"/> Lead lines missing. Fig(s) _____</p> <p>14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t) <input type="checkbox"/> Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Sheet(s) _____</p> <p>15. NUMBERING OF VIEWS. 37 CFR 1.84(u) <input type="checkbox"/> Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____</p> <p>16. CORRECTIONS. 37 CFR 1.84(w) <input type="checkbox"/> Corrections not made from prior PTO-948 dated _____</p> <p>17. DESIGN DRAWINGS. 37 CFR 1.152 <input type="checkbox"/> Surface shading shown not appropriate. Fig(s) _____ <input type="checkbox"/> Solid black shading not used for color contrast. Fig(s) _____</p>
--	--

COMMENTS

REVIEWER [Signature] DATE 3-10-03 TELEPHONE NO. _____

ATTACHMENT TO PAPER NO. 27



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
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#27

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 03/11/2003
THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

JEAN, FRANTZ B

ART UNIT CLASS-SUBCLASS

2155

709-218000

DATE MAILED: 03/11/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SRILP037B	2382

TITLE OF INVENTION: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN INPUT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$650	\$0	\$650	06/11/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
 - Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Box ISSUE FEE**
Commissioner for Patents
Washington, D.C. 20231
Fax (703)746-4000

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CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590 03/11/2003

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

_____ (Depositor's name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SRILP037B	2382

TITLE OF INVENTION: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN INPUT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$650	\$0	\$650	06/11/2003

EXAMINER	ART UNIT	CLASS-SUBCLASS
JEAN, FRANZ B	2155	709-218000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.</p>	<p>2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.</p> <p>1 _____</p> <p>2 _____</p> <p>3 _____</p>
---	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent) individual corporation or other private group entity government

<p>4a. The following fee(s) are enclosed:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s):</p> <p><input type="checkbox"/> A check in the amount of the fee(s) is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
---	---

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature) _____ (Date) _____

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.**

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United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SRILP037B	2382

EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
2155	

2155

DATE MAILED: 03/11/2003

THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (<http://pair.uspto.gov>)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halversen	SRILP037B	2382

7590 03/11/2003
THOMASON, MOSER & PATTERSON, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702
UNITED STATES

EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 03/11/2003

Notice of Fee Increase on January 1, 2003

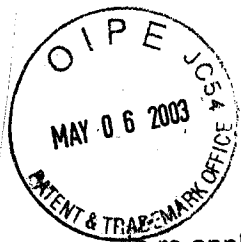
If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003: Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: <http://www.uspto.gov/main/howtofees.htm>.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

28
30



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Halverson, et al.
Serial No.: 09/608,872 Art Unit: 2155
Filing Date: June 30, 2000 Examiner: Jean, Frantz B
For: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC
INFORMATION USING SPOKEN INPUT
Docket No. SRI 4116-6

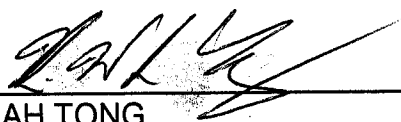
Assistant Commissioner for Patents
Washington, D.C. 20231
S I R:

SUBMISSION OF FORMAL DRAWINGS

The Applicants submit herewith 7 sheets of formal drawings (FIGS. 1 through 6), properly labeled, in connection with the above-captioned application. The Examiner is requested to substitute these formal drawings for the informal drawings previously submitted.

Respectfully submitted,

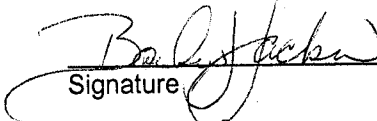
Dated: 4/29/03


KIN-WAH TONG
Reg. No. 39,400
(732) 530-9404

Moser, Patterson & Sheridan, LLP
595 Shrewsbury Avenue
Suite 100
Shrewsbury, NJ 07702

CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being deposited on April 30, 2003, with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to the Commissioner for Patents, Box Issue Fee, Washington, D.C. 20231.


