NON-CONFIDENTIAL

Appeal Nos. 2022-1762, 2023-2029

United States Court of Appeals For The Federal Circuit

ARENDI S.A.R.L.,
Plaintiff-Appellant

v.

OATH HOLDINGS INC., OATH INC.,
Defendant-Appellees

Appeal from the United States District Court for the
District of Delaware in No. 1:13-cv-00920-GBW
Judge Gregory B. Williams

****

ARENDI S.A.R.L.,
Plaintiff-Appellant

APPLE INC.,
Third-Party Defendant

v.

GOOGLE LLC,
Defendant-Appellee

Appeal from the United States District Court for the
District of Delaware in No. 1:13-cv-00919-JLH
Judge Jennifer L. Hall

Corrected Brief of Appellant Arendi S.A.R.L.

John P. Lahad
SUSMAN GODFREY L.L.P.
1000 Louisiana, Suite 5100
Houston, Texas 77002
Telephone: (713) 651-9366
Facsimile: (713) 654-6666

Kalpana Srinivasan
SUSMAN GODFREY L.L.P.
1900 Avenue of the Stars
Suite 1400
Los Angeles, CA 90067
Telephone: (310) 789-3106
Facsimile: (310) 789-3150

Seth Ard
Max Straus
SUSMAN GODFREY L.L.P.
One Manhattan West, 50th Floor
New York, NY 10001
Telephone: (212) 729-2048
Facsimile: (212) 336-8340

Kemper Diehl
SUSMAN GODFREY L.L.P.
401 Union Street, Suite 3000
Seattle, WA 98101-3000
Telephone: (206) 516-3880
Facsimile: (206) 516-3883

Attorneys for Plaintiff-Appellant, Arendi S.A.R.L.

EXEMPLARY PATENT CLAIMS

REPRESENTATIVE CLAIM 1 OF U.S. PATENTS. NO. 7,917,843

A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:

displaying the document electronically using the first computer program;

while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;

retrieving the first information;

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;

in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and

if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.

REPRESENTATIVE CLAIM 93 OF U.S. PATENT NO. 7,496,854

A method for assisting a computer operator to retrieve information from a database that is related to text in a document, the method comprising the steps of:

(1) using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information,

(2) using a second computer program and the text identified in step (1) to search the database and to locate related information, and

(3) inserting the information located in step (2) into the document.

REPRESENTATIVE CLAIM 2 OF U.S. PATENT NO. 7,921,356

At least one non-transitory computer readable medium according to claim 1 wherein the instructions establish processes wherein:

when the information source does not include the search term, the action comprises causing indication to the user that the information source does not include the search term.

Claim 1 of U.S. Patent No. 7,921,356

At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for contact information handling, implemented by a document editing program running in the computer, the processes comprising:

allowing a user to enter textual information into a document using the document editing program;

displaying the textual information in the document electronically using the document editing program;

allowing, in the document editing program, the user to select in the document at least a portion of the textual information while the textual information is displayed;

following user selection of textual information in the document, analyzing, by the document editing program, the selected textual information to determine if the selected textual information is regarded by the document editing program as contact information and what type or types of contact information the selected textual information is;

providing an input device configured by the document editing program to allow the user to initiate an operation, such operation being of a type depending at least in part on the type or types of contact information of the selected textual information, the operation comprising identifying at least part of the selected textual information to use as a search term in order to find second information, of a specific type or types, associated with the search term in an information source external to the document;

after identifying at least part of the selected information to use as a search term, and in consequence of receipt by the document editing program of an execute command from the input device, performing the operation, wherein the operation further comprises:

causing an electronic search in the information source, by an information management program external to the document

editing program, for the search term in order to find whether the search term is included in the information source; and performing an action having a type,

wherein the type of action depends at least in part on whether the search term is included in the information source, and if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document.

REPRESENTATIVE CLAIM 1 OF U.S. PATENT NO. 8,306,993

A computer implemented method for information handling, the method comprising:

providing access to a contact database that can also be separately accessed and edited by a user and wherein the contact database includes at least three fields for storing contact information associated with each of one or more contacts, each of the at least three fields within the contact database being specific to a particular type of contact information selected from the group consisting of name, title, address, telephone number, and email address;

analyzing in a computer process textual information in a document configured to be stored for later retrieval to identify a portion of the document as first contact information, without user designation of a specific part of the textual information to be subject to the analyzing, wherein the first contact information is at least one of a name, a title, an address, a telephone number, and an email address;

after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact information previously identified as a result of the analyzing, wherein the set of potential actions includes:

(i) initiating an electronic search in the contact database for the first contact information while it is electronically displayed in order to find whether the first contact information is included in the contact database; and

when a contact in the contact database includes the first contact information, if second contact information in the contact database is associated with that contact, electronically displaying at least a portion of the second contact information, wherein the second contact information is at least one of a name, a title, an address, a telephone number, and an email address;

(ii) initiating electronic communication using the first contact information; and

(iii) allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact in the contact database;

wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing; and

providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing.

CERTIFICATE OF INTEREST OF ARENDI S.A.R.L.

Counsel for Plaintiff-Appellant Arendi S.A.R.L. certifies the following:

1. The full name of every party or amicus curiae represented by me is:

   Arendi S.A.R.L.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

   N/A

3. All parent corporations and any publicly held companies that own 10 percent of more of the stock of the party or amicus curiae represented by me are:

   None

4. The names of all law firms and the partners or associates that appeared for the party or amicus curiae now represented by me in the trial court or agency or are expected to appear in this court (and who have not or will not enter an appearance in this case) are:

   Susman Godfrey L.L.P.: Stephen D. Susman, Harry P. Susman, Alexandra G. White, Ibituroko-Emi Lawson, Robert Travis Korman, Burton DeWitt, Brenda Adimora, Beatrice Franklin

   Smith Katzenstein & Jenkins L.L.P.: Neal C. Belgam, Eve Ormerod, Julie M. O'Dell, Beth A. Swadley, Clarissa R. Chenoweth, Daniel A. Taylor, Morgan M. Daughton

   Proctor Heyman L.L.P.: Neal C. Belgam; Dawn Kurtz Crompton; Melissa N. Donimirski

   Russ, August & Kabat: Marc A. Fenster; Paul A. Kroeger

5. The case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case is:

   - *Arendi S.A.R.L. v. LG Electronics Inc., et al.*, No. 1:12-cv-01595-VAC (D. Del.)

- *Arendi S.A.R.L. v. Blackberry Limited, et al*., 1:12-cv-01597-VAC-JLH (D. Del.)
- *Arendi S.A.R.L. v. Motorola Mobility LLC*, 1:12-cv-01601-JLH (D. Del.)
- *Arendi S.A.R.L. v. Sony Mobile Communications (USA) Inc*., 1:12-cv-01602-VAC-JLH (D. Del.)
- *Arendi S.A.R.L. v. HTC Corp., et al*., No. 1:12-cv-01600-VAC (D. Del.)
- *Arendi S.A.R.L. v. HTC Corp., et al*., No. 2:18-cv-1725-BJR (W.D. Wash.)

6. Organizational victims in criminal cases and debtors and trustees in bankruptcy cases are:

   N/A

   Dated: May 13, 2024

   /s/ Kalpana Srinivasan
   Kalpana Srinivasan

TABLE OF CONTENTS

STATEMENT OF RELATED CASES 1

STATEMENT OF JURISDICTION 2

STATEMENT OF THE ISSUES 2

STATEMENT OF THE CASE 3

SUMMARY OF ARGUMENT 7

ARGUMENT 8

1. Standard of Review 8

2. The ’356, ’854, and ’993 patents, like the ’843 patent, claim eligible subject matter because they disclose improvements in computer functionality. 9

3. The district court’s claim constructions improperly narrowed the scope of the disclosed inventions. 26

   A. A “document” is any “electronic document containing textual information,” regardless of editability. 27

   B. The district court improperly required that a document be a “word processing, spreadsheet or similar file.” 41

   C. “While it is electronically displayed” means “while the first contact information is electronically displayed.” 44

4. The district court erred in construing claim 98 of the ’854 patent as a means-plus-function claim. 46

5. The district court erred in granting summary judgment in favor of defendants. 53

   A. Oath directly infringes claim 23 of the ’843 patent. 53

   B. The district court’s grant of summary judgment was based on its erroneous claim construction. 56

CONCLUSION 57

ADDENDUM 59

CONFIDENTIAL MATERIAL OMITTED

The district court's Memorandum Opinion regarding motions for summary judgment of noninfringement and to exclude expert testimony (Appx57-Appx91) was filed under seal by the district court. The nonconfidential version of the Addendum therefore substitutes the public version of that filing. Redactions appear on pages Appx69, Appx76-Appx78, and Appx82. The material redacted from Appx69 concerned the scope of the opinions of Google and Motorola's technical expert. The material redacted from Appx76-Appx78 concerned what source code was allegedly responsible for performing steps of asserted claims of U.S. Patent No. 7,917,843. The material redacted from Appx82 concerns functionality of Blackberry products at issue in a separate case still pending in district court.

TABLE OF AUTHORITIES

Page(s)

Cases

Aatrix Software, Inc. v. Green Shades Software, Inc.,
882 F.3d 1121 (Fed. Cir. 2018) 15

Absolute Software, Inc. v. Stealth Signal, Inc.,
659 F.3d 1121 (Fed. Cir. 2011) 42

Akamai Techs., Inc. v. Limelight Networks, Inc.,
805 F.3d 1368 (Fed. Cir. 2015) 31, 37

Ancora Techs., Inc. v. Apple, Inc.,
744 F.3d 732 (Fed. Cir. 2014) 32

Ancora Techs., Inc. v. HTC America, Inc.,
908 F.3d 1343 (Fed. Cir. 2018) 14, 25

Arendi S.A.R.L. v. Apple Inc.,
832 F.3d 1355 (Fed. Cir. 2016) .....*passim*

Arendi S.A.R.L. v. HTC Corp.,
No. CV 12-1600-LPS, 2020 WL 7360155 (D. Del. Dec. 15, 2020) 30

Aristocrat Techs. Australia PTY Ltd. v. Int'l Game Tech.,
521 F.3d 1328 (Fed. Cir. 2008) 52

Atlas IP, LLC v. Medtronic, Inc.,
809 F.3d 599 (Fed. Cir. 2015) 33

BASF Corp. v. Johnson Matthey Inc.,
875 F.3d 1360 (Fed. Cir. 2017) 51

Berkheimer v. HP Inc.,
881 F.3d 1360 (Fed. Cir. 2018) 8

Bio-Rad Laboratories, Inc. v. ITC,
998 F.3d 1320 (Fed. Cir. 2021) 32

Cont'l Cirs. LLC v. Intel Corp.,
915 F.3d 788 (Fed. Cir. 2019) 42

Core Wireless Licensing S.A.R.L. v. LG Elecs.,
880 F.3d 1356 (Fed. Cir. 2018) 10, 13, 14

CosmoKey Sols. GmbH & Co. KG v. Duo Sec. LLC,
15 F.4th 1091 (Fed. Cir. 2021) 15

Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.,
559 F.3d 1308 (Fed. Cir. 2009) 9

Data Engine Technologies LLC v. Google LLC,
906 F.3d 999 (Fed. Cir. 2018) 12, 13, 19, 27

Dyfan, LLC v. Target Corp.,
28 F.4th 1360 (Fed. Cir. 2022) 47, 48, 49

Enfish, LLC v. Microsoft Corp.,
822 F.3d 1327 (Fed. Cir. 2016) 14, 51

Finjan, Inc. v. Blue Coat Sys., Inc.,
879 F.3d 1299 (Fed. Cir. 2018) .....*passim*

Finjan, Inc. v. Secure Computing Corp.,
626 F.3d 1197 (Fed. Cir. 2010) 54, 55, 56

Hill-Rom Servs., Inc. v. Stryker Corp.,
755 F.3d 1367 (Fed. Cir. 2014) 27, 38, 42

Hologic, Inc. v. SenoRx, Inc.,
639 F.3d 1329 (Fed. Cir. 2011) 31

Liebel-Flarsheim Co. v. Medrad, Inc.,
358 F.3d 898 (Fed. Cir. 2004) 37, 38, 39, 45

Phillips v. AWH Corp.,
415 F.3d 1303 (Fed. Cir. 2005) 26, 27, 32, 37

Provisur Techs., Inc. v. Weber, Inc.,
No. 2021-1851, 2022 WL 17688071 (Fed. Cir. Dec. 15, 2022) 38

SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys.,
242 F.3d 1337 (Fed. Cir. 2001) 27, 34

SightSound Techs., LLC v. Apple Inc.,
809 F.3d 1307 (Fed. Cir. 2015) 32

Teva Pharms. USA, Inc. v. Sandoz, Inc.,
789 F.3d 1335 (Fed. Cir. 2015) 9

Typhoon Touch Techs., Inc. v. Dell, Inc.,
659 F.3d 1376 (Fed. Cir. 2011) 53

Unwired Planet, LLC v. Apple Inc.,
829 F.3d 1353 (Fed. Cir. 2016) 30, 37

VirnetX Inc. v. Apple Inc.,
792 F. App'x 796 (Fed. Cir. 2019) 54

Visual Memory LLC v. NVIDIA Corp.,
867 F.3d 1253 (Fed. Cir. 2017) 9, 14

Williamson v. Citrix Online, LLC,
792 F.3d 1339 (Fed. Cir. 2015) 9, 47, 50, 51

Zeroclick, LLC v. Apple Inc.,
891 F.3d 1003 (Fed. Cir. 2018) 47, 48, 49

Statutes

28 U.S.C. § 1295(a)(1).....2

28 U.S.C. §§ 1331 and 1338 2

35 U.S.C. § 101 .....*passim*

35 U.S.C. § 101 (ii).....7

STATEMENT OF RELATED CASES

Arendi S.à.r.l. ("Arendi") appeals from final judgment in two patent infringement suits before the U.S. District Court for the District of Delaware. In those actions, brought against Google LLC ("Google"), No. 13-cv-919-JLH, and Oath Inc. and Oath Holdings Inc. (collectively "Oath), No. 13-cv-920-GBW, Arendi alleged infringement of U.S. Patents. No. 7,917,843 ("the '843 patent"), 8,306,993 ("the '993 patent"), U.S. Patent No. 7,496,854 ("the '854 patent") and, with respect to Google, U.S. Patent No. 7,921,356 ("the '356 patent").

The outcome of this appeal may affect related cases pending before the U.S. District Courts for the District of Delaware and the Western District of Washington, in which Arendi alleges infringement of the '843 patent and '993 patent by other defendants. Those cases are *Arendi S.A.R.L. v. Motorola Mobility LLC*, 12-cv-01601-JLH (D. Del.); *Arendi S.A.R.L. v. LG Electronics Inc.*, et al., 12-cv-1595-GBW (D. Del.); *Arendi S.A.R.L. v. HTC Corp.*, 12-cv-1600-GBW (D. Del.); *Arendi S.A.R.L. v. Blackberry Limited, et al.*, 12-cv-1597-GBW (D. Del.); *Arendi S.A.R.L. v. HTC America, Inc.*, 2:18-cv-1725-BJR (W.D. Wash.). Those cases and this appeal concern the construction of terms in the '843 and '993 patents, as well as the patentability of certain claims of the '993 patent under 35 U.S.C. § 101.

Arendi is unaware of any cases currently pending before other tribunals that would directly affect the Court's decision in this appeal.

STATEMENT OF JURISDICTION

This Court has jurisdiction under 28 U.S.C. § 1295(a)(1). The district court had jurisdiction under 28 U.S.C. §§ 1331 and 1338 over these actions for patent infringement.

In the Oath action, the district court granted Oath's motion for summary judgment on March 31, 2022, granting judgment against Arendi on all remaining claims. Appx57. Arendi timely filed its Notice of Appeal on May 2, 2022. The Court stayed the appeal pending a final judgment in the Google action.

In the Google action, the district court entered Final Judgment on February 2, 2024, in favor of Google on Arendi's claim of patent infringement of the '843 patent, Appx1, after denying Arendi's timely post-trial motions for judgment as a matter of law and, in the alternative, for a new trial under Federal Rules of Civil Procedure 50(b) and 59(a)(1). Appx96. Arendi timely filed its Amended Notice of Appeal on February 23, 2024.

STATEMENT OF THE ISSUES

1. Whether the district court erred by finding the '993 patent,'854 patent, and '356 patent ineligible under 35 U.S.C. § 101.

2. Whether the district court erred in its construction of claim terms, including in ruling claim 98 of the '854 patent to be indefinite.

3. Whether the district court erred in granting summary judgment of noninfringement in favor of Oath and partial summary judgment of noninfringement in favor of Google.

STATEMENT OF THE CASE

The asserted Arendi patents provide improved methods and systems of information handling between computer programs. Among other advantages, the claims enable users to work in a document in one computer program while simultaneously searching for and retrieving information from a different program or information source with little to no user intervention. In addition to improving information handling between programs, the inventions overcome users' difficulty in accessing, maintaining, and manipulating unfamiliar information management programs. The inventions provide significant efficiency gains and performance improvements for both the user and the computer system.

Arendi filed suit against Google and Oath for patent infringement in 2013. Appx165; Appx6125. Google and defendants in several related cases petitioned for *inter partes* review of the '843 patent, and the district court then stayed these cases. The Patent Trial and Appeal Board found claims of the '843 patent invalid as obvious, but this Court reversed the PTAB's ruling in August 2016. *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1357 (Fed. Cir. 2016). These cases then proceeded in the district court.

Arendi filed amended complaints against Google in December 2018, Appx154, and Oath in April 2019, Appx5449, asserting that Google and Oath infringed claims of the ’843, ’854, and ’993 patents. Arendi also accused Google of infringing claims of the ’356 patent. Appx165. The accused products included both Defendants’ applications for smartphones and tablets (“Accused Apps”), and Google’s Android devices on which its Accused Apps were installed.

Following a *Markman* hearing on July 26, 2019, Appx2340, the district court construed claim terms on August 19, 2019. Appx2; Appx40. The following claim constructions are disputed in this appeal:

Term	**Construction**	**Patents & Claims**
document	a word processing, spreadsheet, or similar file into which text can be entered	All claims
while it is electronically displayed	while the first contact information is electronically displayed in the document	’993 patent, claims 1, 9, and 17

The district court also construed claim 98 of the ’854 patent as a means-plus-function claim and, consequently, held that claim to be invalid as indefinite. Appx23-24; Appx26-27.

On December 20, 2019, the district court granted in part and denied in part Defendants’ motion for judgment on the pleadings under Section 101. Appx45-56. The district court found that “the most reasonable view of these patents is that they

are directed to solving a problem in a computerized context and, thereby, improving computer functionality." Appx53. But it also found that the "abstract idea" of "identifying information in a document, searching for related information in a separate source, and using [the] found information in some way" was a "fair characterization of the claims." Appx54. Finding governing law to be not "entirely clear" when "a patent . . . is directed to improving computer functionality where the problem purportedly solved in a problem that also exists in the physical world," Appx53-54, the district court reached different conclusions with regard to the four patents.

First, after paraphrasing the limitations of the representative claim, the district court found the '843 patent patent-eligible because it is "directed to an improvement in computer functionality" and "sufficiently analogous" to patents this Court held to be patent-eligible in prior cases. Appx54-55. But the district court—without paraphrasing or otherwise discussing the limitations of the other representative claims—then distinguished the other Arendi patents, finding them "not directed to an improvement in computer functionality." Appx55. The district court stated that the representative claims of the '993, '356, and '854 patents did not reflect the same "inventive concept of beneficial coordination" between a document and an information source external to the document. *Id*. With respect to the '356 patent, for example, the district court stated: "I'm not seeing in this claim where the temporal limitation is present. That is, something that captures the purported improvement of

being able to work in two programs at the same time and use information from one program in the other program without having to close one of the programs." Appx56.

On March 31, 2022, the district court granted, in part, motions for summary judgment brought by Oath and Google on Arendi's claims for infringement of the '843 patent. Appx57. First, it granted partial summary judgment of noninfringement with respect to products that Arendi accused of infringement because of their use of "Linkify" and "Smart Linkify"—technologies used, in part, to identify certain types of information in text (such as addresses, telephone numbers and email addresses) and convert them into links. Appx70-73, Appx86-88. That ruling turned on the district court's previous construction of the term "document" to be an item "into which text can be entered," which the summary judgment ruling clarified to require "that the document remain editable at least when it is displayed and analyzed." Appx71 ("Since there is no dispute that Linkify and Smart Linkify do not work on editable files, there is also no dispute that the Accused Apps operating in conjunction with Linkify and Smart Linkify do not satisfy these claim limitations.").

The district court also granted summary judgment of noninfringement in favor of Oath with respect to claim 23 of the '843 patent, which claims a computer-readable medium "encoded with instructions which, when loaded on a computer, establish processes for finding data . . . the processes comprising" the claim limitations. Appx166 at 12:40-44; *see* Appx88-90. Notwithstanding the download

of its Accused Apps onto users' devices, the district court held that Oath could not directly infringe claim 23 because Oath did not sell those devices.

Trial in the Google case ran from April 24 to May 2, 2023, ultimately resulting in a jury verdict and Final Judgment of noninfringement. Appx1.

SUMMARY OF ARGUMENT

This consolidated appeal arises from three erroneous district court decisions that led to judgments in Google's and Oath's favor on Arendi's claims against them for patent infringement. These three decisions were (i) the district court's holding that three of Arendi's patents were ineligible under 35 U.S.C. § 101, (ii) certain of the district court's claim constructions, and (iii) the district court's grants of partial summary judgment of non-infringement for Google and summary judgment of non-infringement for Oath. The Court should reverse each of these decisions.

First, each of the patents that Arendi asserted below—all of which belong to the same family and share the same specifications (in the case of the '843, '356, and '854 patents) or similar specifications (in the case of the '993 patent)—are patent-eligible because they teach improvements in computer functionality, including "providing beneficial coordination between a first computer program displaying a document and a second computer program for searching an external information source." *Arendi*, 832 F.3d at 1357. The district court itself concluded as much of the '843 patent, but then erred in differentiating the three other asserted patents. The distinctions the district court drew are contradicted by the claim language and

undermined by the patents' shared and overlapping specifications, which make clear that they each disclose specific improvements in computer capabilities and are thus patent-eligible.

Second, the district court misconstrued the terms "document" and "while it is electronically displayed." The district court erroneously imported limitations from the specifications; misread those specifications; and failed to apply uncontradicted extrinsic evidence of the terms' meaning. Its flawed construction of "document" resulted in summary judgment of noninfringement as to most products accused of infringement. The district court also mistakenly construed claim 98 of the '854 patent as a means-plus-function claim—even though it is standard computer-readable-medium claim that does not recite a single function—leading the district court improperly to invalidate the claim as indefinite.

Third, the district court erred in granting summary judgement of no direct infringement by Oath of claim 23 of the '843 patent. Oath made, sold or offered for sale infringing computer readable mediums (CRMs) by providing its software for download onto Android devices. Yet the district court held that Oath could not be liable for the resulting CRMs because Oath did not make, use, or sell those devices.

ARGUMENT

1. STANDARD OF REVIEW

"Patent eligibility under 35 U.S.C. § 101 is ultimately an issue of law we review de novo." *Berkheimer v. HP Inc*., 881 F.3d 1360, 1365 (Fed. Cir. 2018).

Claim construction presents a question of law that this Court reviews *de novo* with only "subsidiary fact findings [] subject to clear error review." *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1337 (Fed. Cir. 2015). When a district court's findings are based on intrinsic evidence (*i.e.*, the claims, specification and prosecution history), review is entirely *de novo*. *Id.* at 1339. Clear error review only applies to "subsidiary factual findings about that extrinsic evidence." *Id.* The same standards of review apply to indefiniteness determinations under section 101, *id*. at 1340-41, and whether the claim language invokes means-plus-function claiming under section 112. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015).

Summary judgment is also reviewed *de novo*. *Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1311 (Fed. Cir. 2009).

2. THE '356, '854, AND '993 PATENTS, LIKE THE '843 PATENT, CLAIM ELIGIBLE SUBJECT MATTER BECAUSE THEY DISCLOSE IMPROVEMENTS IN COMPUTER FUNCTIONALITY.

Each of the patents that Arendi asserted—all of which belong to the same family and which share the same (in the case of the '843, '356, and '854 patents) or similar (in the case of the '993 patent) specifications—are patent-eligible because they teach "improvement[s] to computer functionality," *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258 (Fed. Cir. 2017), including "providing beneficial coordination between a first computer program displaying a document and a second computer program for searching an external information source,"

Arendi, 832 F.3d at 1357. Although the district court correctly found that the '843 patent is directed to eligible subject matter for this reason, it erred when it held—without any discussion of the claim language or the specifications—that the "inventive concept of beneficial coordination" was missing in the claims of the remaining patents.

A. The claims and specifications of the patents make clear that the inventions are directed to "specific improvement[s] in the capabilities of computing devices" rather than "an abstract idea for which computers are invoked merely as a tool." *Core Wireless Licensing S.A.R.L. v. LG Elecs.*, 880 F.3d 1356, 1361-62 (Fed. Cir. 2018) (cleaned up). Claim 1 of the '843 patent, for example, teaches a method "for finding data related to the contents of a document," including the steps of (1) displaying the document electronically using a first computer program; (2) while the document is being displayed, analyzing "first information from the document" to determine whether it is of a type that can be used to search for related "second information"; (3) retrieving the first information; (4) "providing an input device"—for example, a button or menu—"configured by the first program" that "allows a user to initiate an operation" that comprises (a) searching for related "second information" in "an information source external to the document" and (b) "performing an action using at least part of the second information"; (5) performing a search in the information source using a second computer program to find related "second information"; and (6) if such related second information is found,

performing "the action" of a "type depending at least in part on the type of the first information." Appx193-194 at 10:38-11:3.

In the first embodiment described in the specification, for example, "in a word processor, a button is added and a user types information, such as an addressee's name . . . in a document created with the word processor, . . . and then clicks . . . the button. . . . A program then executes and retrieves the typed information from the document, and searches an information management source, such as a database . . . to determine if the information . . . exists in the database." Appx190 at 3:42-54. If the program finds an address associated with the name in the database, "this additional information is automatically entered into the user's word processor." *Id.* at 3:63-65.

The specification explains that the invention offers several advantages "relative to existing methods." Appx193 at 9:51. For one thing, as the abstract common to the '843, '356, and '854 patents notes, the invention allows the user to search a database or file "while the user works simultaneously in another program." Appx166. In addition, because the input device is configured by the first program, the method "requires little or no training on the part of a user," Appx193 at 9:51-52; Appx229 at 11:64-65, since the user has no need separately to manipulate the second program. The invention is more convenient than existing methods, since "correct addresses are retrieved with a minimal number of user commands, 'clicks', keystrokes, etc." Appx193 at 9:52-54; Appx229 at 11:65-67. Furthermore, "the

process of creating and updating records in an address database is significantly simplified, since this may now be performed directly from" the first program. Appx193 at 9:58-60; Appx229 at 12:4-6.

This Court's precedents make clear that such improvements to a computer's functionality are directed to patent-eligible subject matter, not an abstract idea. For example, in *Data Engine Technologies LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018), this Court (mostly) reversed the district court's holding that four related patents were ineligible under § 101. Those patents claimed "systems and methods for making complex electronic spreadsheets more accessible by providing familiar, user-friendly interface objects" to assist the user in navigating through spreadsheets. *Data Engine Techs.*, 906 F.3d at 1002. Finding that the claims were "directed to a specific method for navigating through three-dimensional electronic spreadsheets," and noting the advantages of the patents' solution over existing methods as set forth in the specification, this Court held that the claimed method "does not recite the idea of navigating through spreadsheet pages using buttons"; rather "the claims require a specific interface for implementation for navigating complex three-dimensional spreadsheets using techniques unique to computers." *Id.* at 1008-09.[1] The same is

[1] The Court held that one of the patent claims was directed to an abstract idea of "identifying and storing electronic spreadsheet pages" because it did not "recite the specific implementation of a notebook tab interface" and therefore was "not limited to the specific technical solution and improvement in electronic spreadsheet functionality that rendered" other claims eligible. 906 F.3d at 1012. As discussed

true here: the patents provide an interface and a new technique for retrieving information from a second program while continuing to work in a first program, "using techniques unique to computers."

Likewise, in *Core Wireless*, one of the representative claims recited a computing device configured "to display on the screen a menu listing one or more applications" and "additionally being configured to display on the screen an application summary that can be *reached directly* from the menu" wherein (among other limitations) "the application summary is displayed while the one or more applications are in an *un-launched state.*" 880 F.3d at 1359 (emphasis in original). This Court noted that the claim was "directed to an improved user interface for computing devices" and "a particular manner of summarizing and presenting information in electronic devices," thus "recit[ing] a specific improvement over prior systems, resulting in an improved user interface." *Id.* at 1362-63. Notwithstanding that "the generic idea of summarizing information certainly existed prior to the invention," the Court looked to the specification's description of the prior art's shortcomings, noting that it required the user "to scroll around and switch views many times to find the right data/functionality" and "drill down through many layers to get to desired data or functionality." *Id.* (quotations omitted). "Rather than paging though multiple screens of options, only three steps may be needed from start up to

---

below, this is not the case for any of the representative claims at issue in the district court's decision.

reaching the required data/functionality" with the patented invention, which "clearly indicates that the claims are directed to an improvement in the functioning of computers, particularly those with small screens." *Id.* at 1363 (quotations omitted).

The same is true with the patents at issue here. They specifically teach an improved interface, that is, an "input device, configured by the first program" that allows the user to search and obtain information from a second program. Appx193 at 10:50-51; Appx261 at 10:61; Appx230 at 13:56-58. And they enable a user to efficiently execute the search for second information in an information management program external to a program for handling a document, and as the specification explains, it provides a "significant simplification relative to existing methods, and requires little or no training on the part of a user, as correct addresses are retrieved with a minimal number of user commands, 'clicks,' keystrokes, etc." Appx261 at 9:53-57.

Numerous additional cases make clear that "the first step in the *Alice* inquiry . . . asks whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . ." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *see also Ancora Techs., Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018) ("computer-functionality improvement . . . done by a specific technique"); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018) ("non-abstract improvement in computer functionality"); *Visual Memory*, 867 F.3d at 1258 ("improvement to computer functionality"); *cf. CosmoKey Sols.*

GmbH & Co. KG v. Duo Sec. LLC, 15 F.4th 1091, 1097, 1099 (Fed. Cir. 2021) (questioning district court's "broad characterization of the focus of the claimed advance" and upholding eligibility of the patent because "as the specification itself makes clear, the claims recite an inventive concept by requiring a specific set of ordered steps that go beyond the abstract idea identified by the district court and improve upon the prior art"). That basic principle supports finding that the patents at issue here are directed to eligible subject matter.

For related reasons, even if the representative claims of the asserted patents were directed to an abstract idea at *Alice* step one, they "contain[] an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application" and teach something more than "well-understood, routine, [and] conventional activity previously engaged in by researchers in the field . . . ." *Aatrix Software, Inc. v. Green Shades Software, Inc*., 882 F.3d 1121, 1126, 1128 (Fed. Cir. 2018). As discussed, the claimed inventions all improve computer systems by enabling coordination between separate programs (*e.g.*, a document editing program and a contact database). The claims solve a computer-based problem—the cumbersome process of leaving one program, opening another (with which the user may be unfamiliar), and conducting a manual search for information in the second program, as well as several subsequent user steps in order to retrieve and use the found information. By eliminating this hassle and enabling the user to access and use information from an external source without interrupting their work in a

document, the claimed inventions solved this computer-based problem with an inventive concept of providing beneficial coordination of information searching and retrieval between programs.

The conclusion that the patents are directed to eligible subject matter is further supported by this Court's prior decision in *Arendi S.A.R.L. v. Apple Inc*. In that case, this Court reversed the determination by the PTAB that the '843 patent was obvious. In analyzing that issue, the Court noted that the patent "is directed to providing beneficial coordination between a first computer program displaying a document and a second computer program for searching an external information source." *Arendi*, 832 F.3d at 1357. And, while the Court's analysis was focused on whether it was appropriate for the PTAB to rely on "common sense" to supply a "missing limitation" in a prior art reference (holding that it was not), the Court's determination that the crucial claim limitation at issue—"us[ing] information in a first program to find related information in a second program"—was "missing from the prior art references specified," *id.* at 1362, underscores that the invention is directed to an improvement in the coordination between computer programs—a technological problem of information management—and not an abstract idea, simply using computers as a tool.

B. The district court agreed that the '843 patent "is directed to an improvement in computer functionality," but it "reached the opposite conclusion" with respect to the remaining claims, failing to "see where" in the remaining claims

the "purported inventive concept of beneficial coordination is captured in the claims." Appx55. But each of the representative claims, read in light of the specification, discloses specific improvements in computer functionality: namely, improvements in information searching and retrieval between two different computer programs—including providing an improved user interface—without disrupting the user's work or requiring the user to be familiar with and have access to an external information source.

i. The representative claim of the '356 patent (claim 2) discloses "allowing a user to enter textual information into a document" and "following user selection of textual information in the document, analyzing . . . the selected textual information to determine if the selected textual information is . . . contact information," "***providing an input device configured by the document editing program*** to allow the user to initiate an operation . . . the operation comprising identifying at least part of the selected textual information to use as a search term in order to find second information," and "***in consequence of receipt by the document editing program of an execute command from the input device***, performing the operation, wherein the operation further comprises: ***causing an electronic search in the information source, by an information management program external to the document editing program***, for the search term in order to find whether the search term is included in the information source; and performing an action . . . ." Appx261-262 at 10:42-11:21 (emphasis added).

Claim 2 thus improves computer functionality by enabling the user simply to make a "selection of textual information in a document" and then "enter an execute command" through an "input device configured by the document editing program" in order to have "an information management program external to the document editing program" conduct a search "for the search term" *Id.* The user need not manually enter search terms in the information management program to search for the search term: this is all done for the user upon their selection of text and click of the input device. Claim 2 captures the same "beneficial coordination between a first computer program displaying a document and a second computer program for searching an external information source" that this Court recognized in the '843 patent in 2016, *Arendi*, 832 F.3d at 1357, and that the district court held supported its conclusion that the '843 patent claims eligible subject matter.

The district court nevertheless distinguished the '356 patent, stating that it did not "see[] in this claim where the temporal limitation"—apparently, "the require[ment] that both applications be able to be opened at the same time"—was "present" in the representative claim. Appx55-56. That statement is not supported by any difference in the language of the relevant representative claims: both claim 1 of the '843 patent and claim 2 of the '356 patent contemplate displaying a document (or textual information in a document) using a first program; providing an input device configured by the first program; and allowing the user to initiate, while the user works simultaneously in another program, operations that involve using

information from the document to search an external information source. The district court's conclusion that the '843 patent is directed to "beneficial coordination" between the first and second program but the '356 patent somehow is not finds no support in the language of the claims and is incorrect.

Moreover, claim 2 of the '356 patent is patent eligible for the independent reason that it specifically contemplates "insertion of at least part of the second information into the document," or, if "the information source does not include the search term," so informing the user, all "in consequence of receipt" of "the execute command," that is, "with a minimal number of user commands." The claim thus discloses a significant improvement in user interface from previous systems.

The common specification further supports the conclusion that claim 2 is directed to an improvement in computer functionality. *See, e.g.*, *Data Engine Techs.* 906 F.3d at 1007 (holding claim "not directed to an abstract idea" when "considered as a whole, and in light of the specification"). As with the '843 patent, the specification emphasizes that the invention provides a user with seamless access to an external database "with a minimal number of user commands" and requires "little or no training on the part of a user." Appx261 at 9:54-56. Each of these advances over the prior art is embodied in the representative claim. *See also* Appx257 at 2:21-26 ("a single click on the function item in a window or program . . . initiates retrieval of name and addresses and/or other person or company related information *while the user works simultaneously in another program*") (emphasis added).

ii. The ’854 patent likewise discloses specific steps to enable coordination between separate computer programs and thereby improve computer functionality. The preamble of claim 93, the representative claim, makes clear its purpose of enabling a user to efficiently retrieve information related to text in a document from a separate database. It discloses “[a] method for ***assisting a computer operator*** to retrieve information ***from a database*** that is related to text ***in a document***.” Appx290 at 17:22-24 (emphasis added). Claim 93 further discloses “using a first computer program to analyze the document, ***without direction from the operator***, to identify text in the document that can be used to search for related information,” and then “using a second computer program and the text identified in step (1) to search the database and to locate related information.” *Id.* at 17:25-31 (emphasis added).

The ’854 patent’s invention discloses a concrete improvement in computer functionality by initiating, without any direction by the user, the first computer program’s analysis of a document to identify text that can be used to search for related information, and then using a second computer program to search a database for related information that can be inserted into the document. Just as this Court concluded of the ’843 patent, the ’854 patent is thus “directed to providing beneficial coordination between a first computer program displaying a document and a second computer program for searching an external information source.” *Arendi*, 832 F. 3d at 1357. And, like the ’356 patent, the ’854 patent also teaches a significant

improvement in user interface: that is, the analysis happens "without direction from the operator." Appx 290 at 17:26.

That claim 93 of the '854 patent is patent eligible is further evidenced by the specification, which describes the problem the invention solves:

> In recent years, with the advent of programs, such as word processors, spreadsheets, etc. . . . users may require retrieval of information, such as name and address information, etc., for insertion into a document, such a letter, fax, etc., created with the word processor. Typically, the information is retrieved ***by the user*** from an information management source external to the word processor, such as a database program, contact management program, etc., or from the word processor itself, for insertion into the document.

Appx282 at 1:29-38 (emphasis added). Moreover, as the Federal Circuit noted in 2016, the shared specification of the '843 and '854 patents discloses specific "mechanisms for analyzing the document to identify the presence of name and address information," improving computer capabilities. *Arendi*, 832 F. 3d at 1357-58 (citing '843 patent at 4:33-39). This is equivalent to the claimed subject matter in *Finjan, Inc. v. Blue Coat*, where this Court found patent-eligible claims that disclosed a novel "'behavior-based' approach to virus scanning" that could "analyze a downloadable's code and determine whether it performs potentially dangerous or unwanted operations," thereby enabling "more flexible and nuanced virus filtering." 879 F.3d at 1304.

In finding that the '854 patent is ineligible, the district court did not discuss any of the relevant language of the claims or specification, stating that "[t]he

beneficial coordination concept is not captured in the claim." Appx55. As the foregoing discussion makes clear, that conclusion was in error.

iii. Like the other asserted patents, claim 1 of the '993 patent also discloses a specific improvement in computer functionality. It recites "analyzing in a computer process textual information in a document . . . to identify a portion of the document as first contact information," "after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact information previously identified as a result of the analyzing," with one such action being to "initiat[e] an electronic search in the contact database for the first contact information ***while it is electronically displayed*** in order to find whether the first contact information is included in the contact database; and when a contact in the contact database includes the first contact information, ***if second contact information in the contact database is associated with that contact, electronically displaying at least a portion of the second contact information***." Appx230 at 13:9-58 (emphasis added). It further discloses "providing for the user an input device configured so that ***a single execute command from the input device is sufficient to cause the performing***." *Id.* at 13:56-58 (emphasis added).

Claim 1 of the '993 patent improves computer functionality by enabling efficient and user-friendly coordination between a document and a separate contact database. Through specific steps, it discloses analyzing text in a document to identify first contact information, and then, if found, searching an external contact database

for second contact information while the first contact information is electronically displayed. Appx230 at 13:9-58. This improvement in coordination between computer programs allows users to remain focused on a document and the first contact information within it, which remains electronically displayed while searching occurs, yet easily retrieve second information from a contact database—without forcing users to separately launch and search the database themselves.

Just like the ’843 patent, claim 1 of the ’993 patent solves a problem specific to a computerized context: having to interrupt work in an electronic document to manually find related information in another possibly unfamiliar and difficult-to-access digital repository. Instead, the ’993 patent provides an input device into which the user can enter a “single execute command” to efficiently trigger the search for and retrieval of second information. *Id.* at 13:56-58.

The ’993 patent’s specification (which overlaps with the other patents’ specification) further makes clear that claim 1 is directed to improving computer functionality for users by enabling simpler coordination between a document and a contact database, such that users need not interrupt work in a document to manually search for related contact information in a separate database. The specification specifically describes how the invention improves the functionality for users, beginning when the user is at “a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name and new address of an existing contact 44. The user commands the button 42, for example, marked

'OneButton,' and the program according to the present invention retrieves the existing contact 44 from the document, searches a database for the name of the existing contact 44 and generates a screen" that "includes a message 70 informing the user that the contact 35 already [exists] in the database with an existing address, a message 72 including the existing address," and among other things, the option to "add the new address to contact selection 80." Appx227 at 7:27-40. As the specification notes, among other advantages, "the process of creating and updating records in an address database is significantly simplified, since this may now be performed directly from the word processor." Appx229 at 12:4-6. This beneficial coordination between computer programs and improvement in user efficiency is directly analogous to the '843 patent and passes muster under *Alice* step one for the same reasons.

The district court reached a contrary conclusion, stating: "I don't see where in this claim the ... purported inventive concept of beneficial coordination is captured in the claims. The claim does not appear to require that both applications be able to be opened at the same time." Appx55. But this rationale fails for multiple reasons. First, it wrongly assumes that the "beneficial coordination" aspect of the '843 patent is indispensable to eligibility—an incorrect assumption that the district court left unexplained. Second, the '993 patent does disclose the concept of beneficial coordination between simultaneously-open programs, as claim 1 expressly requires that the "the set of potential actions" a user be able to take "using the first contact

information previously identified as a result of the analyzing," is "initiating an electronic search in the contact database for the first contact information ***while it is electronically displayed*** in order to find whether the first contact information is included in the contact database." Appx230 at 13:29-38 (emphasis added). Third, claim 1 further improves computer functionality by disclosing a specific user interface that allows "a single execute command" from the user "to cause the performing" of the search for second contact information in a contact database and, if found, the display of "at least a portion of the second contact information" to the user (as in action (i)), or to initiate electronic communication (as in step ii)—all based on a "single execute command." Appx230 at 13:29-58.

The patent-eligibility of the '993 patent is further supported by analogy to *Ancora*, 908 F.3d 1343. In *Ancora*, this Court held that a method of looking up whether a user or a computer held a valid software license was not directed to an abstract idea; rather the claim used "a specific technique that departs from earlier approaches to solve a specific computer problem." 908 F.3d at 1348. In particular, the patent did so by "relying on specific and unique characteristics of certain aspects of the BIOS that the patent asserts, and we lack any basis for disputing, were not previously used in the way now claimed, and the result is a beneficial reduction of the risk of hacking." *Id*. at 1349.

The same is true here, where claim 1 of the '993 patent (like the representative claims of the other asserted patents) discloses a specific technique to allow a user to

access, retrieve, and use second information related to first information in a document without manually opening and searching for it in a separate database. It does so by "providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing" one of several specific actions using first contact information identified as a result of the analyzing step. Appx230 at 13:56-58.

3. THE DISTRICT COURT'S CLAIM CONSTRUCTIONS IMPROPERLY NARROWED THE SCOPE OF THE DISCLOSED INVENTIONS.

The district court improperly construed the terms "document" and "while it is electronically displayed." The district court's errors largely stemmed from importing limitations from the specification; misreading the patents' specifications; and failing to consider pertinent evidence of the terms' meaning.

A claim, properly construed, is given "the meaning it would have to a person of ordinary skill in the art at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc*., 381 F.3d 1111, 1116 (Fed. Cir. 2004)). "[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id*. at 1314. The Court may also look to other claims in the patent, the specification, and the prosecution history. *Id*. at 1314-17. The Court secondarily relies on extrinsic evidence, including expert or inventor testimony, treatises, and dictionaries. *Id*. at 1317-19.

Although claims are read in light of the specification, limitations should not be imported from the specification into the claims. *E.g.*, *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014) (holding district court erred in limiting "datalink" based on specification). This Court has described importing limitations as "one of the cardinal sins of patent law . . . ." *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001).

A. A "document" is any "electronic document containing textual information," regardless of editability.

The district court improperly construed the term "document"—used in all asserted claims—by narrowing the term to include only documents "into which text can be entered," Appx10; Appx13-15, and later clarifying that the document must be "editable at least when it is displayed and analyzed," Appx71. That construction improperly imported limitations from the specification. It also rested on a misreading of the specification and a refusal to consider both intrinsic and extrinsic evidence inconsistent with the Court's narrowing construction. This error was the sole basis for judgment on several of plaintiff's infringement claims in the *Google* action, requiring reversal and remand for trial. Appx70-73. That error also provided one of two erroneous grounds for summary judgment plaintiff's infringement claims in the *Oath* case. Appx87-88; *see infra* at 56.

1. The claims narrow the plain and ordinary meaning of "document" in only two ways. First, the document must be an electronic document. That limitation

stems from requirements such as "displaying the document *electronically*" and doing so "using the first *computer* program." Appx193 at 10:41-42 (emphasis added). Second, the document must contain textual information—as Defendants agreed. Appx2063. For example, claim 1 of the '843 patent requires "analyzing … first information from the document" and an input device for initiating an operation comprising "performing a search using at least part of the first information as a search term." Appx193 at 10:43-44, 52-54, 62-63; *see also, e.g.*, Appx230 at 13:21-22 ("analyzing in a computer process textual information in a document"). These limitations together require that the document include "first information," which must comprise the "search term"—*i.e.*, text. Were text absent, the claims could not be practiced. Arendi's proposed construction below, "electronic document containing textual information," reflects these two requirements. Appx2249.

2. At Defendants' urging, however, the district court improperly narrowed "document" to require that the document be editable, that is, one "into which text can be entered." Appx10; Appx13-15, which the district court further narrowed by adding that the document must be "editable at least when it is displayed and analyzed," Appx71. These limitations have no basis in the claim language and conflict with both extrinsic and intrinsic evidence of the meaning of "document."

a. The asserted claims do not require the ability to edit the document—including when practicing the analyzing and displaying limitations of the '843 patent on which the district court focused in its summary judgment order. *See* Appx71. For

example, a word processing computer program, including Microsoft Word, can practice "displaying the document electronically using the first computer program" ('843 patent, cl. 1) just as much when a document is opened as a "Read Only" file as an editable one. *See* Appx4957-4958 at ¶¶ 158-60. Other computer programs, such as Adobe Acrobat, are also used for displaying non-editable PDFs. *See* Appx2332 (defining "Acrobat"). The claim language does not include an "edit-while-displaying" requirement. The limitation "while the document is being displayed, analyzing, in a computer process, first information from the document" also does not mandate the ability to alter text. Appx193 ('843 patent, cl. 1). Defendants' own Linkify technology, which identifies entities such as addresses, telephone numbers and email addresses, indisputably analyzes information when documents are displayed but *not* editable. *See* Appx70-71.

Comparing the scope of the different claims from these related patents confirms that "document" does not include an editability requirement. For example, claim 1 of the '356 patent discloses "allowing a user to enter textual information into a document using [a] document editing program," and also "insertion of at least part of the second information into the document." Appx261-262 at 10:47-48, 11:20-11. Accordingly, for a process to practice the '356 patent, the document must be

editable[2]—*not* by virtue of the definition of document, but because of the steps required by the claimed process.

By contrast, claim 1 of the '843 patent is purposefully broader: it claims "a document using a first computer program running on a computer" Appx193 at 10:39-40—no mention of a document editing program.[3] The claim does not require any entry of information into the document by the user; it simply requires "analyzing, in a computer process, first information from the document." Appx193 at 10:43-44. The claim also does not require that the second information be inserted into the document; rather, any action can be performed using "at least part of the second information." Appx193-94 at 10:67-11:1. Since the patentee knew how to limit claims to editable documents, the district court erred in narrowing the term "document" to import the same editability requirement into claims that do not specifically require that limitation. *See Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1358-59 (Fed. Cir. 2016) ("If the patentee intended to restrict the claims-at-

[2] More specifically, the document must be editable at the time of the entering of textual information and the insertion of the second information. The claims do not require editability at other times—including during the analyzing step.

[3] The district court initially asserting that editability was required so "a computer could enter related address data into the document." Appx14. But the district court subsequently acknowledged that claim 1 of the '843 patent does *not* require entering related address data into the document—or, indeed, require that any action be performed in the first computer program. Appx72; *Arendi S.A.R.L. v. HTC Corp.*, No. CV 12-1600-LPS, 2020 WL 7360155 at *2 (D. Del. Dec. 15, 2020). Despite acknowledging the error, the court did not modify its construction of "document," which had rested in part on this misunderstanding.

issue to require a voice input to travel over a particular type of channel, it could have included" the limitation to that effect found in other claims.); *cf. Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1375 (Fed. Cir. 2015) ("[C]laim 17 of the '703 patent expressly recites 'tagging ... by pre-pending,' suggesting that the term 'tagging'—without modification and as recited in the asserted claims—is not so limited.").