Signature
April 30, 2003
Date of signature



1/7

6757718

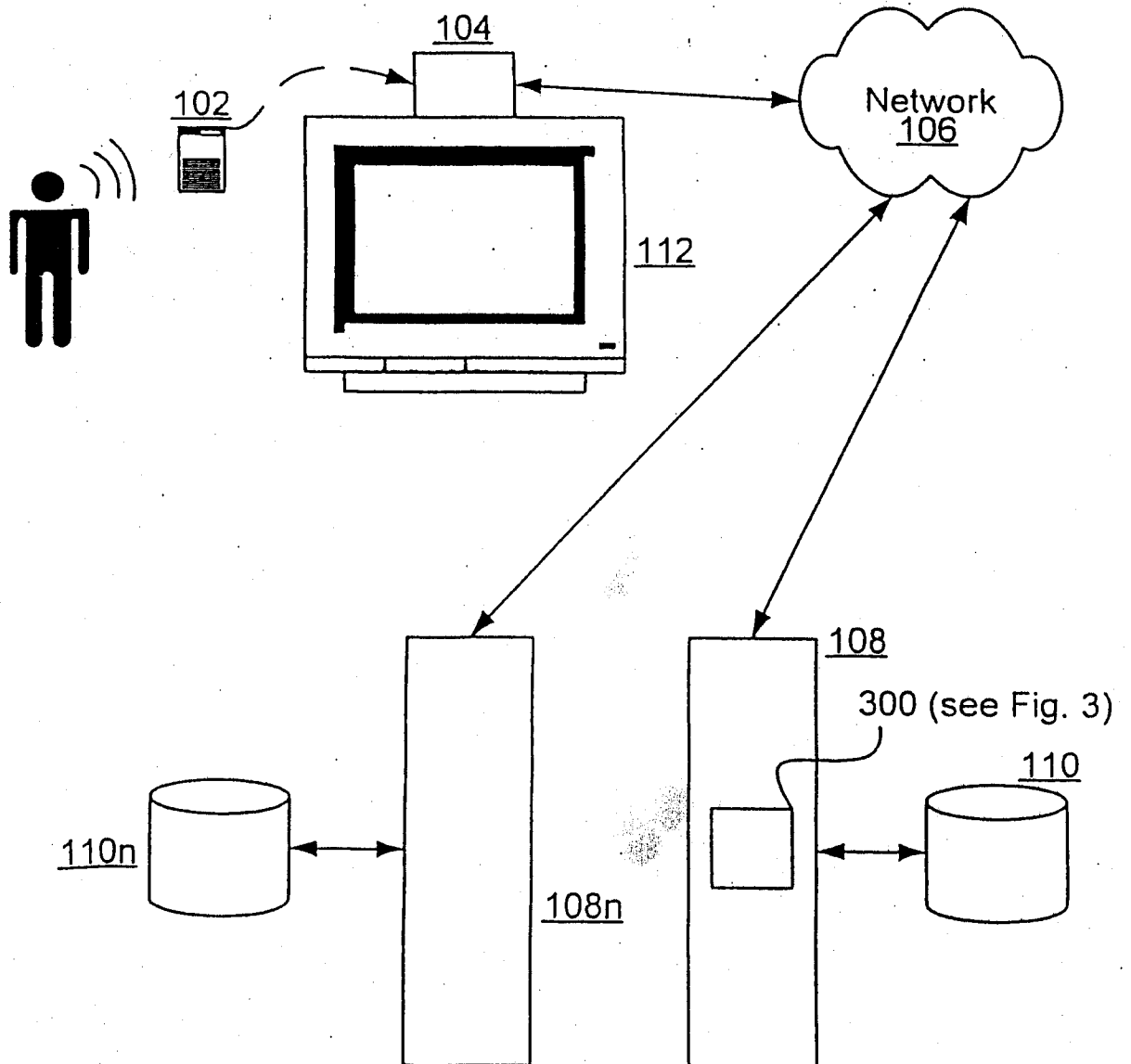


Fig. 1a



2/7