Claim 1 of the '993 patent also strongly undermines the district court's limitation. That claim focuses not on any potential modification of the document, but on using "textual information in a document configured to be stored for later retrieval" for "first contact information"; using a part of that information to search a "contact database"; if "second contact information" is found in that contact database, "displaying at least a portion of the second contact information"; and, potentially, "initiating electronic communication" and/or "allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact." Appx230 at 13:21-22, 34-35, 46, 48-51. There is no suggestion in that claim that the document be editable at any time.

The district court rejected this intrinsic evidence of claim differentiation as without "merit" because it contrasts "two distinct independent claims"—rather than an independent and its dependent claim. Appx14-15. But the force of such textual evidence is not limited to independent claims and their dependent claims. *See Hologic, Inc. v. SenoRx, Inc.*, 639 F.3d 1329, 1336 (Fed. Cir. 2011) ("Hologic

wrongly asserts that looking to other terms is only appropriate when the comparison is between an independent claim and the claims that depend from it."). In *Phillips*, the Court construed the term "baffles" in one independent claim to have a "generic meaning," in part, based on additional limitations on the placement of baffles in another independent claim:

> Independent claim 17 further supports that proposition. It states that baffles are placed "projecting inwardly from the outer shell at angles tending to deflect projectiles that penetrate the outer shell." That limitation would be unnecessary if persons of skill in the art understood that the baffles inherently served such a function.

415 F.3d at 1324-25. This Court applied a similar textual analysis to independent claims in *Ancora Techs., Inc. v. Apple, Inc.*, 744 F.3d 732, 735 (Fed. Cir. 2014). (declining to narrow "program" to application programs partly because another independent claim was expressly limited to "an application software program"). And, in *Bio-Rad Laboratories, Inc. v. ITC*, 998 F.3d 1320, 1334 (Fed. Cir. 2021), the Court rejected appellant's argument that the ITC had erred in applying the doctrine of claim differentiation across different patents. As here, *see* Appx2200-2235, the parties had "agreed that the term" had "the same meaning across all of the asserted patents," *Bio-Rad Labs.*, 998 F.3d at 1334; *see also SightSound Techs., LLC v. Apple Inc.*, 809 F.3d 1307, 1316 (Fed. Cir. 2015) ("Where multiple patents 'derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents.'").

Atlas IP, LLC v. Medtronic, Inc., 809 F.3d 599, 607 (Fed. Cir. 2015), on which the district court relied at Appx14-15, is not to the contrary. In *Atlas*, "both the claims and specification" supported the district court's construction, while the appellants' claim differentiation argument was at odds with an ordinary dictionary definition of the term "establish," other limitations of asserted claim, the "core claimed function" of the invention, and the specification. 809 F.3d at 605-606. Most significantly, the construction of the relevant term was necessary "[t]o fulfill the core claimed function" of the patent, a conclusion confirmed by the specification. *Id.* at 606. Other language in the claims, moreover, "avoid[ed] a conclusion of superfluousness . . . ." *Id.* at 607. The Court thus rejected appellants' claim differentiation argument "based on independent claims" because the patentee could not "override the strong evidence of meaning supplied by the specification." *Id.* In contrast, Arendi's claim differentiation argument is consistent with other evidence of the meaning of the term "document." The document need not be editable to "fulfill the core claimed" invention. On the contrary, the more specific claims of the '356 patent demonstrate that the district court's construction imports into other claims limitations that simply are not there.

b. The district court grafted an editability requirement onto its claim construction based solely on its interpretation of the specification. Appx13-14. It cited no other support. That approach not only violated "one of the cardinal sins of

patent law" *SciMed Life Sys.*, 242 F.3d at 1340; it was also based on the district court's repeated misreading of the specification.

i. Contrary to the district court, the specification confirms that editability is not inherent in the term "document." For example, one of the benefits of the invention called out in the specification is that "the process of creating and updating records in an address database is significantly simplified," since it "may now be performed directly" from the program handling the document (referred to as "the word processor"). Appx193 at 9:58-60; Appx229 at 12:4-6. That benefit can be equally realized whether the document is editable or not. The district court's limiting construction thus eliminates, in circumstances that fit within the claims' plain language, part of the benefit of the invention that is called out by the specification.

ii. By contrast, nothing that the district court relied on implies (let alone states) that documents must be editable. The Court first pointed to the Abstract's explanation that "the invention is directed to 'look[ing] up data corresponding to what [a] user types, or partly typed,' such that the data is 'displayed and possibly entered into the word processor, if such related data exists.'" Appx13. But a user may previously have "partly typed" or "entered" text into a file now reopened as a read-only document; and the possibility that data is "possibly entered" under some circumstances does not require that the user always have the ability to enter text. Furthermore, the portion of the Abstract on which the district court focused does not even appear in the '993 patent, Appx197 at Abstract—and the parties agreed that the

term had the same meaning in *all* of the patents at issue, *e.g.*, Appx10; Appx444-445.

Moreover, although some—but by no means all—of the claims require the ability to insert text into the document, *see, e.g.*, Appx194 at 11:53-55, those claims do *not* require those documents to be editable at the time of the analysis but only at the time the data shall be entered into the document. The district court thus had no basis to impose the requirement that the document be editable at all, let alone at the time of the display and analysis.

iii. The Court's assertion that the "patent's definition of the term—'word processors, spreadsheets, etc.'—is necessarily limited to computer programs in which a user can enter data," Appx13 (reproducing definition of "word processor"), does not support the district court's construction of the different term "document." "[W]ord processor" refers to a type of computer program—not a type of "document." Appx189 at 1:28-29 ("In recent years, with the advent of *programs*, such as word processors, spreadsheets, etc. (hereinafter called 'word processors')" (emphasis added)). And the specification defines "word processor" broadly, as indicated by use of "such as" and "etc.," suggesting a wide range of potential "documents" that might be displayed using computer programs—including those that do not support editing. Appx189 at 1:23-30.

The district court's reliance on the specification's definition of "word processor" to limit the scope of the separate term "document" was particularly

inappropriate since the claims do not uniformly require use of a computer program with editing functions. On the contrary, when the patentee wanted to require a computer program with editing functions, he specifically claimed that functionality. *Compare* Appx261 at 10:49-50 ("displaying the textual information in the document electronically using the ***document editing program***") *with* Appx195 at 10:41-42 ("displaying the document electronically ***using the first computer program***); *cf.* Appx230 at 13:12-13 ("providing access to a contact database that can also be separately accessed and edited by a user"). The district court thus erred in assuming that the program displaying the document always has editing capabilities; and its resulting inference that all documents must be editable was doubly unsupported.

The district court's reliance on the definition of "word processor" to require editability was also inapposite because word processors displayed non-editable text at the time of the invention; word processing files could be read from a floppy disk with *physical* read-only protection enabled or saved to a read-only CD-R, Appx5106 at ¶160. Under the Court's construction, a word processing file ceases to be a "document" as soon as it is saved or opened in a read-only mode. Appx2403 at 9 (arguing same). Nothing in the patent suggests that a file's status as a "document" depends on its read-only protections at a given point in time.

iv. The district court asserted that the "15 invention-specific figures, the seven examples, and the 'object[s] of the invention' provided in the specification support the understanding that the invention's purpose is to retrieve and possibly

enter data into a document based on information entered by the user. (See, e.g., '843 patent, Figs. 1-15, 1:53-2:34, 5:59-8:67)." Appx13. But those exemplary embodiments do not state that the document must be editable: many refer to analyzing text that a user had "typed" (past tense) without saying anything about the continued editability of the document. *E.g.*, Appx191-193 at 6:10-38; Appx226 at 6:40-67. More fundamentally, the trial court's reliance on exemplary figures and exemplary embodiments to limit the claims violates this Court's dictate not to limit claims to exemplary embodiments. *Unwired Planet*, 829 F.3d at 1359 ("[W]e have repeatedly held that it is 'not enough that the only embodiments, or all of the embodiments, contain a particular limitation' to limit claims beyond their plain meaning.") (citation omitted). This rule holds even when the specification discloses only one exemplary embodiment.[4] Here the specification emphasizes that every figure is "according to an *exemplary* embodiment." *E.g.*, Appx189-190 at 1:46-47, 49-50, 53-54; 4:23-24 (emphasis added); *see also* Appx175-76 at Figs. 1 & 2 ("flow chart in principle: exact implementation may vary"), and each embodiment is labeled

[4] *See Akamai Techs., Inc.*, 805 F.3d at 1375 (reversing construction of "tagging" that included a "prepended" limitation even though the only method of tagging described in the patent involved prepending a host name);; *Phillips*, 415 F.3d at 1323 ("[W]e have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment."); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 905–06 (Fed. Cir. 2004) ("Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using 'words or expressions of manifest exclusion or restriction.'" (citations omitted)).

an "*Example*." *E.g.*, Appx191 at 5:49 (emphasis added). In *Hill-Rom*, the Court noted similar language, identifying embodiments as mere examples, when reversing a district court's limitation of claim terms to match those embodiments. 755 F.3d at 1373 (noting specification stated that figures "merely 'illustrate embodiments of the inventions'").

v. The district court also erred in imposing an editability requirement based on the objects of the invention. In the first place, "not every benefit flowing from an invention is a claim limitation" or "constitute[s] a clear and unmistakable disclaimer" of other embodiments. *Provisur Techs., Inc. v. Weber, Inc.*, No. 2021-1851, 2022 WL 17688071, at *3 (Fed. Cir. Dec. 15, 2022) (quoting *i4i Ltd. v. Microsoft Corp.*, 598 F.3d 831, 843 (Fed. Cir. 2010)) (refusing to construe "multi-fill" to exclude "non-simultaneous disposition of draft" even though the "specifications emphasize simultaneous deposits are more efficient and the specifications emphasize the benefits of the invention"). For example, in *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 908 (Fed. Cir. 2004), the Court refused to limit the claims to devices that use pressure jackets even though the specification described the objects of the invention in terms of such jackets. This Court reasoned that, although passages from the Summary of the Invention "focus[ed] on the use of the invention in conjunction with pressure jackets," they did "not disclaim the use of the invention in the absence of a pressure jacket." *Id.* And, as the Court held, "[t]he fact that a patent asserts that an invention achieves several objectives does not

require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." *Id*.

The Court's holding in *Liebel-Flarsheim Co.* applies with even greater force here since none of the "object[s] of the invention" paragraphs cited by the district court even calls for editing. For example, the first object recited by the '843 patent "is to provide a method, system and computer readable medium for address handling within a computer program." Appx189 at 1:53-55. None of the stated objects of the '993 patent reference a "document" or discuss editing. Appx224 at 1:53-2:13.

vi. The district court further stated that its "understanding is reinforced by the patents' repeated use of the phrase 'the present invention is defined in terms of' to limit the invention to a particular technological context." Appx13-14. But none of the passages cited by the district court disclaims the invention's applicability to non-editable documents. Appx2671-2672 at 8-9 n.5. Several do not even mention documents. *E.g.*, Appx193 at 10:8-13 (describing the claimed "input device"). Other sections relied on by the district court at n.5 are not related to the document or the document-handling program. For example, Col. 10, ll. 1-7 of the '843 patent discusses a computer program used to search the information source—not the one used for displaying the document. *Compare* Appx192-193 at 8:12-33; 10:1-7 *with* Appx194 at 12:66-13:2.

Only one statement in the specifications—on which the district court did not rely, *cf.* Appx2671-2672 n.5—describes the document as an aspect of the invention.

Appx193 at 9:61-67 ("Although the present invention is defined in terms of word processing documents, such as WORD™ documents and EXCEL™ spreadsheets, the present invention is applicable to all types of word processing documents… as will be readily apparent to those skilled in the art."). But that passage, in conjunction with the patents' expansive definition of "word processor" to include other types of programs, implies that "document" should be construed broadly, not narrowly. And, as noted above, the reference to "word processing documents" does *not* imply that the document is editable *when analyzed*. *See supra* at 35-36.

c. When clarifying its claim construction, the district also failed to consider extrinsic evidence of a POSITA's understanding of "document." The IBM Dictionary of Computing, 10th Ed. (1993), defines document as "a named, structural unit of text that can be stored, retrieved, and exchanged among systems and users as a separate unit." Appx2470. No mention of editing. The Microsoft Press Computer Dictionary, cited by Defendants below, Appx2255-2256, uses the term "document" to refer to noneditable PDFs and noneditable html documents viewed through web browsers:

> **ACROBAT**: A commercial program from Adobe that converts a fully formatted document created on a Windows, Macintosh, MS-DOS, or UNIX platform into a Portable Document Format (PDF) file that can be viewed on several platforms. Appx2481
>
> **.PDF**: The file extension that identifies documents encoded in the Portable Document Format developed by Adobe Systems. In order to display or print a .pdf file, the user should obtain the freeware Adobe Acrobat Reader. Appx2488.

> **WEB BROWSER**: A client application that enables a user to view HTML documents on the World Wide Web, another network, or the user's computer; follow the hyperlinks among them; and transfer files. Appx2483

That dictionary further explains that, although documents are "generally thought of as word-processed materials only," "[t]o a computer … data is nothing more than a collection of characters, so a spreadsheet or a graphic is as much a document as is a letter or report." Appx2389 at 154. This extrinsic evidence provides further support for the construction that Arendi proposed.

B. The district court improperly required that a document be a "word processing, spreadsheet or similar file."

The district court also erred by limiting the definition of "document" to a "word processing, spreadsheet or similar file." Neither the claims nor the specification limit the claimed inventions in this way. To start, the asserted claims do not themselves limit documents to word processing documents, spreadsheet documents or items "similar" to them.[5]

The district court instead based its construction entirely on the specification. Appx2668-2669 at 5-6. First, the district court noted that "[e]ach described embodiment either uses a word processing program or a spreadsheet program." But,

[5] The district court never clearly defined what it meant by "similar." To the extent that its unstated criterion for similarity was that the program be capable of editing the document, it is incorrect for the additional reasons already stated with respect to its requirement that the document be "editable."

as explained above, limiting claims to exemplary embodiment conflicts with this Court's precedent. *Supra* at 37-38 & n.4.

Furthermore, although the Court asserted that the specifications "effectively 'define[]' the invention as limited to 'word processing documents," citing Appx193 at 9:61-67, the cited portion of the specification does not amount to "words of manifest exclusion or restriction," which are necessary to limit claim scope, *Hill-Rom Servs.*, 755 F.3d at 1372. "While descriptions 'of the "present invention" as a whole" could limit the scope of the invention, 'use of the phrase "present invention" or "this invention" is not always so limiting, such as where the references . . . are not uniform, or where other portions of the intrinsic evidence do not support applying the limitation to the entire patent." *Cont'l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019) (citations omitted); *see also Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1136 (Fed. Cir. 2011) (collecting cases). Thus, in *Continental Circuits*, the Court reversed the district court's limitation of claim terms to the "desmear process" based on statements that the "present invention" used that process. *Id*. at 798. The Court found such descriptions of the "present invention" only "disclose[d] one way to carry out the present invention" and noted that the phrase "the present invention" was not used across the specification to "uniformly require use of a repeated desmear process."

Here, too, the specification uses "word processors" not to limit the scope of the invention but, on the contrary, to refer to a broad range of programs. Moreover,

the specification does not consistently require "the present invention" to use word processing programs, and it provides the use of "word processing documents" as just an example of the invention's implementation. The '843 patent uses the phrase "the present invention is" on five occasions. Appx193 at 9:61-10:27. Only one of them even mentions "word processing documents." The patent employs similar phrases elsewhere in the specification, again without mention of word processing documents. *E.g.*, *id*. at 9:9:50-60 (describing "[a]ddress handling, according to the present invention"). And, as already noted, the district court misconstrued the specification's reference to "all types of word processing documents": Those lines warn away from limiting the invention to only the *Word* documents and *Excel* documents in the exemplary embodiments. *See* Appx193 at 9:61-67. They do not require that the invention be limited to word processing, spreadsheet, and similar documents.

In looking to the specification, the district court also failed to credit the patentee's broad use of the term "document"—the actual term at issue. Just as the specification defines "word processor" to mean "a computer program *such as* a word processing program, spreadsheet program, *etc*.," Appx189 at 1:28-30 (emphasis added), it describes a document as an item "*such as* a letter, fax, etc." Appx190 at 1:31-32. Those repeated efforts to describe "documents" broadly conflict with the district court's singular focus on exemplary "word processors."

C. "While it is electronically displayed" means "while the first contact information is electronically displayed."

The trial court erred in appending "in the document" to the end of its construction of "while it is electronically displayed" (claims 1, 9, and 17 of the '993 patent): "while the first contact information is electronically displayed *in the document*." Appx24 (emphasis added).

That limitation is neither required nor suggested by the claim language. Claims 1, 9 and 17 of the '993 patent all recite "initiating an electronic search in the contact database for the first contact information while it is electronically displayed . . . ." Appx230-231 at 13:34-37, 14:39-42, 15:52-55.[6] Those limitations thus require that the *first contact information* be electronically displayed. There is no dispute that "it" refers to "the first contact information." But those claims do not limit *where* that information is displayed on the computer. Every limitation can be performed regardless of whether that display takes place "in the document" or elsewhere.

The district court's "in the document" limitation comes not from the claims, but rather from its misreading of the specification. Appx25-26. The district court highlighted the specification's statement that, "according to the present invention, the process of creating and updating records in an address database is significantly simplified, since this may now be performed *directly from the word processor*,"

[6] Claim 9 omits the word "in" due to an apparent typographical error.

Appx229 at 12:3-6 (emphasis in added). Arendi agrees that performing actions directly from, for example, a word processor is a benefit of the invention—achieved, for example, by "providing for the user an input device, configured by the first computer program." Appx193 at 10:50-51. But that benefit is irrelevant to the district court's construction. Although the claims do provide that textual information comes from the document, *see, e.g.*, Appx230 at 13:21-22 ("analyzing in a computer process textual information in a document…"), the fact that such first information *originates from* a document does not mean or imply that this text is *displayed in* the document at the time of "initiating an electronic search." For example, the first information could appear in a dialog box, *cf.* Appx212 at Fig. 6 (showing first information in "Add New Contact" dialog box), in instances when the first information is contained in off-screen portions of a multipage document. In any event, the district court committed legal error by importing a purported benefit of the invention into the claims. *Liebel-Flarsheim Co.*, 358 F.3d at 908 (refusing to impose limitation identified as benefit "[a]ccording to the principles of the present invention").

The district court likewise erred in relying on two other passages in the specification, neither of which addresses where the first information is displayed. First, the district court asserts that Col. 12:38-45 supports its reading because it refers to retrieving information "from a document." Appx26. Again, the question is not where the first contact information comes from, but rather where that information is

displayed. Second, the district court asserts that "every figure showing entry of the first contact information—Figures 3, 4, and 5—shows the first contact information "being displayed in the document" and "every embodiment … indicates that the electronic search occurs only after the user enters first information into the document." Appx25-26. But where a user may have entered text is, again, irrelevant to where that text is displayed at the time of searching. In any event, the district court should not have limited the scope of claims to match exemplary embodiments. *Supra* at 37-38.

4. THE DISTRICT COURT ERRED IN CONSTRUING CLAIM 98 OF THE '854 PATENT AS A MEANS-PLUS-FUNCTION CLAIM.

Claim 98 is a computer-readable-medium claim, and the district court erred in treating it as a means-plus-function claim. The claim comprises three basic steps. Each step is to be performed using the claimed "computer readable medium including program instructions." The word "means" never appears:

> A computer readable medium for assisting a computer operator to retrieve information from a database that is related to text in a document, the computer readable medium including program instructions for performing the steps of:
>
> (1) using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information,
>
> (2) using a second computer program and the text identified in step (1) to search the database and to locate related information, and
>
> (3) inserting the information located in step (2) into the document.

Claim 98 is, therefore, a standard computer-readable-medium (*i.e.*, *Beauregard*) claim. The district court erred in requiring the specification to disclose corresponding structures for the first and third limitations—and consequently ruling Claim 98 to be invalid as indefinite. Appx28-29; Appx31-32.

This Court "presume[s] that a claim limitation is not drafted in means-plus-function format in the absence of the term 'means.'" *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1365 (Fed. Cir. 2022). The burden rests on the challenging party, Defendants, to overcome this presumption by showing that the claim does not "recite sufficiently definite structure." *Id*. at 1367 (requiring challenger to prove by preponderance of the evidence that POSITA would not have understood limitation "to connote structure in light of the claim as a whole"). "The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Williamson*, 792 F.3d at 1349. As for other claim construction inquiries, the Court makes that determination "in light of evidence intrinsic and extrinsic to the asserted patents." *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1007 (Fed. Cir. 2018).

In *Dyfan*, the Court reversed judgment of invalidity, holding that the district court had erred in treating a claim requiring code as invoking means-plus-function claiming. *Id.* at 1369, 1371. The Court found that a person of skill in the art would have understood the claimed "code" or "application" to connote structure in

combination with the limitation's "recitation of the code or application's operation," *id*. at 1369:

> Unlike in the mechanical arts, the specific structure of software code and applications is partly defined by its function. In determining whether software limitations like those at issue here recite sufficient structure, we can look beyond the initial "code" or "application" term to the functional language to see if a person of ordinary skill would have understood the claim limitation as a whole to connote sufficiently definite structure.

Id. at 1367–68 (citations omitted); In *Dyfan*, the disputed "'code'/'application' limitations" claimed "code configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to" perform various steps, including displaying information. *Id.* at 1363. The claimed code, "both alone and in combination with" the limitations' description of the code's operation, provided adequate structure. *Id*. at 1371. The Court also cited expert testimony showing that the "recited functions can be performed by conventional off-the-shelf software," which further confirmed that a person of ordinary skill "would have understood the alleged means-plus-function 'code' limitations in the asserted claims to connote structure conventional off-the-shelf software." *Id.* at 1369.

In *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003 (Fed. Cir. 2018), the Court again reversed a district court's characterization of claimed software functionality as means-plus-function claims. *Zeroclick* concerned the terms "*program* that can operate the movement of the pointer (0)" and "*user interface code* being configured to detect one or more locations touched by a movement of the user's finger on the

screen without requiring the exertion of pressure and determine therefrom a selected operation." *Id*. at 1006-07 (emphasis added). This Court held that the district court erred in treating both "'program' and 'user interface code' as nonce words"—that is, as "substitutes for 'means'" that "presumptively bring the disputed claims limitations within the ambit of § 112, ¶ 6." *Id*. at 1008. In upholding the resulting presumption *against* means-plus-function claiming, this Court emphasized the ability to use or modify existing software to perform the claimed steps. *Id*. Since the "'basic concept behind both of the patents-in-suit is relatively simple,' a person of ordinary skill in the art could reasonably discern from the claim language that" both "program" and "user interface code" were "used not as generic terms or black box recitations of structure or abstractions, but rather as specific references to conventional graphical user interface programs or code, existing in prior art at the time of the inventions." *Id*. at 1008 (citations omitted).

As in *Dyfan* and *Zeroclick*, the district court erred in holding Claim 98 of the '854 patent to be a means-plus-function claim. The structure of claim 98 closely mirrors the limitation at issue in *Dyfan*, where (as here) the claim includes code with instructions to perform three steps. Appx290 at 18:21-29. The limitations of claim 98 concern basic software functions: analyzing text, searching a database, and inserting text into a document. Just like the "code" or "application" in *Dyfan* and the "program" or "user interface code" in *Zeroclick*, a person of ordinary skill would

understand the claimed "program instructions" of claim 98 to provide sufficient structure in connection with the steps of the claim.

Expert declarations provide confirmatory extrinsic evidence that a person of skill would understand the claim limitation as a whole to connote sufficiently definite structure. For example, Arendi's expert, Dr. John Levy explained that "a skilled artisan could add or insert information from one program into another by using a script file or by using string-handling functions of a programming language." Appx6372 at ¶34. Google's own expert, Dr. Edward Fox, explained that inserting text could use "an API call exposed by the second application program, *i.e.*, a contact management computer program, as well as special programming of the first application program, e.g., word processor, to facilitate the text insertion." Appx6357 at ¶51. As for analyzing, Dr. Fox acknowledged "numerous approaches to this function (e.g., parsing, tokenizing, string matching, table lookup, named entity recognition)." Appx6348 at ¶33.

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1350 (Fed. Cir. 2015), relied on by the district court, is inapposite. *Williamson* concerned a limitation claiming a "distributed learning control module for receiving communications transmitted between the presenter and the audience member computer systems and for relaying the communications to an intended receiving computer system and for coordinating the operation of the streaming data module." The limitation simply substituted the "well-known nonce word" of "module" for the word "means." *Id*. at

1351. In other words, the limitation was "in a format consistent with traditional means-plus-function claim limitations." *Id.* The limitations of claim 98 of the '854 patent are not in that format. *E.g.*, Appx290 at 18:28-29 ("inserting the information located in step (2) into the document").

In the alternative, the specification discloses a sufficient structure for analyzing the document. Thus, the Court should reinstate claim 98 even *if* it were to hold that "using a first computer program to analyze the document" invokes means-plus-function claiming. "[T]he sufficiency of the structure is viewed through the lens of a person of skill in the art and without need to disclose structures well known in the art." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1340 (Fed. Cir. 2016). Defendants bear the burden of proving indefiniteness by clear and convincing evidence. *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017).

The specification of the '854 patent provides clear directions on how to analyze the document without direction from the user. The specification instructs the person of ordinary skill to look for the first information in a document's text. *E.g.*, Appx268 at Fig. 1, no. 4 ("Analyze what the user has typed in the document"); Appx283 at 4:25-28 ("[T]he program analyzes what the user has typed in the document at step 4. A[t] step 6, the program decides what was found…."). It provides an algorithm for identifying or marking portions of that text as possible "first information":

> The program analyzes what the user has typed in the document at step 4, for example, by analyzing (i) paragraph/line separations/formatting, etc.; (ii) street, avenue, is [sic] drive, lane, boulevard, city, state, zip code, country designators and abbreviations, etc.; (iii) Mr., Mrs., Sir, Madam, Jr., Sr. designators and abbreviations, etc.; (iv) Inc., Ltd., P.C., L.L.C, designators and abbreviations, etc.; and (v) a database of common male/female names, etc.

Appx283 at 4:32-39; *see also id.* at 5:43-44 (suggesting identifying "a name or initials, or the like"). And the specification teaches a person of ordinary skill how to accomplish these steps without direction from the user by providing examples of the prohibited user actions—such as highlighting, selecting, italicizing, underlining. Appx286 at 10:17-22. The specification thus teaches *where* to analyze; *how* to analyze; and *what* role the user may have. Expert testimony by Dr. Levy confirms these disclosures provide reasonable certainty of the invention's scope. Appx6369-6370 at ¶¶28-31.

Despite this evidence, the trial court erroneously held that, as in *Aristocrat Techs. Australia PTY Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008), the '854 patent had failed to disclose "any" algorithm for analyzing. *Aristocrat* differs sharply from this case. In *Aristocrat*, the disclosed structure was "simply 'any standard microprocessor base [sic] gaming machine [with] appropriate programming.'" *Aristocrat Techs.*, 521 F.3d at 1333. That's it: a computer with the right software. The only other disclosures depicted the output (*i.e.*, function) of the software, rather than means to achieve it. *Id*. at 1334-35. In contrast, the '854 patent instructs how to accomplish the claimed function as discussed in the prior paragraph.

That instruction makes the present case analogous, instead, to *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1386 (Fed. Cir. 2011). In *Typhoon*, this Court found sufficient disclosure of "means for cross-referencing"—a function "readily implemented by persons of skill in computer programming"—even though the specification simply described "cross-referencing" as "the matching of entered responses with a library of possible responses." *Id.* The '854 patent does that and more: disclosing that "analyzing" includes comparing text to "a database of common male/female names, etc." to identify names; looking for telltale indicators such as "paragraph/line separations/formatting" to identify addresses; etc. Appx283 at 4:32-39. The Court should, therefore, reinstate Claim 98.

5. THE DISTRICT COURT ERRED IN GRANTING SUMMARY JUDGMENT IN FAVOR OF DEFENDANTS.

A. Oath directly infringes claim 23 of the '843 patent.

Oath directly infringes claim 23 of the '843 patent by making, selling or offering for sale CRMs encoded with the instructions comprising its Android smartphone apps.[7]

Claim 23 claims "[a]t least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data . . . ." Appx194 at 12:40-44. Therefore, infringement does not require

[7] As noted above, the district court also granted summary judgment to Oath on the basis of its construction of "document." *Supra* at 6. The Court should reverse both grounds for summary judgment and remand for trial.

that the processes established by the encoded instructions be performed. *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1204 (Fed. Cir. 2010); *VirnetX Inc. v. Apple Inc.*, 792 F. App'x 796, 808 (Fed. Cir. 2019).

The district court erroneously held that Oath could not infringe claim 23 by virtue selling the Oath App for download onto users' Android computers, Appx89, accepting Oath's argument that users, rather than Oath, "assembl[e]" (*i.e.*, make) the encoded CRM, Appx6405. That ruling misunderstands Oath's involvement and the permitted contribution of end-users. Oath Apps are offered for sale and sold for direct download onto a device. *See, e.g.*, Appx8033 (discussing advertising of products for download); Appx7725 (referencing availability of apps on App Store and Play Store). Selling the Oath App *means* loading the app onto the user's device—*i.e.*, encoding each device's CRM with that software. In other words, Oath makes and sells the claimed "computer readable medium *encoded with instructions*" when it loads its programmatic code onto users' devices—and it offers the infringing CRM for sale when it offers its infringing programmatic code for download onto users' devices.

That conclusion is required by the holding in *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1205 (Fed. Cir. 2010). In that case, this Court held that a software download could infringe a CRM claim—even if the download subsequently had to be activated by the user to be capable of practicing the claimed steps. *Id.* at 1205. In *Finjan*, defendants sold computer-security products, *including a software*

download. *Id.* at 1201 (noting that one of the accused products was "a . . . software download"). The infringing functionality was "'locked' when the . . . products are sold, requiring a customer to purchase a separate key to activate each individual module." *Id.* at 1202. The Court rejected defendants' argument that the need for the user to purchase and enter the product key meant that the downloadable software did not infringe the CRM claim:

> The code for proactive scanning was 'already present' in Defendants' accused products when sold. There is no evidence that customers needed to modify the underlying code to unlock any software modules. The fact that users needed to "activate the functions programmed" by purchasing keys does not detract from or somehow nullify the existence of the claimed structure in the accused software.

Id. at 1205. The Court stressed that the CRM claims "cover[ed] capability" rather than "actual operation," *id.* at 1204-05, and the claim language did "not require that the program code be 'active,' only that it be written 'for causing' a server ('194 patent claim 65) or a computer ('780 patent claim 18) to perform certain steps." *Id.* at 1205. *Cf.* Appx194 at 12:40-44 (claiming CRMs, "which, when loaded on a computer, establish processes").

Just as in *Finjan*, Oath remains directly liable for the infringing CRM notwithstanding users' role in downloading Oath's code. Claim 23 of the '843 patent parallels the claims at issue in those cases, each one claiming a CRM with

code/instructions that can cause a computer to perform claimed steps.[8] The download of Oath's app requires even less intervention by the user than the additional unlocking of the software download in *Finjan*. And Claim 23 itself states that the instructions must be loaded on a computer before the processes can be used. Appx194 at 12:40-44 (claiming CRM "encoded with instructions which, when loaded on a computer, establish processes").

B. The District Court's grant of summary judgment was based on its erroneous claim construction.

The district court granted summary judgment of noninfringement of the asserted claims of the '843 patent with respect to Defendants' accused products' use of "Linkify" and "Smart Linkify" functionality. Appx70-73, Appx86-87. That ruling depended entirely on that functionality's failure to meet the "edibility" requirement of the district court's construction of "document." *Id*. Because that construction was erroneous, *supra* at 27 *et seq*., the Court should reverse this portion of the District Court's summary judgment ruling.

[8] *Compare* Appx194 at 12:45-13:7 (claiming CRM "encoded with instructions which, when loaded on a computer, establish processes . . . , the processes comprising: displaying . . . analyzing . . . retrieving . . . providing . . . causing . . . performing") *with* Appx7820 at 13:14-23 (U.S. Patent No. 6,092,194, Claim 65 in *Finjan*) (claiming CRM "storing program code for causing a server . . . to perform the steps of: receiving . . . comparing . . . preventing") *and* Appx7843 at 12:4-13 (U.S. Patent No. 6,804,780, Claim 18 in *Finjan*) (claiming CRM "storing program code for causing a computer to perform the steps of: obtaining . . . fetching . . . performing).

CONCLUSION

For the foregoing reasons, the Court should:

(1) reverse the district court's grant of judgment on the pleadings with respect to unpatentability of the asserted claims of the '356, '854 and '993 patents;

(2) reverse the district court's constructions of "document" and "while it is electronically displayed," and adopt the constructions proposed by Arendi;

(3) reverse the district court's construction of claim 98 of the '854 patent as a means-plus-function claim and consequent indefiniteness ruling as to that claim, allowing Arendi's cause of action on that claim to proceed in the district court;

(4) vacate the district court's grant of partial summary judgment of non-infringement based on its erroneous construction of "document";

(5) reverse the district court's grant of summary judgment of non-infringement with respect to Oath's direct infringement of claim 23 of the '843 patent;

(6) vacate the final judgment in the Google action; and

(7) remand to the district court for further proceedings consistent with this Court's judgment.

Dated: May 13, 2024

Respectfully submitted,

/s/ *Kalpana Srinivasan*
Kalpana Srinivasan

SUSMAN GODFREY L.L.P.
1900 Avenue of the Stars
Suite 1400
Los Angeles, CA 90067
Telephone: (310) 789-3100
Facsimile: (310) 789-3150

John P. Lahad
SUSMAN GODFREY L.L.P.
1000 Louisiana, Suite 5100
Houston, Texas 77002
Telephone: (713) 651-9366
Facsimile: (713) 654-6666

Seth Ard
Max Straus
SUSMAN GODFREY L.L.P.
One Manhattan West, 50th Floor
New York, NY 10019
Telephone: (212) 729-2048
Facsimile: (212) 336-8340

Kemper Diehl
SUSMAN GODFREY L.L.P.
401 Union Street, Suite 3000
Seattle, WA 98101-3000
Telephone: (206) 373-7382
Facsimile: (206) 516-3883

Attorneys for Plaintiff-Appellant Arendi S.A.R.L

ADDENDUM

Description	Filing Date	Docket Entry	Pages
Final Judgment, *Arendi S.A.R.L. v. Google LLC*	2/2/2024	1:13-cv-00919, Dkt. 616	Appx000001
Memorandum Opinion re Claim Construction, *Arendi S.A.R.L. v. Google LLC*	8/19/2019	1:13-cv-00919, Dkt. 143	Appx000002 – Appx000039
Order re Claim Construction	8/19/2019	1:13-cv-00919, Dkt. 144	Appx000040 – Appx000044
Oral Order re Defendants' Motion for Judgment on the Pleadings	12/30/2019	1:13-cv-00919, Dkt. 200	Appx000045
Memorandum Order re Defendants' Motion for Judgment on the Pleadings	1/2/2020	1:13-cv-00919, Dkt. 201	Appx000046 – Appx000056
Sealed Memorandum Opinion re Pending Motions for Summary Judgment of Noninfringement & Motions to Exclude	3/31/2022	1:13-cv-00919, Dkt. 393[1]	Appx000057 – Appx000091
Order re Motions for Summary Judgment of Noninfringement & Motions to Exclude	3/31/2022	1:13-cv-00919, Dkt. 394	Appx000092 – Appx000095
Memorandum Order re Plaintiff's Renewed Motions for Judgment as a Matter of Law & Mtn for New Trial	2/2/2024	1:13-cv-00919, Dkt. 615	Appx000096 – Appx000100
U.S. Patent No. 7,917,843			Appx000166 – Appx000196

[1] This item is replaced by the publicly docketed version of the district court's Memorandum Opinino (Dkt. 400) in the nonconfidential version of this addendum.

Description	Filing Date	Docket Entry	Pages
U.S. Patent No. 8,306,993			Appx000197 – Appx000233
U.S. Patent No. 7,921,356			Appx000234 – Appx000263
U.S. Patent No. 7,496,854			Appx000264 – Appx000291

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ARENDI S.A.R.L., Plaintiff, v. GOOGLE LLC, Defendant.	C.A. No. 13-919-JLH

FINAL JUDGMENT

The Court having held a jury trial beginning on April 24, 2023, the jury having returned a verdict, Plaintiff having filed Renewed Motions for Judgment as a Matter of Law and Motion for a New Trial (D.I. 559), and those motions having been resolved by the Court (D.I. 615);

IT IS HEREBY ORDERED AND ADJUDGED:

Judgment is entered in favor of Defendant and against Plaintiff on Plaintiff's claim of patent infringement of U.S. Patent No. 7,917,843.

Date: February 2, 2024

The Honorable Jennifer L. Hall
UNITED STATES DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ARENDI S.A.R.L., Plaintiff, v. LG ELECTRONICS, INC., LG ELECTRONICS USA, INC., and LG ELECTRONICS MOBILECOMM U.S.A., INC., Defendants.	C.A. No. 12-1595-LPS
ARENDI S.A.R.L., Plaintiff, v. APPLE, INC., Defendant.	C.A. No. 12-1596-LPS
ARENDI S.A.R.L., Plaintiff, v. BLACKBERRY LIMITED and BLACKBERRY CORPORATION, Defendants.	C.A. No. 12-1597-LPS

ARENDI S.A.R.L., Plaintiff, v. MICROSOFT MOBILE, INC., Defendant.	C.A. No. 12-1599-LPS
ARENDI S.A.R.L., Plaintiff, v. MOTOROLA MOBILITY LLC, f/k/a MOTOROLA MOBILITY, INC. Defendants.	C.A. No. 12-1601-LPS
ARENDI S.A.R.L., Plaintiff, v. SONY MOBILE COMMUNICATIONS (USA) INC. f/k/a SONY ERICSSON MOBILE COMMUNICATIONS (USA) INC., SONY CORPORATION and SONY CORPORATION OF AMERICA, Defendants.	C.A. No. 12-1602-LPS
ARENDI S.A.R.L., Plaintiff, v. GOOGLE LLC, Defendant.	C.A. No. 13-919-LPS

ARENDI S.A.R.L., Plaintiff, v. OATH HOLDINGS INC. and OATH INC., Defendants.	C.A. No. 13-920-LPS

Neal C. Belgam, Eve H. Ormerod, and Beth A. Swadley, SMITH, KATZENSTEIN & JENKINS, LLP, Wilmington, DE; Stephen Susman, Seth Ard, and Max Straus, SUSMAN GODFREY, LLP, New York, NY; John Lahad, SUSMAN GODFREY, LLP, Houston, TX

Attorneys for Plaintiffs

Jeremy D. Anderson, FISH & RICHARDSON, P.C., Wilmington, DE; Steven R. Katz and Matthew C. Berntsen, FISH & RICHARDSON, P.C., Boston, MA

Attorneys for Defendants LG Electronics, Inc., LG Electronics USA, Inc. and LG Electronics MobileComm U.S.A., Inc.

Denise S. Kraft, Brian A. Biggs, and Erin E. Larson, DLA PIPER LLP (US), Wilmington, DE; Mark D. Fowler, Christine K. Corbett, and Summer Torrez, DLA PIPER LLP (US), East Palo Alto, CA; Robert C. Williams and Kevin C. Hamilton, DLA PIPER LLP (US), San Diego, CA

Attorneys for Defendant Apple Inc.

Richard K. Herrmann, Mary B. Matterer, and Kenneth L. Dorsney, MORRIS JAMES LLP, Wilmington, DE; Brian C. Riopelle and David E. Finkelson, McGuireWoods LLP, Richmond, VA; Rachelle Thompson, McGuireWoods LLP, Raleigh, NC

Attorneys for Defendants Blackberry Limited and Blackberry Corporation

Jack B. Blumenfeld and Jeremy A. Tigan, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE; Heidi L. Keefe and Lowell D. Mead, COOLEY LLP, Palo Alto, CA; DeAnna Allen and Phillip E. Morton, COOLEY LLP, Washington, DC

Attorneys for Defendants Microsoft Mobile, Inc. f/k/a Nokia Inc.

David E. Moore, Bindu A. Palapura, and Stephanie E. O'Byrne, POTTER ANDERSON & CORROON LLP, Wilmington, DE; Robert W. Unikel, Robert Laurenzi, Michelle Marek Figueiredo, and John Cotiguala, PAUL HASTINGS LLP, Chicago, IL

Attorneys for Defendants Motorola Mobility LLC f/k/a Motorola Mobility Inc. and Google Inc.

Rodger D. Smith II, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE; Jeffri A. Kaminski and Justin E. Pierce, VENABLE LLP, Washington, DC

Attorneys for Defendants Sony Mobile Communications (USA) Inc., Sony Corporation, and Sony Corporation of America

Jack B. Blumenfeld and Anthony David Raucci, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington DE; Jeffri A. Kaminski, VENABLE LLP, Washington, DC

Attorneys for Defendants Oath Holdings Inc. and Oath Inc.

MEMORANDUM OPINION

August 19, 2019
Wilmington, Delaware

STARK, U.S. District Judge:

Plaintiff Arendi S.A.R.L. ("Arendi") sued Defendants LG Electronics, Inc., LG Electronics USA, Inc., LG Electronics MobileComm U.S.A., Inc. (together, "LG"), Apple Inc. ("Apple"), Blackberry Limited, Blackberry Corporation (together, "Blackberry"), Microsoft Mobile, Inc. f/k/a Nokia Inc. ("MMI"), Motorola Mobility LLC f/k/a Motorola Mobility Inc. ("Motorola"), Sony Mobile Communications (USA) Inc., Sony Corporation, Sony Corporation of America (together, "Sony"), Google Inc. ("Google"), Oath Holdings Inc., and Oath Inc. (together, "Oath"), alleging patent infringement. (C.A. No. 12-1595 D.I. 1; C.A. No. 12-1596 D.I. 1; C.A. No. 12-1597 D.I. 1; D.I. 12-1599 D.I. 1; D.I. 12-1601 D.I. 1; C.A. No. 12-1602 D.I. 1; C.A. No. 13-919 D.I. 1; C.A. No. 13-920 D.I. 1) Arendi alleges that LG, Apple, Blackberry, MMI, Motorola, and Sony infringe Arendi's U.S. Patent Nos. 7,917,843 ("the '843 patent") and 8,306,993 ("the '993 patent"). Arendi alleges that Oath infringes the '843 and '993 patents, and also Arendi's U.S. Patent No. 7,496,854 ("the '854 patent"). Arendi alleges that Google infringes the '843, '993, and '854 patents as well as Arendi's U.S Patent No. 7,921,356 ("the '356 patent"). Each asserted patent is entitled, "Method, System and Computer Readable Medium for Addressing Handing from a Computer Program."

Presently before the Court are the parties' disputes over the meaning of certain terms in the asserted claims. The parties submitted technology tutorials (C.A. No. 13-919 D.I. 115, 116), and two sets of claim construction briefs: one pertaining to terms appearing in the '843 and '993 patents, which is joined by all defendants (C.A. 12-1595 D.I. 111, 112, 119, 120); and the other pertaining to terms that only appear in the '854 patent, which is joined by Defendants Google and Oath (C.A. No. 13-919 D.I. 117, 119, 127, 130). The Court held a claim construction hearing on July 26, 2019. (C.A. No. 12-1595 D.I. 125 ("Tr."))

I. LEGAL STANDARDS

The ultimate question of the proper construction of a patent presents an issue of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). "It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (citation and internal quotation marks omitted). "[T]here is no magic formula or catechism for conducting claim construction." *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.*

"[T]he words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13 (internal citations and quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). The patent "specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While "the claims themselves provide substantial guidance as to the meaning of particular claim terms," the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, "[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent." *Id.* (internal citation omitted).

It is likewise true that "[d]ifferences among claims can also be a useful guide . . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a

presumption that the limitation in question is not present in the independent claim." *Id.* at 1314-15 (internal citation omitted). This "presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim." *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. It bears emphasis that "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (internal quotation marks omitted).

In addition to the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). The prosecution history, which is "intrinsic evidence," "consists of the complete record of the proceedings before the [Patent and Trademark Office] and includes the prior art cited during the examination of the patent." *Phillips*, 415 F.3d at 1317. "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

"In some cases, . . . the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period." *Teva*, 135

S. Ct. at 841. "Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries "endeavor to collect the accepted meanings of terms used in various fields of science and technology." *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful "to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* Nonetheless, courts must not lose sight of the fact that "expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence." *Id.* Overall, while extrinsic evidence "may be useful to the court," it is "less reliable" than intrinsic evidence, and its consideration "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999).

Finally, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GmbH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (internal quotation marks omitted).

II. CONSTRUCTION OF DISPUTED TERMS[1]

A. '843 and '993 Patents[2]

1. "document"[3]

Arendi "electronic document containing textual information"
Defendants "a word processing or spreadsheet file into which text can be entered"
Court "a word processing, spreadsheet, or similar file into which text can be entered"

With respect to the term "document," the parties have two disputes. First, the parties disagree as to whether a "document" must be a word processing or spreadsheet file (as Defendants contend), or whether it may be any electronic display of text (as Arendi contends). (D.I. 111 at 5-8; D.I. 112 at 4-8) Second, the parties disagree as to whether a "document" is a file into which text can be entered (as Defendants contend), or whether it may be non-editable (as Arendi contends). (D.I. 111 at 8-9; D.I. 112 at 9-11) The Court addresses each dispute in turn.

First, although the claims use "document" in a manner more narrow than its plain meaning, it is not solely limited to conventional word processing and spreadsheet files. As the patents explain, the invention relates to "name and address handling . . . within a document

[1] The Court will adopt the parties' agreed-upon constructions. The Court will also adopt the definition of a person of ordinary skill provided by Arendi (D.I. 112 at 4), which Defendants agree should apply (D.I. 119 at 18 n.7; Tr. at 84).

[2] In this section, unless otherwise indicated, citations to the record are to C.A. No. 12-1595, and "Defendants" refers to all defendants.

[3] The term "document" appears in all asserted claims.

created by [a] computer program." ('843 patent,[4] 1:18-26) Each described embodiment either uses a word processing program or a spreadsheet program, and the patents' figures specifically depict the use of Microsoft® Word and Microsoft® Excel. ('843 patent, Figs. 3-15) The patents also effectively "define[]" the invention as limited to "word processing documents:"

> Although ***the present invention is defined in terms of word processing documents***, such as WORD™ documents and EXCEL™ spreadsheets, ***the present invention is applicable to all types of word processing documents*** such as NOTEPAD™, WORDPAD™, WORDPERFECT™, QUATRO-PRO™, AMIPRO™, etc. as will be readily apparent to those skilled in the art.

('843 Patent, 9:61-67) (emphasis added) Yet the patents also define the term "word processor" more broadly than its plain meaning:

> In recent years, with the advent of ***programs, such as word processors, spreadsheets, etc. (hereinafter called "word processors")*** users may require retrieval of information, such as name and address information, etc., for insertion into a document, such as a letter, fax, etc., created with the word processor.

(*See* '843 patent, 1:28-32) (emphasis added)

The patents' definition of the invention "in terms of word processing documents" must be read in light of its definition of "word processor." Notably, inclusion of the word "etc." in the definition of "word processor" means that "word processor" includes not only conventional word processors and spreadsheet programs, but also similar programs that are not conventionally thought of as word processors or spreadsheets. *See Indacon, Inc. v. Facebook, Inc.*, 824 F.3d 1352, 1355 (Fed. Cir. 2016) ("[T]he use of 'etc.' in [a] definition implies ***additional, but similar*** forms of expression.") (emphasis added); *see also Sports Graphics, Inc. v. United States*, 24 F.3d

[4] The '843, '993, and '356 patents are both continuations of the same patent application, so they share the same specification. The '854 patent has a similar specification.

1390, 1392 (Fed. Cir. 1994) ("[W]here an enumeration of specific things is followed by a general word or phrase, the general word or phrase is held to refer to ***things of the same kind*** as those specified.") (emphasis added). Applying this definition of "word processor," it follows that "document" includes not only conventional word processor files and spreadsheet files, but also files from similar programs.

It follows that neither side's proposed construction is correct. Arendi's proposed construction of "document" is overbroad because it is not limited to documents that are similar to word processing or spreadsheet files, ignoring that "the present invention is defined in terms of" such word processing documents. ('843 patent, 9:61-67) On the other hand, Defendants' construction is unduly narrow. Although Defendants' construction of "document" properly includes files produced by word processors (as that term is conventionally used) and spreadsheet programs, Defendants would exclude files created by any other type of computer program. In doing so, Defendants essentially read the "etc." out of the patents' definition of "word processors." *See Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1563 (Fed. Cir. 1990) ("[A] patentee is free to be his or her own lexicographer . . . and thus may use terms in a manner contrary to or inconsistent with one or more of their ordinary meanings.") (internal citations omitted).

Defendants' suggestion that the claimed invention would not work outside of the context of word processors (as that term is conventionally understood) lacks merit. (*See* D.I. 111 at 7) Defendants argue that the purpose of the invention is "to address the problem of locating and inserting contact information into a document being edited by a user," and that the patents "do not suggest how the invention would work outside the context" of a user working in a word processor. (*See* D.I. 111 at 5-6) But, as Arendi points out (D.I. 112 at 4), the record discloses no

reason why the methods taught in the specification could not be applied to certain other computer programs – for example, a web browser in which a user is drafting an email.

For these reasons, the Court will construe "document" in relevant part as "a word processing, spreadsheet, or similar file."

Turning to the parties' second dispute – whether a "document" is a file into which text can be entered (as Defendants contend), or whether it may be non-editable (as Arendi contends) – the Court agrees with Defendants. (*See* D.I. 111 at 8-9; D.I. 112 at 9-11)

A "document" as used here must be editable. As the Abstract explains, the invention is directed to "look[ing] up data corresponding to what [a] user ***types***, or ***partly typed***," such that the data is "displayed and ***possibly entered*** into the word processor, if such related data exists." ('843 patent, Abstract) (emphasis added) The patents define "word processor" more broadly than the plain meaning of the term, but the patent's definition of the term – "word processors, spreadsheets, etc." – is necessarily limited to computer programs in which a user can enter data. *See Indacon*, 824 F.3d at 1355. The 15 invention-specific figures, the seven examples, and the "object[s] of the invention" provided in the specification support the understanding that the invention's purpose is to retrieve and possibly enter data into a document based on information entered by the user. (*See, e.g.*, '843 patent, Figs. 1-15, 1:53-2:34, 5:59-8:67) This understanding is reinforced by the patents' repeated use of the phrase "the present invention is defined in terms of" to limit the invention to a particular technological context.[5] The patents never suggest how

[5] For example:

- "Although the present invention is defined in terms of information management or is database programs, such as OUTLOOK™, etc., the present invention is applicable to all types of information management or database programs such as ACCESS™,

the invention would operate if the document were non-editable; if the document were non-editable, it is unclear how a user could type data and how a computer could enter related address data into the document. The term "document" must be construed consistent with the patents' repeated and consistent requirement in the specification that documents be editable. *See GPNE Corp. v. Apple Inc.*, 830 F.3d 1365, 1370-71 (Fed. Cir. 2016). This is "faithful to the invention disclosed in the specification." *Wi-Fi One, LLC v. Broadcom Corp.*, 887 F.3d 1329, 1346 (Fed. Cir. 2018).

Arendi's claim differentiation argument lacks merit. (*See* D.I. 120 at 9-10) Arendi argues that requiring a "document," in itself, to be editable would render redundant limitations in certain claims that explicitly require the document to be editable. (*Id.*) But the claims Arendi differentiates are not an independent claim and one of its dependent claims – a situation in which claim differentiation is at its strongest; instead, they are two distinct independent claims. *See*

ORACLE™, DBASE™, RBASE™, CARDFILE™, including 'flat files,' etc., as will be readily apparent to those skilled in the art." ('843 patent, 10:1-7)

- "Although the present invention is defined in terms of providing an input device, such as a button 42 in a word processor for address handling therein, the present invention may be practiced with all types of input devices, such as touch screen, keyboard button, icon, menu, voice command device, etc., as will be readily apparent to those skilled in the art." ('843 patent, 10:8-13)

- "Although the present invention is defined in terms of a program retrieving information from a document before searching a database, the user may select the information in the document to be searched by the program in the database (e.g., by highlighting, selecting, italicizing, underlining, etc.), as will be readily apparent to those skilled in the art." ('843 patent, 10:14-19)

- "Although the present invention is defined in terms of a program retrieving a name or portion thereof from a document before searching a database the program may retrieve an address or portion thereof from the document before searching the database and insert, correct, complete, etc., the retrieved address based on the information found in the database corresponding to the retrieved address or portion thereof, as will be readily apparent to those skilled in the art." ('843 patent, 10:20-27)

generally Atlas IP, LLC v. Medtronic, Inc., 809 F.3d 599, 607 (Fed. Cir. 2015) (explaining that because "patentees often use different language to capture the same invention," doctrine of claim differentiation is "discount[ed] where it is invoked based on independent claims rather than the relation of an independent and dependent claim"). *Atlas*' reasoning carries special force here, where the two independent claims on which Arendi relies are in different patents filed years apart. *See id.* Arendi's claim differentiation argument, therefore, does not outweigh "the clear import of the specification." *See Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1331 (Fed. Cir. 2009).

For these reasons, the Court construes a "document," in relevant part, as "a file into which text can be entered."

2. "first information"[6]

Arendi "text in a document that can be used as input for a search operation in a source external to the document"
Defendants "information entered by the user into a document"
Court "text in a document that can be used as input for a search operation in a source external to the document"

The parties dispute whether "first information" must be entered by a "user" (as Defendants propose) or whether it need not be entered by the user (as Arendi proposes). (D.I. 111 at 12; D.I. 112 at 11) The Court agrees with Arendi.

Nothing in the patents justifies limiting "first information" to information entered by "the user." The claims recite a "user" who enters a user command (e.g., pressing a button) to "initiate an operation" on the first information (e.g., looking up contact information). (*See, e.g.*, '843

[6] The term "first information" appears in claims 1, 8, 23, and 30 of the '843 patent.

patent, cl. 1; 5:63-6:5) Defendants' construction would require the first information to be entered by the same user who ultimately initiates the lookup operation. Nothing in the specification indicates that it is "essential," "necessary," or even "important" for the same user both to enter first information and initiate the lookup operation. Defendants' construction is unduly limiting.[7] *See Hill-Rom*, 755 F.3d at 1372.

3. "computer program"[8]

Arendi "independently executable computer application"
Defendants "a self-contained set of instructions, as opposed to a routine or library, intended to be executed on a computer so as to perform some task"
Court "a self-contained set of instructions, as opposed to a routine or library, intended to be executed on a computer so as to perform some task"

Defendants' construction was first proposed by Arendi in a related case, which settled before the Court issued a Markman opinion. (D.I. 111 at 10) Arendi contends that its prior construction is not wrong, but that its current construction – which is taken from the PTAB's subsequent construction of "application program" in a related IPR – is both clearer and "avoids a possible pitfall" in Defendants' construction: that Defendants' construction might be read (improperly, in Arendi's view) to include modules and utilities, which, to Arendi, are ***not***

[7] For example, nothing in the specifications justifies reading the term "first information" to exclude an embodiment in which one user enters a name (i.e., "first information") and another user clicks a button to initiate retrieval of an address corresponding to that name. Nor does anything in the specifications justify reading "first information" to exclude an embodiment in which a user opens an existing document that already has a name (entered by someone else), and the user initiates an operation to retrieve an address corresponding to the first information. Defendants' construction would improperly exclude these embodiments.

[8] The terms "computer program," "first computer program," and "second computer program" appear in claims 1, 17, 19, and 23 of the '843 patent, and claims 93, 98, and 101 of the '854 patent.

"computer programs." (D.I. 112 at 12-14; Tr. at 69) Defendants argue that a module or utility ***could be*** a "computer program," depending on how the module or utility is implemented. (D.I. 119 at 12-14; Tr. at 76)

The Court agrees with Defendants' that modules and utilities can be "computer programs." As Defendants point out (D.I. 119 at 12-14), Arendi's position that neither a "module" nor a "utility" can be an "application program" was squarely rejected by the PTAB in a decision that was affirmed by the Federal Circuit. (*See* D.I. 107-3 Ex. 6T at 10-11) The Federal Circuit's affirmance is not dispositive; it establishes the meaning of "application program" but not necessarily the meaning of "computer program," which is the term being disputed before the Court.[9] Even so, the Court is persuaded by the PTAB's reasoning that nothing in the specification categorically prevents modules and utilities from being "application programs." This same reasoning applies with equal force to "computer program."

Notwithstanding certain of Arendi's rhetoric (*see, e.g.*, D.I. 120 at 10-11), Arendi has only identified one potential point of disagreement between the parties pertinent to this claim term: whether a module or utility can possibly be a "computer program." (*See id.*) In resolving this dispute, the Court has (for now) met its obligation to resolve "actual" claim construction disputes. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008).

[9] Also, the PTAB evaluated the claims under the broadest reasonable interpretation standard. (*See* D.I. 107-3 Ex. 6T at 6-11)

4. "to determine if the first information is at least one of a plurality of types of information that can be searched for"[10]

Arendi "to determine if the first information belongs to one or more of several predefined categories of information that can be searched for"
Defendants Indefinite
Court "to determine if the first information belongs to one or more of several predefined categories of identifying information (e.g., a name) or contact information (e.g., a phone number, a fax number, or an email address) that can be searched for in an information source external to the document"

Claims 1 and 23 of the '843 patent include the following limitation:

> while the document is being displayed, analyzing in a computer process first information from the document ***to determine if the first information is at least one of the plurality of types of information that can be searched for*** to find second information related to the first information.

(Emphasis added) Defendants contend that the highlighted claim term is indefinite because it fails to describe (1) ***what kind*** of "information" is claimed and (2) ***where*** the search is performed. (D.I. 111 at 13) Defendants have not met their burden to show indefiniteness by clear and convincing evidence. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

A POSA would understand with reasonable certainty what kind of information is "first information." The specification makes clear that the invention relates to address handling. (*See e.g.*, '843 patent, Title ("Method, System and Computer Readable Medium for ***Addressing Handling*** from a Computer Program") (emphasis added); '843 patent, Abstract (noting that invention "look[s] up data corresponding to . . . [a] ***name and/or address***") (emphasis added); '843 patent, 1:18-20 ("This invention relates to a method, system and computer readable medium

[10] This term appears in claims 1 and 23 of the '843 patent.

for ***name and address handling*** . . . .") (emphasis added); '843 patent, 1:53-55 ("[A]n object of the present invention is to provide a method, system and computer readable medium for ***address handling*** within a computer program . . . .") (emphasis added); '843 patent, 10:8-10 ("[T]he present invention is defined in terms of providing an input device, such as a button 42 in a word processor for ***address handling therein*** . . . .") (emphasis added); '843 patent, 10:20-27 ("Although the present invention is defined in terms of a program ***retrieving a name . . . from a document before searching a database***[,] ***the program may retrieve an address . . . from the document before searching the database*** and insert, correct, complete, etc. the retrieved address based on the information found in the database.") (emphasis added)) Therefore, a POSA reviewing the specification would understand that "first information" must be identifying (e.g., name) and/or contact (e.g., address) information.[11] The Court's construction reflects this conclusion. *See Phillips*, 415 F.3d at 1313.

Defendants' argument based on Arendi's position during the IPR of the '843 patent is unpersuasive. (*See* D.I. 119 at 19) To Defendants, Arendi's contention that "mere nouns and verbs" ***are not*** "first information" would leave a POSA uncertain as to what kinds of information ***are*** "first information." (*Id.*) The Court disagrees. Arendi's IPR advocacy does nothing to disturb a POSA's understanding, based on the specification's clear focus on address handling, that "first information" is limited to identifying and/or contact information.

[11] The Court disagrees with Arendi that "first information" could also be "calendaring information," such as a date. (*See* Tr. at 91) Nothing in the specification suggests that "first information" could be calendaring information, and the specification does not explain how the inventive methods of address handling would even work if the "first information" were calendaring information. *See Phillips*, 415 F.3d at 1313 (noting that claim terms are to be read "in the context of the entire patent"). Hence, including calendaring information within the meaning of "first information" would begin to cast serious doubt on the definiteness of the term. *See Liberty Ammunition, Inc. v. United States*, 835 F.3d 1388, 1397 (Fed. Cir. 2016) (rejecting construction that would render claim term indefinite).

Defendants' second argument – that a POSA would not know ***where*** to search for second information – is similarly unpersuasive. (*See* D.I. 111 at 13) As Arendi points out (D.I. 120 at 16), both claim 1 and claim 23 of the '843 patent tell a POSA where the search is performed:

> performing a search using at least part of the first information as a search term in order to find the second information, . . . ***in an information source external to the document*** . . . .

(Emphasis added)

The claims' phrase "in an information source external to the document" provides a POSA with reasonable certainty as to where the search using the "first information" is performed. *See generally AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1242 (Fed. Cir. 2007) ("'A person of ordinary skill is also a person of ordinary creativity, not an automaton.'") (quoting *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)). For additional clarity, the Court includes this phrase in its construction.

5. "wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing"[12]

Arendi "wherein the computer implemented method is capable of performing each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing"
Defendants Indefinite
Court "wherein the computer implemented method is capable of performing each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing"

Claim 1 of the '993 patent recites in relevant part:

> after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact

[12] This term appears in claims 1, 9, and 17 of the '993 patent.

> information previously identified as a result of the analyzing, wherein the set of potential actions includes:
>
> (i) initiating an electronic search in the contact database for the first contact information while it is electronically displayed in order to find whether the first contact information is included in the contact database; . . .
>
> (ii) initiating electronic communication using the first contact information; and
>
> (iii) allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact in the contact database;
>
> ***wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing*** . . . .

(Emphasis added) Claims 9 and 17 of the '993 patent recite similar limitations, but claim a computer readable medium and an apparatus, respectively. Defendants contend that the bolded limitation (referred to as the "wherein" limitation for brevity) and the equivalent limitations in claims 9 and 17 are indefinite. (*See* D.I. 111 at 16-18) The Court disagrees.

Defendants' first contention – that the "wherein" limitation impermissibly mixes structural limitations and method steps – is incorrect. (*See id.*) Defendants argue that the "wherein" limitation "makes no sense because, unlike a device, a method cannot be 'configured to' do anything: instead, a method involves taking specific actions/steps." (*Id.*) The Court disagrees; a POSA would know, reading the "wherein" limitation, that the recited method is limited to one practiced with a structure (e.g., a computer program) that is capable of performing actions (i), (ii), and (iii). *See AllVoice*, 504 F.3d at 1242 ("A person of ordinary skill is also a person of ordinary creativity, not an automaton."). The claim format used here – one that claims a method performed with a specific structure – has been repeatedly upheld by the Federal

Circuit. *See, e.g.*, *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008) (reversing district court holding of indefiniteness where claims included both structural and method step limitations); *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270, 1277 (Fed. Cir. 2012) (same).

Defendants' second contention – that the "wherein" limitation could reasonably be interpreted in any of three different ways – is also unpersuasive. (*See* D.I. 111 at 16) Defendants argue that the "wherein" limitation could reasonably be interpreted to mean that the claimed computer implemented method: (1) "***is capable of performing*** each of action (i), action (ii), and action (iii)" (as Arendi proposes), or alternatively (2) "***is practiced on a device configured to perform*** each of action (i), action (ii), and action (iii)," or could instead be understood as (3) "***performs*** each of action (i), action (ii), and action (iii)." (D.I. 111 at 16) (emphasis in original) Thus, to Defendants, the "wherein" limitation is indefinite. The Court disagrees. A POSA would reasonably understand that Defendants' alternative (1) is what is meant by the "wherein" term. Constructions (2) and (3) cannot be correct because they unduly narrows the structure with which the claimed method is performed to one which is configured to perform all three actions or in which all three actions must be performed – both of which contradict the claim's explicit statement that only "at least one action" of actions (i), (ii), or (iii) is performed (so the device does not even necessarily need to be configured to perform more than one of these actions).

For these reasons, Defendants have not met their burden to demonstrate, by clear and convincing evidence, that the "wherein" limitation and equivalent limitations in claims 9 and 17 are indefinite. *See Nautilus*, 572 U.S. at 901.

6. "that allows a user to enter a user command to initiate an operation"[13]

Arendi "that allows a user to enter an input or series of inputs to initiate an operation"
Defendants "so that one user interaction with the input device is sufficient to cause initiation of an operation"
Court "that allows a user to enter an input or series of inputs to initiate an operation"

The parties dispute whether a user command is limited to "one user interaction" (as Defendants argue) or whether a user command may include a "series of inputs" (as Arendi argues). (D.I. 111 at 18-20; 112 at 16-18) The Court agrees with Arendi.

Nothing in the intrinsic record supports narrowing "user command" to a single user interaction with an input device. The specifications explain that an operation can be initiated when a user "clicks, selects, commands, etc. [a] button via [an] appropriate input device, such as a touchscreen button, keyboard button, icon, menu choice, voice command device etc." ('843 patent, 3:46-48) Although some of these interactions might be considered a single "user interaction," others – such as the use of a menu or voice command – would almost certainly require multiple mouse motions and clicks, key presses, or another series of inputs. (*Id.*; *see also* '843 patent, cl. 14 (limiting "input device" to "menu" and "entry of the user command" to "[1] user's selection of menu ***and*** [2] click on a menu choice from the menu") (emphasis added)) More importantly, the specification explicitly contemplates that retrieval of address data may be performed with more than one user input.[14] (*See* '843 patent, 9:53-54) ("[C]orrect addresses may

[13] This term appears in claims 1 and 23 of the '843 patent.

[14] Defendants argue that this passage refers to embodiments disclosed in the specification but not claimed, such as the specification's "Example 5." (Tr. at 129) The Court disagrees. Example 5 is consistent with the rest of the disclosure of the invention, and nothing in the intrinsic record supports reading excluding the example from the claims. *See generally PPC Broadband, Inc. v. Corning Optical Commc'ns RF, LLC*, 815 F.3d 747, 755 (Fed. Cir. 2016) ("[A] construction

be retrieved with ***a minimal number*** of user commands, 'clicks,' keystrokes, etc.") (emphasis added) The specification would not state that "a minimal number of user commands" may be used if it is always required in order to practice the claims to have no more than a single user command. Nothing in the specification suggests it is essential for the user only to interact with the input device ***once*** (as opposed to, for example, two or three times) in order to initiate an operation. Defendants' construction is unduly restrictive.[15] *See Hill-Rom*, 755 F.3d at 1373.

7. "providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing"[16]

Arendi "providing an input device such that an input or series of inputs generates one command sufficient to initiate action (i), (ii), or (iii)"
Defendants "providing the user with an input device that is set up so that one user interaction with the input device is sufficient to cause performing of actions (i), (ii) and (iii)"
Court "providing an input device such that an input or series of inputs generates one command sufficient to initiate action (i), (ii), or (iii)"

The parties' dispute with respect to this term mirrors that of the last term: whether a user command is limited to "one user interaction" (as Defendants argue) or whether a user command may include a "series of inputs" (as Arendi argues). (D.I. 111 at 18-20; D.I. 112 at 16-18) For the reasons explained above, the Court agrees with Arendi.

---

which excludes the preferred embodiment is rarely, if ever correct.") (internal quotation marks omitted).

[15] Defendants' construction also introduces unnecessary ambiguity. Defendants have not articulated a workable standard for assessing what constitutes "one user interaction." Defendants' contend that a double-click is a single user interaction, but that a "single click two times interrupted by something else" is not a single user interaction. (Tr. at 128-29) Defendants have failed to explain why this is so or how their construction could be implemented.

[16] This term appears in claims 1, 9, and 17 of the '993 patent.

8. "while it is electronically displayed"[17]

Arendi "while the first contact information is electronically displayed"
Defendants "while the first contact information is electronically displayed in the document"
Court "while the first contact information is electronically displayed in the document"

Claim 1 of the '993 patent recites, in relevant part:

> (i) initiating an electronic search in the contact database for the first contact information ***while it is electronically displayed*** in order to find whether the first contact information is included in the contact database . . . .

(Emphasis added)

The parties' dispute centers on ***where*** the first contact information is displayed. Defendants contend that the first contact information is displayed in the document being edited by the user. (D.I. 111 at 24-25) Arendi counters that the first contact information need not be displayed in the document. (D.I. 112 at 21) The Court agrees with Defendants.

The intrinsic evidence demonstrates that the first contact information is electronically displayed ***in the document*** when the search for second contact information is initiated. The specification explains that "according to the present invention, the process of creating and updating records in an address database is significantly simplified, since this may now be performed ***directly from the word processor***." ('993 patent, 12:3-6) (emphasis added) In other words, the point of the invention is for a user to enter (first) contact information into the document being edited, and for corresponding (second) contact information to be looked up automatically based on what the user entered. This purpose is consistent with every embodiment disclosed in the specification. For example, every figure showing entry of the first contact

[17] This term appears in claims 1, 9, and 17 of the '993 patent.

information – Figures 3, 4, and 5 – shows the first contact information being displayed ***in the document***. Similarly, every embodiment described in the detailed description indicates that the electronic search occurs only after the user enters first contact information into the document being edited. (*See, e.g.*, '933 patent, 6:19-9:55) Even the passage of the specification relied on by Arendi supports Defendants' position: the passage establishes that the first contact information is in all cases retrieved from the document when the search is initiated. (*See* '933 patent, 12:38-45) ("Although ***the present invention is defined*** in terms of a program retrieving a name or portion thereof ***from a document*** before searching a database, the program may retrieve an address or portion thereof ***from the document*** before searching the database . . . .") (emphasis added) For these reasons, the Court will adopt Defendants' proposed construction. *See GPNE*, 830 F.3d at 1370-71.

Arendi argues that Defendants' construction would improperly exclude situations in which – due to "the user's settings and equipment" – the first contact information is obscured. (*See* D.I. 120 at 25) Yet Arendi's own construction – which also requires the first contact information to be displayed – would seem to suffer from the same purported flaw. More importantly, the patentee chose to limit its claims to initiating an electronic search while the first contact information "is electronically displayed." ('933 patent, cls. 1, 9, 17) The Court cannot read that limitation out of the claims.

B. '854 Patent[18]

1. "first application program" and "second application program"[19]

	"first application program"	"second application program"
Arendi	"a first independently executable computer application"	"computer program different from the first computer program"
Defendants	"word processing or spreadsheet computer program"	"contact management computer program"
Court	"word processing, spreadsheet, or similar computer program"	"information management or database computer program"

The parties' disputes boil down to whether the "first application program" and "second application program" may be any two, different computer programs (as Arendi argues), or whether the "first application program" must be a word processing program or spreadsheet program and the "second application program" must be a contact management program (as Defendants argue). (D.I. 117 at 13-15; D.I. 119 at 2-5) The Court concludes that the proper construction is something in between the parties' proposals.

Defendants are correct that the "first" and "second" application programs must be specific kinds of application programs. As noted above (*see supra* Section II.A), the invention claimed by the patents is directed to handling names and/or addresses in a "word processor" (as that term is defined in the patents) coupled to an "information management" or "database" program. (*See, e.g.*, '854 patent, 1:19-27, 9:64-10:30) Therefore, Arendi's construction, which would broadly include any kind of application program, is incompatible with the repeated and consistent disclosure of the specification. *See GPNE*, 830 F.3d at 1370-71.

[18] In this section, unless otherwise indicated, citations to the record are to C.A. No. 13-919, and "Defendants" refers to Defendants Google and Oath.

[19] These terms appear in claims 13, 31, 50, and 79 of the '854 patent.

Defendants go too far, however, in narrowing the "first" application program specifically to a "word processing or spreadsheet" program, and narrowing the "second" application program specifically to a "contact management" program. The patents "define[]" the invention in terms of "word processors" ('854 patent, 9:64-10:3), but the patents define the term "word processor" to include not only conventional word processing programs and spreadsheet programs, but also other similar programs ("etc."). (*See* '843 patent, 1:28-32) Similarly, the patents "define[]" the invention in terms of "information management" or "database" programs ('854 patent, 10:4-10), which is broader than Defendants' proposed construction of "contact management computer program."

The Court's constructions reflect these conclusions. *See Phillips*, 415 F.3d at 1313 (noting importance of construing claim terms "in the context of the entire patent, including the specification").

2. **"means for marking without user intervention the first information to alert the user that the first information can be utilized in the second application program"**[20]

3. **"means for identifying without user intervention or designation the first information"**[21]

4. **"[means/computer-readable medium . . . including program instructions] for using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information"**[22]

---

[20] This limitation appears in claims 13 and 31 of the '854 patent.

[21] This limitation appears in claims 50 and 79 of the '854 patent.

[22] This limitation appears in claims 98 and 101 of the '854 patent.

Arendi Function: "marking without user intervention the first information to alert the user that the first information can be utilized in the second application program" "identifying without user intervention or designation the first information" "[means for/computer readable medium … including program instructions for] for using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information" Structure: "programming and logic configured to perform the algorithms disclosed at Col. 3 ll. 48-54, Col. 4 ll. 32-49, and Col. 10 ll. 17-22 or its equivalent"
Defendants Indefinite
Court Indefinite

The claim limitations at issue here all involve determining that text in a document is name and/or contact data that can be used to retrieve related data from another program. The parties agree that these limitations are means-plus-function elements under pre-AIA 35 U.S.C. § 112, sixth paragraph. (*See* D.I. 119 at 7-9) The central issue with respect to these limitations is whether the specification discloses sufficient structure to implement the claimed functions. (*See* D.I. 117 at 5-9; D.I. 119 at 7-9) In particular, the parties dispute whether the specification sufficiently discloses an algorithm for "marking," "identifying," or "analyz[ing]" text "without user intervention." (*Id.*)

The Court agrees with Defendants that the specification fails to disclose an algorithm to implement the claimed "marking," "identifying," and "analyz[ing]" functions. The specification describes determining name and/or address information entered by a user that can be used to search an external database. (*See, e.g.*, '854 patent, 3:48-54) The specification also states that certain designators and abbreviations (such as "street," "Dr.," and "Inc.") can be "analyz[ed]" to determine searchable name/address information. ('854 patent, 4:32-39) But the specification

fails to disclose any actual ***algorithm*** – whether in prose, as a mathematical formula, as a flow chart, or in any other suitable format – that could be followed to determine ***which text***, of all of the text in a document, is a name or address. Therefore, the specification does not sufficiently disclose structure to make the means-plus-function claims definite. *See Aristocrat Techs. Australia PTY Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (holding that where means-plus-function limitation is implemented using general-purpose computer, specification must disclose algorithm to achieve claimed function).

Arendi's reliance on the passage of the specification describing the use of certain designators is unavailing. (*See* D.I. 119 at 7-8) The relied-upon passage states that, to identify name and/or address information:

> The program analyzes what the user has typed in the document . . . for example, by analyzing (i) paragraph/line separations/formatting, etc.; (ii) street, avenue, is [sic] drive, lane, boulevard, city, state, zip code, country designators and abbreviations, etc.; (iii) Mr., Mrs., Sir, Madam, Jr., Sr. designators and abbreviations, etc.; (iv) Inc., Ltd., P.C., L.L.C, designators and abbreviations, etc.; and (v) a database of common male/female names, etc.

('854 patent, 4:32-39) This disclosure is not an algorithm. Although the specification states that certain "designators and abbreviations" ***could be used*** to determine that text is a name or address, the specification does not explain ***how*** these designators are actually used to determine which words in a document are (and are not) a name or address. For example, the specification fails to describe how, after a word like "Street" is identified, the computer program determines which words before or after the identified word are part of (and are not part of) the address. Without

this disclosure, a POSA is left wondering as to how the specification actually implements the claimed function.[23]

5. **"means for responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program"**[24]

6. **"[means for/computer readable medium ... including program instructions for] inserting the information located in (2) into the document"**[25]

7. **"wherein the means for inserting the second information into the document further comprises means for adding the second information to the first information in the document"**[26]

Arendi Function: "responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program" "[means for/computer readable medium . . . including program instructions for] inserting the information located in (2) into the document" "inserting the second information into the document further comprises means for adding the second information to the first information in the document" Structure: "programming and logic configured to perform the algorithms disclosed at Col. 3 ll. 63-66, Col. 4 ll. 46-51, Col. 5:67 – Col. 6 l. 4, Col. 7 ll. 5-6 and 11, Col. 7 ll. 48-49 or its equivalent"
Defendants Indefinite

[23] The disclosure here is in sharp contrast to the "detailed prose" describing the algorithm in *TecSec, Inc. v. IBM Corp.*, 731 F.3d 1336 (Fed. Cir. 2013) (upholding means-plus-function limitations implemented on general-purpose computer), to which Arendi unpersuasively compares the present case.

[24] This term appears in claims 13 and 50 of the '854 patent.

[25] This term appears in claims 98 and 101 of the '854 patent.

[26] This term appears in claim 53 of the '854 patent.

Court
Indefinite

The parties have two disputes regarding these terms: (1) whether the limitation at issue in claim 98 should be construed as a means-plus-function claim;[27] and (2) whether the limitations at issue are indefinite. (D.I. 117 at 10-11; D.I. 119 at 9-12) The Court addresses each issue in turn.

a. Claim 98

Claim 98 is directed to a computer-readable medium "including program instructions for performing the steps of: . . . (3) inserting the information located in step (2) into the document." Step (2) recites retrieving information from a database that is related to information in a document.

Although claim 98 does not use the word "means", the Court concludes it is a Section 112, paragraph 6 limitation. A claim limitation that does not use the word "means" may nevertheless warrant treatment under Section 112, paragraph 6 if the limitation merely uses a nonce word to connote a generic "black box" for performing a computer-implemented method. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1350 (Fed. Cir. 2015). In claim 98, the only structure recited for the function of "inserting" is the "computer readable medium program including instructions." This is a generic black box and does not give a POSA a sufficiently definite "indication of [the] structure" (i.e., algorithm) claimed. *Id.* Therefore, the "inserting" limitation of claim 98 will be treated as a means-plus-function limitation. *See id.*

[27] Arendi identified claim 98 as including a means-plus-function limitation in the Joint Claim Construction Chart. (D.I. 112 at 16, 20, 21) The Court will nevertheless independently consider whether the limitation warrants means-plus-function treatment.

b. Indefiniteness

The Court agrees with Defendants that the specification fails to disclose sufficient structure for the "inserting" function claimed by these limitations. (*See* D.I. 117 at 10-11) The specification explains that after a user types a name into a word processor, "[i]f the program finds name(s) and address(es) corresponding to the part of the addressee's name typed, this additional information is automatically entered into that user's word processor." ('854 patent, 3:63-66) The specification also provides several examples in which this insertion occurs. (*See* '854 patent, Figures 1, 2, 4) However, the specification does not explain ***how***, algorithmically, this insertion of address data into the document is to occur. Importantly, extrinsic evidence suggests that there are many possible algorithms that could be used to achieve the functional result of insertion. (*See* D.I. 117-1 Ex. 7A, Fox[28] Decl. ¶ 51 ("A person of ordinary skill in the art . . . would wonder (1) how information from a second application program is obtained from that program, (2) how it is communicated to a first application program, and (3) how an operation with that information is performed by the first application program."); *id.* ("[A] person of ordinary skill in the art would wonder exactly where the insertion or addition would occur, how the document that is changed would be formatted, if and how hyphenation might be done, how lines would be split, how pagination would be decided, if and how text wrapping around figures or tables would be done, how justification (e.g., left, right, centered, full) would be carried out, etc.")) In view of the extrinsic evidence as to the multiplicity of possible algorithms for inserting information into a document, and the specification's lack of any disclosure of any particular algorithm or algorithms for doing so, the Court concludes that the specification fails to disclose sufficient structure for the "inserting" function and, thus, the limitation is indefinite. *See*

[28] Dr. Edward A. Fox is a technical expert for Defendants.

Aristocrat, 521 F.3d at 1337 (noting that for specification to disclose sufficient structure for means-plus-function claim, POSA must "have understood [the] ***disclosure*** to encompass software to perform the [claimed] function") (emphasis in original; alterations omitted).

Arendi's analogy to *AllVoice*, 504 F.3d at 1236, is unavailing. The specification in *AllVoice* disclosed a specific protocol ("the dynamic data exchange ('DDE') protocol in the Windows operating system") and a detailed flow chart with multiple branches and over a dozen elements for implementing the means-plus-function limitations at issue. *Id.* at 1245-46. Here, by contrast, the specification includes no specific protocols, no flow-charts, and no other description of how the claimed "inserting" function is to be implemented.

Arendi reliance on testimony by Dr. Levy[29] and Dr. Menasce[30] fails to persuade the Court otherwise. Arendi relies on these experts for the proposition that a POSA would have known several ways to insert information into a document. (*See* D.I. 130 at 12-13) But that is part of the problem – and plainly is not the solution – here. The issue before the Court is not whether a POSA would know, given the specification, how to implement the claimed "inserting" function, but instead whether a POSA would recognize the ***specification itself*** as disclosing a particular algorithm or algorithms for implementing the "inserting" function. *See Aristocrat*, 521 F.3d at 1336 ("Whether the disclosure would enable one of ordinary skill in the art to make and use the invention is not at issue here. Instead, the pertinent question in this case is whether [the] patent discloses structure that is used to perform the claimed function."). As noted above, the

[29] Dr. John Levy is a technical expert for Arendi.

[30] Dr. Daniel A. Menasce was retained by Defendants Google, Motorola, and Apple during the '854 IPR proceedings.

specification itself does not inform a POSA as to which algorithm – of the many that the experts agree exist – to use to perform the claimed "inserting."

Arendi objects to Dr. Fox's testimony that the specification does not disclose how hyphenation, pagination, and text wrapping are to be performed when text is inserted, contending that these specific algorithmic decisions are not claimed. (*See* D.I. 130 at 12) But the lack of specificity in the claims and the specification hurts Arendi's case. Arendi chose to claim the limitations at issue here in means-plus-function format, but Arendi has not "paid the price" for functional claiming by disclosing a particular algorithm in the specification. *See Aristocrat*, 521 F.3d at 1337. Arendi "is in essence arguing for pure functional claiming as long as the function is performed by a general purpose computer. [The Federal Circuit's] cases flatly reject that position." *Id.* at 1336.

8. "means for responding to a user selection by performing an operation related to a second information"[31]

Arendi Function: "responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program" Structure: "programming and logic configured to perform the algorithms disclosed at Col. 14-34, Col. 3 l. 63 – Col. 4 l. 8, Col. 4 ll. 12-18, Col. 4 ll. 46-49, Col. 4 l. 62 - Col. 5 l. 8, Col. 7 ll. 3-16 and 37-66, Col. 8 ll. 18-51, Figs. 1, 2, 4, 9, 10, 11, 12, 13, and 16 or its equivalent"
Defendants Indefinite
Court Indefinite

The parties dispute whether the specification sufficiently discloses structure for the "responding" means-plus-function limitation. (D.I. 117 at 12-13; D.I. 119 at 14-15) The Court agrees with Defendants that the specification fails.

[31] This term appears in claims 31 and 79 of the '854 patent.

The specification discloses several "operation[s]" that could be performed relating to "second information," but does not disclose algorithms to implement these operations. Broadly speaking, the "responding" limitations claim performing "an operation" related to "second information" (e.g., a mailing address, email address, or phone number) associated with "first information" (e.g., a name). The specification provides several examples of what the "operation" can be:

- Entering address data into a document either automatically or after user input. (*See, e.g.*, '854 patent, 3:63-66; 4:46-49)
- Prompting the user to correct data retrieved from the database. (*See, e.g.*, '854 patent, 3:67-4:11)
- Sending an e-mail, faxes, etc. to an address or phone number retrieved from the database. (*See, e.g.*, '854 patent, 4:12-18)
- Creating mail merge letters and group emails. (*See, e.g.*, '854 patent, 4:16-18)

However, as Defendants point out (D.I. 117 at 12-13), the specification describes the "operation" in each of these example in terms of a functional ***result*** (e.g., that data is entered into a document, that an email is sent, or that a mail-merged document is created) and not as an ***algorithm*** that, when executed, would achieve the result. For example, as discussed in detail above, the specification does not explain ***how*** an address is to be inserted into a document. (*See supra* Section II.B.5-7) Nor does the specification provide an algorithm for any other disclosed "operation" on "second information." Therefore, the specification fails to disclose sufficient structure for the "responding" means-plus-function limitations.[32]

[32] Arendi's analogy to *TecSec, Inc. v. Int'l Bus. Machines Corp.*, 731 F.3d 1336, 1349 (Fed. Cir. 2013), is, thus, unpersuasive because there, unlike here, the algorithms implementing the claimed functions were disclosed so thoroughly that "[s]hort of providing source code, it [was] difficult to envision a more detailed disclosure."

Arendi misses the mark with its argument that "[a POSA] would understand how to program the software to yield the results shown" in the specification. (*See* D.I. 130 at 14) The relevant inquiry is ***not*** whether a ***POSA would know*** how to write software to dial a phone number, send an email, etc., but whether the ***specification discloses a particular algorithm*** for doing so. *See Aristocrat*, 521 F.3d at 1337; *see also supra* Section II.B.2-4. The specification fails to meet this requirement.

9. "means for initializing the second application program"[33]

Arendi Function: "initializing the second application program" Structure: "programming and logic configured to perform the algorithms disclosed at Col. 3 ll. 42-54, Col. 5 ll. 65-67, Col. 6 ll. 13-16, Col. 6 ll. 48-51, or its equivalent"
Defendants Indefinite
Court Indefinite

Claim 15 of the '854 patent recites:

> The computer system of claim 13, wherein the means for inserting the second information into the document further comprises:
>
> ***means for initializing the second application program;***
>
> means for searching, using the second application program, for the second information associated with the first information; and
>
> means for retrieving the second information.

(Emphasis added)

The parties dispute whether the specification discloses sufficient structure for the "initializing" function claimed in this limitation. (D.I. 117 at 9-10; D.I. 119 at 12-13) The Court agrees with Defendants that it does not.

[33] This limitation appears in claim 15 of the '854 patent.

Arendi contends that sufficient structure for the "initiating" function is disclosed in the following passage and other similar passages:

> Accordingly, in a word processor, the button is added and a user types information, such as an addressee's name, or a part of the name, etc. in a document created with the word processor, such as a letter, fax, etc., and ***then clicks, selects, commands, etc. the button via the appropriate input device, such as a touch screen button, keyboard button, icon, menu choice, voice command device, etc***. A program then executes and retrieves the typed information from the document, and searches an information management source, such as a database, file, database program, contact management program, etc. (hereinafter called "database") to determine if the information, such as the name or part of the name typed and searched by the program exists in the database.

(D.I. 119 at 13 (citing '853 patent, 3:42-54) (emphasis in original))

Although this passage discloses the process by which ***the user can trigger*** the search for "second information" (e.g., address data corresponding to a name entered by a user), the passage does not explain ***how*** the claimed ***computer system actually initializes*** (e.g., launches or makes ready for search) the second application (e.g., the contact management database). Nothing else in the specification remedies this deficiency. Moreover, expert testimony from both sides establishes that a POSA would know multiple algorithms for initializing an application. (*See* D.I. 130-1 Ex. 5F, Levy Decl. ¶ 32; D.I. 117-1 Ex. 7A, Fox Decl. ¶¶ 44-47) The specification fails to place a POSA on sufficient notice of which of these algorithms are claimed – and which are not claimed – by the "initializing" means-plus-function limitation. The limitation is, therefore, indefinite. *See Aristocrat*, 521 F.3d at 1337.

Arendi's comparison of the "initializing" limitation here to the limitation upheld in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1340 (Fed. Cir. 2016), is unpersuasive. In *Enfish*, the Federal Circuit upheld a means-plus-function limitation where the specification explicitly disclosed three of the four steps of an algorithm implementing the claimed function,

and implementation of the fourth step would have been known to a POSA. *See id.* at 1340 ("The fact that this algorithm relies, ***in part***, on techniques known to a person of skill in the art does not render the composite algorithm insufficient under § 112, ¶ 6.") (emphasis in original). Here, instead of merely using the knowledge of a POSA to provide the implementation of a ***step of an algorithm*** disclosed in the specification, Arendi seeks to use the knowledge of a POSA to provide ***the algorithm itself***. Whereas a POSA's knowledge could be used in *Enfish* to address the "omission of [] detail" as to an algorithm's implementation, a POSA's knowledge cannot overcome the specification's failure here to disclose the algorithm "at all." *See Aristocrat*, 521 F.3d at 1332-37; *cf. id.* at 1337 ("The question thus is not whether the algorithm that was disclosed was described with sufficient specificity, but whether an algorithm was disclosed at all.").

III. CONCLUSION

An appropriate Order follows.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ARENDI S.A.R.L., Plaintiff, v. LG ELECTRONICS, INC., LG ELECTRONICS USA, INC., and LG ELECTRONICS MOBILECOMM U.S.A., INC., Defendants.	C.A. No. 12-1595-LPS
ARENDI S.A.R.L., Plaintiff, v. APPLE, INC., Defendant.	C.A. No. 12-1596-LPS
ARENDI S.A.R.L., Plaintiff, v. BLACKBERRY LIMITED and BLACKBERRY CORPORATION, Defendants.	C.A. No. 12-1597-LPS

ARENDI S.A.R.L., Plaintiff, v. MICROSOFT MOBILE, INC., Defendant.	C.A. No. 12-1599-LPS
ARENDI S.A.R.L., Plaintiff, v. MOTOROLA MOBILITY LLC, f/k/a MOTOROLA MOBILITY, INC. Defendants.	C.A. No. 12-1601-LPS
ARENDI S.A.R.L., Plaintiff, v. SONY MOBILE COMMUNICATIONS (USA) INC. f/k/a SONY ERICSSON MOBILE COMMUNICATIONS (USA) INC., SONY CORPORATION and SONY CORPORATION OF AMERICA, Defendants.	C.A. No. 12-1602-LPS
ARENDI S.A.R.L., Plaintiff, v. GOOGLE LLC, Defendant.	C.A. No. 13-919-LPS

ARENDI S.A.R.L., Plaintiff, v. OATH HOLDINGS INC. and OATH INC., Defendants.	C.A. No. 13-920-LPS

ORDER

At Wilmington, this **19th** day of **August, 2019**:

For the reasons set forth in the Memorandum Opinion issued this date,

IT IS HEREBY ORDERED that the claim terms in this case are construed as follows:

Claim Term	**Court's Construction**
"document"	"a word processing, spreadsheet, or similar file into which text can be entered"
"first information"	"text in a document that can be used as input for a search operation in a source external to the document"
"computer program"	"a self-contained set of instructions, as opposed to a routine or library, intended to be executed on a computer so as to perform some task"
"to determine if the first information is at least one of a plurality of types of information that can be searched for"	"to determine if the first information belongs to one or more of several predefined categories of identifying information (e.g., a name) or contact information (e.g., a phone number, a fax number, or an email address) that can be searched for in an information source external to the document"
"wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing"	"wherein the computer implemented method is capable of performing each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing"

"that allows a user to enter a user command to initiate an operation"	"that allows a user to enter an input or series of inputs to initiate an operation"
"providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing"	"providing an input device such that an input or series of inputs generates one command sufficient to initiate action (i), (ii), or (iii)"
"providing an input device configured by the first computer program"	"providing an input device set up by the first computer program for use by the user"
"while it is electronically displayed"	"while the first contact information is electronically displayed in the document"
"first application program"	"word processing, spreadsheet, or similar computer program"
"second application program"	"information management or database computer program"
"means for marking without user intervention the first information to alert the user that the first information can be utilized in the second application program"	Indefinite
"means for identifying without user intervention or designation the first information"	Indefinite
"[means/computer-readable medium . . . including program instructions] for using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information"	Indefinite
"means for responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program"	Indefinite
"[means for/computer readable medium … including program instructions for] inserting the information located in (2) into the document"	Indefinite

"wherein the means for inserting the second information into the document further comprises means for adding the second information to the first information in the document"	Indefinite
"means for responding to a user selection by performing an operation related to a second information"	Indefinite
"means for initializing the second application program"	Indefinite

UNITED STATES DISTRICT JUDGE

PACERPRO

Arendi S.A.R.L. v. Google LLC

Delaware District Court

Case no. 1:13-cv-00919-JLH (D. Del.)
Filed date: December 30, 2019
Docket entry no.: 200

Docket text:

ORAL ORDER: For the reasons stated in court at the hearing on December 20, IT IS HEREBY ORDERED that Defendants' Motion for Judgment on the Pleadings (12-cv-1595 D.I. 115; 12-cv-1596 D.I 122; 12-cv-1599 D.I. 123; 12-cv-1601 D.I. 123; 12-cv-1602 D.I. 115; 13-cv-919 D.I. 122; 13-cv-920 D.I. 126) is GRANTED with respect to the '993, '854, and '356 patents, and DENIED with respect to the '843 patent. IT IS FURTHER ORDERED that the parties shall meet and confer and file with the Court by no later than Tuesday, January 7, 2020 a proposed schedule for briefing on the application of the Court's ruling on asserted dependent claims. ORDERED by Judge Leonard P. Stark on 12/30/19. Associated Cases: 1:12-cv-01595-LPS et al. (ntl) (Entered: 12/30/2019)

This PDF was generated on May 26, 2022 by PacerPro for a text-only docket entry synced on April 04, 2022.

https://app.pacerpro.com/cases/63704

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICTOF DELAWARE

ARENDI S.A.R.L., Plaintiff, v. LG ELECTRONICS., INC., LG ELECTRONICS USA, INC., and LG ELECONTRONICS MOBILECOMM U.S.A., INC. Defendants.	C.A. No. 12-1595-LPS
ARENDI S.A.R.L., Plaintiff, v. APPLE INC. Defendant.	C.A. No. 12-1596-LPS
ARENDI S.A.R.L., Plaintiff, v. MICROSOFT MOBILE INC. Defendant.	C.A. No. 12-1599-LPS

ARENDI S.A.R.L., Plaintiff, v. MOTOROLA MOBILITY LLC f/k/a MOTOROLA MOBILITY, INC. Defendant.	:	C.A. No. 12-1601-LPS
ARENDI S.A.R.L., Plaintiff, v. SONY MOBILE COMMUNICATIONS (USA) INC. f/k/a SONY ERICSSON MOBILE COMMUNICATIONS (USA) INC., SONY CORPORATION, and SONY CORPORATION OF AMERICA Defendants.	:	C.A. No. 12-1602-LPS
ARENDI S.A.R.L., Plaintiff, v. GOOGLE, LLC Defendant.	:	C.A. No. 13-919-LPS

ARENDI S.A.R.L., Plaintiff, v. OATH HOLDINGS INC. and OATH INC. Defendants.	:	C.A. No. 13-920-LPS
SMART LOCKING TECHNOLOGIES, LLC Plaintiff, v. IGLOOHOME INC. Defendant.	:	C.A. No. 19-992-LPS
SMART LOCKING TECHNOLOGIES, LLC, Plaintiff, v. LOCKSTATE, INC. Defendant.	:	C.A. No. 19-993-LPS

MEMORANDUM ORDER

At Wilmington this **2nd** day of **January 2020**:

WHEREAS, defendants in the above-listed cases have filed Rule 12 motions to dispose of patent infringement claims on the bases that certain patent claims are invalid under 35 U.S.C. § 101, because they are allegedly directed to unpatentable subject matter;

WHEREAS, the above-listed cases brought by Arendi S.A.R.L. ("Arendi") are unrelated to the above-listed cases brought by Smart Locking Technologies, LLC ("Smart Locking");

WHEREAS, the Court heard oral argument in all the above-listed cases on December 20, 2019 and has considered the parties' respective briefs and related filings;

WHEREAS, the Court continues to find that its experimental procedure of addressing multiple Section 101 motions from separate and unrelated cases in one hearing is an efficient use of judicial resources and a beneficial tool for resolving the merits of Section 101 motions;

NOW, THEREFORE, IT IS HEREBY ORDERED that, with respect to the above-listed Smart Locking cases, Defendants' Rule 12(b)(6) motions to dismiss (C.A. No. 19-992 D.I. 9, 16; C.A. No. 19-993 D.I. 8, 15) are **DENIED**.

NOW, THEREFORE, IT IS HEREBY FURTHER ORDERED that, with respect to the above-listed Arendi cases, Defendants' Rule 12(c) motions for judgment on the pleadings (C.A. No. 12-1595 D.I. 115; C.A. No. 12-1596 D.I 122; C.A. No. 12-1599 D.I. 123; C.A. No. 12-1601 D.I. 123; C.A. No. 12-1602 D.I. 115; C.A. No. 13-919 D.I. 122; C.A. No. 13-920 D.I. 126) are **GRANTED IN PART** and **DENIED IN PART**, as follows:

1. The motions are DENIED with respect to representative claim 1 of U.S. Patent No. 7,917,843.

2. The motions are GRANTED with respect to representative claim 93 of U.S. Patent No. 7,496,854, representative claim 2 of U.S. Patent No. 7,921,356, and representative claim 1 of U.S. Patent No. 8,306,993.

3. The motions are TAKEN UNDER ADVISEMENT with respect to asserted, arguably non-representative, dependent claims of the '854, '356, and '993 patents; the parties shall continue to comply with the process for supplemental briefing previously set out

(*see, e.g.*, C.A. No. 12-1595 D.I.177).