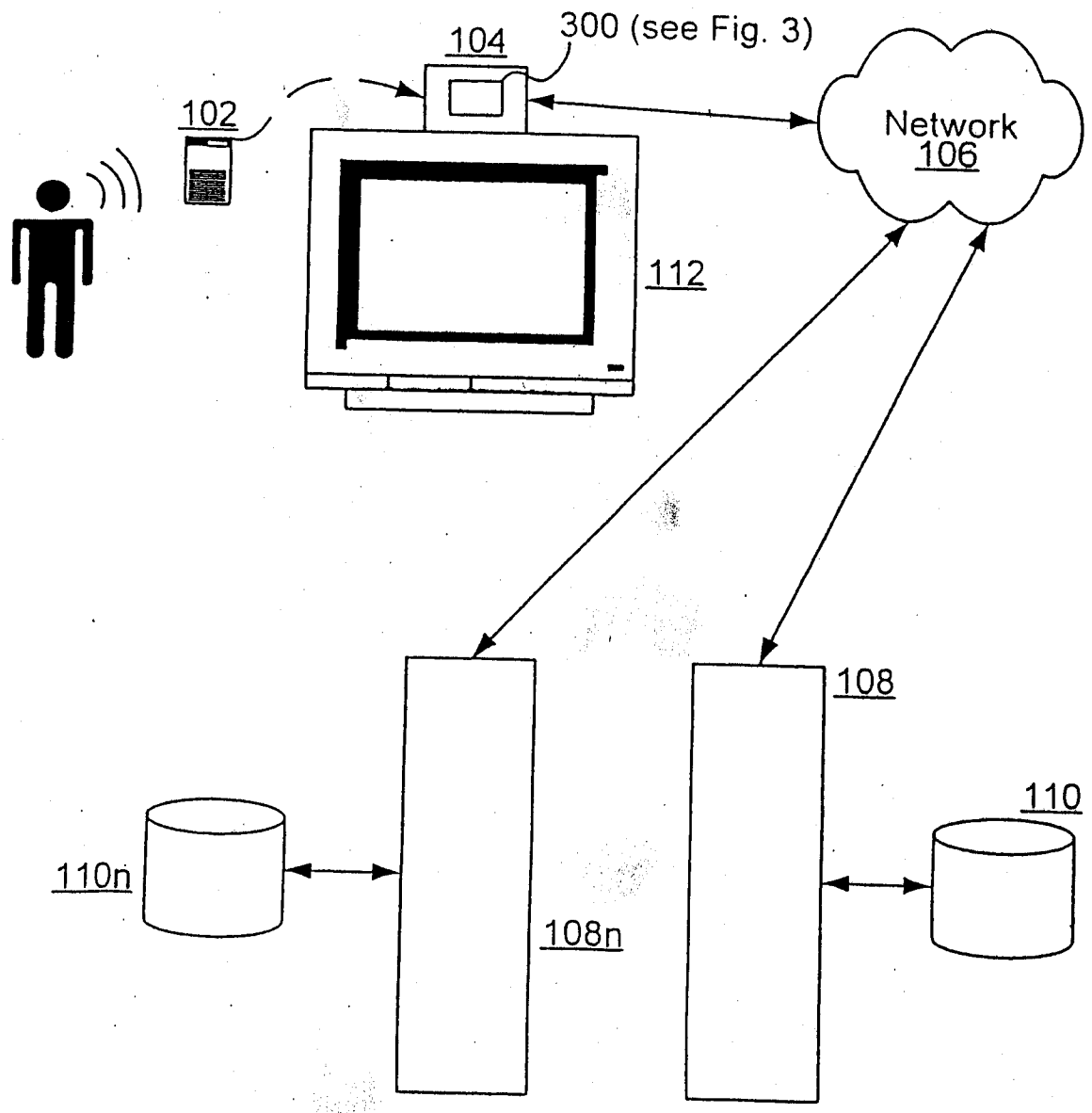


Fig. 1b



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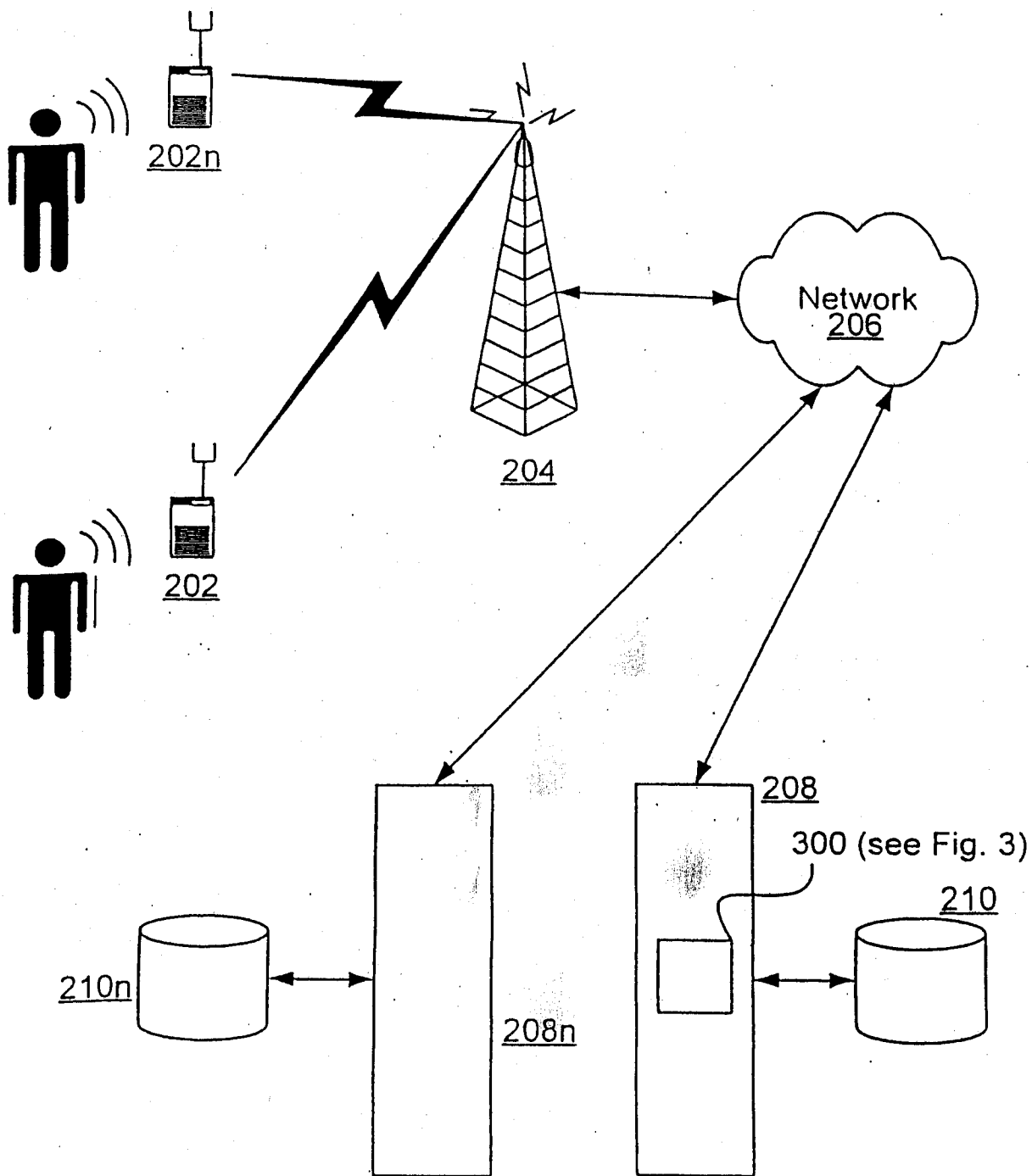
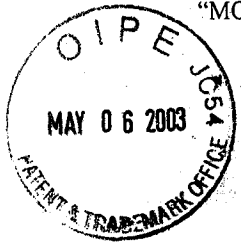


Fig. 2



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REQUEST PROCESSING LOGIC 300