The Court's Order is consistent with the following bench ruling announced at that the conclusion of the December 20 hearing (*see* Tr. at 106-18):

> I'm going to talk about the motions in the order that they were argued earlier today. First, [are] the Smart Locking cases. The issue in front of me is Defendants' renewed [Rule] 12(b)(6) motion to dismiss for failure to state a claim. Defendants' motion is denied. Let me try to explain why.
>
> The motion contends that two asserted patents, [U.S. Patent Nos.] 6,300,873 and 6,696,918, are invalid under Section 101 due to lack of patentable subject matter. The legal standards that I'm applying . . . are set out [in the following cases.] . . . [As to] the Rule 12(b)(6) standard I hereby incorporate and adopt by reference the articulation of that standard in the *DiStefano Patent Trust [III] v. LinkedIn* decision, . . . which was a decision of mine in 2018, affirmed by the Federal Circuit . . . .[1] I also adopt the Section 101 standards articulated by the Federal Circuit in *Berkheimer v. HP, Inc.* . . .[2]
>
> The parties agree in the Smart Locking cases that one claim, claim 36 of the '873 patent, is representative and that the Court need assess the patentability of only this one claim. The parties agree that no claim construction disputes need to be resolved before addressing the motion.
>
> The Court concludes that Defendants have failed to make the necessary showing at both Steps 1 and 2 of the *Alice* test.[3]
>
> Starting with Step 1. The claims are directed to a device, a mechanism[,] which in the Court's view is not abstract. Although Defendants have identified an abstract idea, specifically "providing temporary access to a location," I'm not persuaded that the claim is directed to this abstract idea. . . . The character as a whole of claim

[1] *DiStefano Patent Trust III, LLC v. LinkedIn Corp.*, 346 F. Supp. 3d 616 (D. Del. 2018), *aff'd*, 784 F. App'x 785 (Fed. Cir. 2019) (Rule 36).

[2] *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), *en banc reh'g denied*, 890 F.3d 1369 (Fed. Cir. 2018), *petition for cert. filed.*

[3] *Alice Corp. Pty. Ltd v. CLS Bank Int'l*, 573 U.S. 208 (2014); *see also Mayo Collaborative Serv. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012).

36, the representative claim, is a physical device with two specific tangible components: an actuator and an access code entry unit. The access code entry unit further must be configured to accept a one-time use access code as described in columns 7 and 8 of the specification. Further, figures 1 and 2 of the patent illustrate embodiments of the access code entry unit[,] which further supports the Court's conclusion that the character of the representative claim as a whole is directed to something concrete and tangible and not abstract. . . .

Defendants cite the *ChargePoint*[4] decision for the concept that just because something is a physical product, [that] does not mean that Defendant fails at Step 1 of the *Alice* test to identify an abstract idea to which the claims are directed. And, I agree that that is generally true[. B]ut here, there is sufficient specificity to limit the claimed access code entry unit to those embodiments that are configured to accept a one-time use access code. So for those reasons, the motion fails at Step 1.

. . . .

At Step 2, the inventive concept is the one-time use access code; that is, an access code that can be used once and no more than once[;] as well as an access code entry unit configured to give that access. This inventive concept is clearly captured in the claims. You can't practice the claims without the one-time use access code and the access code entry unit configured to accept such a code.

Further, the [amended] complaint contains well-pleaded factual allegations that plausibly allege in a non-conclusory fashion that the claimed invention was not routine, conventional, or well understood at the priority date. For example, the amended complaint . . . adequately and plausibly alleges the one-time use access code was not wholly conventional, routine, and well understood. . . . [For] instance in paragraphs 14 and . . . 17.

Also helpful to the plaintiff in succeeding at Step 2 is that the specification expressly describes a problem in the prior art and explains how the invention is solving it. Cases such as *Cellspin*,[5] cited by Plaintiff, provide that this is helpful information for a

---

[4] *Charge Point v. Sema Connect*, 920 F.3d 759 (Fed. Cir. 2019), *petition for cert. filed.*

[5] *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306 (Fed. Cir. 2019), *petition for cert. filed sub nom., Garmin USA, Inc. v. Cellspin Soft, Inc.*

patentee to allege and to have a specification that supports such allegations.

Defendants argue that the claims are not about an improvement to the device but about an improv[ement] to the performance of the locking mechanism device. I'm not sure how much . . . sense that distinction makes in this case or if it is even a meaningful distinction. In this case, the lock performs in such a way that the specification clearly explains the prior art device could not – I think what that means [is] . . . that the function of the lock is improved[.] [B]ut more importantly, the argument has not provided for me a persuasive basis to grant Defendants' motion.

Finally, I do not see a preemption problem. Given that Defendants have failed at Step 1 and Step 2, it can't be that there is some independent problem of preemption that makes the patents ineligible, nonetheless; but in any event, the claims seem to me to be pretty narrow and the plaintiff argues that they're pretty narrow. And, I think we saw evidence of that from the fact that the embodiment that Defendants started with, the hotel safe, is one that I think by their own admission actually isn't even within the scope of the claims because it's not limited to a one-time use only access code. . . .

So for all those reasons, the motion is denied.

Let me turn now to the Arendi cases.

The multiple defendants in these several cases [listed above] have all moved for judgment on the pleadings pursuant to Federal Rule of Civil Procedure 12(c). I hereby adopt and incorporate by reference the Rule 12(c) standard as articulated in the *Intellectual Ventures I LLC v. AT&T Mobility, LLC* case . . . here in this court in 2016, affirmed by the Federal Circuit in 2019 . . . .[6] And I adopt, again, and incorporate by reference the [Section] 101 standard explained just [a] moment ago in connection with the Smart Locking cases.

The motions in the Arendi cases present a more difficult issue than the one in the Smart Locking case. This is first, but not principally, because in the Arendi cases, there are four patents, and I have to think about four representative claims as opposed to one representative claim. Happily for me, the parties are in agreement

[6] *Intellectual Ventures I LLC v. AT&T Mobility LLC*, 235 F. Supp. 3d 577 (D. Del. 2016), *aff'd*, 748 F. App'x 330 (Fed. Cir. 2019) (Rule 36).

as to which claims are the representative claims. And for purposes of the record, I'll just read them in: the 7,917,403 patent, claim 1; the 8,306,993 patent, claim 1; the 7,496,854 patent, claim 93; and the 7,921,356 patent, claim 2. The parties further agree no claim construction is required before deciding the motion as the Court has already issued its claim construction opinion.

The hard part for me on these motions is trying to figure out what type of patents these are. Are the representative claims of these patents directed to a computer-only context providing an alleged improvement in computer functionality? Or, instead, are these patent claims directed to automation of activity that has long been performed in the non-computerized physical world? That is, are they [merely] the conventional use of conventional computer components to do something more quickly or more efficiently, perhaps, but to do something that humans have long done before computers?

I'm having trouble deciding which of those two categories of patents these patents fall into [because] actually the patents fall somewhere in between these two categories. That is, I think the most reasonable view of these patents is that they are directed to solving a problem in a computerized context and, thereby, improving computer functionality, but [the] problem that they are addressed to [is one] that has long arisen in a non-computerized context. And by the way, the patents don't purport to solve the problem in the non-computerized context.

I also think that where in between those two categories these two patents fall is different among the four patents, which I will try to explain. The problem that I think the patents are directed to is how to get information from the second source when you are working in a first document. Clearly, this problem does arise in a computer context. As the specification explains, a user could be writing a letter in [a] word processing program and need the address of the recipient and need to retrieve that address from another program, such as a database. The patents disclose automating that retrieval and other automated interactions with the second program.

But equally clearly, such problems do also arise in the physical world, as I think was demonstrated today by counsel pretending to write a letter to Santa Claus and needing to get the address from her partner who [was] looking it up in a Rolodex while she continued to write her letter.

I'm not sure that the law is entirely clear as to how to apply

the *Alice* test to a patent that is directed to improving computer functionality where the problem purportedly solved is a problem that also exists in the physical world.

Noting all of those complications and the difficulty I have found, I need to make a decision. . . . [S]o I will turn to the two steps of the *Alice* test.

At Step 1, Defendants have identified an abstract idea; specifically, "identifying information in a document, searching for related information in a separate source, and using [the] found information in some way." That is an abstract idea. It is devoid of a concrete or tangible [application].

Is that abstract idea a fair characterization of the claims? I find that it is. All four of the representative claims involve doing what the abstract idea says. This is true even for the '993 patent which allows for the source database to itself be updated while the user is working in a first document. That concept is captured in the "using the found information in some way" portion of the Defendants' abstract idea . . . .

But these conclusions do not end the Step 1 analysis. And this is where the question arises: Are these claims directed to an improvement in computer functionality[;] . . . do they recite a specific implementation of a solution to a technological problem? The Federal Circuit cases and the parties seem to all agree that . . . this is a Step 1 question . . . .

So let me ask that question for each of the four representative claims.

First, with the '843 patent, claim 1. I find that this claim is directed to an improvement in computer functionality. Specifically, and looking carefully at the claim language, the claim is directed to displaying an electronic document using a first computer program, while displaying that document, analyzing first information in that document for types of information that can be searched for in an information source external to the document, caus[ing] a search for that type of information in the external information source, using a second computer program, and if any second information related to the search term is found, using at least part of that second information to perform an action in the first computer program. Given that understanding of representative claim 1 of the '843 patent, I find that Defendants have not met their burden at Step 1 with respect to this claim, and the motion is denied as to the '843 patent.

> Further support for this interpretation and this conclusion about the '843 patent is found in at least four recent cases that the Court finds sufficiently analogous to this claim: *Data Engine*,[7] *Ancora*,[8] *Core Wireless*,[9] and *Finjan*[.][10] . . . Defendants argue[] that the '843 patent, claim 1 is purely functional, that it doesn't disclose how this purported improvement in computer functionality is accomplished, and that the improvement isn't captured in the claims. But the Court is persuaded that the '843 patent claim is analogous to and as specific on these points as the claim language found adequate by the Federal Circuit in these other cases.
>
> Defendants also argue that the claim only uses conventional computer components, but this does not provide a meritorious basis to grant the motion. As Defendants concede, the use of conventional computer components does not, by itself, lead to a conclusion of non-subject matter eligibility. And on this point, Arendi persuasively refers the Court again to *Data Engine*, *Ancora*, and *Finjan*.
>
> Turning more briefly to the other three patents and their representative claims, I have reached the opposite conclusion. For example, the '993 patent, claim 1, I find is not directed to an improvement in computer functionality. Basically, I don't see where in this claim the . . . purported inventive concept of beneficial coordination is captured in the claims. The claim does not appear to require that both applications be able to be opened at the same time. So I will grant the motion with respect to '993 patent, claim 1.
>
> . . . There is no factual dispute to defeat the motion at Step 2 because whether beneficial coordination was routine, conventional, well understood is not a pertinent question given that that purported innovation is not captured in the claim.
>
> It's a similar conclusion and analysis for both the '854 patent, claim 93, and the '356 patent, claim 2.
>
> For the '854 [patent], claim 93, I find that the claim is not

[7] *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018).

[8] *Ancora Techs., Inc. v. HTC Am. Inc.*, 908 F.3d 1343 (Fed. Cir. 2018).

[9] *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018).

[10] *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299 (Fed. Cir. 2018).

directed to an improvement in computer functionality. The beneficial coordination concept is not captured in the claim. And all the points [that I] just made about the '993 patent apply equally here.

Similarly for the '356 patent, claim 2, I find that the claim is not directed to an improvement in computer functionality. I'm not seeing in this claim where the temporal limitation is present. That is, something that captures the purported improvement of being able to work in two programs at the same time and use information from one program in the other program without having to close one of the programs.

So all that said, the motion is granted with respect to the '993, '854, and '356 patent representative claims. The motion is denied with respect to the representative claim of the '843 patent.

I am going to provide the parties . . . an opportunity to brief how to apply my decision granting the motion with respect to the three patents ['993, '854, and '356] on the representative claim[s] . . . [to the] other asserted claims of those patents.

HONORABLE LEONARD P. STARK
UNITED STATES DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ARENDI S.A.R.L., Plaintiff, v. LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., and LG ELECTRONICS MOBILECOMM U.S.A., INC., Defendants.	C.A. No. 12-1595-LPS
ARENDI S.A.R.L., Plaintiff, v. BLACKBERRY LIMITED and BLACKBERRY CORPORATION, Defendants.	C.A. No. 12-1597-LPS
ARENDI S.A.R.L., Plaintiff, v. MOTOROLA MOBILITY LLC f/k/a MOTOROLA MOBILITY, INC., Defendant.	C.A. No. 12-1601-LPS

ARENDI S.A.R.L., Plaintiff, v. SONY MOBILE COMMUNICATIONS (USA) INC., f/k/a SONY ERICSSON MOBILE COMMUNICATIONS (USA) INC., SONY CORPORATION, and SONY CORPORATION OF AMERICA, Defendants.	C.A. No. 12-1602-LPS
ARENDI S.A.R.L., Plaintiff, v. GOOGLE LLC, Defendant.	C.A. No. 13-919-LPS
ARENDI S.A.R.L., Plaintiff, v. OATH HOLDINGS INC. and OATH INC., Defendants.	C.A. No. 13-920-LPS

Neal C. Belgam and Eve H. Ormerod, SMITH, KATZENSTEIN & JENKINS LLP, Wilmington, DE
Seth Ard, Beatrice Franklin, and Max Straus, SUSMAN GODFREY, LLP, New York, NY
John Lahad, Ibituroko-Emi Lawson, Robert Travis Korman, and Brenda Adimora, SUSMAN GODFREY, LLP, Houston, TX
Kalpana Srinivasan, SUSMAN GODFREY, LLP, Los Angeles, CA
Kemper Diehl, SUSMAN GODFREY, LLP, Seattle, WA

Attorneys for Plaintiff

Jeremy D. Anderson, FISH & RICHARDSON P.C., Wilmington, DE
Steven R. Katz and Jacob Pecht, FISH & RICHARDSON P.C., Boston, MA
R. Andrew Schwentker, FISH & RICHARDSON P.C., Washington DC
Eda Stark, FISH & RICHARDSON P.C., Atlanta, GA

Attorneys for Defendants LG Electronics Inc., LG Electronics U.S.A., Inc., and LG Electronics Mobilecomm U.S.A., Inc.

Kenneth L. Dorsney and Cortlan S. Hitch, MORRIS JAMES LLP, Wilmington, DE
Brian C. Riopelle and David E. Finkelson, MCGUIREWOODS LLP, Richmond, VA
Jason W. Cook, MCGUIREWOODS LLP, Dallas, TX

Attorneys for Defendants BlackBerry Limited and BlackBerry Corporation

David E. Moore, Bindu A. Palapura, and Stephanie E. O'Byrne, POTTER ANDERSON & CORROON LLP, Wilmington, DE
Robert W. Unikel, Michelle Marek Figueiredo, John Cotiguala, and Matt Lind, PAUL HASTINGS LLP, Chicago, IL
Robert R. Laurenzi, PAUL HASTINGS LLP, New York, NY
Ariell Bratton, PAUL HASTINGS LLP, San Diego, CA
Ginger Anders, MUNGER, TOLLES & OLSON LLP, Washington, DC

Attorneys for Defendant Motorola Mobility LLC f/k/a Motorola Mobility, Inc.

Rodger D. Smith II, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE
Jeffri A. Kaminski, Justin E. Pierce, and Calvin R. Nelson, VENABLE LLP, Washington, DC
Neha Bhat, VENABLE LLP, New York, NY

Attorneys for Defendants Sony Mobile Communications (USA) Inc. f/k/a Sony Ericsson Mobile Communications (USA) Inc., Sony Corporation, and Sony Corporation of USA

David E. Moore, Bindu A. Palapura, and Stephanie E. O'Byrne, POTTER ANDERSON & CORROON LLP, Wilmington, DE
Robert W. Unikel, Michelle Marek Figueiredo, John Cotiguala, and Matt Lind, PAUL HASTINGS LLP, Chicago, IL
Robert R. Laurenzi and Chad J. Peterman, PAUL HASTINGS LLP, New York, NY
Ariell Bratton, PAUL HASTINGS LLP, San Diego, CA
Ginger Anders, MUNGER, TOLLES & OLSON LLP, Washington, DC

Attorneys for Defendant Google LLC

Jack B. Blumenfeld, Brian P. Egan, and Anthony D. Raucci, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE
Frank C. Cimino Jr., Megan S. Woodworth, Jeffri A. Kaminski, Calvin R. Nelson, and Neha Bhat, VENABLE LLP, Washington, DC

Attorneys for Defendants Oath Holdings Inc. and Oath Inc.

MEMORANDUM OPINION

REDACTED PUBLIC VERSION (ISSUED April 8, 2022)
March 31, 2022
Wilmington, Delaware

STARK, U.S. Circuit Judge:

On November 29, 2012 and May 22, 2013, Plaintiff Arendi S.A.R.L. ("Plaintiff" or "Arendi") initiated 10 patent infringement cases against a series of defendants ("Defendants"). These cases and the corresponding defendant(s) in each case are listed below:

- C.A. No. 12-1595 (the "*LG* Action"): LG Electronics Inc., LG Electronics U.S.A., Inc., and LG Electronics Mobilecomm U.S.A., Inc. (collectively, "LG");
- C.A. No. 12-1596 (the "*Apple* Action"): Apple Inc. ("Apple");
- C.A. No. 12-1597 (the "*BlackBerry* Action"): BlackBerry Limited and BlackBerry Corporation (collectively, "BlackBerry");
- C.A. No. 12-1598 (the "*Samsung* Action"): Samsung Electronics Co. Ltd., Samsung Electronics America Inc., and Samsung Telecommunications America LLC (collectively, "Samsung");
- C.A. No. 12-1599 (the "*Microsoft Mobile* Action"): Microsoft Mobile, Inc. ("Microsoft Mobile");
- C.A. No. 12-1600 (the "*HTC* Action"): HTC Corporation ("HTC");
- C.A. No. 12-1601 (the "*Motorola* Action"): Motorola Mobility LLC f/k/a Motorola Mobility, Inc. ("Motorola");
- C.A. No. 12-1602 (the "*Sony* Action"): Sony Mobile Communications (USA) Inc. f/k/a Sony Ericsson Mobile Communications (USA) Inc., Sony Corporation, and Sony Corporation of USA (collectively, "Sony");
- C.A. No. 13-919 (the "*Google* Action"): Google LLC ("Google");
- C.A. No. 13-920 (the "*Oath* Action"): Oath Holdings Inc. and Oath Inc. (collectively, "Oath").

Arendi asserted one or more of the following five patents against each Defendant: U.S. Patent Nos. 6,323,853 (the "'853 patent"), 7,496,854 (the "'854 patent"), 7,917,843 (the "'843 patent"), 7,921,356 (the "'356 patent"), and 8,306,993 (the "'993 patent"). These patents are entitled "method, system and computer readable medium for addressing handling from" either "a computer program" or "an operating system."

These cases were stayed between 2014 and 2018, as the parties engaged in multiple *inter partes* review ("IPR") proceedings before the Patent Trial and Appeal Board ("PTAB"). After these IPR proceedings and the appeals from them concluded, the only remaining patent asserted in any of the cases is the '843 patent.[1]

The *Apple* Action, the *Samsung* Action, and the *Microsoft Mobile* Action have settled. (*See* C.A. No. 12-1596 D.I. 421; C.A. No. 12-1598 D.I. 103; C.A. No. 12-1599 D.I. 204) The *HTC* Action is stayed pending the outcome of the *Google* Action. (*See* C.A. No. 12-1600 D.I. 195 at 4)

Pending before the Court are a total of 36 motions filed by the parties in the six remaining active cases, consisting of 21 motions to exclude expert testimony ("*Daubert* motions"); 14 motions for summary judgment; and a motion for leave to file supplemental infringement contentions, re-open discovery, and file a supplemental brief. (C.A. No. 12-1595 D.I. 256, 260, 263, 266, 268, 270, 333; C.A. No. 12-1597 D.I. 190, 193, 195, 200, 203, 207; C.A. No. 12-1601 D.I. 265, 268, 271, 277, 279, 282; C.A. No. 12-1602 D.I. 223, 226, 230, 231, 236, C.A. No. 13-919 D.I. 269, 272, 275, 281, 283, 286; C.A. No. 13-920 D.I. 233, 236, 238, 240, 241, 246)

The Court has considered the voluminous briefs and other materials submitted by the parties in connection with this large number of motions. The Court also held a consolidated hearing on July 29, 2021, in which the Court heard oral argument on the pending motions in all six cases. (C.A. No. 12-1595 D.I. 346; C.A. No. 12-1597 D.I. 271; C.A. No. 12-1601 D.I. 378; C.A. No. 12-1602 D.I. 294; C.A. No. 13-919 D.I. 385; C.A. No. 13-920 D.I. 319) ("Tr.")

[1] The details of these IPR proceedings and their respective outcomes are documented in a joint status report filed on August 6, 2018, docketed in each of the cases. (*See, e.g.*, C.A. No. 12-1595 D.I. 81)

This memorandum opinion will address the following 11 motions:

Daubert motions:

- Arendi's motion to exclude portions of Dr. Michael Shamos' expert report (C.A. No. 12-1597 D.I. 190)
- Arendi's motions to exclude portions of Dr. Martin Rinard's expert report (C.A. No. 12-1601 D.I. 265; C.A. No. 13-919 D.I. 269)[2]
- Arendi's motions to exclude portions of Mr. Monty G. Myers' expert report (C.A. No. 12-1602 D.I. 223; C.A. No. 13-920 D.I. 233)

Motions for summary judgment:

- LG's motion for summary judgment of non-infringement by the Rebel 4 accused products (C.A. No. 12-1595 D.I. 263)
- BlackBerry's motion for summary judgment of non-infringement (C.A. No. 12-1597 D.I. 195)
- Motorola's motion for summary judgment of non-infringement (C.A. No. 12-1601 D.I. 271)
- Sony's motion for summary judgment of non-infringement (C.A. No. 12-1602 D.I. 231)
- Google's motion for summary judgment of non-infringement (C.A. No. 13-919 D.I. 275)
- Oath's motion for summary judgment of non-infringement (C.A. No. 13-920 D.I. 240).

I. LEGAL STANDARDS

A. *Daubert* And Federal Rule Of Evidence 702

In *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993), the Supreme Court explained that Federal Rule of Evidence 702 creates "a gatekeeping role for the [trial] judge" in

[2] Arendi has filed separate *Daubert* motions challenging Dr. Rinard in the *Motorola* Action and in the *Google* Action, but the parties' briefs filed in connection with those two motions are essentially identical. Thus, the Court will address these two motions together.

order to "ensur[e] that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." The rule requires that expert testimony "help the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702(a). Expert testimony is admissible only if "the testimony is based on sufficient facts or data," "the testimony is the product of reliable principles and methods," and "the expert has reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702(b)-(d). There are three distinct requirements for admissible expert testimony: (1) the expert must be qualified; (2) the opinion must be reliable; and (3) the expert's opinion must relate to the facts. *See generally Elcock v. Kmart Corp.*, 233 F.3d 734, 741-46 (3d Cir. 2000). Rule 702 embodies a "liberal policy of admissibility." *Pineda v. Ford Motor Co.*, 520 F.3d 237, 243 (3d Cir. 2008). Motions to exclude evidence are committed to the Court's discretion. *See In re Paoli R. R. Yard PCB Litig.*, 35 F.3d 717, 749 (3d Cir. 1994).

B. Summary Judgment And Federal Rule Of Civil Procedure 56

"The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *See Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 n.10 (1986). An assertion that a fact cannot be – or, alternatively, is – genuinely disputed must be supported either by citing to "particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for the purposes of the motion only), admissions, interrogatory answers, or other materials," or by "showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to

support the fact." Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has carried its burden, the nonmovant must then "come forward with specific facts showing that there is a genuine issue for trial." *Matsushita*, 475 U.S. at 587 (internal quotation marks and emphasis omitted). The Court will "draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the non-moving party must "do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita*, 475 U.S. at 586; *see also Podohnik v. U.S. Postal Serv.*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment "must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue") (internal quotation marks omitted). However, the "mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment;" and a factual dispute is genuine only where "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). "If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted." *Id.* at 249-50 (internal citations omitted); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated "against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial"). Thus, the "mere existence of a scintilla of evidence" in support of the non-moving party's position is insufficient to defeat a motion for summary judgment; there must be "evidence on which the jury could reasonably find" for the non-moving party. *Anderson*, 477 U.S. at 252.

II. DISCUSSION

A. *Daubert* Motions

1. Shamos

Arendi seeks to exclude portions of Dr. Shamos' expert report that are purportedly "inconsistent with the Court's claim construction." (C.A. No. 12-1597 D.I. 191 at 2) The portions at issue relate to the claim term "to determine if the first information is at least one of a plurality of types of information that can be searched for." (*Id.* at 3) The Court has construed this claim term as:

> to determine if the first information belongs to one or more of several predefined categories of identifying information (e.g., a name) or contact information (e.g., a phone number, a fax number, or an email address) that can be searched for in an information source external to the document.

(*Id.* D.I. 125 at 13-15) In his report, Dr. Shamos opines that the claim term is not met because the Accused Devices "do not perform any analysis to determine whether the first information 'can be searched for . . . .'" (*Id.* D.I. 192 Ex. 1 ¶ 69; *see also id.* ¶ 133 ("[The Accused Applications] do not determine whether any information at all 'can be searched for . . . .'"))

The Court agrees with Arendi and will grant its *Daubert* motion. Under the Court's construction, an infringing product must analyze to determine, while a document is being displayed, whether the first information "belongs to one or more of several predefined categories of identifying information . . . or contact information." While the eligible "predefined categories" of information must be categories "that can be searched for in an information source external to the document," the Court's construction does not require that the searchability determination of the first information must be made by the accused infringing products while performing this step of the claimed process. The contrary interpretation of the term would

effectively read the word "predefined" out of the Court's construction. In other words, "the phrase 'that can be searched for' modifies the allowable 'predefined categories' and does not specify a distinct determination to be made." (*Id.* D.I. 191 at 4) It follows that Dr. Shamos is attempting to impose an additional limitation not in the claims and his opinions on this point must be excluded. *See Personalized User Model, L.L.P. v. Google Inc.*, 2014 WL 807736, at *1 (D. Del. Feb. 27, 2014) (excluding expert report for failure to apply Court's claim constructions).

2. Rinard[3]

a. "Determine If The First Information Is At Least One Of A Plurality Of Types Of Information That Can Be Searched For"

For the same reasons provided in connection with Arendi's *Daubert* motion regarding Dr. Shamos (*see supra* II.A.1), the Court will grant this portion of Arendi's motion (C.A. No. 12-1601 D.I. 266 at 3-7).[4] Dr. Rinard is precluded from testifying that the Accused Devices or Accused Apps do not satisfy the claim limitation because they do not determine the searchability of the first information.

---

[3] Motorola and Google contend that Arendi's *Daubert* motion is untimely, prejudicial, and fails to address the *Pennypack* factors. (*See* C.A. No. 12-1601 D.I. 334 at 16-18; *see also* Tr. at 64) The Court disagrees. Arendi's *Daubert* motion was timely filed pursuant to the scheduling order. Motorola and Google cite no authority supporting the suggestion that a *Daubert* motion seeking to exclude expert opinions on reliability grounds must address the *Pennypack* factors.

[4] During the claim construction stage of these cases, Arendi "argued that the claim language was clear as to ***where*** the search can be performed for purposes of the determining step." (C.A. No. 12-1601 D.I. 334 at 6-7) (emphasis added) Arendi did not advocate for the position that the claimed process requires a searchability determination. Hence, Arendi has not been inconsistent, as Motorola and Google unpersuasively contend.

b. "Analyzing, In A Computer Process, First Information In A Document"

Arendi seeks to exclude portions of Dr. Rinard's report in which he opines that, to establish infringement, Arendi must show that the "analyzing" step is performed on the alleged "first information" and not on any additional information. (*See id.* D.I. 266 at 7-9; *see also id.* D.I. 267 Ex. 1 ¶¶ 395-412) The Court will grant Arendi's motion.

Dr. Rinard has failed to apply the plain and ordinary meaning of the claim term, which no party asked the Court to construe. The term does not require analyzing ***only*** the first information in a document. Instead, analysis of other information in addition to the first information – including "text that includes first information" or "passages encompassing first information" (*id.* D.I. 334 at 9-10) – does not fall outside of the claim scope. In other words, this claim limitation is satisfied when the first information in a document is analyzed, regardless of whether other information is also analyzed.[5]

Dr. Rinard has also impermissibly advanced his own claim construction in his expert report. He attempts to impose his own construction of this term by relying on a purported "disclaimer" made during prosecution. (*See id.* D.I. 267 Ex. 1 ¶¶ 395-97) This is not a task for an expert witness. *See generally Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1337 (Fed. Cir. 2009) ("[I]t is improper to argue claim construction to the jury.").

c. "Performing An Action Using At Least Part Of The Second Information"

Arendi seeks to exclude a portion of Dr. Rinard's expert report which opines that actions involving merely display of second information do not satisfy this claim element. (*See* C.A. No.

[5] Contrary to Motorola and Google's contention (*see, e.g.*, C.A. No. 12-1601 D.I. 334 at 10-11), the Court's construction of "first information" does not suggest the analysis is limited solely to the first information.

12-1601 D.I. 266 at 9-11; *see also id.* D.I. 267 Ex. 1 ¶¶ 327-41) This portion of Arendi's motion will also be granted.

The Court agrees with Arendi that Dr. Rinard has imposed his own construction on this unconstrued claim term, rather than applying its plain and ordinary meaning. In his expert report, Dr. Rinard purported to apply canons of claim construction (*see id.* ¶ 333); he also reads limitations from specification embodiments into the claim (*see id.* ¶ 334) and cites to the prosecution history (*see id.* ¶ 335). In the end, he adopts a claim construction that impermissibly narrows the term's plain and ordinary meaning. Therefore, Dr. Rinard is precluded from testifying that the Accused Devices and Accused Apps do not infringe because they merely display the second information.

d. Whether "Performing An Action" Must Occur In The "First Computer Program"

Arendi seeks to exclude another portion of Dr. Rinard's expert report, in which he opines that the claim limitation "performing an action using at least part of the second information" must occur within the first computer program. (*See id.* D.I. 266 at 12-13; *see also id.* D.I. 267 Ex. 1 ¶¶ 352-73) Given Motorola and Google's clarification and assurance that Dr. Rinard [redacted] (*id.* D.I. 334 at 16), this portion of Arendi's motion will be denied as moot.[6]

[6] To the extent Arendi contends that Dr. Rinard has failed to disclose in his report his opinion that [redacted] (C.A. No. 12-1601 D.I. 358 at 9; *see also id.* D.I. 334 at 15), this is an issue that can be presented in the pretrial order and/or at trial. It is not a basis for granting a *Daubert* motion.

3. Myers

For the same reasons provided in connection with Arendi's *Daubert* motion regarding Dr. Shamos (*see supra* II.A.1), the Court will grant this portion of Arendi's motion (C.A. No. 12-1602 D.I. 224 at 2-5). Mr. Myers is precluded from testifying that the Accused Devices or Accused Apps do not satisfy the claim limitation because they do not determine the searchability of the first information.

B. Motions For Summary Judgment

1. Google's Motion For Summary Judgment Of Non-Infringement

Google moves for summary judgment of non-infringement on the grounds that its Accused Apps do not satisfy several claim limitations: (1) "document" (*see* C.A. No. 13-919 D.I. 276 at 16-22); (2) "determine if the first information is at least one of plurality of types of information that can be searched for" (*see id.* at 23-27); and (3) "providing an input device configured by the first computer program" and "in consequence of receipt by the first computer program of the user command from the input device" (*see id.* at 27-40).

a. "Document"

i. Linkify And Smart Linkify

Google first contends that summary judgment of non-infringement should be granted with respect to the Accused Apps operating in conjunction with the Linkify and the Smart Linkify functionalities.[7] (*See id.* D.I. 276 at 18-19) According to Google, since these functionalities "only operate on text that is ***not*** editable" (*id.* at 18), the Accused Apps operating

[7] These Accused Apps include: Google Messages, Calendar, Hangouts, Tasks, Docs, Slides, and Sheets. The specific date ranges of these apps operating in conjunction with Linkify and Smart Linkify are detailed in an appendix attached to Google's reply brief. (*See* C.A. No. 13-919 D.I. 276 at 18; *id.* D.I. 370 App'x 1)

in conjunction with them cannot meet the claim limitation "while the document is being displayed, analyzing . . . first information from the document." In Google's view, under the Court's claim construction, the term "document" must be "a word processing, spreadsheet, or similar file ***into which text can be entered.***" (*Id.* D.I. 143 at 5) (emphasis added)

During the consolidated hearing, Arendi confirmed that there is no dispute that Linkify and Smart Linkify work only in conjunction with non-editable files. (*See* Tr. at 36) Arendi contends, however, that "document[s]" need not be editable "throughout the entire claim, [and] throughout the entire process." (*Id.* at 27) According to Arendi, the files analyzed by the Accused Apps operating in conjunction with Linkify and Smart Linkify fall within the scope of "document[s]" because "text can be entered into each type of document at issue." (C.A. No. 13-919 D.I. 345 at 13-16) The editability requirement is satisfied, in Arendi's view, "as long as at least at one point in the past, it was a file into which text can be entered." (Tr. at 32)

Arendi's understanding of the claim scope is incorrect. The Court has construed "document" as "a . . . file into which text can be entered," not a file into which text can be entered ***at some point***. The "document" of the claim limitation must remain a "document" – that is, a "file into which text can be entered" – "while the document is being displayed." It must likewise remain a "document" – again, a "file into which text can be entered" – while the Accused App is "analyzing . . . first information from the document." These limitations require that the document remain editable at least when it is displayed and analyzed. Since there is no dispute that Linkify and Smart Linkify do not work on editable files, there is also no dispute that the Accused Apps operating in conjunction with Linkify and Smart Linkify do not satisfy these claim limitations.

Arendi's arguments to the contrary are unpersuasive. Arendi insists that the Court should "recognize[] that . . . the characteristics of a claimed element can change over the course of a claim." (*Id.* at 32) Thus, according to Arendi, "if a document begins as a file into which text can be entered and then . . . becomes non-editable or read only, . . . that [does not] negate[] the fact that it is a document." (*Id.* at 31) By so arguing, Arendi essentially asks the Court to depart from its construction of a claim term and apply different meanings to the same term throughout a claim based on the purported changes of "characteristics of a claimed element." Arendi does not cite any authority to support this approach.

In a further attempt to support its position, Arendi refers to the opinion of its expert witness, Dr. Smedley, who opines that a person of ordinary skill in the art ("POSA") "would understand the Court's construction to refer to classes of documents, as reflected by the Court's reference to a 'word processing, spreadsheet, or similar file'" and "would not dice this category further" into editable or non-editable files "at a given moment." (C.A. No. 13-919 D.I. 347 Ex. B ¶ 163; *see also id.* D.I. 345 at 15) This portion of Dr. Smedley's opinion does not create a genuine dispute of material fact as it only accounts for a part of the Court's construction – that the "document" is "a word processing, spreadsheet, or similar file" – and ignores the part of the construction requiring a document to be a "file into which text can be entered."

Arendi also points to the Court's opinion in *Arendi S.A.R.L. v. HTC Corp.*, 2020 WL 7360155 (D. Del. Dec. 15, 2020). In that decision, the Court stated that, with respect to the '843 patent, it no longer believed that the asserted claim "require[d] that the second information be used to perform an action ***in the first program***." *Id.* at *2. In Arendi's view, that statement negated the requirement that the "document" must remain editable and allow the user to insert the "second information" into the document. (*See* C.A. No. 13-919 D.I. 345 at 15-16; *see also*

Tr. at 27-29) The Court disagrees. The Court's construction that "[a] 'document' as used here must be editable" (C.A. No. 13-919 D.I. 143 at 8) is not predicated exclusively on the notion that the user must be able to insert information back into the document after the analysis occurs. Instead, the Court explained that "the term 'document' must be construed consistent with the patents' repeated and consistent requirement in the specification that documents be editable," including that "the patent's definition of the term – 'word processors, spreadsheets, etc.' – is necessarily limited to computer programs in which a user can enter data." (*Id.* at 8-9)

In sum, there is no genuine dispute of material fact that the Accused Apps operating in conjunction with Linkify and Smart Linkify cannot infringe the '843 patent. Accordingly, Google's motion for summary judgment of non-infringement will be granted with respect to the Accused Apps operating in conjunction with Linkify and Smart Linkify.

ii. Chrome And News

Google next contends that summary judgment of non-infringement should be granted with respect to the Chrome and the News apps because "Arendi has no evidence to show the ability of a user to edit Chrome and News webpages." (*Id.* D.I. 276 at 19-20)

There is a genuine dispute of material fact over whether a POSA would understand the items displayed by Chrome and News to be files "into which text can be entered." With respect to Chrome, Arendi's expert, Dr. Smedley, provides multiple examples in his report in which the content of a webpage displayed by Chrome can be edited. (*See id.* D.I. 347 Ex. A ¶ 72; Ex. B ¶¶ 155, 160 n.108; *see also id.* D.I. 345 at 14-15) As to News, Dr. Smedley explained that "textual content of news articles is retrieved from a remote server and entered into a news item for display." (*Id.* D.I. 347 Ex. A ¶ 102) In his opinion, then, the news item satisfies the editability requirement because a POSA would understand the phrase "into which text can be entered" to

require the "ability to load text into the objects that constitute the electronic document." (*Id.* Ex. B ¶¶ 153-54) Although Google contends that Dr. Smedley's opinion would "render the Court's construction, 'into which text can be entered,' meaningless" (*id.* D.I. 370 at 7), the Court's construction does not restrict the manner in which text can be entered into a document.

Thus, Dr. Smedley's opinion creates a genuine issue of material fact as to whether Chrome and News satisfy the "document" element. This portion of Google's motion will be denied.

iii. "Transitory Data Entry Fields"

Google also contends that summary judgment of non-infringement is warranted with respect to ten Accused Apps[8] and the Accused Devices using those apps because "Arendi accuses only transitory data entry fields . . . of being the 'document.'" (*Id.* D.I. 276 at 20) In Google's view, the transitory interfaces are not documents because "they are not 'word processor, spreadsheet or similar file[s].'" (*Id.* at 21)

The Court will deny this portion of Google's motion. There is a genuine dispute of material fact as to whether the data entry interfaces in the Accused Apps at issue in this motion are "word processor, spreadsheet or similar files." Arendi's expert, Dr. Smedley, opines that a POSA would understand that the data entry interfaces in each of the Accused Apps at issue are "word processor, spreadsheet or similar files." (*Id.* D.I. 345 at 17-21; *see also, e.g.*, *id.* D.I. 347 Ex. B ¶¶ 176-78)

Pointing to Arendi's statements trying to distinguish prior art during the prosecution and the IPR proceeding of a related patent, Google counters that "Arendi and its experts repeatedly

[8] The ten Accused Apps are Google Messages, Chrome, Calendar, Contacts, Hangouts, Tasks, Docs, Slides, Sheets, and News. (C.A. No. 13-919 D.I. 276 at 20)

Redacted: Public Version of Filing Substituted for Sealed Original

c. "Providing An Input Device Configured By The First Computer Program" And "In Consequence Of Receipt By The First Computer Program Of The User Command From The Input Device"[10]

Google contends the Court should grant summary judgment of non-infringement as to 12 of the 13 Accused Apps [redacted] because: (1) the alleged "first computer program" does not "set up the input device for use by the user" (*id.* D.I. 276 at 34-39); and (2) the alleged "first computer program" does not "receive, process and act on the user command from the alleged input device" (*id.* at 39-40). With respect to the first issue, Google contends that the "input devices" are [redacted] and not [redacted], which is what Arendi identifies as the "first computer program." (*See id.* at 34-35) Google explains that "[t]he Android OS Framework code is separate from the code for each Accused App; [redacted] (*Id.* D.I. 370 at 15) With respect to the second issue, Google argues that "[redacted] . . . undisputedly does not receive, process or act on any user command from the 'input device'" and

13-919 D.I. 276 at 24-26) The Court agrees with Arendi that Mr. Hedloy and Dr. Sacerdoti's statements, at most, confirm that the information must belong to a category that "can be searched for;" these statements do not establish that the determination of whether the information "can be searched for" must be performed by the infringing products. (*See id.* D.I. 345 at 27-29)

[10] The Court construed the term "providing an input device configured by the first computer program" as "providing an input device set up by the first computer program for use by the user." Neither party asked the Court to construe the term "in consequence of receipt by the first computer program of the user command from the input device." Relatedly, the Court also construed the term "computer program" as "a self-contained set of instructions, as opposed to a routine or library, intended to be executed on a computer so as to perform some task." (C.A. No. 13-919 D.I. 143 at 11-12; *id.* D.I. 144 at 1-2)

that it is "[redacted], working with the Intent mechanism," that "receives any command and processes that command to launch other programs." (*Id.* D.I. 276 at 39)

Arendi responds that the [redacted] that purportedly set up the "input devices" are not [redacted] and that the Accused Apps [redacted]. (*Id.* D.I. 345 at 31-32) Arendi also argues that [redacted] (*Id.* at 33) Arendi's position is supported by its expert, Dr. Smedley, who opines in his report that "[o]ne of ordinary skill in the art would understand a 'computer program' – consistent with the Court's construction and the specification of the patent – to include the methods and classes imported into and invoked by the first computer program – regardless of whether those methods and classes are defined in application-specific code or originate in shared libraries." (*Id.* D.I. 347 Ex. B ¶¶ 97-109) In particular, with respect to the requirement that the "computer program" must be a "set of instructions" that are "self-contained," Dr. Smedley explains that [redacted] (*Id.* ¶ 99) Based on what a "computer program" encompasses, Dr. Smedley concludes that the Accused Apps "provide[] an input device responsive to a user command," and that "this component" of the Accused Apps receives the user's command and initiates a response. (*See, e.g.*, *id.* Ex. A App'x ¶¶ 28, 67, 90, 104, 136, 160, 185, 210, 231, 263, 277)

In the Court's view, there is a genuine dispute of material fact as to whether the "first computer program" [redacted] provides an "input device" and receives the user

command from that "input device." The Court will, therefore, deny summary judgment of non-infringement based on these claim limitations.

Google insists that Arendi's infringement position "directly contradicts its prosecution arguments distinguishing prior art." (*Id.* D.I. 370 at 18) In particular, Google contends that the "separateness" between [redacted] – including the functionalities that purportedly set up the "input devices" – is "strikingly similar" to the architectures of several prior art systems which Arendi has attempted to distinguish during the prosecution and the IPR proceedings. (*See id.* D.I. 276 at 36) However, as Arendi explains, its earlier representations were made in the context of either a different construction of the claim term "computer program" or in connection with claim limitations not present in the '843 patent. (*See id.* D.I. 345 at 37-39) Arendi also denies that it ever represented that the prior art systems identified by Google worked exactly as the [redacted] in this action do. (*See, e.g.*, *id.* at 37, 38 nn.11, 12) At best for Google, this issue presents another genuine dispute of material fact, precluding summary judgment.

In sum, Google's motion for summary judgment of non-infringement will be granted with respect to any Accused Apps operating in conjunction with Linkify and Smart Linkify, and will be denied with respect to all other aspects.

2. LG's Motion For Summary Judgment Of Non-Infringement By The Rebel 4 Accused Products

LG contends it is entitled to summary judgment of non-infringement with respect to the Rebel 4 Accused Products, focusing on specific functionalities and apps operating on these products: (1) Linkify (*see* C.A. No. 12-1595 D.I. 264 at 5-7); (2) Google apps (*see id.* at 7-8); and (3) the Smart Text Selector ("STS") functionality (*see id.* at 8-9). LG relies heavily on the opening brief filed in connection with Google's motion for summary judgment of non-

infringement and clarifies in its reply brief that it "does not rely on ***evidence*** from the Arendi/Google litigation, but the expected ***judgment of non-infringement*** regarding various infringement theories in the Arendi/Google litigation." (*Id.* D.I. 321 at 1) The Court understands that LG seeks summary judgment of non-infringement to the extent the Court grants Google's motion for summary judgment of non-infringement.

Arendi responds that LG's references to arguments and evidence not in the record of ***this*** case cannot support summary judgment (*see id.* D.I. 299 at 5-7), and that LG's non-infringement argument ignores Arendi's evidence (*see id.* at 7-19).

The Court concludes that LG's reliance on the *Google* Action does not prevent the Court from granting LG's motion with respect to the Accused Apps operating in conjunction with the Linkify functionality. LG has cited the record in ***this*** action to support the pending motion. For example, LG relies on the reports of its expert, Dr. Rosing, to show that Linkify is a functionality "provided by Google as part of the Android operating system." (*Id.* D.I. 264 at 4; *see also id.* D.I. 265 Ex. A ¶¶ 77, 78; Ex. B at 29-34, 45-51) LG also cites Dr. Rosing's report to prove that "[t]here is no dispute that Linkify only runs in conjunction with non-editable Android text 'views' called by LG Email and LG Calendar." (*Id.* D.I. 264 at 4; *see also id.* D.I. 265 Ex. A ¶¶ 110-18, 171-78) During the consolidated hearing, Arendi also confirmed that there is no dispute that the Linkify functionality only works in conjunction with files in non-editable mode. (*See* Tr. at 36)

Thus, under the Court's construction of "document," there is no genuine dispute that the Accused LG and Google Apps operating in conjunction with Linkify cannot infringe the asserted claims of the '843 patent. Accordingly, consistent with the Court's finding and for the same reasons provided in connection with Google's motion for summary judgment of non-

admitted that user interfaces and data entry fields used merely to accept transitory text are not 'document' within the '843 patent." (*Id.* D.I. 276 at 21) However, Dr. Smedley explains that those statements are "irrelevant" to any of the data entry interfaces in the Accused Apps because the purported "transitory data entry fields" in the prior art "are not akin to the documents" identified in his expert reports. (*Id.* D.I. 345 at 21-23; *see also id.* D.I. 347 Ex. B ¶¶ 167-69) Thus, whether the transitory data entry fields in the Accused Apps constitute "document[s]" presents a genuine dispute of material fact to be resolved by the jury.

b. "Determine If The First Information Is At Least One Of A Plurality Of Types Of Information That Can Be Searched For"

Google contends that the Court should grant summary judgment of non-infringement as to all Accused Products because none of the Accused Products "analyze to determine whether identified information is of a type that 'can be searched for' on a user's device." (*Id.* D.I. 276 at 23) Arendi does not dispute Google's characterization of how the Accused Products operate. (*See* Tr. at 69) Instead, it argues that the Court's construction of this claim term does not require the Accused Products to perform "an ***additional*** analyzing step" to determine the searchability of the first information. (C.A. No. 13-919 D.I. 345 at 25) For the reasons explained in connection with the Court's grant of Arendi's *Daubert* motion to exclude portions of Dr. Rinard's opinions regarding this claim limitation (*see supra* II.A.2.a), the Court finds that the asserted claim does not require that the searchability determination of the first information be made by the Accused Products while performing this step of the claimed process.[9] It follows that this portion of Google's motion for summary judgment must be denied.

[9] Google also argues that Arendi's Rule 30(b)(6) witness, Mr. Hedloy, and its invalidity expert, Dr. Sacerdoti, "admitted and acknowledged that there is a material difference between merely determining that information is of a particular type . . . and determining that the information is of a type 'that can be searched for in an information source external to the document.'" (C.A. No.

infringement (*see supra* II.B.1), the Court will grant LG's motion for summary judgment of non-infringement with respect to the Accused LG and Google Apps operating in conjunction with Linkify on the Rebel 4 Accused Products.

Since the Court is denying Google's motion for summary judgment in all other respects, it will also deny LG's motion in all other respects.

3. BlackBerry's Motion For Summary Judgment Of Non-Infringement

BlackBerry has raised multiple grounds for summary judgment of non-infringement: (1) the Accused Applications are not "computer program[s]" (*see* C.A. No. 12-1597 D.I. 196 at 5-7) (2) the "input device" is not configured by the "first computer program" (*see id.* at 7-10); and (3) there is no evidence that BlackBerry or its customers have practiced the asserted method claims (claims 1 and 8 of the '843 patent) in the United States (*see id.* at 10-13).

a. "Computer Program"

The Court construed the claim term "computer program" as "a self-contained set of instructions, as opposed to a routine or library, intended to be executed on a computer so as to perform some task." (*Id.* D.I. 125 at 11-12) BlackBerry contends that "[n]one of the Accused Applications are 'computer program[s]' as construed by the Court because all of the Accused Applications rely on BlackBerry's Java SDK library that is external to the Accused Applications themselves." (*Id.* D.I. 196 at 5) In BlackBerry's view, "reliance on an outside program, API ["application programming interface"], or library necessarily means that the first computer program is not 'self-contained,'" and, thus, the Accused Applications are not "computer program[s]." (*Id.*)

The record reveals a genuine dispute of material fact as to whether a "computer program," as construed by the Court, would be understood by a POSA as being able to rely on

external libraries. Although "a routine or library" cannot itself be a "computer program," the Court's claim construction is silent on the issue of whether a "computer program" can rely on, invoke, or incorporate a routine or library within its "self-contained set of instructions."