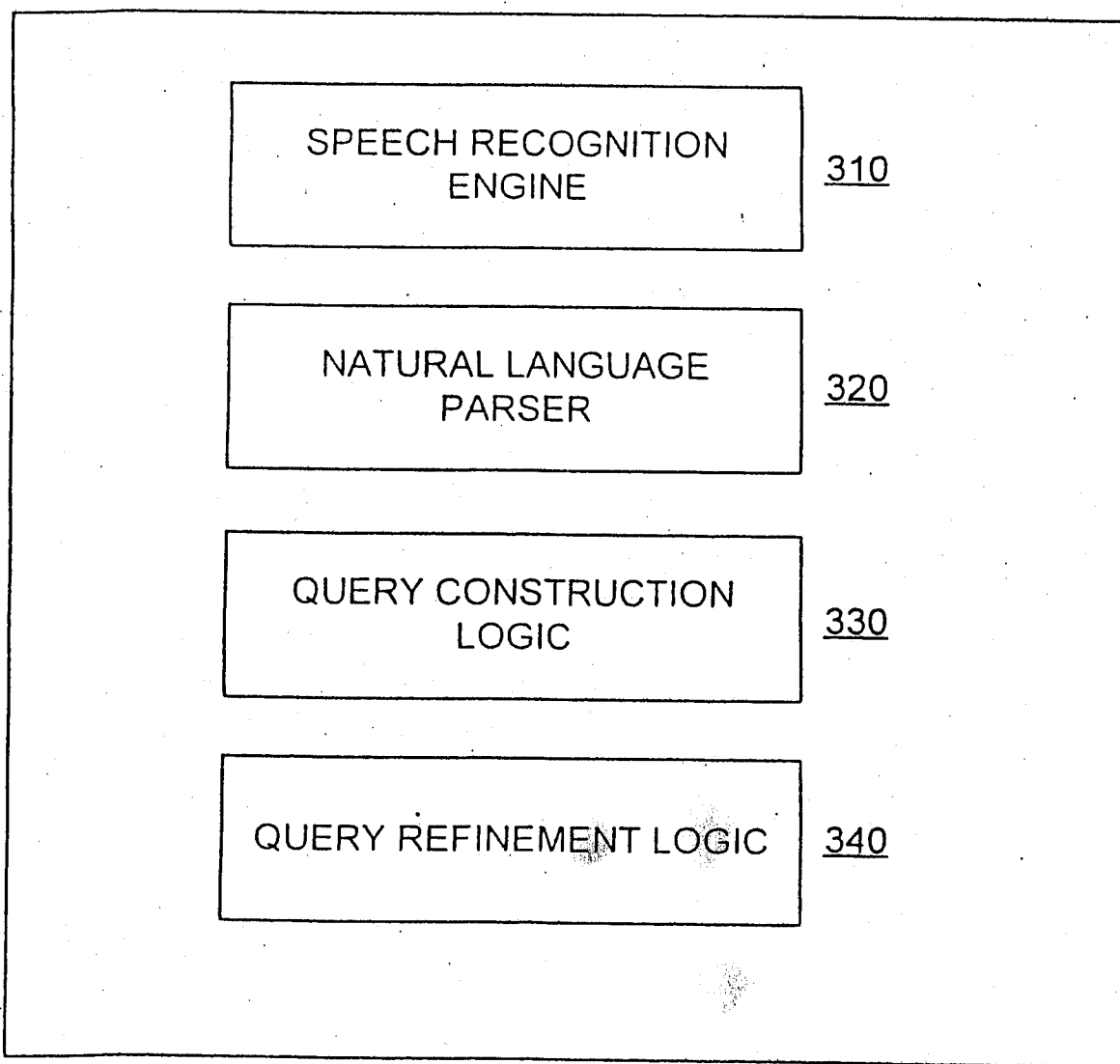
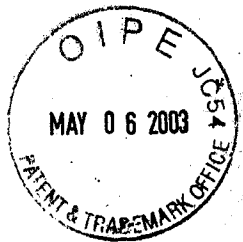