Arendi's expert, Dr. Levi, opines that "one of ordinary skill in the art would well understand computer programs (i.e., 'self-contained set[s] of instructions . . . intended to be executed on a computer so as to perform some task') incorporate numerous libraries and routines." (*Id.* D.I. 197 Ex. O ¶ 24) Dr. Levi added during deposition that a computer program can "contain" an external library by "invok[ing] and incorporate[ing]" it. (*Id.* Ex. N at 39-40) Thus, just because the Accused Applications rely on the Java SDK library that is external to the Accused Applications does not lead to the inevitable conclusion that these Accused Applications are not "computer program[s]" as construed by the Court.[11]

Hence, the Court will deny this portion of BlackBerry's motion.

b. "Input Device" Configured By The "First Computer Program"

BlackBerry next contends it does not infringe any asserted claim of the '843 patent because in all of the Accused Applications, the alleged "input devices" are configured by "library software ***external to*** the first computer program." (*Id.* D.I. 196 at 7-8) This contention is related to the parties' dispute over whether a "computer program" can incorporate and invoke external libraries, a material issue on which the Court has found a genuine dispute. There is,

[11] BlackBerry contends that Arendi's own validity expert, Dr. Sacerdoti, admitted during his deposition in the *Google* and the *Motorola* Actions that "applications or other functionalities that are 'invoked' by the first computer system are not within the bounds of the first computer system itself." (C.A. No. 12-1597 D.I. 196 at 6-7) (citing *id.* D.I. 197 Ex. H at 180-82) Dr. Sacerdoti's deposition testimony is ambiguous; he did not unequivocally say that "a self-contained set of instructions" cannot invoke or incorporate external libraries. In any event, at most, Dr. Sacerdoti's testimony shows the existence of a genuine dispute of material fact; it does not provide a basis to grant BlackBerry summary judgment.

likewise, a genuine dispute of material fact as to whether the "input device" is configured by the "first computer program" in the Accused Applications. (*See, e.g.*, *id.* D.I. 233 at 6-7; *id.* D.I. 235 Ex. A ¶¶ 114-22, 127)

c. Infringement Of The Method Claims

BlackBerry contends that summary judgment of no direct infringement is warranted with respect to the asserted method claims (claims 1 and 8 of the '843 patent) because "Arendi has no evidence that BlackBerry performed each step of the claimed methods in the United States." (*Id.* D.I. 196 at 10) The Court disagrees.

Citing BlackBerry's internal documents and user manuals, Arendi's expert, Dr. Levy, opines that "BlackBerry has necessarily practiced the methods in claims 1 and 8 of the '843 Patent, including through, among other acts, product testing and trials performed to implement designs, ensure intended functionality, create user manuals, and/or generate marketing materials." (*Id.* D.I. 197 Ex. A ¶ 40 & nn.1, 2) Dr. Levy's expert opinion, together with the content of the documents and manuals he cited to, creates a genuine dispute over the material fact of whether Blackberry has practiced the methods of claims 1 and 8.

With respect to Blackberry's contention that "Arendi has absolutely no evidence that any method steps were performed by BlackBerry within the United States" (*id.* D.I. 196 at 11-12), the Court agrees with Arendi that the email communications among BlackBerry employees regarding [redacted] – "would support a reasonable juror's conclusion that BlackBerry practiced the claimed methods in the U.S. and is sufficient to create a genuine factual dispute for trial." (*Id.* D.I. 233 at 17; *see also id.* D.I. 234 Ex. 6) Thus, the Court will deny BlackBerry's motion for summary judgment of no direct infringement of claims 1 and 8.

BlackBerry further contends that Arendi has not provided any evidence to show a requisite underlying act of direct infringement of claims 1 and 8, as is required for it to prevail on its claims of indirect infringement. (*See id.* D.I. 196 at 12-13) Arendi neither responds to this challenge nor points to any record evidence that could demonstrate an underlying act of direct infringement by either BlackBerry's customers or anyone else. Thus, the Court will grant BlackBerry's motion for summary judgment of no indirect infringement of claims 1 and 8.

BlackBerry's motion for summary judgment of non-infringement with respect to claims 23 and 30 will be denied because it is premised on the assumption that Arendi asserts these two claims as method claims (*see id.* at 13), an assumption that Arendi rejects (*see id.* D.I. 233 at 17)

To summarize, BlackBerry's motion for summary judgment of non-infringement will be granted with respect to indirect infringement of claims 1 and 8, and will be denied with respect to all other aspects.

4. Motorola's Motion For Summary Judgment Of Non-Infringement

The parties' briefs filed in connection with Motorola's motion for summary judgment of non-infringement are highly similar to the briefs filed in the *Google* Action. The Court need not repeat its reasoning to address the essentially identical issues here. For the same reasons provided in connection with Google's motion for summary judgment of non-infringement (*see supra* II.B.1), the Court will grant Motorola's motion for summary judgment of non-infringement with respect to the Accused Apps operating in conjunction with Linkify, and will deny the motion with respect to all other aspects.

5. Sony's Motion For Summary Judgment Of Non-Infringement

Sony's motion for summary judgment of non-infringement presents two issues: (1) with respect to the Accused Devices operating on Google's Android system, Sony contends it is

entitled to summary judgment of non-infringement "to the extent the Court grants Google's motion for summary judgment of non-infringement" (C.A. No. 12-1602 D.I. 232 at 3-7); (2) with respect to the Accused Legacy Devices, Sony contends that Arendi's evidence of infringement is not based (as it should be) on the source code underlying Sony's proprietary operating systems and apps (*see id.* at 8-12).

a. The Accused Android Devices

Arendi faults Sony for citing no evidence to support its motion and improperly relying on protected information from the *Google* Action. (*See id.* D.I. 262 at 8-11) As the Court has explained in the *LG* Action (*see supra* II.B.2), these purported problems will not prevent the Court from granting Sony's motion for summary judgment of non-infringement "to the extent the Court grants Google's motion." Contrary to Arendi's contention, Sony has cited evidence in the record of ***this*** action to support the pending motion. (*See id.* D.I. 282 at 3-4) For example, Sony relies on portions of the report of Arendi's expert, Dr. Levy, to demonstrate that the functionality of Linkify "is distributed with the Android framework and is then implemented within Sony's Accused Android devices." (*Id.* D.I. 232 at 3; *see also id.* D.I. 233 Ex. B ¶ 16) Sony also cites Dr. Levy's expert report and deposition testimony to prove that "Sony has neither changed nor modified the relevant Android framework installed on Sony's Accused Android Devices." (*Id.* D.I. 232 at 5; *see also id.* D.I. 233 Ex. B ¶¶ 17-19; Ex. D ¶ 194; Ex. E at 76-77) In light of Arendi's confirmation during the consolidated hearing that the Linkify functionality only works in conjunction with non-editable files (*see* Tr. at 36), Sony need not rely on protected information from the *Google* Action to prove that the Accused Apps operating in conjunction with Linkify cannot infringe the asserted claims of the '843 patent. Accordingly, consistent with the Court's finding and for the same reasons provided in connection with Google's motion for

summary judgment of non-infringement (*see supra* II.B.1), the Court will grant Sony's motion for summary judgment of non-infringement with respect to the Accused Apps operating in conjunction with Linkify on the Accused Android Devices.

b. The Accused Legacy Devices

Sony contends that summary judgment of non-infringement should be granted with respect to its Accused Legacy Devices because "Arendi has failed to meet its burden of proof." (C.A. No. 12-1602 D.I. 232 at 8) Specifically, Sony contends that "Arendi's infringement contentions make no mention of or citation to the source code for the Accused Legacy Devices," and, instead, Arendi "only offers speculation as to these devices' operation by relying on what is visible on the screens or displays of the Accused Legacy Devices." (*Id.* at 8-10)

Arendi responds that, in this case, "proof of infringement does not require source code." (*Id.* D.I. 262 at 31-32) Arendi points to Dr. Levy' expert report, in which he provides element-by-element explanations – relying on evidence generated by testing of the Accused Legacy Devices (but without source code analysis) – showing how, in his opinion, the Accused Legacy Devices do infringe the '843 patent. (*See id.* at 33-40; *see also id.* D.I. 233 Ex. D ¶¶ 98-130)

The Court concludes that Arendi has produced sufficient evidence to create a genuine dispute of material fact as to whether the Accused Legacy Products infringe the '843 patent. For example, in response to Sony's challenge that "analysis of the source code is critical to determine which entities perform which functions" (*id.* D.I. 232 at 11), Arendi points to Dr. Levy's expert report, which explains how he relies on device testing evidence, including how "the input devices are associated with and dependent on particular [user interface] elements of [the] computer programs," "the user must navigate to a link within a document displayed using the first computer program before [certain] menu items appear," and "the input devices are not

available when an analogous document is displayed . . . using other computer programs," all showing (in Dr. Levy's opinion) that the "input device" is set up by the "first computer program." (*See id.* D.I. 262 at 36-37; *see also id.* D.I. 233 Ex. D ¶ 275) In the Court's view, a reasonable jury could credit Dr. Levy's testing-based analysis and conclude that it is the "first computer program," rather than some other software program, that sets up the "input device."[12]

None of the cases cited by Sony (*see id.* D.I. 232 at 9) supports the proposition that an expert must review and analyze source code in order to opine on the issue of infringement in every case involving software. Thus, this portion of Sony's motion will be denied.

To summarize, Sony's motion for summary judgment of non-infringement will be granted with respect to the Accused Apps operating in conjunction with Linkify, and will be denied in all other aspects.

6. Oath's Motion For Summary Judgment Of Non-Infringement

Oath's motion for summary judgment of non-infringement raises multiple issues: (1) with respect to the Accused Apps operating on Google's Android system, Oath is entitled to summary judgment of non-infringement "to the extent that the Court rules for Google . . . on [its motion] for summary judgment of non-infringement" (C.A. No. 13-920 D.I. 242 at 7);[13] (2) Oath's

[12] Sony's reliance on Dr. Levy's deposition testimony to demonstrate Dr. Levy's inability to prove infringement without a source code analysis fails to provide a meritorious basis for summary judgment. (*See* C.A. No. 12-1602 D.I. 232 at 11) Dr. Levy testified that, in the context of the claim limitation "providing an input device configured by the first computer program," he would not know, without source code analysis, whether the code that performs that claimed function is "part of the in-line code" for the Accused Apps or is part of the operating system framework. (*See id.*) However, since the issue of whether the "first computer program" can incorporate and invoke framework libraries presents a factual dispute, Dr. Levy's inability to tell whether the code is an Accused App's in-line code or is part of the operating system framework (which is invoked by the Accused App) does not compel the conclusion that he cannot prove infringement. (*See id.* D.I. 262 at 38)

[13] With respect to Yahoo! Mail operating on Apple's iOS system, Oath requests that the Court grant its motion to the extent that Court rules for Apple on Apple's motion for summary

Accused Apps do not directly infringe the computer readable medium ("CRM") claim of the '843 patent (claim 23) (*see id.* at 11-14); and (3) Oath is entitled to summary judgment of no indirect infringement of claim 23 because Arendi's indirect infringement theory was disclosed too late and otherwise lacks evidentiary support (*see id.* at 14-16).[14]

a. The Accused Apps Operating On The Android System

Arendi contends that Oath improperly relies on protected information from the *Google* Action and cites no evidence in the record of its own case to support its motion with respect to the Accused Apps operating on Google's Android system. (*See id.* D.I. 277 at 8-10) As the Court has explained in the *LG* and the *Sony* Actions (*see supra* II.B.2 and II.B.5.a), these issues will not prevent the Court from granting Oath's motion for summary judgment of non-infringement "to the extent the Court rules for Google." Oath has cited record evidence in ***this*** action to support the pending motion. (*See id.* D.I. 304 at 2-3) For example, Oath cites the report of Arendi's expert, Dr. Smedley, to prove that "code relating to Linkify is defined in libraries distributed with the Android framework" (*Id.* D.I. 243 Ex. C ¶ 12) and that "Android functionalities must be the same across all Android devices, no matter the device manufacturer, to ensure compatibility and meet the Android Compatibility requirements." (*Id.* D.I. 304 at 3; *see also id.* D.I. 243 Ex. C ¶ 15) In light of Arendi's confirmation during the consolidated hearing that the Linkify functionality only works in conjunction with non-editable files (*see* Tr.

---

judgment of non-infringement. (*See* C.A. No. 13-920 D.I. 242 at 7) After the *Apple* Action settled, the parties informed the Court that the release Arendi provided Apple also covers Oath's Yahoo! Mail app running on the iOS system. (*See id.* D.I. 321) Thus, this portion of Oath's motion is moot.

[14] Oath also contends that it does not directly or indirectly infringe the method claim (claim 1) of the '843 patent. During the consolidated hearing, Arendi represented that it was not asserting claim 1 against Oath. (*See* Tr. at 116) Thus, this portion of Oath's motion is moot.

at 36), Oath need not rely on the protected information from the *Google* Action to prove that the Accused Apps operating in conjunction with Linkify cannot infringe the asserted claims of the '843 patent. Accordingly, consistent with the Court's finding and for the same reasons provided in connection with Google's motion for summary judgment of non-infringement (*see supra* II.B.1), the Court will grant Oath's motion for summary judgment of non-infringement with respect to the Accused Apps operating in conjunction with Linkify.

b. Direct Infringement Of Claim 23

Oath contends it is entitled to summary judgment of no direct infringement of claim 23 of the '843 patent because Oath "does not make, sell, or offer to sell either the hardware (i.e. the smartphone) onto which the Accused Apps [are] downloaded or the underlying Android . . . framework code required to form and execute the functionalities of the patented system of claim 23." (C.A. No. 13-920 D.I. 242 at 11)

Claim 23 of the '843 patent is directed to "at least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer," establish the process claimed in the method claims. ('843 patent at 12:40-42) A CRM claim is "a claim to a computer readable medium (e.g., a disk, hard drive, or other data storage device) containing program instructions for a computer to perform a particular process." *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011). In this case, it is not clear what CRM Arendi accuses Oath of infringing. Arendi repeatedly refers in its brief to "Oath's CRM," without clarifying what it means.[15] Arendi's expert, Dr. Smedley, opines in his expert report that

[15] Regarding the question of what the accused CRM is, Arendi's counsel stated at the consolidated hearing: "I don't know how you have software without some kind of storage device. It has to be stored somewhere." (Tr. at 115)

"[e]ach Accused Product is the requisite logic encoded on a non-transitory computer readable medium, having been copied to the non-transitory memory of an Android computer from the non-transitory memory of a server or 'master disk.'" (C.A. No. 13-920 D.I. 243 Ex. D ¶ 42) It appears, then, the accused CRM could be: (1) an Android computer's non-transitory memory; and/or (2) a server or "master disk" from which Oath's customers download the Accused Apps. Under either theory, however, there is no genuine dispute of material fact that Oath does not directly infringe claim 23 of the '843 patent.

Under the first theory, the Accused CRM is the memory of an Android computer. Arendi offers "no evidence that Oath makes, uses, or sells" any such CRM or any hardware (i.e. smartphone, etc.) having such CRM "with the Accused Apps preloaded or onto which they may be loaded." (*Id.* D.I. 304 at 4) Thus, under this theory, no reasonable factfinder could find that Oath directly infringes claim 23.

Under the second theory, the Accused CRM is the "server or 'master disk'" from which Oath's customers download the Accused Apps. The Court agrees with Oath that there is no genuine dispute of material fact that Oath's Accused Apps stored on the server or "master disk," when loaded on a computer, do not meet the limitations of claim 23. Citing the deposition testimony of Arendi's expert, Dr. Smedley, Oath correctly points out that "when any of the Accused [Apps] are downloaded from the application store onto a smartphone, only the programming code specific to the Accused [Apps] is downloaded, not the underlying Android . . . framework code." (*Id.* D.I. 242 at 12; *see also id.* D.I. 243 Ex. B at 101) Since Dr. Smedley's infringement report only concerns the performance of the Accused Apps with the underlying Android framework, Arendi has provided no evidence that the instructions encoded by the Accused Apps alone, without the underlying operating system frameworks, can practice the

process claimed in claim 23 when they are loaded on a computer.[16] It follows that there is no genuine dispute of material fact that Oath does not infringe claim 23 under the second theory, either.[17]

For these reasons, Oath's motion for summary judgment of non-infringement will be granted with respect to direct infringement of claim 23 of the '843 patent.

c. Indirect Infringement Of Claim 23

The Court will grant Oath's motion for summary judgment of no indirect infringement of claim 23. Arendi failed to timely disclose its indirect infringement theory. (*See id.* D.I. 242 at 14-16) It did not present its theory in its infringement contentions or expert report and only did so in its responsive summary judgment briefing. Relatedly, the record lacks sufficient evidence from which a reasonable factfinder could find that Oath induced or contributed to infringement of claim 23 of the '843 patent. (*See id.*)[18]

---

[16] Nor does Arendi point to any evidence that the server or "master disk" has the source code for the Android operating system framework.

[17] Arendi appears to argue that, under the second theory, the Accused Apps stored on the Accused CRM (server or "master disk") can establish the claimed processes when they are loaded on an Android device. (*See* C.A. No. 13-920 D.I. 277 at 25-26) The CRM claim, however, requires that the software instructions establish the claimed processes when "loaded on a computer," not when loaded on a computer pre-installed with an Android operating system framework. The cases relied on by Arendi do not help it. For example, in *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1202 (Fed. Cir. 2010), the Federal Circuit considered whether certain software infringed the asserted CRM claims where the infringing software was "locked" when sold, requiring a customer to purchase a separate key to activate the software. The Federal Circuit explained that since "it is undisputed that software for performing the claimed functions existed in the products when sold," the "fact that users needed to 'activate the functions programmed' by purchasing keys does not detract from or somehow nullify the existence of the claimed structure in the accused software." *Id.* at 1205. Here, by contrast, it is undisputed that the "software for performing the claimed functions" does not exist in the Accused Apps, because the Accused Apps do not contain the underlying operating system frameworks required for the ability to perform the claimed functions.

[18] "In order to succeed on claim of [induced infringement], the patentee must show, first that there has been direct infringement, and second, that alleged infringer knowingly induced infringement

For the foregoing reasons, Oath's motion for summary judgment of non-infringement will be granted in full.

III. CONCLUSION

An appropriate order follows.

---

and possessed specific intent to encourage another's infringement." *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1378 (Fed. Cir. 2005) (internal quotation marks omitted). "To establish contributory infringement, the patent owner must show . . . : 1) that there is direct infringement, 2) that the accused infringer had knowledge of the patent, 3) that the component has no substantial noninfringing uses, and 4) that the component is a material part of the invention." *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1326 (Fed. Cir. 2010).

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ARENDI S.A.R.L., Plaintiff, v. LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., and LG ELECTRONICS MOBILECOMM U.S.A., INC., Defendants.	C.A. No. 12-1595-LPS
ARENDI S.A.R.L., Plaintiff, v. BLACKBERRY LIMITED and BLACKBERRY CORPORATION, Defendants.	C.A. No. 12-1597-LPS
ARENDI S.A.R.L., Plaintiff, v. MOTOROLA MOBILITY LLC f/k/a MOTOROLA MOBILITY, INC., Defendant.	C.A. No. 12-1601-LPS

ARENDI S.A.R.L., Plaintiff, v. SONY MOBILE COMMUNICATIONS (USA) INC., f/k/a SONY ERICSSON MOBILE COMMUNICATIONS (USA) INC., SONY CORPORATION, and SONY CORPORATION OF AMERICA, Defendants.	C.A. No. 12-1602-LPS
ARENDI S.A.R.L., Plaintiff, v. GOOGLE LLC, Defendant.	C.A. No. 13-919-LPS
ARENDI S.A.R.L., Plaintiff, v. OATH HOLDINGS INC. and OATH INC., Defendants.	C.A. No. 13-920-LPS

ORDER

At Wilmington this **31st** day of **March, 2022**:

For the reasons set forth in the Memorandum Opinion issued this date,

IT IS HEREBY ORDERED that

1. Arendi's motion to exclude portions of Dr. Michael Shamos' expert report (C.A. No. 12-1597 D.I. 190) is **GRANTED**.

2. Arendi's motions to exclude portions of Dr. Martin Rinard's expert report (C.A. No. 12-1601 D.I. 265; C.A. No. 13-919 D.I. 269) are **GRANTED IN PART** and **DENIED IN PART**.

3. Arendi's motions to exclude portions of Mr. Monty G. Myers' expert report (C.A. No. 12-1602 D.I. 223; C.A. No. 13-920 D.I. 233) are **GRANTED**.

4. LG's motion for summary judgment of non-infringement by the Rebel 4 accused products (C.A. No. 12-1595 D.I. 263) is **GRANTED IN PART** and **DENIED IN PART**.

5. BlackBerry's motion for summary judgment of non-infringement (C.A. No. 12-1597 D.I. 195) is **GRANTED IN PART** and **DENIED IN PART**.

6. Motorola's motion for summary judgment of non-infringement (C.A. No. 12-1601 D.I. 271) is **GRANTED IN PART** and **DENIED IN PART**.

7. Sony's motion for summary judgment of non-infringement (C.A. No. 12-1602 D.I. 231) is **GRANTED IN PART** and **DENIED IN PART**.

8. Google's motion for summary judgment of non-infringement (C.A. No. 13-919 D.I. 275) is **GRANTED IN PART** and **DENIED IN PART**.

9. Oath's motion for summary judgment of non-infringement (C.A. No. 13-920 D.I. 240) is **GRANTED**.

10. Because the Memorandum Opinion is filed under seal, the parties shall meet and confer and, no later than **April 4**, submit a proposed redacted version, accompanied by a supporting memorandum, detailing how, under applicable law, the Court may approve any

requested redactions. In the absence of a timely, compliant request, the Court will unseal the entire opinion.

11. These cases will be **REASSIGNED** to the Vacant Judgeship (2022) after the Court dockets a public version of its Memorandum Opinion.

UNITED STATES DISTRICT COURT

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ARENDI S.A.R.L.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 13-919-JLH
	)	
GOOGLE LLC,	)	
	)	
Defendant.	)	
	)	

MEMORANDUM ORDER

Pending before the Court is Plaintiff Arendi S.A.R.L.'s (Arendi's) Renewed Motions for Judgment as a Matter of Law and Motion for a New Trial. (D.I. 559.) For the reasons set forth below, the Motions are DENIED.

Plaintiff Arendi filed this patent infringement action against Defendant Google LLC (Google) on May 22, 2013. (D.I. 1.) The Honorable Leonard P. Star presided over the proceedings from 2013 until 2022, when he was appointed to the Court of Appeals for the Federal Circuit. Shortly thereafter, the parties consented to have the case heard by a U.S. Magistrate Judge, and, on April 26, 2022, the case was reassigned to me (then a Magistrate Judge).[1] hen I got the case, it was nearly ready for trial: Judge Star had already construed the claims (D.I. 143, 144), ruled on Defendant's affirmative defense of patent invalidity under 35 U.S.C. 101 (D.I. 200, 201), and decided the parties' numerous summary judgment and Daubert motions (D.I. 389, 390, 391, 392, 393, 394).

By the time of trial, there was only one claim left in the case to be tried: Arendi's claim

[1] I was appointed as a District Judge in January 2024.

that Google had infringed U.S. Patent No. 7,917,843 (the '843 patent) (which, by that point, had e pired). (D.I. 97 (Amended Complaint, Count I).) Google contested the issue of infringement, and it also asserted affirmative defenses of patent invalidity and license. (D.I. 99 (Answer to Amended Complaint).) Notably, Google did not re uest a declaratory judgment of invalidity.

The case was tried to a jury beginning on April 24, 2023. Both sides made motions for judgment as a matter of law before the case was submitted to the jury. The Court did not grant any of those motions and instead submitted the case to the jury. Both sides agreed that the jury should be as ed to ma e individual written findings on the issues of infringement, anticipation, and obviousness (among other issues). (D.I. 499, 500, 505.) In accordance with the parties' agreement, the Court instructed the jury to ma e individual written findings on the issues of infringement, anticipation, and obviousness (among other issues). (D.I. 528 (Final Jury Instructions), 529 (Final erdict Form).) The jury made the following findings: (1) that Arendi had not proven by a preponderance of the evidence that Google infringed claims 23 or 30 of the '843 patent; (2) that Google had proven by clear and convincing evidence that those claims were invalid as anticipated; and (3) that Google had proven by clear and convincing evidence that those claims were obvious in view of prior art.

On May 10, 2023, the Court entered a document styled Judgment Following erdict, which stated, in pertinent part:

> The jury having deliberated on Plaintiff Arendi S.A.R.L.'s claims of willful patent infringement of claims 23 and 30 of U.S. Patent No. 7,917,843 (the '843 patent), and the jury having reached a verdict on May 2, 2023 finding that Defendant Google LLC's accused products do not infringe the asserted claims, judgment of non-infringement on all asserted claims is entered in favor of Defendant and against Plaintiff. The jury having further deliberated on Defendant Google LLC's affirmative defense of anticipation of claims 23 and 30 of the '843 patent, and the jury having reached a verdict finding that those claims are anticipated,

> and the jury also having deliberated on Defendant's affirmative defense of obviousness of claims 23 and 30 of the '843 patent, and the jury having reached a verdict finding that those claims are obvious, judgment is entered in favor of Defendant and against Plaintiff on Defendant's invalidity defenses.
>
> This judgment shall have the effect of denying as moot all other pending motions made by the parties pursuant to Rule 50(a) of the Federal Rules of Civil Procedure. The judgment is subject to modification following the Court's consideration of the parties' post-trial motions.

(D.I. 545.)

On June 2, 2023, Arendi filed the pending Renewed Motions for Judgment as a Matter of Law and Motion for a New Trial. (D.I. 559.) In its papers, Arendi as s for the following relief:

> Pursuant to Federal Rule of Civil Procedure 50(b) Plaintiff Arendi S.A.R.L. renews its motions for judgment as a matter of law of i) no anticipation as to Claims 23 and 30 of U.S. Patent 7,917,843; ii) non-obviousness as to Claims 23 and 30 of U.S. Patent 7,917,843; and iii) estoppel of the following grounds, under 35 U.S.C. 315(e): CyberDes (as to anticipation), CyberDes and ord (as an obviousness combination).
>
> Arendi S.A.R.L. moves, in the alternative, for a new trial pursuant to Federal Rule of Civil Procedure 59(a)(1).

(D.I. 559.) In other words, Arendi currently challenges the legal and evidentiary sufficiency of Google's affirmative defenses, but Arendi did not file a post-trial motion challenging the jury's finding that it failed to prove by a preponderance of the evidence that Google infringed.

Again, there is only one claim at issue: Arendi's claim for infringement of the '843 patent. Because Arendi is not challenging the jury's verdict that it failed to prove infringement, the Court must enter judgment on that claim in favor of Google regardless of what the Court thin s about the merits of Arendi's arguments about Google's affirmative defenses. Accordingly, the Court will enter final judgment in favor of Google on that claim.

Arendi as s the Court to clarify in the judgment document that the judgment is based

on the jury's non-infringement verdict at trial. (D.I. 610.[2]) The Court declines to do so. There is one claim left in this case and the final judgment will indicate that judgment on that claim should be entered in favor of Google, for the reasons set forth above. It is unclear if Arendi's re uest represents an attempt to limit what issues the parties can or must raise on appeal (against or in support of the judgment); nothing in this order is intended to preclude either side from making whatever arguments on appeal that they are permitted to ma e under the law or that they are re uired to ma e in order to preserve their arguments.

Google argues that the Court can and should consider and reject Arendi's arguments that the jury got it wrong on anticipation and obviousness. I agree with Google that the Court has discretion to consider the arguments in Arendi's post-trial motions. But because Google did not see a declaratory judgment of invalidity, the Court also has discretion to not consider Arendi's arguments.[3] And under the circumstances of this case, the Court will e ercise its discretion to not do so, as it would be a waste of judicial resources. Because Arendi did not file a post-trial motion challenging the jury's finding that it failed to prove infringement of the '843 patent, its success on appeal appears to depend on whether it can convince the Federal Circuit that Judge Star 's claim construction was erroneous. If the Federal Circuit agrees with Judge Star 's claim construction, the judgment in favor of Google will stand regardless of how this Court rules on Arendi's post-trial motions on invalidity. If the Federal Circuit disagrees with aspects of the claim construction, any ruling I would have made with respect to Arendi's post-trial validity motions would have been

[2] The Court as ed the parties for supplemental briefing regarding how it should proceed in view of Arendi's failure to challenge the jury's non-infringement finding in a post-trial motion. (D.I. 608, 609, 610, 611, 614.)

[3] *See Cardinal Chem. Co. v. Morton Int'l, Inc.*, 508 U.S. 83, 93 94 (1993) (An unnecessary ruling on an affirmative defense is not the same as the necessary resolution of a counterclaim for a declaratory judgment.).

based on an erroneous claim construction.[4]

For these reasons, Arendi's Renewed Motions for Judgment as a Matter of Law and Motion for a New Trial (D.I. 559) are DENIED. The Court will enter final judgment in favor of Google on Arendi's claim of infringement of the '843 patent.

Date: February 2, 2024

The Honorable Jennifer L. Hall
UNITED STATES DISTRICT JUDGE

[4] It is true, as Google points out, that a district court deciding a case on alternative grounds may help a higher court. And I agree with Google that it is possible that any claim construction errors that might be identified by the Federal Circuit might not call into uestion the jury's invalidity verdict. Under the uni ue circumstances of this case, however, there is no reason for the Court to e pend judicial resources writing an opinion to address the alternative grounds of invalidity, where that opinion is either going to be (i) unhelpful because it's unnecessary or (ii) uses the wrong claim construction and thus unli ely to be all that helpful to an appellate court that is going to review the invalidity issues *de novo*. Again, this order is not intended to limit what issues the parties can (or must) raise on appeal against or in support of the judgment.

As Google points out, the Supreme Court has remar ed on the public interest that is served by courts in uiring fully into patent validity, *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 330 (1945), because preclusion doctrines can prevent a patentee who lost on the issue of validity from reasserting that patent against the defendant and others. *See, e.g., Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 (1971). But Google has not suggested that concerns about issue preclusion weigh in favor of the Court assessing the merits of Arendi's post-trial validity motions. Perhaps that is because the doctrine of issue preclusion generally re uires that the issue (*i.e.*, patent validity) be essential to the judgment, and it is not here, for the reasons e plained above. hat's more, the '843 patent is now e pired and thus will not be asserted against Google in a future case.

US007917843B2

(12) **United States Patent**
Hedløy

(10) **Patent No.: US 7,917,843 B2**
(45) **Date of Patent: *Mar. 29, 2011**

(54) **METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM**

(75) Inventor: **Atle Hedløy**, Madrid (ES)

(73) Assignee: **Arendi S.A.R.L.**, Luxembourg (LU)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 394 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/182,048**

(22) Filed: **Jul. 29, 2008**

(65) **Prior Publication Data**

US 2008/0313159 A1 Dec. 18, 2008

Related U.S. Application Data

(63) Continuation of application No. 09/923,134, filed on Aug. 6, 2001, now Pat. No. 7,496,854, which is a continuation of application No. 09/189,626, filed on Nov. 10, 1998, now Pat. No. 6,323,853.

(30) **Foreign Application Priority Data**

Sep. 3, 1998 (NO) 984066

(51) **Int. Cl.**
G06F 17/00 (2006.01)

(52) **U.S. Cl.** **715/230**; 715/234; 715/711; 715/752; 715/825; 715/853

(58) **Field of Classification Search** 715/230
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,350,695 A 10/1967 Kaufman et al. 340/172.5
(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 093 250 A2 9/1983
(Continued)

OTHER PUBLICATIONS

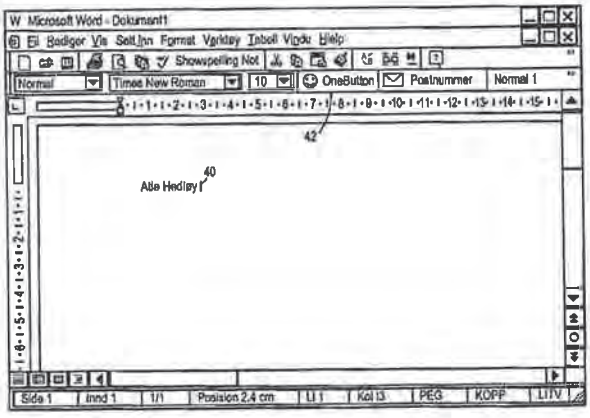
Person et al., "Special Edition Using Microsoft Word 97" by Que Publisher Pub. date Dec. 16, 1996, pp. 475-514.*
(Continued)

Primary Examiner — Doug Hutton
Assistant Examiner — Quoc A Tran
(74) *Attorney, Agent, or Firm* — Sunstein Kann Murphy & Timbers LLP

(57) **ABSTRACT**

A method, system and computer readable medium for providing for providing a function item, such as a key, button, icon, or menu, tied to a user operation in a computer, whereby a single click on the function item in a window or program on a computer screen, or one single selection in a menu in a program, initiates retrieval of name and addresses and/or other person or company related information, while the user works simultaneously in another program, e.g., a word processor. The click on the function item initiates a program connected to the button to search a database or file available on or through the computer, containing the person, company or address related data, in order to look up data corresponding to what the user types, or partly typed, e.g., name and/or address in the word processor, the correct data from the database, data related to the typed data, e.g., the name of the person, company, or the traditional or electronic address, or other person, or company, or address related data, and alternatively the persons, companies, or addresses, are displayed and possibly entered into the word processor, if such related data exists.

44 Claims, 14 Drawing Sheets



PLAINTIFF'S TRIAL EXHIBIT PX0001

AHL0118048

U.S. PATENT DOCUMENTS

4,270,182	A	5/1981	Asija	364/900
4,674,065	A	6/1987	Lange et al.	364/900
5,226,117	A	7/1993	Miklos	395/157
5,267,155	A	11/1993	Buchanan et al.	364/419.14
5,331,555	A	7/1994	Hashimoto et al.	364/419.07
5,355,472	A	10/1994	Lewis	395/600
5,375,200	A	12/1994	Dugan et al.	395/159
5,388,150	A	2/1995	Schneyer et al.	379/67
5,392,386	A	2/1995	Chalas	395/155
5,416,901	A	5/1995	Torres	395/159
5,491,783	A	2/1996	Douglas et al.	395/159
5,491,784	A	2/1996	Douglas et al.	395/159
5,491,785	A	2/1996	Robson et al.	395/162
5,495,565	A	2/1996	Millard et al.	395/146
5,500,859	A	3/1996	Sharma et al.	370/81
5,530,853	A	6/1996	Schell et al.	395/600
5,546,447	A	8/1996	Skarbo et al.	379/142
5,566,330	A	10/1996	Sheffield	395/600
5,576,955	A	11/1996	Newbold et al.	395/795
5,579,467	A	11/1996	Capps	395/768
5,587,911	A	12/1996	Asano et al.	364/444.2
5,606,712	A	2/1997	Hidaka	395/800
5,634,121	A	5/1997	Tracz et al.	395/602
5,640,565	A	6/1997	Dickinson	395/683
5,666,502	A	9/1997	Capps	345/352
5,708,804	A	1/1998	Goodwin et al.	395/603
5,724,597	A	3/1998	Cuthberson et al.	395/793
5,732,229	A	3/1998	Dickinson	395/334
5,732,395	A	3/1998	Alexander Silverman	704/260
5,734,871	A	3/1998	Kleinerman et al.	395/500
5,742,905	A	4/1998	Pepe et al.	455/461
5,754,636	A	5/1998	Bayless et al.	379/142
5,761,656	A	6/1998	Ben-Shachar	707/4
5,761,663	A	6/1998	Lagarde et al.	707/10
5,774,887	A	6/1998	Wolff et al.	707/1
5,778,367	A	7/1998	Wesinger, Jr. et al.	707/10
5,781,189	A	7/1998	Holleran et al.	345/335
5,787,451	A	7/1998	Mogilevsky	707/533
5,793,972	A	8/1998	Shane	395/200.49
5,794,228	A	8/1998	French et al.	707/2
5,794,259	A	8/1998	Kikinis	707/507
5,799,302	A	8/1998	Johnson et al.	707/7
5,805,886	A	9/1998	Skarbo et al.	395/685
5,805,911	A	9/1998	Miller	395/796
5,815,830	A	9/1998	Anthony	707/6
5,826,257	A	10/1998	Snelling, Jr.	707/4
5,835,089	A	11/1998	Skarbo et al.	345/335
5,859,636	A *	1/1999	Pandit	715/204
5,860,073	A	1/1999	Ferrel et al.	715/255
5,864,848	A	1/1999	Horvitz et al.	707/6
5,873,107	A	2/1999	Borovoy et al.	707/501
5,873,108	A	2/1999	Goyal et al.	707/507
5,884,309	A	3/1999	Vanechanos, Jr.	707/10
5,893,093	A	4/1999	Wills	707/5
5,896,321	A	4/1999	Miller et al.	365/189.01
5,896,533	A	4/1999	Ramos et al.	395/680
5,907,838	A	5/1999	Miyasaka et al.	707/4
5,913,214	A	6/1999	Madnick et al.	707/10
5,923,848	A	7/1999	Goodhand et al.	395/200.49
5,924,074	A	7/1999	Evans	705/3
5,924,090	A	7/1999	Krellenstein	707/5
5,926,808	A	7/1999	Evans et al.	707/3
5,930,471	A	7/1999	Milewski et al.	395/200.04
5,930,764	A	7/1999	Melchione et al.	705/10
5,940,484	A	8/1999	DeFazio et al.	379/142
5,946,647	A	8/1999	Miller et al.	704/9
5,946,679	A	8/1999	Ahuja et al.	707/3
5,999,938	A	12/1999	Bliss et al.	707/102
6,006,218	A	12/1999	Breese et al.	707/3
6,006,351	A	12/1999	Peretz et al.	714/751
6,012,075	A	1/2000	Fein et al.	707/540
6,018,571	A	1/2000	Langlois et al.	379/207
6,021,403	A	2/2000	Horvitz et al.	706/45
6,026,398	A	2/2000	Brown et al.	707/5
6,028,605	A	2/2000	Conrad et al.	345/354
6,067,565	A	5/2000	Horvitz	709/218
6,081,788	A	6/2000	Appleman et al.	705/14
6,085,201	A *	7/2000	Tso	715/205
6,085,226	A	7/2000	Horvitz	709/203
6,092,074	A	7/2000	Rodkin et al.	707/102
6,108,686	A	8/2000	Williams	709/202
6,151,584	A	11/2000	Papierniak et al.	705/10
6,178,411	B1	1/2001	Reiter	705/408
6,182,133	B1	1/2001	Horvitz	709/223
6,192,380	B1	2/2001	Light et al.	707/505
6,208,975	B1	3/2001	Bull et al.	705/14
6,233,570	B1	5/2001	Horvitz et al.	706/11
6,253,188	B1	6/2001	Witek et al.	705/14
6,260,035	B1	7/2001	Horvitz et al.	706/60
6,262,730	B1	7/2001	Horvitz et al.	345/337
6,285,987	B1	9/2001	Roth et al.	705/27
6,304,881	B1	10/2001	Halim et al.	707/201
6,317,761	B1	11/2001	Landsman et al.	707/513
6,323,853	B1	11/2001	Hedloy	345/339
6,338,957	B2	1/2002	Onishi et al.	435/108
6,373,940	B2	4/2002	Shaffer et al.	379/355.02
6,377,965	B1	4/2002	Hachamovitch et al.	707/534
6,385,592	B1	5/2002	Angles et al.	705/14
6,421,693	B1	7/2002	Nishiyama et al.	707/507
6,499,021	B1	12/2002	Abu-Hakima	706/10
6,651,217	B1	11/2003	Kennedy et al.	715/507
6,738,615	B1	5/2004	Chow et al.	455/415
6,826,407	B1	11/2004	Helferich	455/466
7,039,599	B2	5/2006	Merriman et al.	705/14
7,051,019	B1	5/2006	Land et al.	707/4
7,136,853	B1	11/2006	Kohda et al.	707/6
7,155,451	B1	12/2006	Torres	707/104.1
7,216,292	B1	5/2007	Snapper et al.	715/507
7,272,604	B1	9/2007	Hedloy	707/10
7,496,854	B2	2/2009	Hedloy	715/780
7,505,974	B2	3/2009	Gropper	707/10
7,509,349	B2	3/2009	Celik	707/200
2002/0054092	A1	5/2002	Hedloy	345/748
2002/0188683	A1	12/2002	Lytle et al.	709/206
2003/0033288	A1	2/2003	Shanahan et al.	707/3
2006/0047644	A1	3/2006	Bocking et al.	707/4
2007/0244907	A1	10/2007	Hedloy	707/10
2008/0313159	A1	12/2008	Hedloy	707/3
2010/0211600	A2 *	8/2010	Hedloy	707/770
2010/0281354	A1	11/2010	Hedloy	715/220

FOREIGN PATENT DOCUMENTS

EP	1 630 642	3/2006
GB	2196454	4/1988
GB	2 318 703	4/1998
WO	WO 97/21183	6/1997
WO	WO 98/16890	4/1998
WO	WO 98/19259	5/1998
WO	WO 98/34391	8/1998

OTHER PUBLICATIONS

Plotkin, David, *Address for Success*, Bay Area Computer Currents, p. 36-38, Mar. 21, 1995.

CTAGS(1) Manual Page.

Wilson, Eve, *Gulding Lawyers: Mapping Law into Hypertext*, Artificial Intelligence Review 6, pp. 161-189, 1992.

MacWEEK Report, Aug. 8, 1996.

Langberg, Mike, *Show of Potential Apple Breaks New Ground by Displaying What's on its Drawing Board 'Innovation is at the Heart of What We Do'*, San Jose Mercury News, Aug. 7, 1996, p. 1C.

Anind K. Dey, et al., CyberDesk: The Use of Perception in Context-Aware Computing, PUI Workshop Submission, Proc. Of 1997 Workshop on Perceptual User Interfaces (PUI '97), pp. 26-27, Oct. 1997.

Dey, Anind K., *Context-Aware Computing: The CyberDesk Project*, Future Computing Environments, AAAI '98 Spring Symposium, Stanford University, pp. 51-55, Mar. 23-25, 1998.

Anind K. Dey, et al., *CyberDesk: A Framework for Providing Self-Integrating Context-Aware Services, Knowledge-Based Systems*, vol. 11, No. 1, pp. 3-13, Sep. 1998.

L. Nancy Garrett, et al., *Intermedia: Issues, Strategies, and Tactics in the Design of a Hyermedia Document System*, pp. 163-174, © 1986.

Langberg, Mike, *"Innovation Is at the Heart of What We Do', Apple Breaks New Ground by Displaying What's on it's Drawing Board*, Mercury News, pp. 1-2, Aug. 7, 1996.

AHL0118049

Henry Lieberman, et al., Training Agents to Recognize Text by Example, Proc. of the Third Annual Conference on Autonomous Agents, Seattle, WA, 1999, pp. 116-122.
Bonnie A. Nardi, et al., Collaborative, Programmable Intelligent Agents, Website, pp. 1-11, Mar. 1998.
Addressmate Automatic Envelope Addressing Program, User's Manual, 88 pages, © 1991.
Brown, Peter, Unix Guide, 1 page, 1995.
N.D. Beitner, et al., Multimedia Support and Authoring in Microcosm: an Extended Model, 12 pages, no date available.
McMahon, Lee E., SED—A Non-interactive Text Editor, Bell Laboratories, 10 pages, Aug. 15, 1978.
SED(1), BSD Reference Manual Page, 6 pages, Dec. 30, 1993.
AddressMate for Windows, Version 2.0, Product Box and License Agreement, 24 pages, no date available.
"AddressMate Incorporates Correction Capability," The New York Law Publishing Company, 1 page, Jan. 1996.
Mar. 1996 Reviews, website available at www.techweb.com/winmag/library/1996/0396/03rvh002.htm, 9 pages.
Magid, Lawrence J., "Addressing the Matter of Labels," Los Angeles Times, 2 pages, Sep. 23, 1996.
Important Note for New AddressMate Users, 1 page, no date available.
Important Tips for LabelWriter Owners Using AddressMate, 3 pages, Jan. 1995.
Addressing the Issues, 4 pages, Jun. 24, 1993.
"Whye Do it the Olde Way" AddressMate Advertisement, 2 pages, no date available.
Robinson, Philip, "The Envelope, Please: It's AddressMate,"San Jose Mercury News, Sunday, 1 page, Jul. 19, 1992.
Supkoff, Steve, AddressMate, PCM, 2 pages, Aug. 1992.
Shannon, L.R., "Addressing Envelopes," The New York Times, 1 page, Tuesday, Jul. 14, 1992.
Schwabach, Bob, "Addressing for Success," On Computers Column, 1 page, Mar. 16, 1992.
INFOWORLD, p. 15, Mar. 16, 1992.
Hart, Ken, Simplify Envelope Printing with AddressMate, Computer Shopper, 1 page, no date available.
"Colvin's Beta-Testing of AddressMate Sparks Developer's Appreciation," Westview, 1 page, Apr. 6, 1992.
Press Release: AddressMate Software Automatically Addresses and Bar Codes Envelopes to Save Time and Money, 2 pages, Mar. 9, 1992.
Long, George M., Letter to Mr. David Block, 1 page, Nov. 11, 1994.
Damiano, Philip J., Letter to Mr. David Block, 2 pages, Jan. 5, 1994.
Kahn, Ed, "Envelope Addressing Finally Simplified AddressMate Does Addressing and Much More," Microtimes, 3 pages, Nov. 27, 1995.
Bernthal, Kristen, "LabelWriter XL Plus," PC Catalog, 1 page, Aug. 18, 1995.
Address Fixer for Microsoft Word and Office, Product Box, 10 pages, no date available.
AddressMate Plus, Product Box and License Agreement, 16 pages, no date available.
Getting Results with Microsoft Office for Windows 95, Version 7.0, 635 pages, © 1995-1997.
Getting Results with Microsoft Office 97, 701 pages, © 1995-1997.
Microsoft Word, User's Guide, Version 6.0, 449 pages, © 1993-1994.
CTAGS(1) Manual Page, 3 pages, Oct. 11, 1993 (Last Change).
Bernstein, Matt, An Apprentice that Discovers Hypertext Links, pp. 213-223, not date available.
Contextual Manu Manager/Apple Data Detectors, 5 pages, no date available.
P.J. Brown et al., A Help System Based on UNIX Help Manual, 7 pages, Feb. 1987.
Charles H. Franke III, et al., Authoring a Hypertext Unix Help Manual, 8 pages, © 1995.
Brown, P.J., Guide User Manual, 1985, sixteenth impression, 55 pages, Apr. 1995.
Wilson, Eve, "Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System," Literary and Linguistic Computing, vol. 5, No. 2, 11 pages, 1990.
John Robertson, et al., The Hypermedia Authoring Research Toolkit, ECHT '94 proceedings, pp. 177-185, Sep. 1994.
What is Wiki and Wiki History webpages, available at wiki.org/wiki.cgi?WhatIsWiki and www.c2.org/cgi/wiki?WikiHistory, 8 pages, no date available.
Wilson, Eve, Integrated Information Retrieval for Law in a Hypertext Environment, Annual ACM Conference on Research and Development in Information Retrieval, INRIA, 23 pages, 1988.
Multimedia Hyperlinks Automatically Created for Reference Documents, Research Disclosure, 2 pages, Jun. 1993.
Wiki Wiki Origin, http://www.c2.com/cgi/wiki?WikiWikiOrigin, 2 pages, no date available.
Blak, Joy-Lyn, WikiWikiWeb, Computer World, 4 pages, Jan. 29, 2001.
Microsoft's Supplemental Responses to Arendi's Interrogatories, in *Arendi USA et al.* v. *Microsoft Corporation*, Civil Action 02-CV-343 (ECT) from the United States District Court for the District of Rhode Island, 4 pages, Apr. 7, 2003.
"Apple Introduces Internet Address Detectors," Press Release, 3 pages, 2 pages, Sep. 8, 1997.
Cunningham, Cara, "Apple Kicks Off Macworld with Talk of Revival," new software demos, InfoWorld Electric, 2 pages, Aug. 7, 1996.
Staten, James, "Apple Looks to the Future," MacWeek, 2 pages, Aug. 7, 1996.
Simmons, Mark, "Striking a Key Note,"Mac Addict Online, 5 pages, Aug. 8, 1996.
Miller, Jim, Email regarding Apple Data Detectors, 1 page, Jan. 8, 1997.
Apple Data Detectors—Now Shipping web page, 5 pages, Jan. 6, 1997.
The Apple Data Detectors FAQ, 8 pages, Jan. 6, 1997.
Apple Data Detector Webpages, available on web.archive.org/web/20020601164217/www.apple.com/applescript/data_detectors, 15 pages, © 2002.
Apple Data Detectors 1.0.2 Read Me, 3 pages, no date available.
Developer's Guide to Apple Data Detectors, 34 pages, Dec. 1, 1997.
AppleScript Editors, Utilities & Environments, available at www.applescriptsourcebook.com/links/applescripteditors.html, 4 pages, dated Jan. 11, 2004.
eMailman Internet Address Detectors, 3 pages, © 1996-2000.
Tannehill, Steve, News from Jul. 1997, 6 pages, Jul. 31, 1997.
Control-Click! The Archive, 2 pages, © 1997-2000.
Contextual Menus: One of the System 8's Greatest Features, in ApplePress, 10 pages, no date available.
Trygve's CMM Plug-Ins Home, available at Web.archive.org/web/19980130053511/www.bombaydigital.com/cmms, 7 pages, no date available.
ADD Depot, available from Web.archive.org/web/20000819091818/http://homepage.mac.com/Mathewmiller/add, 4 pages, Jan. 12, 2004.
Press Release: Apple Introduces Internet Address Detectors, 4 pages, Sep. 8, 1997.
Apple Introduces Internet Address Detectors, Newsbytes, 11 pages, Sep. 29, 1997.
Williams, Greg, Strategy Mosaic: Understanding Apple's Dual OS Strategy, 7 pages, no date available.
"Taking [control] of your Mac with System 8," The MacAuthority, 6 pages, Jan. 1998.
Apple Data Detectors 1.0.2, TidBITS Updates, 1 page, Mar. 8, 1998.
Apple Data Detectors 1.0.2, TidBITS #419, 1 page, Mar. 9, 1998.
Engst, Tanya, More on Context on Contextual Menus, tidbits #399, 2 pages, Sep. 29, 1997.
Engst, Tanya, Of Mice and Menus, TidBITS #399, 3 pages, Sep. 22, 1997.
Whaley, Charles, "Will This be Enough to Kick-Start Apple?," Computing Canada, 4 pages, Aug. 4, 1997.
MacOS8.com—Mac OS 8 Indepth, 3 pages, no date available.
"A Farewell to the Apple Advanced Technology Group," SIGCHI, vol. 30, No. 2, 3 pages, Apr. 1998.
James R. Miller, et al., From Documents to Objects, in SIGCHI, vol. 30, No. 2, 11 pages, Apr. 1998.
Thomas Bonura et al., Drop Zones, in SIGCHI, vol. 30, No. 2, 8 pages, Apr. 1998.

AHL0118050

United States Court of Appeals for the Federal Circuit, Appeal from the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Judge Ernest C. Torres, Brief for the Defendant-Cross Appellant Frank E. Scherkenbach, 59 pages, Jul. 7, 2005.
United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Defendant Microsoft Corporation's Motion for Judgment as a Matter of Law that the '853 Patent is Invalid, 16 pages, Oct. 15, 2004.
United States District Court for the District of Rhode Island, Civ. A. No. 02-CV-343 (ECT), Plaintiff's Reply Memorandum in Support of their Motion for New Trial, Francis A. Connor, 9 pages, Nov. 4, 2004.
United States Court of Appeals for the Federal Circuit, Arendi Reply Brief, 37 pages, Sep. 2, 2005.
United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Memorandum in Support of Defendant Microsoft Corporation's Opposition to Arendi's Motion for a New Trial, Patricia A. Sullivan, 15 pages, Oct. 27, 2004.
United States Court of Appeals for the Federal Circuit, Appeal from the United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Brief of Plaintiffs-Appellants Arendi U.S.A., Inc. and Arend Holding Limited, Donald R. Dunner, 61 pages, Apr. 25, 2005.
United States Court of Appeals for the Federal Circuit, Appeal from the United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Reply Brief for Defendant-Cross Appellant, Frank E. Scherkenbach, 27 pages, Oct. 3, 2005.
United States District Court for the District of Rhode Island, Order Denying Defendant Microsoft Corporation's Motion for Judgment as a Matter of Law That the '853 Patent is Invalid, C.A. No. 02-343T, Ernest C. Torres, Chief Judge, 6 pages, Nov. 30, 2004.
United States District Court for the District of Rhode Island, C.A. No. 02-343T, Order Denying Plaintiffs' Motion for New Trial, Ernest C. Torres, Chief Judge, 18 pages, Nov. 30, 2004.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from 2:00 PM, 48 pages, Sep. 13, 2004, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 14, 2004, 165 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 15, 2004, 111 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 16, 2004, 142 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 17, 2004, 66 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 20, 2004, Providence, RI, 225 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 21, 2004, Providence, RI, 170 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 22, 2004, Providence, RI, 156 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 23, 2004, Providence, RI, 140 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 27, 2004, Providence, RI, 17 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 28, 2004, Providence, RI, 106 pages.
Novell GroupWise User's Guide for Windows 16-BIT, Version 5.2, Novell, Inc., Orem, Utah, MS 125993, 235 pages, 1993.
Novell GroupWise Webaccess User's Guide, Novell, Inc., Orem, Utah, MS 126785, 37 pages, 1998.
Novell GroupWise User's Guide for Windows 32-BIT, Novell, Inc., Orem, Utah, MS 126463, 322 pages, 1998.
Andrew Wood, et al., "CyberDesk: Automated Integration of Desktop and Network Services", GVU Technical Support, OIT-GVU-97-11, 5 pages, May 1997.
Gregory D. Abowd, et al., "Applying Dynamic Integration as a Software Infrastructure for Context-Aware Computing,"GVU Techincal Report, GIT-GVU-97-18, 21 pages, Sep. 1997.
Gregory D. Abowd, et al., "Context-awareness in Wearable and Ubiquitous Computing," GVU Techincal Report, GIT-GVU-97-11, 13 pages, Mar. 1997.
Apple Data Detectors User's Manual, 16 pages, © 1997.
Apple Internet Address Detectors User's Manual, 16 pages, © 1997.
Apple Introduces Internet Address Detectors, 4 pages, Sep. 8, 1997.
Contextual Menu Manager/Apple Data Detectors, 5 pages, date unavailable.
CoStar User Manual for AddressMate and AddressMate Plus, 219 pages, © 1994-1995.
Anind K. Dey, et al., "CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services," GVU Technical Report, GIT-GVU-97-10, 18 pages, 1997.
Wilson, Eve, "Links and Structures in Hypertext Databases for Law," Proceedings of the First European Conference on Hypertext, INRIA, 20 pages, Nov. 1990.
Milind S. Pandit, et al., "The Selection Recognition Agent: Instance Access to Relevant Information and Operations," Proc. of Intelligent User Interfaces 1997, Orlando, FL, 6 pages, 1997.
Spell, iSpell, Spellout, 71 pages, © 1994.
Microsoft Word 97 Help File entitled "Automatically Check Spelling and Grammar as You Type,"1 page, 2003.
Microsoft Word 97 Help File entitled "Turn Automatic Changes On or Off," 1 page, no date available.
Microsoft Word 97 Help File entitled "Automatically Correct Text," 1 page, no date available.
Microsoft Word 97 Help File entitled "Field Codes: Hyperlink Field," 1 page, no date available.
Microsoft Word 97 Help File entitled "Change the contents of an AutoCorrect Entry," 1 page, no date available.
Excerpt from Jury Charge Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporation et al.*, 45 pages, Sep. 28, 2004.
Microsoft Corporation and Dell Inc.'s Answer, Affirmative Defenses and Counterclaims to Complaint, *Arendi Holding Ltd.* v. *Microsoft Corp. et al.*, C.A. No. 09-119-JJF, from the United States District Court for the District of Delaware, pp. 1-17, Apr. 30, 2009.
"More about The Database," http://c2.com/cgi/wiki?MoreAboutTheDatabase, pp. 1-3, last edited May 7, 2009.
"Ward Cunningham," http://c2.com/cgi/wiki?WardCunningham, pp. 1-15, last edited Apr. 23, 2009.
"Adding New Pages," http://c2.com/cgi/wiki?AddingNewPages, pp. 1-2, last edited Jun. 8, 2009.
"Wiki Wiki Web," http://c2.com/cgi/wiki?WikiWikiWeb, 1 page, last edited Jun. 1, 2009.
Quinlan, Tom, "Apple System Software Branches Out," 1 page, Mar. 16, 1992.
"Introducing AddressMate Plus, The Address Book Manager for Microsoft Word," 4 pages, May 1996.
"Corel Professional Office 7 Quick Results," 534 pages, no date available.
"Getting Results with Microsoft Office for Windows 95," Microsoft, 636 pages, 1995.
"AddressMate for Windows, Adds all the missing pieces to your word processor," 6 pages, no date available.
Opposition against European Patent EP 1 171 836, Letter to the European Patent Office in Preparation for the Oral Proceedings scheduled for May 26, 2009, 31 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 1 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 2 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 3 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 4 Claims, 3 pages, Mar. 26, 2009.

AHL0118051

Opposition against European Patent EP 1 171 836, Auxillary Request 5 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 6 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 7 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 8 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 9 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 10 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 11 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 12 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 13 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 14 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 15 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 16 Claims, 3 pages, Mar. 26, 2009.
Expert Report of Professor Benjamin Goldberg, 43 pages, dated Mar. 10, 2008.
Supplemental Expert Report of Professor Benjamin Goldberg, 15 pages, May 6, 2008.
Second Supplemental Expert Report of Professor Benjamin Goldberg, 32 pages, Mar. 26, 2009.
Expert Report of Professor Calvin Gidney III, 3 pages, Mar. 26, 2009.
European Patent Office, Summons to Attend Oral Proceedings pursuant to Rule 115(1) EPC, 18 pages, Jan. 23, 2009.
Affidavit of James Miller, 2 pages, Jul. 19, 2006.
Affidavit of David Block, 23 pages, Jul. 21, 2006.
Order Re Claim Construction, in *Arendi U.S.A. Inc. et al.* v. *Microsoft Corp.*, CA No. 02-343-T, from United States District Court for the District of Rhode Island, 4 pages, Sep. 27, 2004.
Expert Report of W. Bruce Croft, PH.D., in *Arendi U.S.A., Inc. et al.* v. *Microsoft Corp.*, CA No. 02-CV-343 (ECT), from United States District Court for the District of Rhode Island, 66 pages, Mar. 1, 2004.
Supplemental Expert Report of W. Bruce Croft, PH.D., in *Arendi U.S.A., Inc. et al.* v. *Microsoft Corp.*, CA No. 02-CV-343 (ECT), from United States District Court for the District of Rhode Island, 42 pages, Jun. 9, 2004.
Affirming Claim Construction Order, in *Arendi USA et al.* v. *Microsoft Corp.*, No. 05-1170, 05-1171, from Court of Appeals for the Federal Circuit, 1 page, Feb. 8, 2006.
Miller, Jim, "Portfolio; Innovative Interfaces for Information Management," Website: http://www.miramontes.com/portfolio/add/addl.html, 1 page, no date available.
Church, Kenneth et al., "Commercial Applications of Natural Language Processing," 30 pages, Mar. 13, 2003.
Yankelovich, Nichole et al., "Intermedia: The concept and the Construction of a Seamless Information Environment," *Electronic Publishing Technologies*, pp. 81-96, Jan. 1988.
Utting, Kenneth et al., "Context and Orientation in Hypermedia Networks," *AMC Transactions on Information Systems*, vol. 7, No. 1, pp. 58-84, Jan. 1989.
Kahn, Paul, "Linking Together Books: Experiments in Adapting Published Material into Intermedia Documents," *Hypermedia*, vol. 1 No. 2, pp. 1-37, 1989.
Combs, James. "Hypertext, Full-Text and Automatic Linking," pp. 83-98, 1990.
Catlin, Karen Smith et al., "Hypermedia Templates: An Authors Tools," *Hypertext 1991 Proceedings*, pp. 147-160, Dec. 1991.
Meyrowitz, Norman, "The Missing Link, Why We're All Doing Hypertext Wrong," *The Society of Text, Hypertext, Hypermedia, and the Social Construction of Information*, pp. 107-114, no date available.
Halasz, Frank, "Reflections on Notecards: Seven Issues for the Next Generation of Hypermedia Systems," *Hypertext 87 Papers*, pp. 345-365, Nov. 1987.
Haan, Bernard et al., "IRIS Hypermedia Services," pp. 36-51, Jan. 1992.
McKnight, Dillon, "Review, The Textbook of the Future," *Hypertext: a Psychological Perspective*, pp. 19-51, 8 pages, Mar. 1993.
Bouvin, Niels Olof, "Augmenting the Web Through Open Hypermedia," 95 pages, Nov. 2000.
Halasz, Frank et al., "The Dexter Hypertext Reference Model," pp. 95-133, Dec. 7, 1989.
Weinreich, Harald et al., "The Look of the Link—Concepts for the User Interface of Extended Hyperlinks," 10 pages, no date available.
Fountain, Andrew et al., "Microcosm: An Open Model for Hypermedia with Dynamic Linking," *Hypertext: Concept Systems and Applications, Proceedings of the First European Conference on Hypertext*, France, 16 pages, Nov. 1990.
Justus: Wilson, Eve, "Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System," *Library and Linguistics Computing*, vol. 5, No. 2, pp. 119-128, 1990.
"Claris Em@iler Getting Started," Claris Corporation, pp. MS112968-MS113028, © 1995-1997.
"OmniPage Pro for Windows 95," Version 7.0 Caere Corporation, pp. MS110194-MS110250, , © 1996.
Moi Khor, Siew, Microsoft Office Excel 2003 Preview, 17 pages, Jun. 2003.
Microsoft Corporation and Dell Inc.'s Invalidity Contentions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-26, Aug. 14, 2009.
Exhibit A, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit AA, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Aug. 14, 2009.
Exhibit AAA, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit B, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit BB, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Aug. 14, 2009.
Exhibit C, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit CC, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit D, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit DD, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 14, 2009.
Exhibit E, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit EE, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Aug. 14, 2009.
Exhibit F, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit FF, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-40, Aug. 14, 2009.
Exhibit G, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit GG, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Exhibit H, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.

Exhibit HH, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Exhibit I-1 through I-6, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-1800, Aug. 14, 2009.

Exhibit II, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit J, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-89, Aug. 14, 2009.

Exhibit JJ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.

Exhibit K, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-260, Aug. 14, 2009.

Exhibit KK, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit L, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-190, Aug. 14, 2009.

Exhibit LL, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.

Exhibit M, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-58, Aug. 14, 2009.

Exhibit MM, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-29, Aug. 14, 2009.

Exhibit N, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-47, Aug. 14, 2009.

Exhibit NN, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-30, Aug. 14, 2009.

Exhibit O, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-51, Aug. 14, 2009.

Exhibit OO, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-29, Aug. 14, 2009.

Exhibit P, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-133, Aug. 14, 2009.

Exhibit PP, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 14, 2009.

Exhibit Q, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-40, Aug. 14, 2009.

Exhibit QQ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-52, Aug. 14, 2009.

Exhibit R, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-44, Aug. 14, 2009.

Exhibit RR, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Exhibit S, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-51, Aug. 14, 2009.

Exhibit SS, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit T, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit TT, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Exhibit U, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit UU, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Exhibit V, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit VV, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.

Exhibit W, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.

Exhibit WW, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Exhibit X, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-7, Aug. 14, 2009.

Exhibit XX, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-31, Aug. 14, 2009.

Exhibit Y, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit YY, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-31, Aug. 14, 2009.

Exhibit Z, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.

Exhibit ZZ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.

Defendants Microsoft Corp. and Dell, Inc.'s Brief in Support of their Motion for Summary Judgment of Invalidity for Failure to Comply with 35 U.S.C. § 112, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Aug. 10, 2009.

Declaration of W. Bruce Croft, Ph.D., in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-15, Aug. 10, 2009.

Plaintiff's Opening Brief in Support of Its Proposed Claim Constructions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Aug. 10, 2009.

Microsoft Corp. and Dell Inc.'s Claim Construction Brief, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Aug. 10, 2009.

Plaintiff's Counter-Statement of Disputed Material Facts in Opposition to Defendants' Motion for Summary Judgment of Invalidity, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-19, Aug. 24, 2009.

Plaintiff's Answering Brief in Support of its Proposed Claim Constructions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-43, Aug. 25, 2009.

Microsoft Corp. and Dell, Inc.'s Answering Claim Construction Brief, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-25, Aug. 25, 2009.

Microsoft Corp. and Dell, Inc.'s Response to Plaintiff's Counter-Statement to Defendants' Motion for Summary Judgment of Inval-

idity, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 31, 2009.
Microsoft Corp. and Dell, Inc.'s First Amended Answer, Affirmative Defenses and Counterclaims to Complaint, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Oct. 19, 2009.
Plaintiff's Answer to Defendants' First Amended Counterclaims, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-19, Oct. 30, 2009.
Microsoft Corp. and Dell, Inc.'s Second Amended Answer, Affirmative Defenses and Counterclaims to Complaint, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Dec. 8, 2009.
Opposition for European Patent No. EP-B- 1171836, in the European Patent Office, pp. 1-32, Jul. 26, 2006.
In Response to Notice of Opposition for European Patent No. EP-B-1171836, in the European Patent Office, pp. 1-21, Mar. 7, 2007.
Decision Revoking European Patent No. EP-B- 1171836, European Patent Office, pp. 1-13, Jul. 9, 2009.
Notice of Appeal for European Patent No. EP-B- 1171836, in the European Patent Office, pp. 1-2, Sep. 1, 2009.
Grounds of Appeal for European Patent No. EP-B- 1171836, in the European Patent Office, pp. 1-62, Nov. 19, 2009.
Plaintiff's Answer to Microsoft Corporation's and Dell Inc.'s Second Amended Counterclaims, in *Arendi Holding Ltd.* v. *Microsoft Corp. and Dell Inc.*, CA No. 09-119-JJF-LPS, from United States District Court for the District of Delaware, pp. 1-20, Dec. 14, 2009.
Submission of opponent (Microsoft) in opposition against European Patent No. 1 171 836, Appeal T1779/09-3501, in the European Patent Office, 5 pages, Mar. 25, 2010.
Second Affidavit of David Block, 15 pages, May 15, 2009.
Second Affidavit of James Miller, 36 pages, May 15, 2009.
Hall, Wendy, et al., "Rethinking Hypermedia," Kluwer Academic Publishers, 87 pages, 1996.
Deposition of David Block, *Arendi U.S.A., Inc.* v. *Microsoft Corp.*, Case No. 02-CV-343 (ECT), from United States District Court for the Northern District of California, 196 pages, Aug. 13, 2004.
Exhibits for the Deposition of David Block, *Arendi U.S.A., Inc.* v. *Microsoft Corp.*, Case No. 02-CV-343 (ECT), from United States District Court for the Northern District of California, 334 pages, Aug. 13, 2004.
Writ of Summons to Arendi Holding Co., District Court in the Hague and English translation, 65 pages, Oct. 26, 2005.
Microsoft's Reply in the Main Action, Defense in the Counterclaim, District Court in the Hague, No. 2006/0782, 55 pages, date unknown.
Microsoft's Reply in the Main Action, Defense in the Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 51 pages, date unknown.
Microsoft's Reply in Counterclaim for Infringement, District Court in the Hague, No. 2006/0782, 26 pages, Sep. 24, 2008.
Microsoft's Reply in Counterclaim for Infringement, District Court in the Hague, No. 2006/0782, English Translation, 23 pages, Sep. 24, 2008.
Statement of Defense in the Principal Action and With Regard to the Interlocutory Claim Also Comprising a Counterclaim, With Exhibit, District Court in the Hague, No. 2006/0782, 58 pages, Jan. 31, 2007.
Statement of Defense in the Principal Action and With Regard to the Interlocutory Claim Also Comprising a Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 23 pages, Jan. 31, 2007.
Statement of Rejoinder in the Principal Action (Incl. With Regard to the Interlocutory Claims) Also Comprising Statement of Reply in the Counterclaim With Exhibits, District Court in the Hague, No. 2006/0782, 126 pages, Mar. 12, 2008.
Statement of Rejoinder in the Principal Action (Incl. With Regard to the Interlocutory Claims) Also Comprising Statement of Reply in the Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 33 pages, Mar. 12, 2008.
Letter from Abraham H. Spierer to David Block, Dec. 19, 1994.
Claris Em@iler User's Manual, 187 pages, © 1995-1997.
"Word Lookup Data Detectors," Dictionary.com, available at http://dictionary.reference.com/mac/add.html, 3 pages, © 2004.
Apple.com internet web pages (*marked "MS 118139-MS 118143"*), 5 pages, © 2001.
"Overview: What are Apple Data Detectors", Apple.com internet web pages (*marked "MA 118078-MS 118092"*), 15 pages, © 2002.
Addressmate Plus User Manual Addendum, 2 pages, Nov. 1, 1995.
Now Software, Inc., "Now Contact & Up•to•Date Quick Reference Guide", 18 pages, © 1992-95.
Now Software, Inc., "Now Contact version 3.5 User's Guide", 204 pages, © 1992-95.
Now Software, Inc., "Now Up•to•Date version 3.5 User's Guide", 210 pages, © 1992-95.
Now Software, Inc., "Now Utilities Quick Reference Guide", 6 pages, no date available.
Now Software, Inc., "What's New in Now Up•to•Date & Now Contact", 14 pages, © 1995.
Reply Brief of Plaintiffs-Appellants Arendi USA, Inc. and Arendi Holding Limited, United States Court of Appeals for the Federal Circuit, 37 pages, Sep. 2, 2005.
Apple Data Detectors/Internet Address Detectors, ADD-IAD_1.0.2_Info.txt, 1 page, Mar. 5, 1998.
Cortinas, M., Data Ratchet extracts info, ZD.com, 2 pages, Apr. 3, 1997.
Glucose Unveils Data Ratchet v.1.1!, Glucose Development Corp., 5 pages, 1997.
Glucose Releases Data Ratchet Source, Glucose Press Release, 1 page, Dec. 18, 1999.
Are you a document mechanic?, from Glucose Development Corp.'s webpage (http://glulabs.com), 2 pages, 2002.
Glucose Open Source Tools, from Glucose Development Corp., 2 pages, 1999.
E-Mail 'Net Differences—Eudora Pro and E-Mail Connection shine in their own ways . . . , Communications Week, 4 pages, Jan. 6, 1997.
Internet Update Sep. 10, 1997, Newsbytes news Network, 5 pages, Sep. 10, 1997.
Brouwer, Rene, ADD→Address Book, 1 page, Jun. 8, 1998.
Byrne, Mike, ADD→New Mail, 1 page, Aug. 23, 1998.
MacCentral: Apple Macintosh News, 4 pages, Jan. 12-13, 2004.
Turney, P., Learning to Extract Key Phrases from Text, National Research Council of Canada, 46 pages, Feb. 1999.
Deposition of Atle Hedloy in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 162-213, Mar. 7, 2010.
Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-4, 31-52, 56-57, 67, Apr. 9, 2010.
Exhibit 15, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF from United States District Court for the District of Delaware , pp. 1-6, Apr. 9, 2010.
Exhibit 16, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-2, Apr. 9, 2010.
Exhibit 17, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Apr. 9, 2010.
Exhibit 18, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Apr. 9, 2010.
Exhibit 19, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-13, Apr. 9, 2010.
Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-4, 72-115, Apr. 9, 2010.
Exhibit 11, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-7, Apr. 9, 2010.
Exhibit 12, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-2, Apr. 9, 2010.

Exhibit 13, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Apr. 9, 2010.
Exhibit 14, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-18, Apr. 9, 2010.
Exhibit 15, Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Apr. 9, 2010.
Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-166, Apr. 30, 2010.
Exhibit A, in Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-30, Apr. 30, 2010.
Exhibit B, in Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-15, Apr. 30, 2010.
Exhibit C, Expert Report of Bruce Croft ,in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-90, Apr. 30, 2010.
Michael Bieber, "On Automating Hypertext Links in Knowledge-Based Decision Support Systems", Technical Report BCCS-90-08, pp. 1-22, Apr. 1990.
N. Streitz, A. Rizk and J. André, Hypertext: Concepts, Systems and Applications: Proceedings of the First European Conference on Hypertext, INRIA, France, pp. 1-8, Nov. 1990.
Michael Bieber, "Issues in Modeling A "Dynamic" Hypertext Interface", Technical Report BCCS-91-2, pp. 1-13, Apr. 1991.
Michael Bieber and Tomás Isakowitz, "Valuation Links: Extending the Computational Power of Hypertext", Technical Report BCCS-91-1, pp. 1-11, Apr. 1991.
Michael Bieber, Template-Driven Hypertext: A Methodology for Integrating a Hypertext Interface into Information Systems, Technical Report BCCS-91-3, pp. 1-23, Jun. 1991.
Michael Bieber and Steven O. Kimbrough, "On Generalizing the Concept of Hypertext", Technical report BCCS-91-5, pp. 1-11, Jun. 1991.
Michael Bieber and Tomás Isakowitz, "Bridge Laws in Hypertext A Logic Modeling Approach", Technical Report BCCS-91-4, pp. 1-30, Jun. 1991.
Michael Bieber, "On Merging Hypertext Into Dynamic, Non-Hypertext Systems", Technical Report BCCS-91-14, pp. 1-24, Nov. 8, 1991.
Mark Bernstein, Jay David Bolter, Michael Joyce and Elli Mylonas, "Architectures for Volatile Hypertext", Hypertext '91 Proceedings, pp. 243-280, Dec. 1991.
Michael Bieber, "Providing Information Systems With Full Hypermedia Functionality", pp. 1-15, Oct. 1992.
Mail Address Change Notification, IBM Technical Disclosure Bulletin, vol. 36 No. 1, pp. 70-72, Jan. 1993.
D.D. Cowan, C.J.P. Lucena and R.G. Veitch, Towards CAAI: Computer Assisted Application Integration, Technical Report Series CS-93-17, University of Waterloo, pp. 1-23, Oct. 1993.
Herman Kaind and Stefan Kramer, Semiautomatic Generation of Dictionary Links in Hypertext, pp. 1-14, Feb. 1, 1995.
Michael Bieber, "On Integrating Hypermedia into Decision Support and Other Information Systems", Decision Support Systems 14, pp. 251-267, 1995.
Proceedings, Sixth Message Understanding Conference (MUC-6), pp. 1-64, Nov. 6-8, 1995.
Sargur N. Srihari, et al, "A System to Read Names and Addresses on Tax Forms", Proceedings of the IEEE, vol. 84, No's, Jul. 1996.
Ph. Bonnet and S. Bressan, "Extraction and Integration of Data from Semi-structured Documents into Business Applications", Sloan WP#3979, CISL WP# 97-12, pp. 1-9, Sep. 1997.
Borland, Russel, "Advance Self-Study Step by Step Microsoft Word 97 Advance Topics", Microsoft Press, 331 pages, 1997.
Microsoft Word Language Reference, Official Technical Reference to Visual Basic for Applications, Microsoft Press, 1133 pages, © 1997.
Microsoft PowerPoint and Microsoft Outlook Language References, Official Technical Reference to Visual Basic for Applications, Microsoft Press, vol. 4, 539 pages, 1997.
Microsoft Visual Basic for Applications and Shared Libraries References, vol. 5 of 5, Microsoft Press, 1005 pages, part No. 097-001685, © 1997.
Microsoft Office 97 Resource Kit, Technical Information and Tools for the Support Professional, Microsoft Press, 1162 pages, © 1997.
Microsoft Office 97 Reviewer's Guide, Professional Edition, 546 pages, Aug. 1996.
Running Microsoft Word for Windows 95, in Depth Reference and Inside Tips from the Software Experts, Russell Borland, Microsoft Press, 1040 pages, © 1995.
Running Microsoft Office 97, Standard and Professional, Michael Halvorson and Michael Young, Microsoft Press, 1130 pages, © 1997.
Microsoft Word 97, self-Study Kit, Covers Microsoft Word 97 for Windows 95 and Windows NT version 4.0, Microsoft Press, 314 pages, © 1997.
Microsoft Outlook 97, Step by Step, Self-Study Kit, Microsoft Press, 359 pages, © 1997.
VBA Developer's Handbook, Reusable Code, Visio Professional Demo Copy, and VB5CCE, 1997.
Microsoft97/Visual Basic Programmer's Guide, Microsoft Press, 548 pages, © 1997.
Microsoft Access Language Reference and Office Data Access Reference, Official Technical Reference to Visual Basic for Applications, Microsoft Press, 1287 pages, © 1997.
Microsoft Office97 Step by Step, Visual Basic, Developer's Self-Study Guide, Microsoft Press, 359 pages, © 1997.
Microsoft Office97 Developer's Handbook, Microsoft Press, Christine Solomon, 596 pages, © 1997.
Microsoft Word Developer's Kit, Microsoft Professional Editions, Third Edition, Manufacturing Copy 1_{st}, Microsoft Press, 1106 pages, © 1995.
Inside Microsoft Word, vol. 4, No. 1, The Cobb Group, pp. 1-16, Jan. 1997.
Inside Microsoft Word, vol. 4, No. 2, The Cobb Group, pp. 1-16, Feb. 1997.
Inside Microsoft Word, vol. 4, No. 3, The Cobb Group, pp. 1-16, Mar. 1997.
Inside Microsoft Word, vol. 4, No. 4, The Cobb Group, pp. 1-16, Apr. 1997.
Inside Microsoft Word, vol. 4, No. 7, The Cobb Group, pp. 1-16, Jul. 1997.
Inside Microsoft Word, vol. 5, No. 9, ZD Journals, pp. 1-16, Sep. 1998.
Inside Microsoft Word, vol. 5, No. 10, ZD Journals, pp. 1-16, Oct. 1998.
Inside Microsoft Word, vol. 5, No. 11, ZD Journals, pp. 1-16, Nov. 1998.
Eudora Mail Pro, Version 3.0 for Windows, User Manual, QUALCOMM Incorporated, 198 pages, Jun. 1997.
Eudora Mail Pro, Version 3.1 for Macintosh, User Manual, QUALCOMM Incorporated, 199 pages, Jun. 1997.
Non-Confidential Redacted Jun. 11, 2010 Rebuttal Expert Report Richard Taylor, 311 pages.
Spell Checking for Microsoft Windows, Palantir Software, 36 pages, © 1986.
Johannes, S., et al., "Active Messenger: Email Filtering and Mobile Delivery," *Massachusetts Institute of Technology*, pp. 1-122, Sep. 1999.
Srihari, S, et al., "A System to Read Names and Addresses on Tax Forms," *Proceedings of the IEEE*, vol. 14, No. 7, pp. 1038-1049, Jul. 1996.
US Patent No. 6,323,853, U.S. Appl. No. 09/189,626 As Filed, 58 pages, Nov. 10, 1998.*
US Patent No. 6,323,853, Preliminary Amendment, U.S. Appl. No. 09/189,626, 20 pages, Apr. 29, 1999.*
US Patent No. 6,323,853, Office Action, U.S. Appl. No. 09/189,626, 9 pages, Apr. 26, 2000.*
US Patent No. 6,323,853, U.S. Appl. No. 09/189,626, Interview Summary, 2 pages, Jun. 14, 2000.*

AHL0118055

US Patent No. 6,323,853, Response, U.S. Appl. No. 09/189,626, 5 pages, Jul. 25, 2000.*
US Patent No. 6,323,853, Final Office Action, U.S. Appl. No. 09/189,626, 10 pages, Sep. 18, 2000.*
US Patent No. 6,323,853, Interview Summary, U.S. Appl. No. 09/189,626, 1 page, Oct. 17, 2000.*
US Patent No. 6,323,853, Response, U.S. Appl. No. 09/189,626, 5 pages, Dec. 18, 2000.*
US Patent No. 6,323,853, Notice of Allowance, U.S. Appl. No. 09/189,626, 7 pages, Jan. 4, 2001.*
US Patent No. 6,323,853, Notice of Allowance, U.S. Appl. No. 09/189,626, 2 pages, Oct. 2, 2001.*
US Patent No. 7,496,854, Application As Filed, 100 pages, Aug. 6, 2001.*
US Patent No. 7,496,854, Preliminary Amendment, U.S. Appl. No. 09/923,134, 7 pages, Dec. 17, 2001.*
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 10 pages, Oct. 15, 2002.
US Patent No. 7,496,854, Response, 4 pages, U.S. Appl. No. 09/923,134, Apr. 15, 2003.
US Patent No. 7,496,854, Final Office Action, U.S. Appl. No. 09/923,134, 7 pages, Jun. 27, 2003.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 6 pages, Aug. 21, 2003.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 4 pages, Nov. 19, 2003.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 5 pages, Feb. 10, 2004.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 4 pages, May 19, 2004.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 14 pages, Dec. 30, 2004.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 7 pages, Aug. 29, 2005.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 17 pages, Nov. 16, 2005.
US Patent No. 7,496,854, Final Office Action, U.S. Appl. No. 09/923,134, 10 pages, Feb. 6, 2006.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 22 pages, Aug. 4, 2006.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 8 pages, Oct. 18, 2006.
US Patent No. 7,496,854, Interview Summary, U.S. Appl. No. 09/923,134, 3 pages, Jan. 23, 2007.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 32 pages, Apr. 18, 2007.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 8 pages, Jul. 13, 2007.
US Patent No. 7,496,854, Interview Summary, U.S. Appl. No. 09/923,134, 4 pages, Oct. 19, 2007.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 9 pages, Nov. 9, 2007.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 32 pages, Jan. 24, 2008.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 7 pages, Jul. 2, 2008.
US Patent No. 7,496,854, Amendment Under Rule 312; U.S. Appl. No. 09/923,134, 27 pages, Jul. 8, 2008.
US Patent No. 7,496,854, Response to Amendment Under Rule 312, U.S. Appl. No. 09/923,134, 4 pages, Jan. 21, 2009.
U.S. Appl. No. 12/841,302, Application As Filed, 47 pages, Jul. 22, 2010.
U.S. Appl. No. 12/841,302, Accelerated Examination Support Document, 150 pages, Jul. 29, 2010.
U.S. Appl. No. 12/841,302, Office Action, 22 pages, Nov. 24, 2010.
U.S. Appl. No. 12/841,302, Response, 18 pages, Dec. 14, 2010.
US Patent No. 7,272,604, U.S. Appl. No. 09/390,303 As Filed, 55 pages, Sep. 3, 1999.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 9 pages, May 8, 2002.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 7 pages, Aug. 8, 2002.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 11 pages, Sep. 27, 2002.
US Patent No. 7,272,604, Proposed Response, U.S. Appl. No. 09/390,303, 4 pages, Oct. 24, 2002.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 3 pages, Mar. 27, 2003.
US Patent No. 7,272,604, Final Office Action, U.S. Appl. No. 09/390,303, 9 pages, Apr. 21, 2003.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 16 pages, Oct. 21, 2003.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 7 pages, Nov. 17, 2003.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 6 pages, Apr. 6, 2004.
US Patent No. 7,272,604, Supplemental Notice of Allowance, U.S. Appl. No. 09/390,303, 2 pages, Mar. 7, 2006.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 10 pages, Jun. 6, 2006.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 19 pages, Dec. 5, 2006.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 7 pages, Feb. 7, 2007.
U.S. Appl. No. 11/745,186, Application As Filed, 61 pages, May 7, 2007.
U.S. Appl. No. 11/745,186, Office Action, 8 pages, Mar. 6, 2008.
U.S. Appl. No. 11/745,186, Response, 18 pages, May 14, 2008.
U.S. Appl. No. 11/745,186, Office Action, 17 pages, Oct. 14, 2008.
U.S. Appl. No. 11/745,186, Response, 28 pages, Feb. 13, 2009.
U.S. Appl. No. 11/745,186, Final Office Action, 16 pages, Mar. 26, 2009.
U.S. Appl. No. 11/745,186, Interview Summary, 4 pages, May 7, 2009.
U.S. Appl. No. 11/745,186, Response, 22 pages, Jun. 2, 2009.
U.S. Appl. No. 11/745,186, Advisory Action, 3 pages, Jun. 16, 2009.
U.S. Appl. No. 11/745,186, Request for Continued Examination, 3 pages, Jun. 22, 2009.
U.S. Appl. No. 11/745,186, Office Action, 40 pages, Sep. 29, 2009.
U.S. Appl. No. 11/745,186, Interview Summary, 3 pages, Mar. 26, 2010.
U.S. Appl. No. 11/745,186, Response, 29 pages, Mar. 29, 2010.
U.S. Appl. No. 11/745,186, Final Office Action, 10 pages, Jun. 15, 2010.
U.S. Appl. No. 11/745,186, Interview Summary, 3 pages, Aug. 5, 2010.
U.S. Appl. No. 11/745,186, Response, 24 pages, Aug. 10, 2010.
U.S. Appl. No. 11/745,186, Advisory Action, 3 pages, Aug. 16, 2010.
U.S. Appl. No. 11/745,186, Response, 18 pages, Sep. 23, 2010.
U.S. Appl. No. 11/745,186, Interview Summary, 3 pages, Dec. 14, 2010.
U.S. Appl. No. 12/963,744, Application As Filed, 53 pages, Dec. 9, 2010.
U.S. Appl. No. 12/963,744, Accelerated Examination Support Document, 80 pages, Dec. 9, 2010.
U.S. Appl. No. 12/841,302, Interview Summary, 3 pages, Dec. 20, 2010.