Fig. 3



5/7

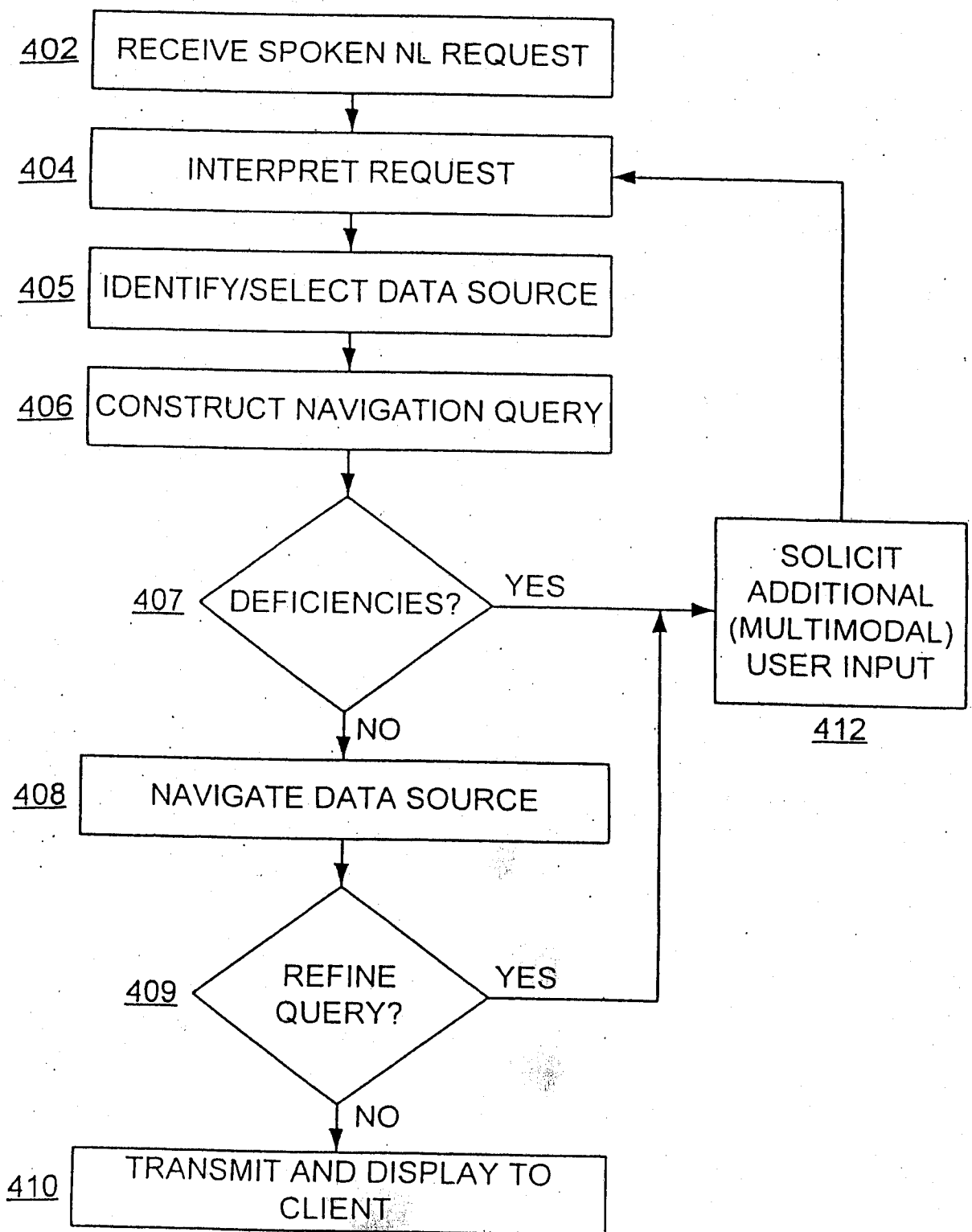


Fig. 4

6/7

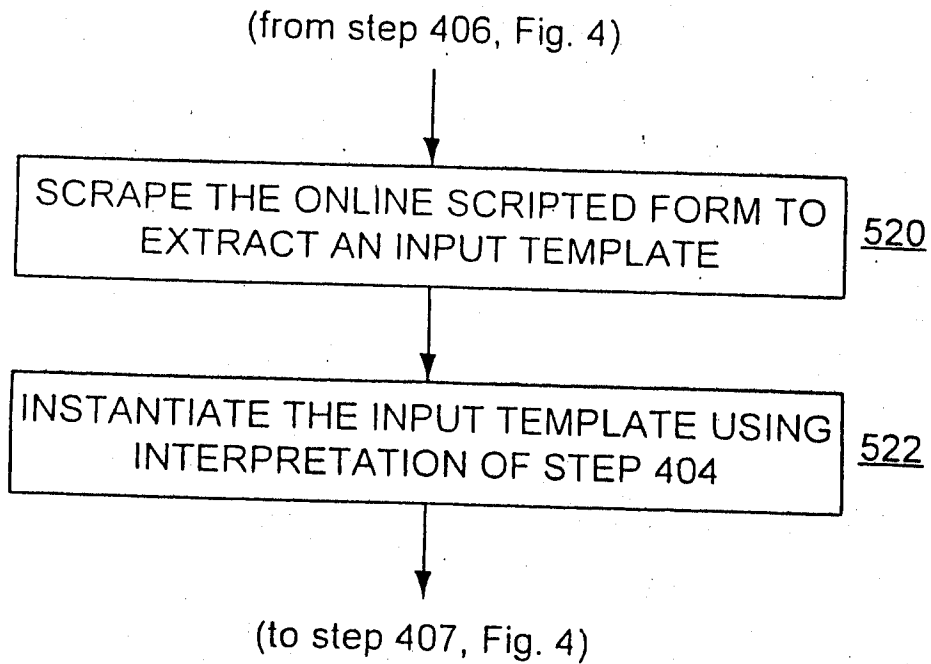


Fig. 5



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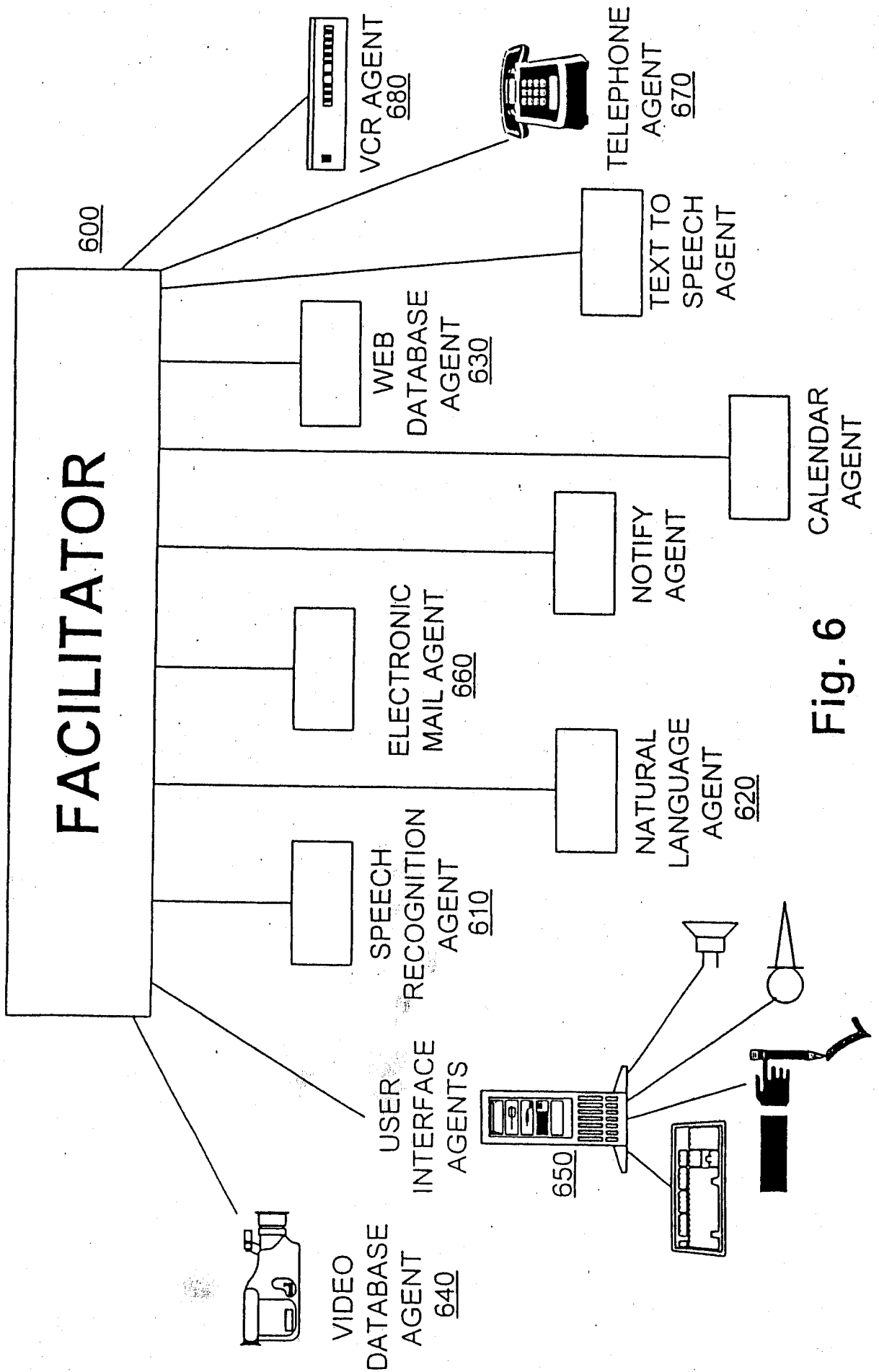


Fig. 6

PART B - FEE(S) TRANSMITTAL

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7590 03/11/2003

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Barbara J. Jackson (Depositor's name)
Barbara J. Jackson (Signature)
April 30, 2003 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,872	06/30/2000	Christine Halverson	SRILP037B	2382

TITLE OF INVENTION: MOBILE NAVIGATION OF NETWORK-BASED ELECTRONIC INFORMATION USING SPOKEN INPUT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$650	\$0	\$650	06/11/2003

EXAMINER	ART UNIT	CLASS-SUBCLASS
JEAN, FRANTZ B	2155	709-218000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.
2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
- Moser, Patterson & Sheridan, LLP
 2 Kin-Wah Tong
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
 PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.
 (A) NAME OF ASSIGNEE: **SRI International**
 (B) RESIDENCE: (CITY and STATE OR COUNTRY) **Menlo Park, CA**

Please check the appropriate assignee category or categories (will not be printed on the patent) individual corporation or other private group entity government

- 4a. The following fee(s) are enclosed:
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- 4b. Payment of Fee(s):
 A check in the amount of the fee(s) is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Commissioner is hereby authorized by check the required fee(s), or credit any overpayment to Deposit Account Number 20-0782 (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature) *[Signature]* (Date) 4/30/03