* cited by examiner

AHL0118057

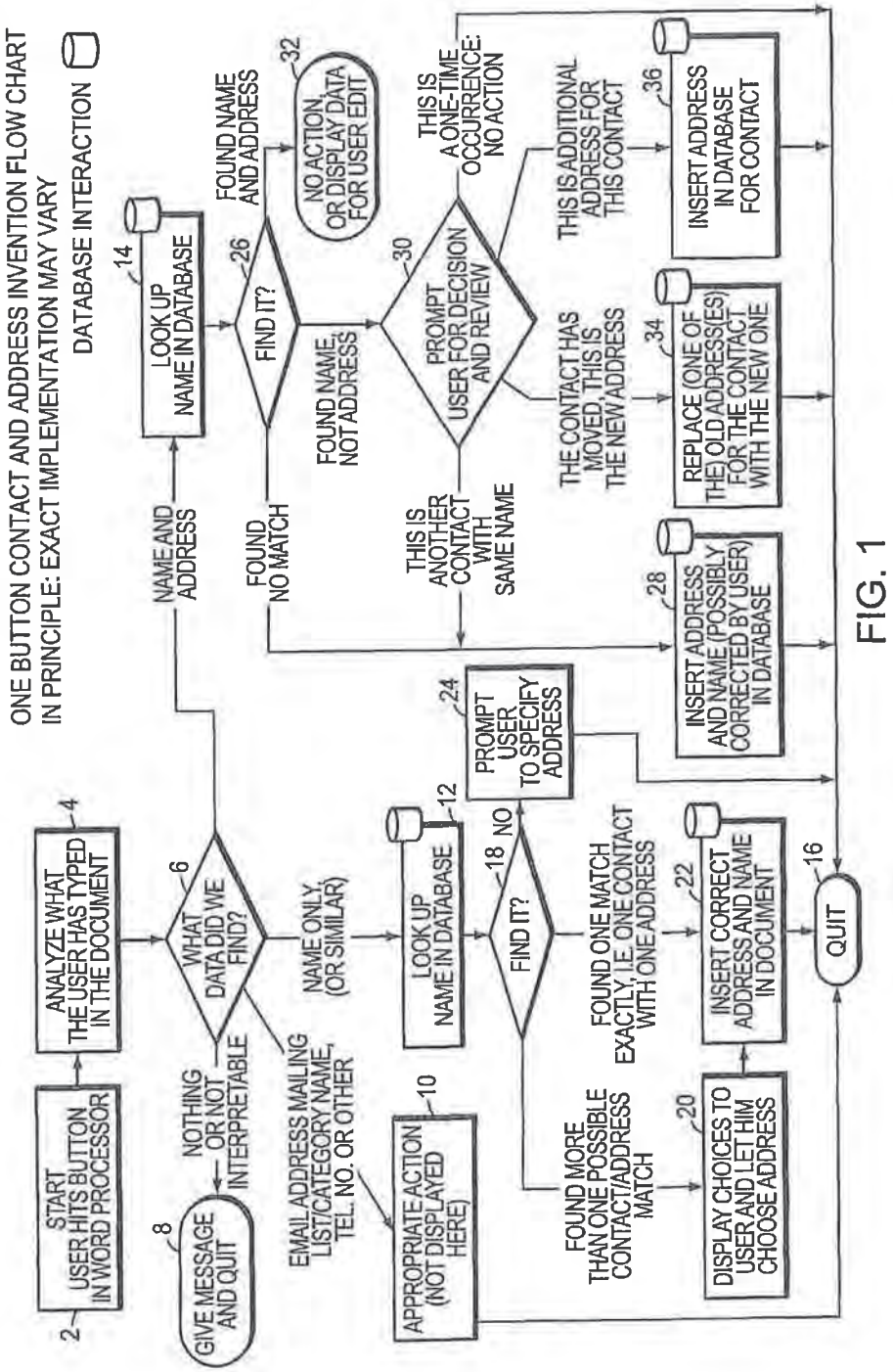


FIG. 1

AHL0118058

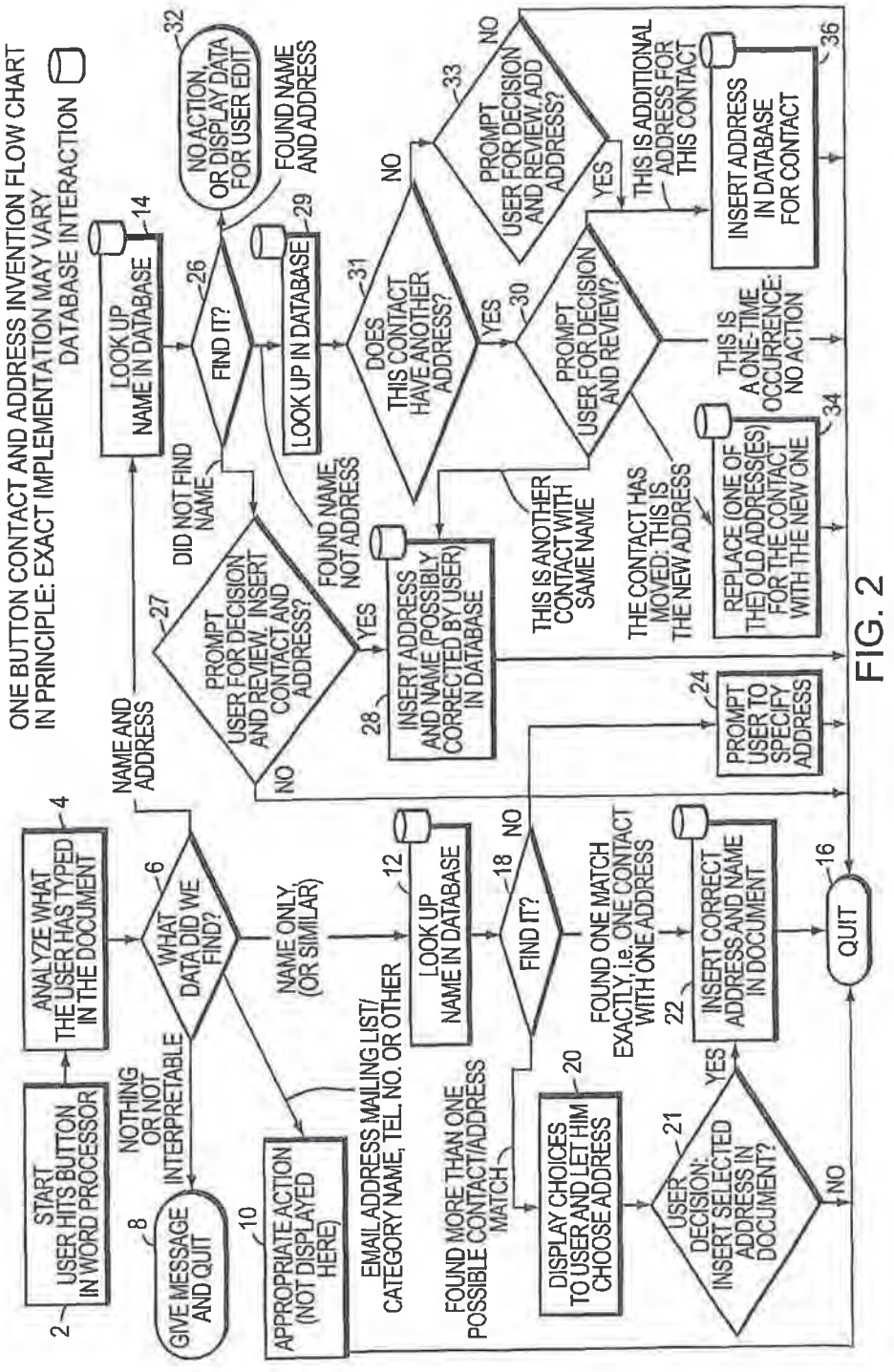


FIG. 2

AHL0118059

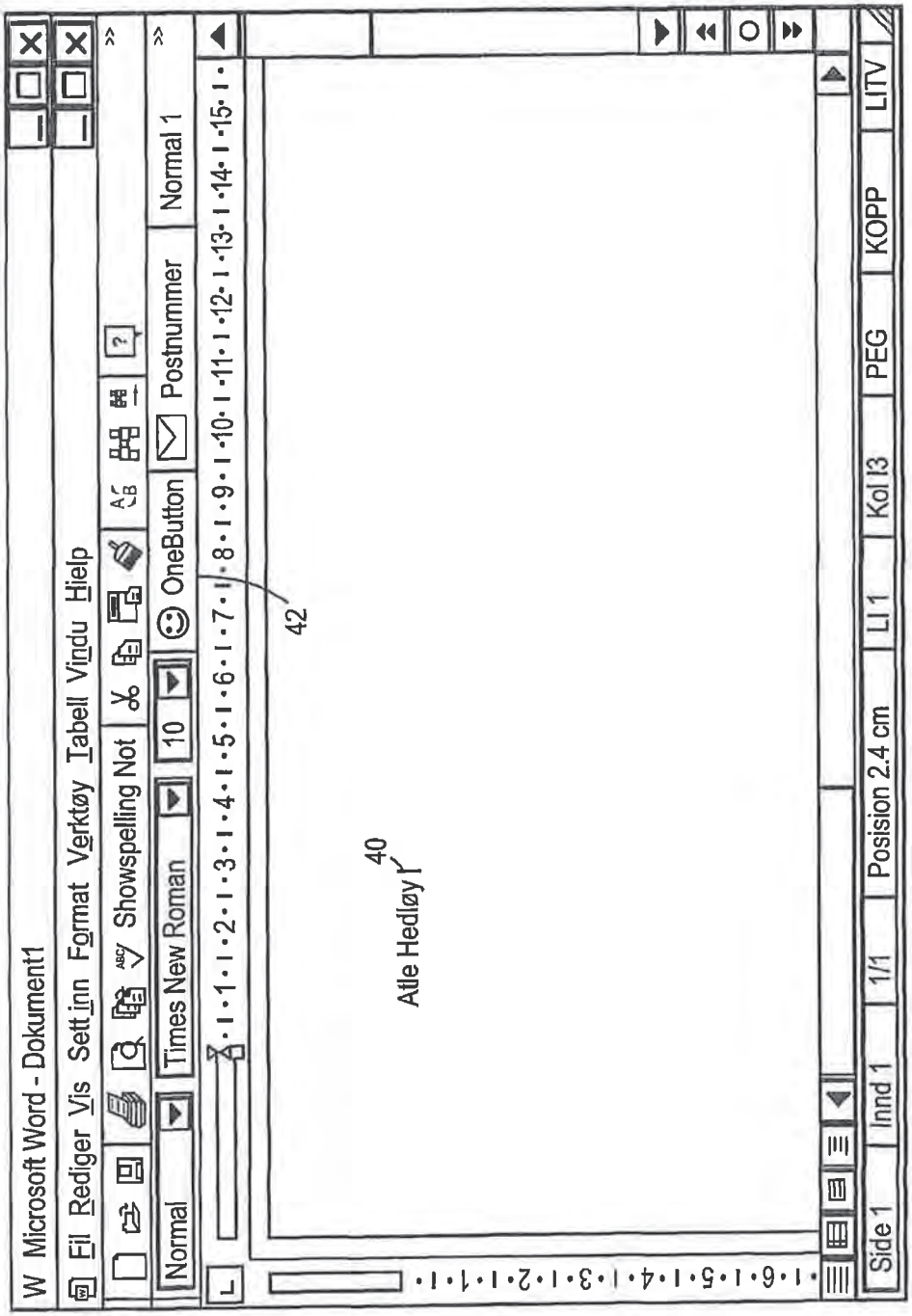


FIG. 3

AHL0118060

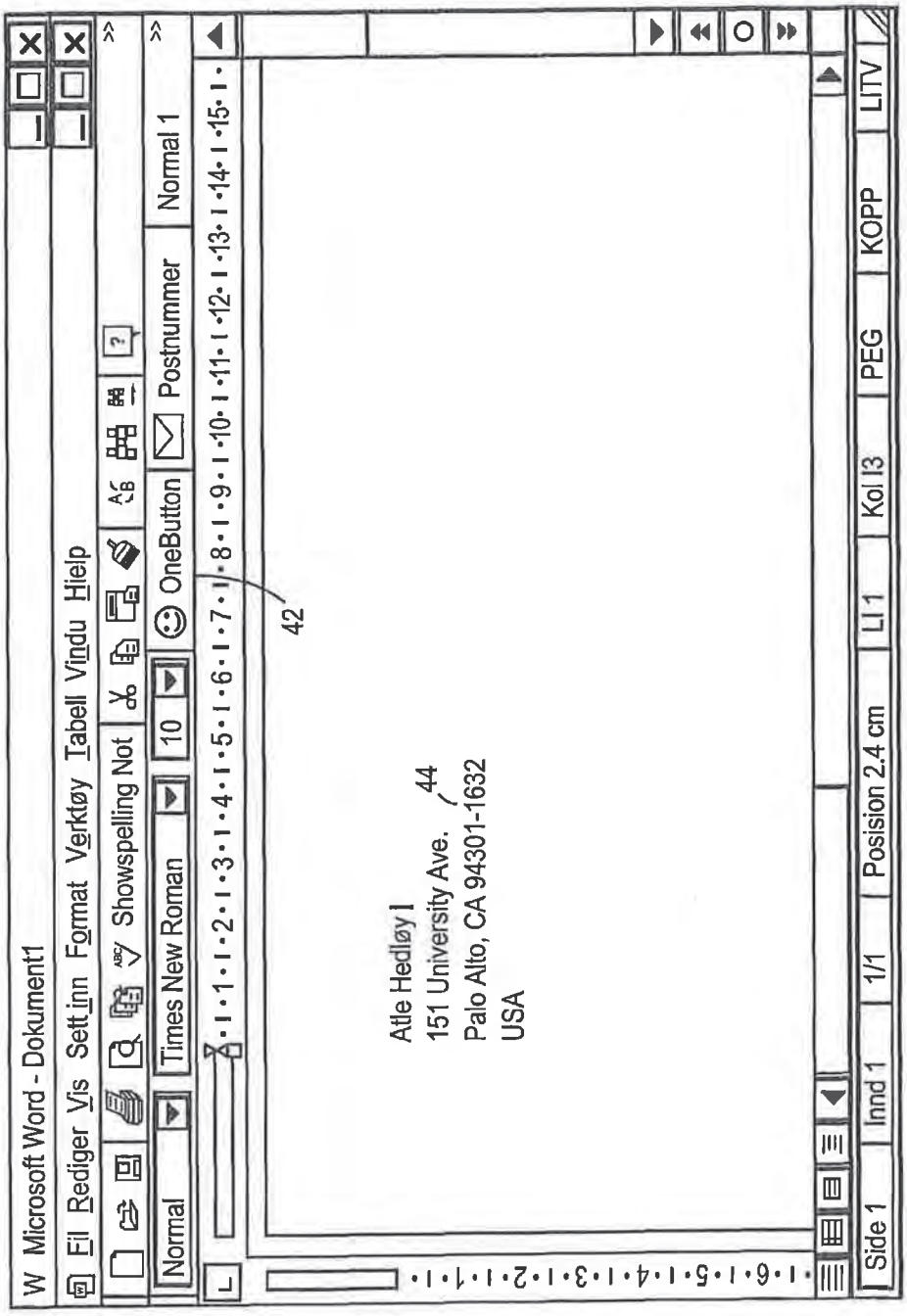


FIG. 4

AHL0118061

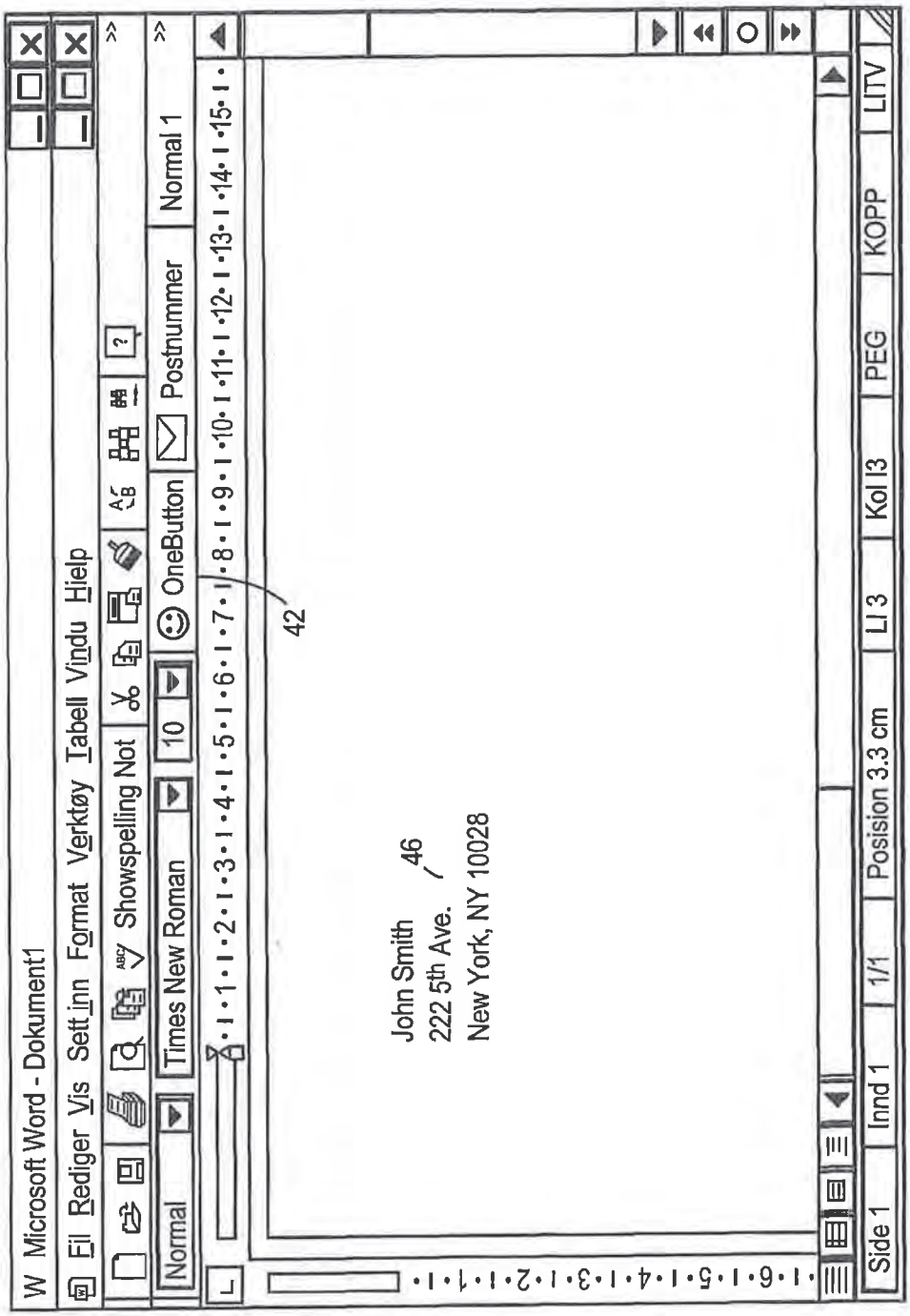


FIG. 5

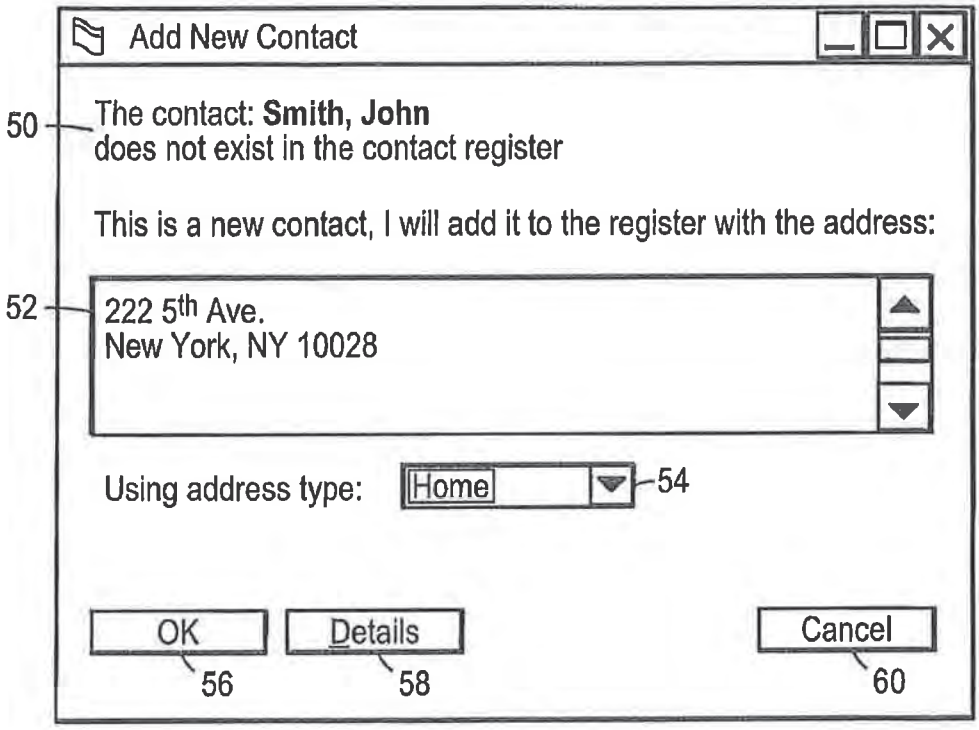

Add New Contact
50
The contact: Smith, John
does not exist in the contact register
This is a new contact, I will add it to the register with the address:
52
222 5th Ave.
New York, NY 10028
Using address type:
Home
54
OK
Details
Cancel
56
58
60

FIG. 6

AHL0118063

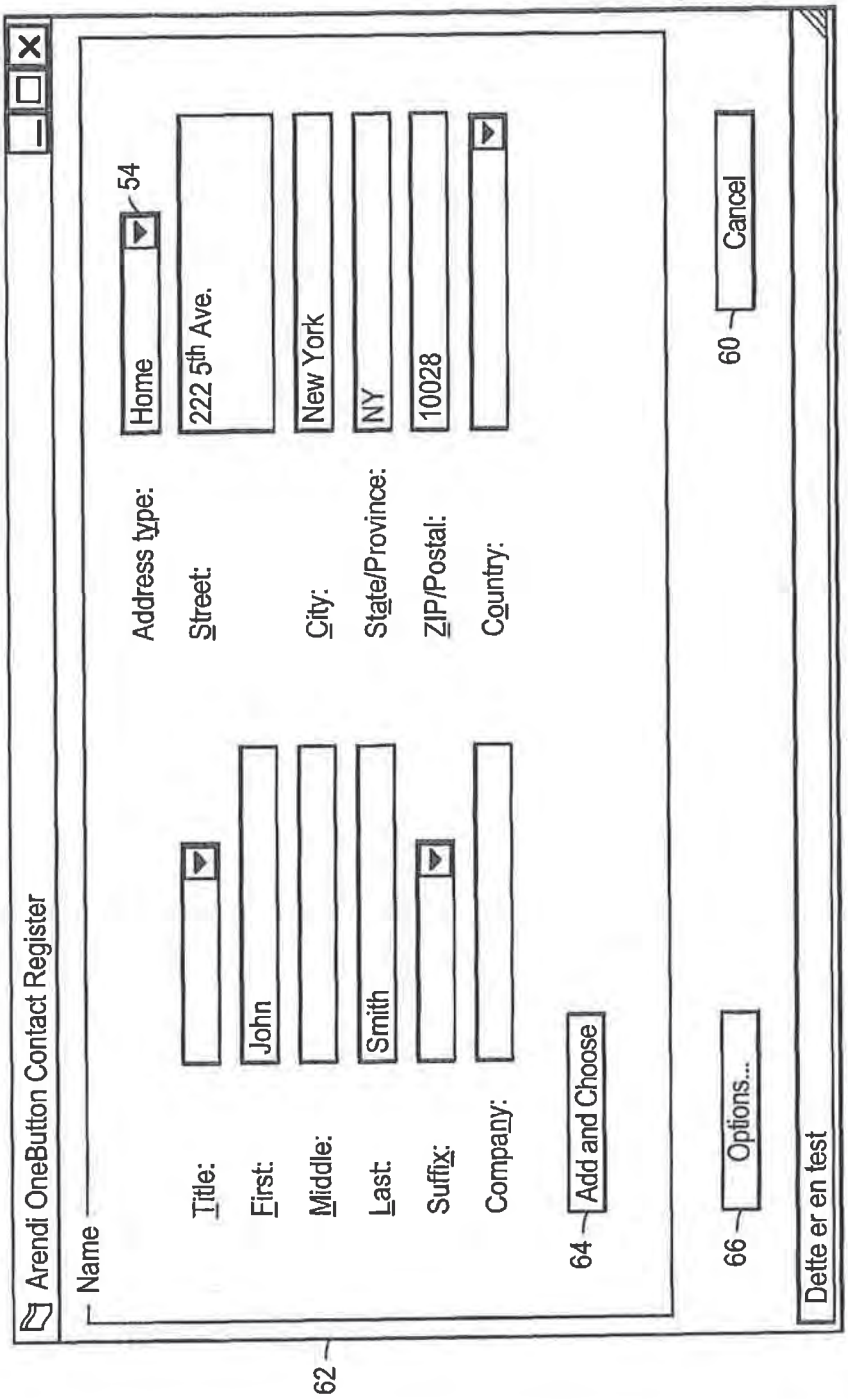


FIG. 7

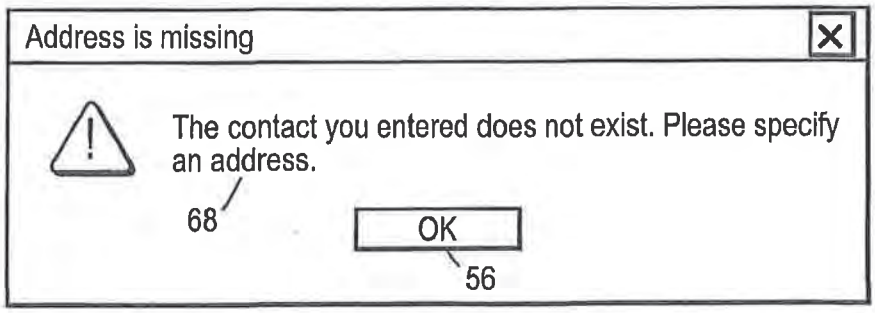

Address is missing
The contact you entered does not exist. Please specify an address.
68
OK
56

FIG. 8

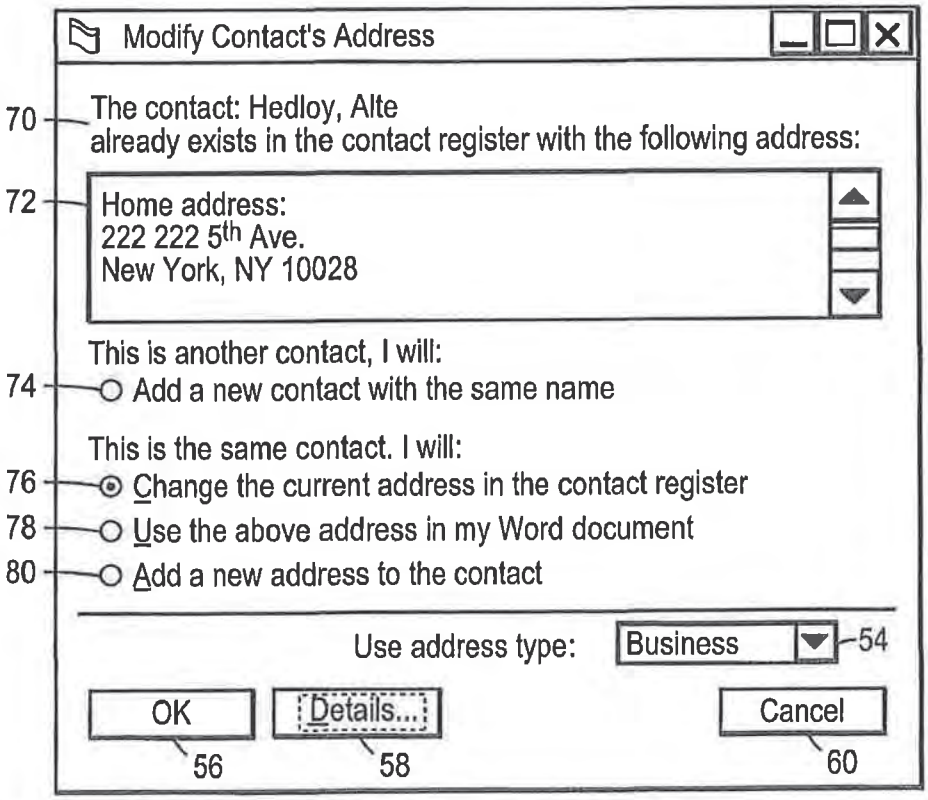

Modify Contact's Address
70
The contact: Hedloy, Alte
already exists in the contact register with the following address:
72
Home address:
222 222 5th Ave.
New York, NY 10028
This is another contact, I will:
74
Add a new contact with the same name
This is the same contact. I will:
76
Change the current address in the contact register
78
Use the above address in my Word document
80
Add a new address to the contact
Use address type:
Business
54
OK
56
Details...
58
Cancel
60

FIG. 9

AHL0118065

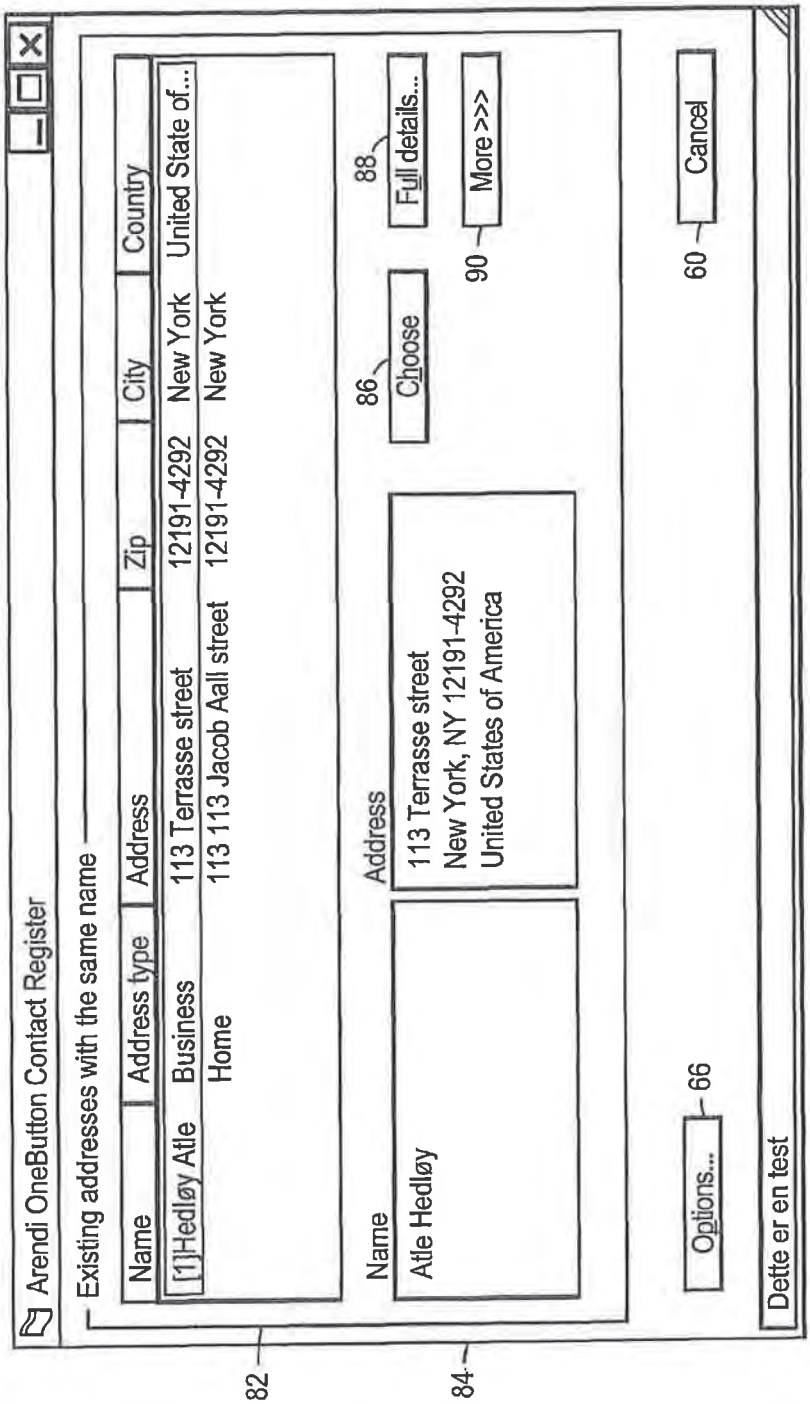


FIG. 10

AHL0118066

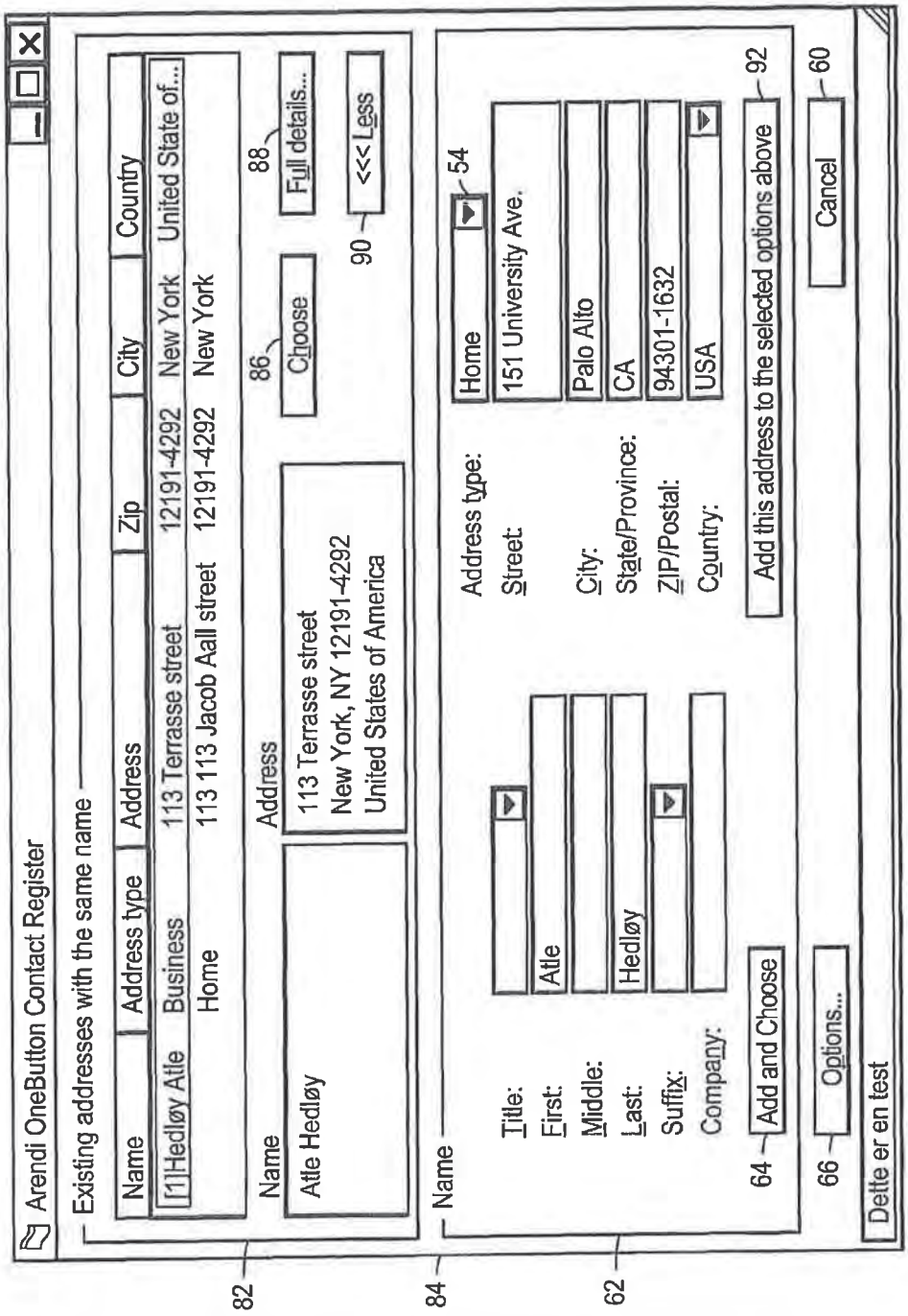


FIG. 11

AHL0118067

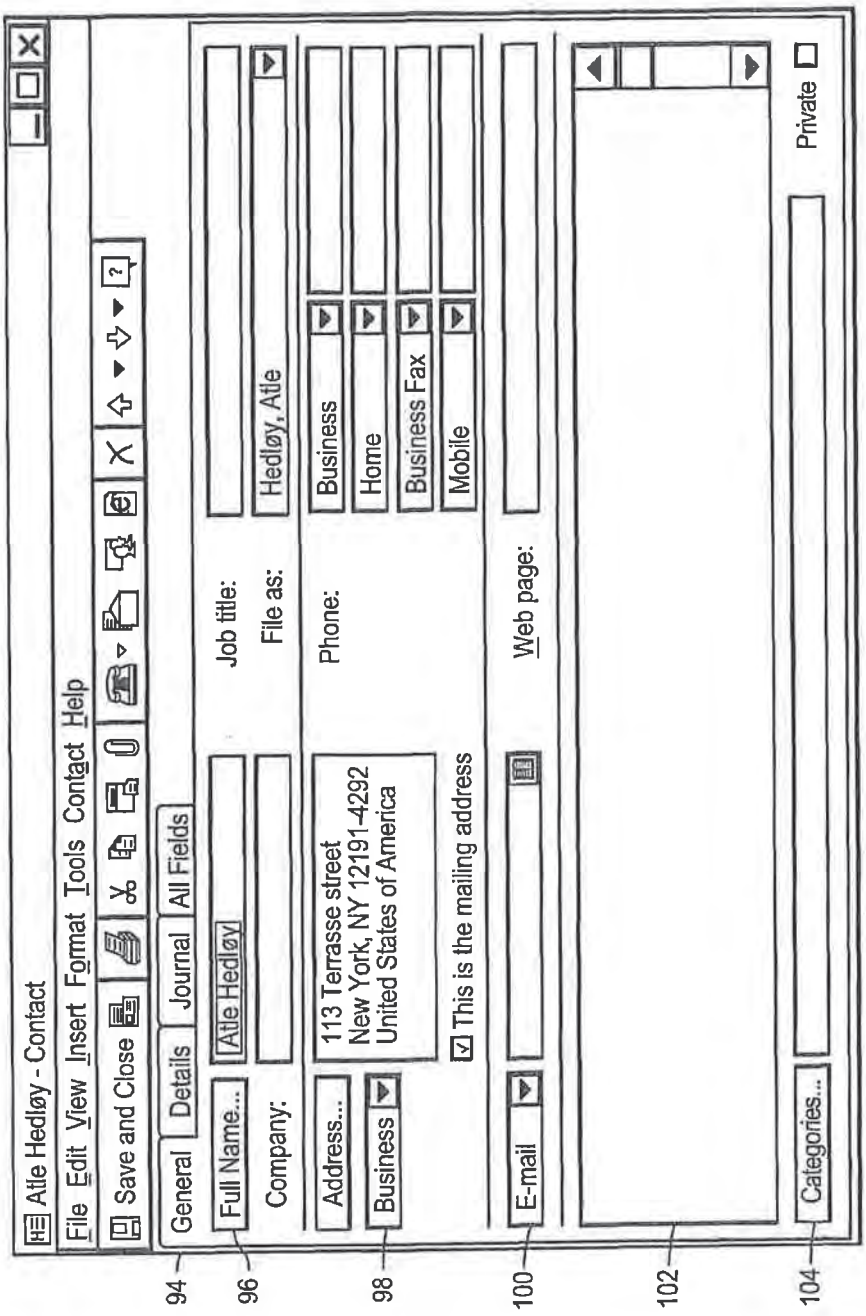


FIG. 12

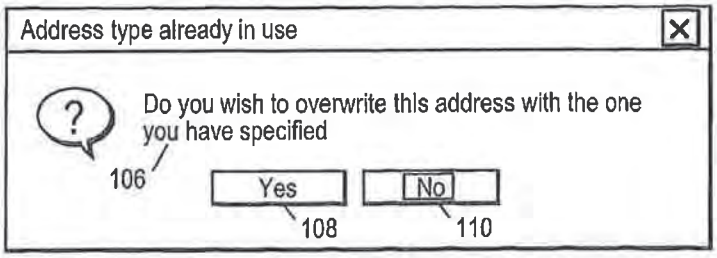

Address type already in use
Do you wish to overwrite this address with the one you have specified
106
Yes
No
108
110

FIG. 13

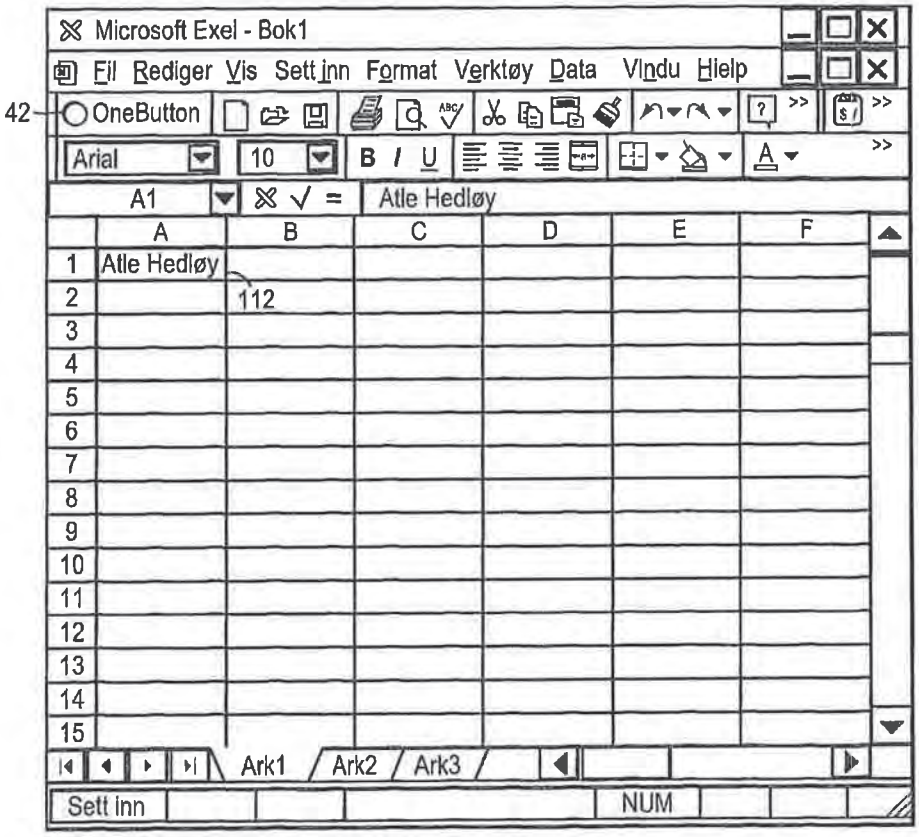

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hjelp
42
OneButton
Arial
10
A1
Atle Hedløy
A B C D E F
1 Atle Hedløy
2
112
3 4 5 6 7 8 9 10 11 12 13 14 15
Ark1 Ark2 Ark3
Sett inn
NUM

FIG. 14

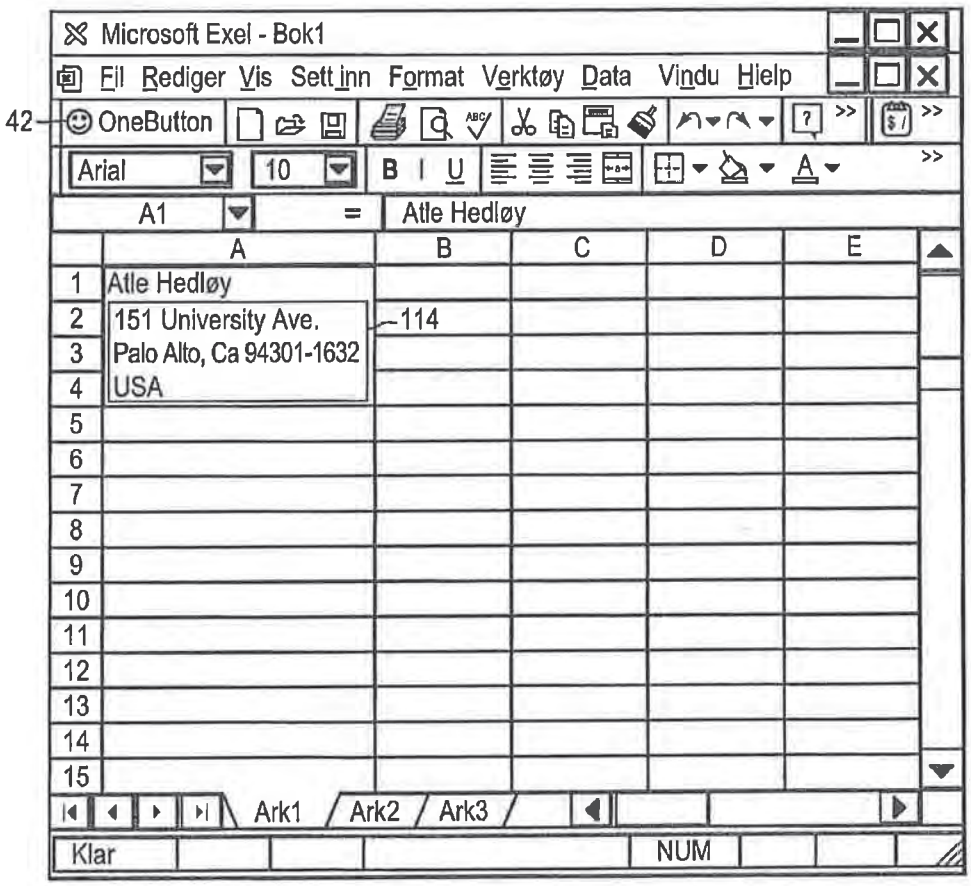

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hjelp
42
OneButton
Arial
10
A1
=
Atle Hedløy
A
B
C
D
E
1 Atle Hedløy
2 151 University Ave.
3 Palo Alto, Ca 94301-1632
4 USA
114
5
6
7
8
9
10
11
12
13
14
15
Ark1
Ark2
Ark3
Klar
NUM

FIG. 15

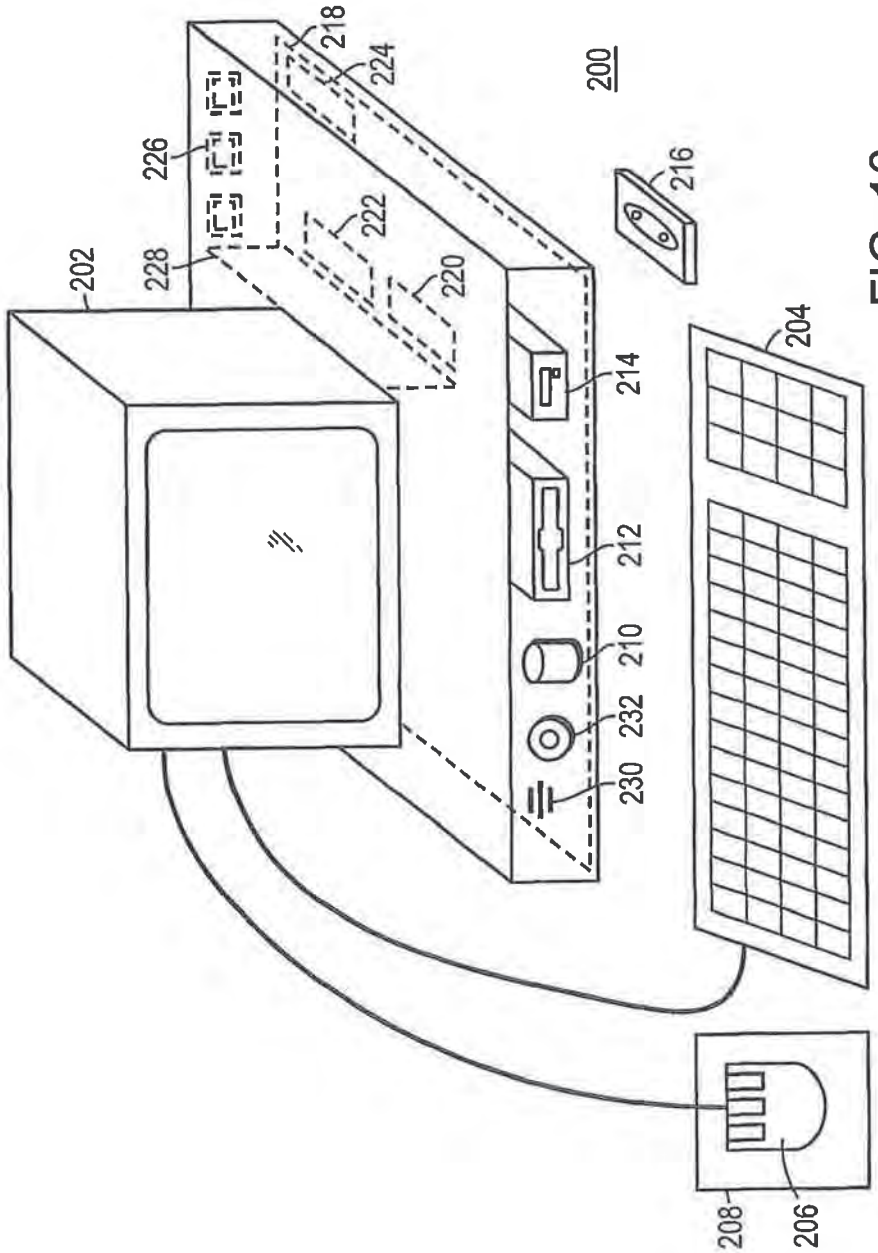

200
202
204
206
208
210
212
214
216
218
220
222
224
226
228
230
232

FIG. 16

METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM

CROSS REFERENCES TO RELATED APPLICATIONS

The present application is a continuation of U.S. application Ser. No. 09/923,134 filed on Aug. 6, 2001, which in turn is a continuation of U.S. application Ser. No. 09/189,626 filed on Nov. 10, 1998, and which issued as U.S. Pat. No. 6,323,853. Each of the above-described applications is hereby incorporated by reference in their entireties.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a method, system and computer readable medium for name and address handling (hereinafter called "address handling"), and more particularly to a touch screen, keyboard button, icon, menu, voice command device, etc. (hereinafter called "button") provided in a computer program, such as word processing program, spreadsheet program, etc., and coupled to an information management source for providing address handling within a document created by the computer program.

2. Discussion of the Background

In recent years, with the advent of programs, such as word processors, spreadsheets, etc. (hereinafter called "word processors") users may require retrieval of information, such as name and address information, etc., for insertion into a document, such a letter, fax, etc., created with the word processor. Typically, the information is retrieved by the user from an information management source external to the word processor, such as a database program, contact management program, etc., or from the word processor itself, for insertion into the document. Examples of such word processors are WORD™, NOTEPAD™, EXCEL™, WORDPAD™, WORDPERFECT™, QUATROPRO™, AMIPRO™, etc., and examples of such information management sources are ACCESS™, OUTLOOK™, ORACLE™, DBASE™, RBASE™, CARDFILE™, etc.

However, the information in the database must constantly be updated by the user. This requires the user to learn how to use and have access to the database. In this case, a change in the information, such as change in address or a name, etc., requires the user of the word processor to implement this change in the database, or alternatively, the change is made to the database centrally by a database administrator.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device provided in the computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device, such as a touch screen, keyboard button, icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device such as a touch screen, keyboard button icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source, such as a database program, contact management program, etc.

The above and other objects are achieved according to the present invention by providing a novel method, system and computer readable medium for providing a function item, such as a key, button, icon, or menu, tied to a user operation in a computer, whereby a single click on the function item in a window or program on a computer screen, or one single selection in a menu in a program, initiates retrieval of name and addresses and/or other person or company related information, while the user works simultaneously in another program, e.g., a word processor. The click on the function item initiates a program connected to the button to search a database or file available on or through the computer, containing the person, company or address related data, in order to look up data corresponding to what the user types, or partly typed, e.g., name and/or address in the word processor, the correct data from the database, data related to the typed data, e.g., the name of the person, company, or the traditional or electronic address, or other person, or company, or address related data, and alternatively the persons, companies, or addresses, are displayed and possibly entered into the word processor, if such related data exists.

The present invention also includes a computer readable medium storing program instructions by which the method of the invention can be performed when the stored program instructions are appropriately loaded into a computer, and a system for implementing the method of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention description below refers to the accompanying drawings, of which:

FIG. **1** is a flow chart illustrating a method for address handling within a computer program, according to an exemplary embodiment of the present invention;

FIG. **2** is a flow chart illustrating a method for address handling within a computer program, according to another exemplary embodiment of the present invention;

FIG. **3** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **4** is a screen shot illustrating a retrieved address in a word processor, according to an exemplary embodiment of the present invention;

FIG. **5** is a screen shot illustrating the inputting of a name and address to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **6** is a screen shot illustrating an add new contact message window, according to an exemplary embodiment of the present invention;

FIG. **7** is a screen shot illustrating a contact register message window, according to an exemplary embodiment of the present invention;

AHL0118071

FIG. **8** is a screen shot illustrating an address missing message window, according to an exemplary embodiment of the present invention;

FIG. **9** is a screen shot illustrating a modify contact's address message window, according to an exemplary embodiment of the present invention;

FIG. **10** is a screen shot illustrating a select a contact address register message window, according to an exemplary embodiment of the present invention;

FIG. **11** is a screen shot illustrating a more detailed mode of registering an additional address for the contact register of FIG. **9**, according to an exemplary embodiment of the present invention;

FIG. **12** is a screen shot illustrating a contact management program window in a full detailed mode, according to an exemplary embodiment of the present invention;

FIG. **13** is a screen shot illustrating an address already in use message window, according to an exemplary embodiment of the present invention;

FIG. **14** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a spreadsheet, according to an exemplary embodiment of the present invention;

FIG. **15** is a screen shot illustrating a retrieved address in a spreadsheet, according to an exemplary embodiment of the present invention; and

FIG. **16** is a schematic illustration of a general purpose computer for performing the processes of the present invention, according to an exemplary embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In an embodiment of the present invention, single button addressing is a achieved by providing an input device, such as a touch screen, keyboard, icon, menu, voice command device, etc. (hereinafter called "button"), in a computer program, such as a word processing program, spreadsheet program, etc. (hereinafter called "word processor"), for executing address handling therein.

Accordingly, in a word processor, the button is added and a user types information, such as an addressee's name, or a part of the name, etc. in a document created with the word processor, such as a letter, fax, etc., and then clicks, selects, commands, etc. the button via the appropriate input device, such as a touch screen button, keyboard button, icon, menu choice, voice command device, etc. A program then executes and retrieves the typed information from the document, and searches an information management source, such as a database, file, database program, contact management program, etc. (hereinafter called "database") to determine if the information, such as the name or part of the name typed and searched by the program exists in the database. If the program does not find stored information, such as a name, corresponding to the name or part of the name typed, the user is asked by the program whether the information, such as the name that was not found, should be added to the database. In addition, the user may enter any other information besides the name, such as addresses, businesses, telephone numbers, fax numbers, e-mail address, etc., so that this other information can be stored in the database for later use.

If the program finds name(s) and address(es) corresponding to the part of the addressee's name typed, this additional information is automatically entered into the user's word processor, optionally with a confirmation from the user that this is the correct data. If the typed address information does not correspond to data already stored in the database, after clicking on the button, the program, for example, lets the user decide: (1) if this is new data (e.g., a new address) for an existing contact; (2) if the stored data should be changed to what the user just typed; (3) if this is a new contact with the same name as the one already entered into the database; or (4) if the typed address is only to be used once, and therefore not to be stored in the database at all. If, later, for example, a name with several address stored in the database is recalled all addresses for this contact will be displayed, so that the correct address can be selected by the user.

The program may be extended to also store and retrieve other information, such as telephone numbers, fax numbers, e-mail addresses, etc. Once the program recalls the telephone numbers, fax numbers, email addresses, etc., the user can command the program to send e-mails, faxes, etc. Similarly, if the user types in the name of a mailing list, the program create merge letters, group emails, etc.

Referring now to the drawings, wherein like reference numerals designate identical or corresponding parts throughout the several views, and more particularly to FIGS. **1** and **2** thereof, there is illustrated flow charts of single button addressing, according to exemplary embodiments of the present invention.

In FIG. **1**, after the user has inserted the address in the word processor, the user commands the button at step **2** and the program analyzes what the user has typed in the document at step **4**. At step **6**, the program decides what was found in the document and if the program found nothing in the document or what it found was un-interpretable the program goes to step **8** and outputs an appropriate message to the user and then quits at step **16**. The program analyzes what the user has typed in the document at step **4**, for example, by analyzing (i) paragraph/line separations/formatting, etc.; (ii) street, avenue, drive, lane, boulevard, city, state, zip code, country designators and abbreviations, etc.; (iii) Mr., Mrs., Sir, Madam, Jr., Sr. designators and abbreviations, etc.; (iv) Inc., Ltd., P.C., L.L.C, designators and abbreviations, etc.; and (v) a database of common male/female names, etc.

If the program find an e-mail address mailing list/category name telephone number or other information, at step **10** an appropriate action is performed by the program and then the program execution quits at step **16**. If the program only finds a name or initials, or the like, the program looks up the name in the database at step **12** and at step **18** the program determines what was found. If the program finds more than one possible contact/address match, at step **20** the program displays menu choices to the user to let him choose an appropriate answer. Then at step **22** the program inserts a correct address and name in the document and then at step **16** the program quits execution. If the program finds one match exactly, i.e., one contact with one address, the program inserts the correct address and name in the document at step **22** then quits and then quits execution at step **16**. If the program does not find a name in the database, at step **24** the program prompts the user to specify an address and then quits execution at step **16**. If the program at step **6** finds a name and an address, at step **14** the name is looked up in the database. Then, at step **26**, if no match is found, at step **28** the program inserts an address and a name which are possibly corrected by the user into the database and then quits execution at step **16**. If at step **26**, the name and address is found, at step **32** the program either takes no action or displays the data for the user to edit. If at step **26**, the name is found but not the address, the program prompts the user for a decision at step **30**. If the user decides that this is another contact with a same name, the program goes to step **28**. If the user decides that this is a one

time occurrence, no action is taken and the program quits at step **16**. If the user decides that the contact has, for example, moved and that this is a new address, at step **34** one of the old addresses for the contact is replaced with the new one and the program quits at step **16**. If the user decides that this is an additional address for the contact, at step **36** the additional address is inserted into the database for that contact and execution quits at step **16**.

The flowchart shown in FIG. **2** is similar to the flowchart in FIG. **1**, except for some additional steps which will now be discussed. At step **6**, if the program only finds a name or a similar name then the name is looked up in the database at step **12**, then at step **18** if the program found more than one possible contact/address match, the program displays choices to the user to let him choose an address at step **20**. Then at step **21** the user decides whether to insert the selected address into the document. If the user does not decide to select the address into the document the program quits execution at step **16**. If the user decides to insert the selected address into the document the program inserts the address and name into the document at step **22** and then quits at step **16**.

If the program finds a name and address in the database at step **6**, then at step **14** the program looks up the name in the database and at step **26** the program determines what it has found. If the program does not find the name at step **26**, at step **27** the program prompts the user for a decision and review and whether to insert the contact and address. If the user does not decide to insert the contact address, the program quits at step **16**. If the user decides to insert the contact address, at step **28** the program inserts the address and name which may be possibly corrected by the user for program in the database then execution quits at step **16**.

If at step **26** the program finds a name and not an address, then at step **29** the name is looked up in the database. Then at step **31** the program decides whether this contact has another address. If the contact does not have another address, at step **33** the program prompts the user for a decision and review and whether to add the address. If the user does not want to add the address at step **33**, the program quits at step **16**. If the user wants to add the address at step **33** because this is an additional address for the contact, at step **36** the address is inserted in the database for the contact and execution quits at step **16**.

At step **30**, if the user decides that this is another contact with the same name, then the program goes to step **28**. If at step **30** the user decides that this is a one time occurrence, then the program quits at step **16**. If at step **30**, the user decides that the contact has, for example, moved, the program goes to step **34**. If at step **30**, the user decides that this is an additional address for the contact, at step **36** the program inserts the address in the database for the contact and then quits at step **16**.