05/07/2003 SDEMB082 00000052 09608872
 01 FC:2501 650.00 OP
 02 FC:8001 3.00 OP

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AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

Trademarks or Patents. (the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED 1/19/2017	U.S. DISTRICT COURT for the District of Delaware
PLAINTIFF IPA TECHNOLOGIES INC.		DEFENDANT SONY CORPORATION, ET AL.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 6,742,021	5/25/2004	IPA TECHNOLOGIES INC.
2 6,523,061	2/18/2003	IPA TECHNOLOGIES INC.
3 6,757,718	6/29/2004	IPA TECHNOLOGIES INC.
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
-------	-------------------	------

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the District of Delaware on the following

Trademarks or Patents. (the patent action involves 35 U.S.C. § 292.);

DOCKET NO.	DATE FILED 3/17/2017	U.S. DISTRICT COURT for the District of Delaware
PLAINTIFF IPA TECHNOLOGIES INC.		DEFENDANT NVIDIA CORPORATION
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 6,742,021	5/25/2004	IPA TECHNOLOGIES INC.
2 6,523,061	2/18/2003	IPA TECHNOLOGIES INC.
3 6,757,718	6/29/2004	IPA TECHNOLOGIES INC.
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK HOLDER OF PATENT OR TRADEMARK
1	
2	
3	
4	
5	

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

PATENT APPLICATION FEE DETERMINATION RECORD
Effective December 29, 1999

Application or Docket Number

CLAIMS AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	27 minus 20 =	7
INDEPENDENT CLAIMS	3 minus 3 =	0
MULTIPLE DEPENDENT CLAIM PRESENT		

SMALL ENTITY TYPE OR

OTHER THAN SMALL ENTITY

RATE	FEE
	345.00
X\$ 9=	63
X39=	/
+130=	/
TOTAL	408

RATE	FEE
	690.00
X\$18=	
X78=	
+260=	
TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT	(Column 2) MINUS	(Column 3) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 4) PRESENT EXTRA
AMENDMENT A	27	Minus	27	=
	3	Minus	3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 9=	
X39=	
+130=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X78=	
+260=	
TOTAL ADDIT. FEE	

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT	(Column 2) MINUS	(Column 3) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 4) PRESENT EXTRA
AMENDMENT B	27	Minus	27	=
	3	Minus	3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

RATE	ADDITIONAL FEE
X\$ 9=	
X39=	
+130=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X78=	
+260=	
TOTAL ADDIT. FEE	

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT	(Column 2) MINUS	(Column 3) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 4) PRESENT EXTRA
AMENDMENT C		Minus		=
		Minus		=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

RATE	ADDITIONAL FEE
X\$ 9=	
X39=	
+130=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X78=	
+260=	
TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	<i>Mr</i>	62814	7/2/00
O.I.P.E. CLASSIFIER		48	2/17/00
FORMALITY REVIEW		60571	8/3/00
RESPONSE FORMALITY REVIEW		60574	11/5/00

INDEX OF CLAIMS

- ✓ Rejected
- = Allowed
- (Through numeral)... Canceled
- ÷ Restricted
- N Non-elected
- I Interference
- A Appeal
- O Objected

Claim	Date
Final	
Original	
1	
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Claim	Date
Final	
Original	
4/19/01	
10/2/01	
2/11/02	
2/20/03	
3	
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Claim	Date
Final	
Original	
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If more than 150 claims or 10 actions
staple additional sheet here

SEARCHED

Class	Sub.	Date	Exmr.
709	202	4/10/01	F.B
709	258		
707	5		
	3		
	4		
704	257		
updated		9/30/02	a
updated		3/7/03	a
704	270.1	3/7/03	a
↓	275		
↓	246		
↓	257		
709	217		
↓	219		
↓	227		

INTERFERENCE SEARCHED

Class	Sub.	Date	Exmr.
709	202	3/7/03	a
↓	217		
↓	218		
↓	219		
↓	227		
704	257		

SEARCH NOTES (INCLUDING SEARCH STRATEGY)

	Date	Exmr.
West SEARCH	4/10/01	F.B
West, Derwent TDBD, EPO, JPO	9/29/02 9/30/02	a a
consulted with David Wiley	9/30/02	a
updated	3/7/03	a
West, Derwent TDBD, EPO, JPO, 20 PUS	3/7/03	a
inventor search check for principle. Double checking	↓	↓
NPL	3/7/03	a