Various exemplary screen shots which are generated during execution of the program, according to the present invention, will now be described with reference to FIGS. **3-15** and examples 1-7 as follows.

Example 1

Retrieving an Existing Address from the Database

FIG. **3** illustrates a starting point in word processor document such as WORD document, wherein the user has typed a name **40**. The user hits the button **42**, for example, marked "OneButton" and the program according to the present invention retrieves the name **40** from the document, searches a database for the name **40**, and inserts the retrieved address **44** associated with the name **40** into the document as shown in, for example, FIG. **4**.

The above example corresponds to steps **2, 4, 6, 12, 18, 22** and **16** in the flow charts of FIGS. **1** and **2**.

Example 2

Adding a New Contact to the Database

FIG. **5** illustrates a starting point in word processor document such as WORD document, wherein the user has typed a name and address of a new contact **46**. The user commands the button **42**; for example, marked "OneButton," and the program according to the invention retrieves the new contact **46** from the document, searches a database for the name of the new contact **46** and generates a screen as shown in, for example, FIG. **6**. This screen includes a message **50** informing the user that the new contact does not exist in the database, a message **52** including the address retrieved from the document, an address type selection **54**, such as home, business, etc., and "OK," "Details," and "Cancel" buttons **56, 58**, and **60**, respectively.

At this point, the user can cancel the operation by commanding the Cancel button **60**, ask the program to store data in the database and return the document by commanding the OK button **56**, or check details before storing data into the database by commanding the Details button **58**. If the user commands the Details button **58**, as shown in, for example, FIG. **7**, a message screen is provided so that the user can review and edit data **62** and the selection **54**, store the data **62** and **54** in the database by commanding a "Add and Choose" button **64**, see more options by commanding an "Options" button **66**, or cancel the operation by commanding the Cancel button **60**.

The above example corresponds to steps **2, 4, 6, 14, 26, 28** and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 14, 26, 27, 28** and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 26, 27, 28** and **16** in the flow chart of FIG. **2**.

Example 3

Try to Retrieve Existing Address, but Contact is not in Database

FIG. **3** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name of a contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **40** from the document, searches a database for the name of the contact **40** and generates a screen as shown in, for example, FIG. **8**. This screen includes a message **68** informing the user that the contact does not exist in the database and to specify an address, and "OK" buttons **56**. At this point when the user commands the OK button **56**, the user returns to the document so that the contact's address can be included as in Example 2 above.

The above example corresponds to steps **2, 4, 6, 12, 18, 24**, and **16** in the flow of charts of FIGS. **1** and **2**.

Example 4

Adding a New Address for an Existing Contact (Short Version)

FIG. **4** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed

a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the same name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. This screen includes a message **70** informing the user that the contact already exists in the database with an existing address, a message **72** including the existing address, add new contact with same name selection **74**, change existing address selection **76**, use existing address in document selection **78**, add the new address contact selection **80**, the address type selection **54**, such as home, business, etc., and the "OK," "Details," and "Cancel" buttons **56**, **58** and **60** respectively. AT this point, the user may select one of the four options **74-80**, and command the OK button **56** to execute the selected options. The user can also cancel the operation by commanding the Cancel button **60**, or check details before storing data into the database by commanding the Details button **58**.

The above example corresponds to steps **2**, **4**, **6**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36**, and **16** in the flow chart of FIG. **2**.

Example 5

Selecting Between Several Possible Matching Addresses

FIG. **3** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name and possibly address of at least one existing contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **40** from the document, searches a database for the name of the existing contact **40** and generates a screen as shown in, for example, FIG. **10**. This screen includes a message informing the user the name corresponds to several addresses and possible contacts which already exist in the database, with existing contacts and addresses for selection **82**, a message **84** including the full name and address for the contact that the user selects in **82**; the Options button **66**, a "Choose" button **86**, a "Full details" button **88**, a "More >>>" button **90**, and the Cancel button **60**. The above screen indicates to the user that at least one contact with the same name exists, and that there are more than one addresses and/or contacts that match.

At this point the user may command the Choose button **86** to use the selected address and return to the document, or the user may command the More >>> button **90** to view how the program interpreted what the user typed in the word processor, and possibly change this data, wherein the program generates an updated screen as shown in, for example, FIG. **11**. The updated screen includes the data **62** which displays the name typed in the word processor as interpreted by the program, address fields, and the fields for the address type selection **54**, such as home, business, etc., which may be changed by the user before the program stores it in the database, the Add and Choose button **64**, a "<<< Less" button **90** corresponding to the More >>> button **90** for returning to the screen of FIG. **10**, and an "Add this address to the selected contact above" button **92**. The user might then command the Add this address to the selected contact above button **92** and the result in the word processor is illustrated in FIG. **4**. The user can also cancel the operations by commanding the Cancel button **60**, or command the add choose button **64** to add this name and address as a new contact and address, or open the database before storing data into the database by commanding a "Full details" button **88** as will be later described.

The above example corresponds to steps **2**, **4**, **6**, **12**, **18**, **20**, **22**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **18**, **20**, **21**, **22**, and **16** in the flow chart of FIG. **2**.

Example 6

Adding a New Address for an Existing Contact (Long Version)

FIG. **4** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. As previously described the screen includes a message **70** informing the user that the contact already exists in the database with an existing address, and the user may command the Details button **58** to see the details of the new address for potentially modify the details before they are stored in the database and the program generates a screen as shown in, for example, FIG. **10**. From this screen, the user may choose to use another address than the one he typed, and return to the document, or the user may command the "Full details" button **88** to enter a database program, such as OUTLOOK™, directly as shown in, for example, FIG. **12**. In FIG. **12**, the database program, such as OUTLOOK™, may include portions **94-104** for allowing the user to modify various pieces of data before they are stored in the database.

Alternatively, in the screen shown in FIG. **10**, the user may command the More >>> button **90** at which time the program generates the screen as shown in, for example, FIG. **11** and as previously described. In this screen, the user might then command the Add this address to the selected contact above button **92**. If the address typed is already in use, the program generates a screen including a message **106**, and "Yes" and "No" buttons, **108** and **110**, respectively, as shown in, for example, FIG. **13**. If the user hits the Yes button **108** the program overwrites the contact address with the address specified by the user (e.g., if the contact has moved) and the result in the word processor is shown in, for example FIG. **4**.

The above example corresponds to steps **2**, **4**, **6**, **12**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36**, and **16** in the flow chart of FIG. **2**.

Example 7

Spreadsheet Application

FIG. **14** illustrates a starting point in word processor document, such as an EXCEL spreadsheet, wherein the user has typed a name **112**. The user hits the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **112** from the spreadsheet, searches a database for the name **112**, and inserts the retrieved address **114** into the spreadsheet as shown in, for example, FIG. **15**. Accordingly, the examples 1-6 apply not only to word processor documents, such as WORD™ documents, etc., but to other word processor documents, and spreadsheets, such as EXCEL™ spreadsheets, etc.

The above example corresponds to steps **2**, **4**, **12**, **18**, **22**, and **16** in the flow of charts FIGS. **1** and **2**.

AHL0118074

FIG. **16** is a schematic illustration of a computer system for implementing the single button addressing according to the present invention. A computer **200** implements the method of the present invention, wherein the computer includes, for example, a display device **202**, such as a conventional display device or a touch screen monitor with a touch screen interface, etc., a keyboard **204**, a pointing device **206**, a mouse pad or digitizing pad **208**, a hard disk **210**, or other fixed, high density media drives, connected using an appropriate device bus (e.g., a SCSI bus, an Ultra DMA bus, a PCI bus, etc.), a floppy drive **212**, a tape or CD ROM drive **214** with tape or CD media **216**, or other removable media devices, such as magneto-optical media, etc., and a mother board **218**. The mother board **218** includes, for example, a processor **220**, a RAM **222**, and ROM **224** (e.g., DRAM, ROM, EPROM, EEPROM, SRAM, SDRAM, and Flash RAM, etc.), I/O ports **226** which may be used to couple to external devices, networks, etc., (not shown), and optional special purpose logic devices (e.g., ASICs) or configurable logic devices (e.g., GAL and re-programmable FPGA) **228** for performing specialized hardware/software functions, such as sound processing, image processing, signal processing, neural network processing, object character recognition (OCR) processing, etc., a microphone **230**, and a speaker or speakers **232**.

As stated above, the system includes at least one computer readable medium or alternatively, the computer readable medium may be accessed through various paths, such as networks, internet, drives, etc. Examples of computer readable media are compact discs, hard disks, floppy disks, tape, magneto-optical disks, PROMs (EPROM, EEPROM, Flash, EPROM), DRAM, SRAM, SDRAM, etc. Stored on any one or on a combination of computer readable media, the present invention includes software for controlling both the hardware of the computer **200** and for enabling the computer **200** to interact with a human user. Such software may include, but is not limited to, device drivers, operating systems and user applications, such as development tools. Such computer readable media further includes the computer program product of the present invention for performing any of the processes according to the present invention, described above (see, e.g., FIGS. **1-15**). The computer code devices of the present invention can be any interpreted or executable code mechanism, including but not limited to scripts, interpreters, dynamic link libraries, Java classes, and complete executable programs, etc.

The invention may also be implemented by the preparation of application specific integrated circuits or by interconnecting an appropriate network of conventional component circuits, as will be readily apparent to those skilled in the art.

Address handling, according to this invention; is a significant simplification relative to existing methods, and requires little or no training on the part of a user, as correct addresses are retrieved with a minimal number of user commands, "clicks," keystrokes, etc. In addition, a program according to the present invention, can be programmed and created in most existing programming languages and be connected to most modern word processors. Therefore, according to the present invention, the process of creating and updating records in an address database is significantly simplified, since this may now be performed directly from the word processor.

Although the present invention is defined in terms of word processing documents, such as WORD™ documents and EXCEL™ spreadsheets, the present invention is applicable to all types of word processing documents such as NOTEPAD™, WORDPAD™, WORDPERFECT™, QUATRO-PRO™, AMIPRO™, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of information management or database programs, such as OUTLOOK™ etc., the present invention is applicable to all types of information management or database programs such as ACCESS™, ORACLE™, DBASE™, RBASE™, CARDFILE™, including "flat files," etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of providing an input device, such as a button **42** in a word processor for address handling therein, the present invention may be practiced with all types of input devices, such as touch screen, keyboard button, icon, menu, voice command device, etch, as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving information from a document before searching a database, the user may select the information in the document to be searched by the program in the database (e.g., by highlighting, selecting, italicizing, underlining, etc.), as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving a name or portion thereof from a document before searching a database the program may retrieve an address or portion thereof from the document before searching the database and insert, correct, complete, etc., the retrieved address based on the information found in the database corresponding to the retrieved address or portion thereof, as will be readily apparent to those skilled in the art.

Obviously, numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of appended claims, the invention may be practiced otherwise than as specifically described herein.

This application claims priority and contains subject matter related to Norwegian patent application No. 984066 filed on Sep. 3, 1998, the entire contents of which are hereby incorporated by reference.

What is claimed is:

1. A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:

displaying the document electronically using the first computer program;

while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;

retrieving the first information;

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;

in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and

if searching finds any second information related to the search term, performing the action using at least part of

the second information, wherein the action is of a type depending at least in part on the type or types of the first information.

2. A method according to claim 1, wherein the first information comprises at least one of name-, person-, company- and address-related information.

3. A method according to claim 2, wherein performing the action includes performing the action in the first computer program.

4. A method according to claim 1, wherein performing the action includes performing the action in the first computer program.

5. A method according to claim 4, wherein performing the action includes causing addition of at least part of the second information to the first information in the document.

6. A method according to claim 4, wherein performing the action includes causing display of at least part of the second information.

7. A method according to claim 4, wherein performing the action includes causing display of at least part of the second information by the first computer program.

8. A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.

9. A method according to claim 1, further comprising, if the search is not successful, providing a prompt for updating the information source to include the first information.

10. A method according to claim 1, wherein receipt by the first computer program of the user command precedes analyzing the document.

11. A method according to claim 1, wherein analyzing the document is completed after the receipt of the user command is completed and before searching is initiated.

12. A method according to claim 1, wherein the input device is a graphical input device.

13. A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.

14. A method according to claim 1, wherein the input device is a menu and the entry of the user command includes a user's selection of the menu and click on a menu choice from the menu.

15. A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.

16. A method according to claim 1, wherein the information source is associated with the second computer program and is available on the computer.

17. A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.

18. A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.

19. A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.

20. A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:

displaying the document electronically using the first computer program;

while the document is being displayed, analyzing, in a computer process on the computer, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information, and wherein the first information comprises at least one of name-, person-, company-, and address-related information;

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in a user editable information source outside the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information, wherein the input device includes a menu;

retrieving the first information;

in consequence of receipt by the first computer program of the user command, such user command including a user's selection of the menu and click on a menu choice from the menu, causing a search for the search term in the user editable information source, using a second computer program, in order to find second information related to the search term in the user editable information source; and

if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information and performing the action includes at least causing display of at least part of the second information.

21. A method according to claim 20, further comprising, if searching results in a plurality of occurrences of second information, causing display of such instances to enable user selection of one of them for use in performing the action.

22. A method according to claim 20, wherein performing the action includes causing addition of at least part of the second information to the first information in the document.

23. At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:

displaying the document electronically using the first computer program;

while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;

retrieving the first information;

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;

in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source,

using a second computer program, in order to find second information related to the search term; and

if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.

24. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein the first information comprises at least one of name-, person-, company- and address-related information.

25. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein performing the action includes performing the action in the first computer program.

26. At least one non-transitory computer readable medium according to claim **24**, the instructions establishing processes wherein performing the action includes performing the action in the first computer program.

27. At least one non-transitory computer readable medium according to claim **25**, the instructions establishing processes wherein performing the action includes causing addition of at least part of the second information to the first information in the document.

28. At least one non-transitory computer readable medium according to claim **25**, the instructions establishing processes wherein performing the action includes causing display of at least part of the second information.

29. At least one non-transitory computer readable medium according to claim **25**, the instructions establishing processes wherein performing the action includes causing display of at least part of the second information by the first computer program.

30. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes comprising:

providing a prompt for updating the information source to include the first information.

31. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes comprising:

if the search is not successful, providing a prompt for updating the information source to include the first information.

32. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein receipt by the first computer program of the user command precedes analyzing the document.

33. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein analyzing the document is completed after the receipt of the user command is completed and before searching is initiated.

34. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein the input device is a graphical input device.

35. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein the user command is the only command from a user necessary to initiate performing the operation.

36. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein the input device is a menu and the entry of the user command includes a user's selection of the menu and click on a menu choice from the menu.

37. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes comprising:

if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.

38. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein the information source is associated with the second computer program and is available on the computer.

39. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein the information source is associated with the second computer program and is available through the computer.

40. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein performing the action includes causing insertion of at least part of the second information into the document.

41. At least one non-transitory computer readable medium according to claim **23**, the instructions establishing processes wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.

42. At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:

displaying the document electronically using the first computer program;

while the document is being displayed, analyzing, in a computer process on the computer, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information, and wherein the first information comprises at least one of name-, person-, company-, and address-related information;

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in a user editable information source outside the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information, wherein the input device includes a menu;

retrieving the first information;

in consequence of receipt by the first computer program of the user command, such user command including a user's selection of the menu and click on a menu choice from the menu, causing a search for the search term in the user editable information source, using a second computer program, in order to find second information related to the search term in the user editable information source; and

if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information and performing the action includes at least causing display of at least part of the second information.

43. At least one non-transitory computer readable medium according to claim 42, the instructions establishing processes comprising:

if searching results in a plurality of occurrences of second information, causing display of such instances to enable user selection of one of them for use in performing the action.

44. At least one non-transitory computer readable medium according to claim 42, the instructions establishing processes wherein performing the action includes causing addition of at least part of the second information to the first information in the document.

* * * * *

AHL0118078

US008306993B2

(12) **United States Patent**
Hedloy

(10) **Patent No.: US 8,306,993 B2**
(45) **Date of Patent: *Nov. 6, 2012**

(54) **METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM AN OPERATING SYSTEM**

(75) Inventor: **Atle Hedloy**, Madrid (ES)

(73) Assignee: **Arendi S.A.R.L.**, Luxembourg (LU)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/745,186**

(22) Filed: **May 7, 2007**

(65) **Prior Publication Data**

US 2007/0244907 A1 Oct. 18, 2007
US 2010/0211600 A2 Aug. 19, 2010

Related U.S. Application Data

(63) Continuation of application No. 09/390,303, filed on Sep. 3, 1999, now Pat. No. 7,272,604.

(30) **Foreign Application Priority Data**

Sep. 3, 1998 (NO) 984066

(51) **Int. Cl.**
G06F 17/30 (2006.01)

(52) **U.S. Cl.** 707/769; 707/767

(58) **Field of Classification Search** 707/767, 707/769

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,350,695 A 10/1967 Kaufman et al. 340/172.5
4,270,182 A 5/1981 Asija 364/900
4,453,217 A 6/1984 Boivie 364/300
4,674,065 A 6/1987 Lange et al.
4,969,097 A 11/1990 Levin 364/419
4,972,349 A 11/1990 Kleinberger 364/900
5,226,117 A 7/1993 Miklos 395/157
5,267,155 A 11/1993 Buchanan et al. 364/419.14

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 093 250 A2 11/1983

(Continued)

OTHER PUBLICATIONS

PD Turney—National Research Council, Institute for Information. Learning to Extract Keyphrses from Text. Feb. 1999.*

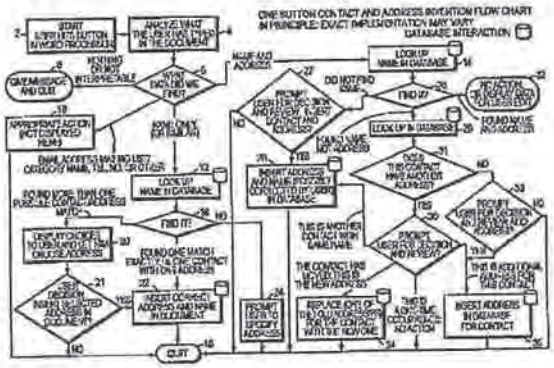
(Continued)

Primary Examiner — Khanh Pham
(74) *Attorney, Agent, or Firm* — Sunstein Kann Murphy & Timbers LLP

(57) **ABSTRACT**

A method, system and computer readable medium for information handling within an operating system, including providing a record retrieval program; providing an input device within a window or screen of the operating system and configured to enter an execute command which initiates a record retrieval from local and remote information sources using the record retrieval program; using the record retrieval program to enter first information into search fields provided in the record retrieval program; entering the execute command using the input device after the step of entering the first information; searching, using the record retrieval program, the local and remote information sources for second information associated with the first information; and displaying the second information in the record retrieval program, when one of the local and remote information sources includes second information associated with the first information.

30 Claims, 17 Drawing Sheets



PLAINTIFF'S TRIAL EXHIBIT **PX0002**

U.S. PATENT DOCUMENTS

5,331,555	A		7/1994	Hashimoto et al. 364/419.07
5,355,472	A		10/1994	Lewis 395/600
5,375,200	A		12/1994	Dugan et al. 395/159
5,388,150	A		2/1995	Schneyer et al. 379/67
5,392,386	A		2/1995	Chalas
5,416,901	A		5/1995	Torres 395/159
5,491,783	A		2/1996	Douglas et al. 395/159
5,491,784	A		2/1996	Douglas et al. 395/159
5,491,785	A		2/1996	Robson et al. 395/162
5,493,105	A		2/1996	Desai 235/375
5,495,565	A		2/1996	Millard et al. 395/146
5,500,859	A		3/1996	Sharma et al. 370/81
5,530,853	A		6/1996	Schell et al. 395/600
5,546,447	A		8/1996	Skarbo et al. 379/142
5,566,330	A		10/1996	Sheffield 395/600
5,576,955	A		11/1996	Newbold et al.
5,579,467	A		11/1996	Capps 395/768
5,587,911	A		12/1996	Asano et al. 364/444.2
5,606,712	A		2/1997	Hidaka 395/800
5,623,652	A	*	4/1997	Vora et al. 707/10
5,628,004	A		5/1997	Gormley et al. 395/615
5,634,121	A		5/1997	Tracz et al. 395/602
5,640,565	A		6/1997	Dickinson 395/683
5,666,502	A		9/1997	Capps 345/352
5,696,962	A	*	12/1997	Kupiec 707/4
5,708,804	A		1/1998	Goodwin et al. 395/603
5,724,597	A		3/1998	Cuthbertson et al.
5,732,229	A		3/1998	Dickinson
5,732,395	A		3/1998	Silverman 704/260
5,734,871	A		3/1998	Kleinerman et al. 395/500
5,737,726	A		4/1998	Cameron et al. 705/7
5,740,433	A	*	4/1998	Carr et al. 707/202
5,742,905	A		4/1998	Pepe et al. 455/461
5,754,636	A		5/1998	Bayless et al. 379/142
5,761,656	A		6/1998	Ben-Shachar
5,761,663	A		6/1998	Lagarde et al. 707/10
5,774,887	A		6/1998	Wolff et al. 707/1
5,778,367	A		7/1998	Wesinger et al. 707/10
5,781,189	A		7/1998	Holleran et al. 345/335
5,787,451	A		7/1998	Mogilevsky 707/533
5,793,972	A		8/1998	Shane 395/200.49
5,794,228	A		8/1998	French et al.
5,794,259	A		8/1998	Kikinis 707/507
5,799,302	A		8/1998	Johnson et al.
5,805,810	A		9/1998	Maxwell 395/200.36
5,805,886	A		9/1998	Skarbo et al. 395/685
5,805,911	A		9/1998	Miller 395/796
5,815,830	A		9/1998	Anthony
5,819,273	A	*	10/1998	Vora et al. 707/10
5,826,257	A		10/1998	Snelling, Jr. 707/4
5,835,089	A		11/1998	Skarbo et al. 345/335
5,859,636	A		1/1999	Pandit
5,860,073	A		1/1999	Ferrel et al. 715/255
5,864,848	A		1/1999	Horvitz et al.
5,873,107	A		2/1999	Borovoy et al.
5,873,108	A		2/1999	Goyal et al. 707/507
5,884,309	A		3/1999	Vanechanos, Jr. 707/10
5,893,093	A		4/1999	Wills 707/5
5,896,321	A	*	4/1999	Miller et al. 365/189.15
5,896,533	A		4/1999	Ramos et al. 395/680
5,907,838	A		5/1999	Miyasaka et al. 707/4
5,913,214	A		6/1999	Madnick et al. 707/10
5,923,848	A		7/1999	Goodhand et al. 395/200.49
5,924,074	A		7/1999	Evans
5,924,090	A		7/1999	Krellenstein 707/5
5,926,808	A		7/1999	Evans et al. 707/3
5,930,471	A		7/1999	Milewski et al. 395/200.04
5,930,764	A		7/1999	Melchione et al. 705/10
5,940,484	A		8/1999	DeFazio et al. 379/142
5,946,647	A		8/1999	Miller et al.
5,946,679	A		8/1999	Ahuja et al. 707/3
5,999,938	A		12/1999	Bliss et al.
6,006,218	A		12/1999	Breese et al.
6,006,351	A		12/1999	Peretz et al. 714/751
6,012,075	A		1/2000	Fein et al. 707/540
6,018,571	A		1/2000	Langlois et al. 379/207
6,021,403	A		2/2000	Horvitz et al.
6,021,412	A	*	2/2000	Ho et al. 707/104.1
6,026,398	A		2/2000	Brown et al.
6,026,410	A		2/2000	Allen et al. 707/104
6,028,605	A	*	2/2000	Conrad et al. 715/840
6,055,531	A	*	4/2000	Bennett et al. 707/5
6,065,012	A	*	5/2000	Balsara et al. 707/102
6,067,565	A		5/2000	Horvitz
6,073,138	A	*	6/2000	de l'Etraz et al. 707/104.1
6,081,788	A		6/2000	Appleman et al. 705/14
6,085,201	A		7/2000	Tso
6,085,226	A		7/2000	Horvitz
6,092,074	A		7/2000	Rodkin et al. 707/102
6,108,686	A	*	8/2000	Williams, Jr. 709/202
6,151,584	A		11/2000	Papierniak et al. 705/10
6,178,411	B1	*	1/2001	Reiter 705/408
6,182,133	B1		1/2001	Horvitz
6,189,026	B1		2/2001	Birrell et al. 709/206
6,192,380	B1		2/2001	Light et al. 707/505
6,208,975	B1		3/2001	Bull et al. 705/14
6,209,005	B1		3/2001	Harker et al. 707/501
6,223,570	B1		5/2001	Horvitz et al.
6,247,029	B1		6/2001	Kelley et al. 707/507
6,253,188	B1		6/2001	Witek et al. 705/14
6,260,035	B1		7/2001	Horvitz et al.
6,262,730	B1		7/2001	Horvitz et al.
6,285,987	B1		9/2001	Roth et al. 705/27
6,304,881	B1	*	10/2001	Halim et al. 707/201
6,317,761	B1		11/2001	Landsman et al. 707/513
6,323,853	B1		11/2001	Hedloy
6,349,299	B1	*	2/2002	Spencer et al. 707/702
6,373,940	B2		4/2002	Shaffer et al. 379/355.02
6,377,965	B1	*	4/2002	Hachamovitch et al. 715/203
6,381,593	B1	*	4/2002	Yano et al. 707/3
6,385,592	B1		5/2002	Angles et al. 705/14
6,388,957	B2		5/2002	Yankowski
6,405,206	B1	*	6/2002	Kayahara 707/102
6,421,691	B1		7/2002	Nishiyama et al. 707/507
6,421,693	B1		7/2002	Nishiyama et al. 707/507
6,442,540	B2	*	8/2002	Sako et al. 707/3
6,499,021	B1		12/2002	Abu-Hakima 706/10
6,523,022	B1	*	2/2003	Hobbs 707/3
6,651,217	B1		11/2003	Kennedy et al. 715/507
6,711,585	B1	*	3/2004	Copperman et al. 707/104.1
6,725,227	B1	*	4/2004	Li 707/102
6,738,615	B1		5/2004	Chow et al. 455/415
6,782,510	B1		8/2004	Gross et al. 715/533
6,826,407	B1		11/2004	Helferich 455/466
6,870,828	B1	*	3/2005	Giordano, III 370/352
7,039,599	B2		5/2006	Merriman et al. 705/14
7,051,019	B1		5/2006	Land et al.
7,136,853	B1		11/2006	Kohda et al. 707/6
7,149,761	B2	*	12/2006	Cooke et al. 707/203
7,155,451	B1		12/2006	Torres 707/104.1
7,216,292	B1		5/2007	Snapper et al. 715/507
7,272,604	B1		9/2007	Hedloy 707/10
7,353,246	B1	*	4/2008	Rosen et al. 709/202
7,496,854	B2		2/2009	Hedloy 715/780
7,505,974	B2		3/2009	Gropper 707/10
7,509,349	B2		3/2009	Celik 707/200
7,917,843	B2		3/2011	Hedloy 715/230
7,921,356	B2		4/2011	Hedloy 715/230
2002/0078030	A1	*	6/2002	Iwayama et al. 707/1
2002/0188683	A1		12/2002	Lytle et al. 709/206
2003/0033288	A1		2/2003	Shanahan et al. 707/3
2003/0084074	A1	*	5/2003	Balogh et al. 707/201
2003/0167279	A1	*	9/2003	Smiga et al. 707/102
2006/0047644	A1		3/2006	Bocking et al. 707/4
2008/0313159	A1		12/2008	Hedloy 707/3
2010/0281354	A1		11/2010	Hedloy 715/220
2011/0072029	A1		3/2011	Hedloy 707/758

FOREIGN PATENT DOCUMENTS

EP	0520926		12/1992
EP	1630642	A1	1/2006
GB	2196454	A	4/1988
GB	2 318 703		4/1998
JP	08116362		5/1996
WO	WO 97/21183		6/1997

WO	WO 98/16890	4/1998
WO	WO 98/19259	5/1998
WO	WO 98/34391	8/1998

OTHER PUBLICATIONS

Steve Hitchcock et al. Towards universal linking for electronic journnals. Pub. 1998.*
Adressing the Issues, Jun. 24, 1993.
Philip Robinson, The Envelope, Please: It's AddressMate, San Jose Mercury News, Sunday, Jul. 19, 1992.
Steve Supkoff, AddressMate, PCM, Aug. 1992.
L.R. Shannon, Addressing Envelopes, The New York Times, Tuesday, Jul. 14, 1992.
Rob Schwabach, Addressing for Success, On Computers column, Mar. 16, 1992.
Infoworld, p. 15, Mar. 16, 1992.
Colvin's beta-testing of Addressmate sparks developer's appreciation, Westview, Apr. 6, 1992.
Press Release:AddressMate Software Automatically Addresses and bar Codes Envelopes to Save Time and money, Mar. 9, 1992.
Gearoge M> Long, Letter to Mr. David Block, Nov. 11, 1994.
Philip J. Damiano, Letter to Mr. David Block, Jan. 5, 1994.
Ed Kahn, Envelope Addressing Finally Simplifieed AddressMate Does Addressing and Much More, Microtimes, Nov. 27, 1995.
Kirsten Bernthal, LabelWriter XL Plus, PC Catalog, Aug. 18, 1995.
David Plotkin, Address for Success, Bay Area Computer Currents, p. 36-38, Mar. 21, 1995.
Getting Results with Microsoft Office for Windows 95, Version 7.0, 1995.
Getting Results with Microsoft Office 97, copyright 1995-1997.
Microsoft Word, User's Guide, Version 6.0, copyright 1993-1994.
Apple Internet Address Detectors User's Manual, copyright 1997.
Eve Wilson, Links and Structures in Hypertext Databases for Law, in Hypertext: Concepts, Systems and Applications, Proceedings of the First European Conference opn Hypertext, Nov. 1990.
Eve Wilson, Guiding Lawyers: Mapping Law into Hypertext, Artificial Intelligence Review 6, pp. 161-189, 1992.
Charles H. Franke III et al, Authoring a Hypertext Unix Help Manual, 1995.
P.J. Brown, Guide User Manual, 1985, sixteenth impression, Apr. 1995.
E. Wilson, Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System, Literary and Linguistic Computing, vol. 5, No. 2, 1990.
Mike Langberg, Apple Breaks New Ground by Displaying What on its drawing board, Aug. 7, 1996.
E. Wilson, Integrated Information Retrieval for Law in a Hypertext Environment, Annual ACM Conference on Research and Development in information Retrieval, 1988.
Multimedia Hyperlinks Automatically Created for Reference Documents, Research Disclosure, Jun. 1993.
Joy-Lyn Blak, WikiWikiWeb, Computer World, Jan. 29, 2001.
Apple Introduces Internet Address Detectors, Press Release, Sep. 7, 1997.
Cara Cunningham, Apple Kicks Off Macworld with talk of revival, new software demos, InfoWorld Electric, Aug. 7, 1996.
James Sinten, Apple Looks to the Future, MacWeek, Aug. 7, 1996.
Mark Simmons, Striking a Key Note, Mac Addict Online, Aug. 8, 1996.
Jim Miller, email regarding Apple Data Detectors, Jan. 8, 1997.
Apple Data Detectors web page, Jan. 6, 1997.
Apple Data Detectors—Now Shipping web page, Jan. 6, 1997.
The Apple Data Detectors FAQ, Jan. 6, 1997.
Developer's Guide to Apple Data Detectors, Dec. 1, 1997.
AppleScript Editors, Utilities & Environments, available at www.applescriptsourcebook.com/links/applescripteditors.html, dated Jan. 11, 2004.
Steve Tannehill, News from Jul. 1997.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 27, 2004.
Excerpt from Jury Charge Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 28, 2004.
Apple Data Detectors 1.0.2, TidBITS #419, Mar. 9, 1998.
Tonya Engst, More Context on Contextual menus, TidBITS #399, Sep. 29, 1997.
Tonya Engst, Of Mice and Menus, TidBITS #398, Sep. 22, 1997.
Charles Whaley, Will this be enough to kick-start Apple?, Computing Canada, Aug. 4, 1997.
A Farewell to the Apple Advanced Technology Group, SIGCHI, vol. 30, No. 2, Apr. 1998.
James R. Miller and Thomas Bonura, From Documents to Objects, in SiGCHI, vol. 30, No. 2, Apr. 1998.
Thomas Bonura and James R. Miller, Drop Zones, in SIGCHI, vol. 30, No. 2, Apr. 1998.
Bonnie A. Nardi, et al., Collaborative, Programmable Intelligent Agents, Communications of the ACM, vol. 41, No. 3, Mar. 1998.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 13, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 14, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 15, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 16, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 17, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 20, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 21, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporationm et al.*, Sep. 22, 2004.
Contextual Menu Manager/Apple Data Detectors (MS 049590-MS 049594), posted 2002 printed Jan. 2004.
CoStar User Manual for AddressMate and AddressMate Plus, 1995.
ctags (UNIX Command), 1993.
Microsoft Word 6.0, for Windows and Macintosh, 1993.
N.D. Beitner, et al, Multimedia Support and Authoring in Microcosm: an extended model, 1994.
Spell, iSpell Spellout, 1993.
SED(1), BSD Reference Manual Page, 1993.
AddressMate for Windows, Version 2.0, Product Box and License Agreement, 1992.
Important Note for New AddressMate Users, 1995.
Important Tips for LabelWriter Owners Using AddressMate, 1993.
AddressMate Advertisement "Whye Do it the Olde Way", 1995.
Ken Hart, Simplify Envelope Printing with AddressMate, Computer Shopper, 1995.
AddressMate for Windows, Advertisements, 1995-1996.
AddressMate Plus, Advertisement, 1995-1996.
Address Fixer for Microsoft Word and office, Product Box, 1996.
AddressMate Plus, Product Box and License Agreement, 1995.
CTAGS(1) Manual Page, 1993.
Matt Bernstein, An Apprentice that Discovers Hypertext Links, 1992.
Contextual Menu Manager/Apple Data Detectors, posted 2002 printed Jan. 2004.
P.J. Brown et al, A Help System Based on UNIX Man Pages, 1987.
John Robertson, et al, The Hypermedia Authoring Research Toolkit, ECHT 194 proceedings, pp. 177-185, 1994.
What is Wiki and Wiki History webpages, available at wiki.org/wiki.cgi?WhatIsWiki and www.c2.org/cgi/wiki?WikiHistory, last edited Jun. 2002 printed on Aug. 2003.
Wiki Wiki Origin, last edited Jun. 2003 printed on Aug. 2003.
Microsoft's Supplemental Responses to Arendi's Interrogatories, in *Arendi U.S.A. et al* v. *Microsoft Corporation*, Civil Action 02-CV-343 (ECT) from United States District Court for the District of Rhode Islands, 2004.
Apple Data Detector WebPages, available on web.archive.org/web/20020601164217/www.apple.com/applescript/data_detectors, first established in 1997—last edited 2002.
Apple Data Detectors 1.0.2 Read Me, 1998.
eMailman Internet Address Detectors, 1996-2000.
Control-Click! The Archive, 1997-2000.
Contextual Menus: One of System 8's Greatest Features, in ApplePress, posted 2002.

Contextual Menu Manager/Apple Data Detectors, available at web.archive.org/web/20020803063750/www.macemail.com/emailer/CEMH/contextual.shtml, posted 2002.
Trygve's CMM Plug-Ins Homer, available at web.archive.org/web/19980130053511/www.bombaydigital.com/cmms, 1997.
ADD Depot, available from web.archive.org/web/20000819091818/http://homepage.mac.com/mathewmiller/add, posted 2000.
Mac0S8.com—Mac OS 8 Indepth, 1999.
Microsoft Corporation and Dell Inc.'s Answer, Affirmative Defenses and Counterclaims to Complaint, *Arendi Holding Ltd.* v. *Microsoft Corp. et al.*, C.A. No. 09-119-JJf, from the United States District Court for the District of Delaware, pp. 1-17, Apr. 30, 2009.
"More about the Database," http://c2.com/cgi/wiki?MoreAboutTheDatabase, pp. 1-3, last edited May 7, 2009.
"Ward Cunningham," http://c2.com/cgi/wiki?WardCunningham, pp. 1-15, last edited Apr. 23, 2009.
"Adding New Pages," http://c2.com/cgi/wiki?AddingNewPages, pp. 1-2, last edited Jun. 8, 2009.
"Wiki Wiki Web," http://c2.com/cgi/wiki?WikiWikiWeb, 1 page, last edited Jun. 1, 2009.
"Apple Data Detectors User's Manual," 16 pages, last updated Jul. 31, 1997.
"ISPELL (1)," 15 pages, Aug. 23, 2003.
"International Ispell," http://fmg-www.cs.ucla.edu/geoff/ispell.html, 5 pages, Aug. 23, 2003.
"ISPELL," http:theochem.ki.ku.dk/on_line_docs/ispell/ispell_1.html, 4 pages, Aug. 23, 2003.
"Getting Results with Microsoft Office 97" Microsoft, 701 pages, 1995-97.
Tom Quinlan, "Apple System Software Branches Out," 3 pages, Mar. 16, 1992.
"Introducing AddressMate Plus, The Address Book Manager for Microsoft Word," 4 pages, May 1996.
"AddressMate for Windows, New Version 2.0," 9 pages, Oct. 9, 1994.
Mar. 1996 Reviews, http://www.techweb.com/winmag/library/1996/0396/03rvh002.htm 9 pages, Jan. 26, 2004.
"ISPELL (1)" 16 pages, Aug. 23, 2003.
"ISPELL (4)," 11 pages, Aug. 23, 2003.
"Corel Professional Office 7 Quick Results," 534 pages, no date available.
"Getting Results with Microsoft Office for Windows 95," Microsoft, 636 pages, 1995.
User Manual, "For AddressMate and AddressMate Plus," CoStar, 212 pages, 1994-1995.
"Addressing the Issues," AdressMate Software, 4 pages, Jun. 24, 1993.
L. R. Shannon, "Peripherals," *The New York Times*, 1 page, Jul. 14, 1992.
"AddressMate Software Automatically Addresses and Bar Codes Envelopes to Save Time and Money," AddressMate, 3 pages, Mar. 9, 1992.
"AddressMate for Windows, Adds all the missing pieces to your word processor," 6 pages, no date available.
"LabelWriter XL Plus," 18 PC Catalog, 1 page, Aug. 18, 1995.
"AddressMate Plus," CoStar, 16 pages, no date available.
"AddressMate Incorporates Correction Capability," *Law Technology*, 3 pages, Jan. 1996.
"User's Guide for Windows 16-Bit, Version 5.2," Novell, Inc., GroupWise, 235 pages, 1993-1997.
"User's Guide for Windows, 32-Bit" Novell, Inc., GroupWise, 322 pages, 1998.
"GroupWise Webaccess User's Guide," Novell, Inc., 37 pages, 1998.
Opposition against European Patent EP 1 171 836, Letter to the European Patent Office in Preparation for the Oral Proceedings scheduled for May 26, 2009, 31 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 1 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 2 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 3 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 4 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 5 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 6 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 7 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 8 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 9 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 10 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 11 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 12 Claims, 3 pages, Mar. 26, 2009
Opposition against European Patent EP 1 171 836, Auxillary Request 13 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 14 Claims, 3 pp., Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 15 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 16 Claims, 3 pages, Mar. 26, 2009.
Expert Report of Professor Benjamin Goldberg, 43 pages, dated Mar. 10, 2008.
Supplemental Expert Report of Professor Benjamin Goldberg, 15 pages, May 6, 2008.
Second Supplemental Expert Report of Professor Benjamin Goldberg, 32 pages, Mar. 26, 2009.
Expert Report of Professor Calvin Gidney III, 3 pages, Mar. 26, 2009.
European Patent Office, Summons to Attend Oral Proceedings pursuant to Rule 115(1) EPC, 18 pages, Jan. 23, 2009.
Affidavit of James Miller, 18 pages, Jul. 19, 2006.
Affidavit of David Block, 23 pages, Jul. 21, 2006.
Order Re Claim Construction, in *Arendi U.S.A. Inc. et al.* v. *Microsoft Corp.*, CA No. 02-343-T, from United States District Court for the District of Rhode Island, 4 pages, Sep. 27, 2004.
Expert Report of W. Bruce Croft, PH.D., in *Arendi U.S.A., Inc. et al.* v. *Microsoft Corp.*, CA No. 02-CV-343 (ECT), from United States District Court for the District of Rhode Island, 66 pages, Mar. 1, 2004.
Supplemental Expert Report of W. Bruce Croft, PH.D., in *Arendi U.S.A., Inc. et al.* v. *Microsoft Corp.*, CA No. 02-CV-343 (ECT), from United States District Court for the District of Rhode Island, 42 pages, Jun. 9, 2004.
Microsoft Word 97 Help File entitled "Automatically check spelling and grammar as you type," 1 page, no date available.
Microsoft Word 97 Help File entitled "Turn automatic changes on or off," 1 page, no date available.
Microsoft Word 97 Help File entitled "Automatically Correct Text," 1 page, no date available.
Microsoft Word 97 Help File entitled "Field Codes: Hyperlink Field," 1 page, no date available.
Microsoft Word 97 Help File entitled "Change the Contents of an AutoCorrect Entry," 1 page, no date available.
"User Manual For AddressMate and AddressMate Plus," AddressMate Software, 218 pages, 1994-1995.
Affirming Claim Construction Order, in *Arendi USA et al.* v. *Microsoft Corp.*, No. 05-1170, 05-1171, from Court of Appeals for the Federal Circuit, 1 page, Feb. 8, 2006.
Miller, Jim, "Portfolio; Innovative Interfaces for Information Management," Website: http://www.miramontes.com/portfolio/add/add1.html, 1 page , no date available.
Church, Kenneth et al., "Commercial Applications of Natural Language Processing," 30 pages, Mar. 13, 2003.
Yankelovich, Nichole et al., "Intermedia: The concept and the Construction of a Seamless Information Environment," *Electronic Publishing Technologies*, pp. 81-96, Jan. 1988.
Utting, Kenneth et al., "Context and Orientation in Hypermedia Networks," *AMC Transactions on Information Systems*, vol. 7, No. 1, pp. 58-84, Jan. 1989.

Kahn, Paul, "Linking Together Books: Experiments in Adapting Published Material into Intermedia Documents," *Hypermedia*, vol. 1 No. 2, pp. 1-37, 1989.
Combs, James, "Hypertext, Full-Text and Automatic Linking," pp. 83-98, 1990.
Catlin, Karen Smith et al., "Hypermedia Templates: An Authors Tools," *Hypertext 1991 Proceedings*, pp. 147-160, Dec. 1991.
Meyrowitz, Norman, "The Missing Link, Why We're All Doing Hypertext Wrong," *The Society of Text, Hypertext, Hypermedia, and the Social Construction of Information*, pp. 107-114, no date available.
Halasz, Frank, "Reflections on Notecards: Seven Issues for the Next Generation of Hypermedia Systems," *Hypertext 87 Papers*, pp. 345-365, Nov. 1987.
Haan, Bernard et al., "IRIS Hypermedia Services," pp. 36-51, Jan. 1992.
McKnight, Dillon, "Review, The Textbook of the Future," *Hypertext: a Psychological Perspective*, pp. 19-51, 8 pages, Mar. 1993.
Bouvin, Niels Olof, "Augmenting the Web Through Open Hypermedia," 95 pages, Nov. 2000.
Halasz, Frank et al., "The Dexter Hypertext Reference Model," pp. 95-133, Dec. 7, 1989.
Weinreich, Harald et al., "The Look of the Link—Concepts for the User Interface of Extended Hyperlinks," 10 pages, no date available.
Fountain, Andrew et al., "Microcosm: An Open Model for Hypermedia with Dynamic Linking," *Hypertext: Concept Systems and Applications, Proceedings of the First European Conference on Hypertext*, France, 16 pages, Nov. 1990.
Justus: Wilson, Eve, "Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System," *Library and Linguistics Computing*, vol. 5, No. 2, pp. 119-128, 1990.
"Claris Em@iler Getting Started," Claris Corporation, 57 pages, 1995.
"OmniPage Pro for Windows 95," Version 7.0 Caere Corporation, 57 pages, 1996.
Microsoft Corporation and Dell Inc.'s Invalidity Contentions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-26, Aug. 14, 2009.
Exhibit A, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit AA, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Aug. 14, 2009.
Exhibit AAA, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit B, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit BB, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Aug. 14, 2009.
Exhibit C, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit CC, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit D, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit DD, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 14, 2009.
Exhibit E, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit EE, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Aug. 14, 2009.
Exhibit F, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit FF, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-40, Aug. 14, 2009.
Exhibit G, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit GG, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit H, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit HH, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit I-1 through I-6, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-1800, Aug. 14, 2009.
Exhibit II, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit J, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-89, Aug. 14, 2009.
Exhibit JJ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit K, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-260, Aug. 14, 2009.
Exhibit KK, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit L, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-190, Aug. 14, 2009.
Exhibit LL, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit M, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-58, Aug. 14, 2009.
Exhibit MM, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-29, Aug. 14, 2009.
Exhibit N, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-47, Aug. 14, 2009.
Exhibit NN, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-30, Aug. 14, 2009.
Exhibit O, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-51, Aug. 14, 2009.
Exhibit OO, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-29, Aug. 14, 2009.
Exhibit P, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-133, Aug. 14, 2009.
Exhibit PP, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 14, 2009.
Exhibit Q *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-40, Aug. 14, 2009.
Exhibit QQ, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-52, Aug. 14, 2009.

Exhibit R, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-44, Aug. 14, 2009.
Exhibit RR, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit S, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-51, Aug. 14, 2009.
Exhibit SS, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit T, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit TT, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit U, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit UU, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit V, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit VV, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit W, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit WW, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit X, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-7, Aug. 14, 2009.
Exhibit XX, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-31, Aug. 14, 2009.
Exhibit Y, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit YY, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-31, Aug. 14, 2009.
Exhibit Z, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit ZZ, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Defendants Microsoft Corp. And Dell, Inc.'s Brief in Support of their Motion for Summary Judgment of Invalidity for Failure to Comply with 35 U.S.C. § 112, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Aug. 10, 2009.
Declaration of W. Bruce Croft, Ph.D., *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-15, Aug. 10, 2009.
Plaintiff's Opening Brief in Support of its Proposed Claim Constructions, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Aug. 10, 2009.
Microsoft Corp. and Dell Inc.'s Claim Construction Brief, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Aug. 10, 2009.
Plaintiff's Counter-Statement of Disputed Material Facts in Opposition to Defendants' Motion for Summary Judgment of Invalidity, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-19, Aug. 24, 2009.
Plaintiff's Answering Brief in Support of its Proposed Claim Constructions, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-43, Aug. 25, 2009.
Microsoft Corp. and Dell, Inc.'s Answering Claim Construction Brief, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-25, Aug. 25, 2009.
Microsoft Corp. and Dell, Inc.'s Response to Plaintiff's Counter-Statement to Defendants' Motion for Summary Judgment of Invalidity, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 31, 2009.
Microsoft Corp. and Dell, Inc.'s First Amended Answer, Affirmative Defenses and Counterclaims to Complaint, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Oct. 19, 2009.
Plaintiff's Answer to Defendants' First Amended Counterclaims, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-19, Oct. 30, 2009.
Microsoft Corp. and Dell, Inc.'s Second Amended Answer, Affirmative Defenses and Counterclaims to Complaint, *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Dec. 8, 2009.
Decision Revoking European Patent No. EP-B-1171836, European Patent Office, pp. 1-13, Jul. 9, 2009.
Notice of Appeal for European Patent No. EP-B-1171836, in the European Patent Office, pp. 1-2, Nov. 1, 2009.
Grounds of Appeal for European Patent No. EP-B-1171836, in the European Patent Office, pp. 1-62, Nov. 19, 2009.
Submission of opponent (Microsoft) in opposition against European Patent No. 1 171 836, Appeal T1779/09-3501, in the European Patent Office, 32 pages, Mar. 25, 2010.
Second Affidavit of David Block, 15 pages, May 15, 2009.
Second Affidavit of James Miller, 36 pages, May 15, 2009.
Hall, Wendy, et al., "Rethinking Hypermedia," Kluwer Academic Publishers, 87 pages, 1996.
Deposition of David Block, *Arendi U.S.A., Inc.* v. *Microsoft Corp.*, Case No. 02-CV-343 (ECT), from United States District Court for the Northern District of California, 196 pages, Aug. 13, 2004.
Exhibits for the Deposition of David Block, *Arendi U.S.A., Inc.* v. *Microsoft Corp.*, Case No. 02-CV-343 (ECT), from United States District Court for the Northern District of California, 334 pages, Aug. 13, 2004.
Writ of Summons to Arendi Holding Co., District Court in the Hague and English translation, 65 pages, Oct. 26, 2005.
Microsoft's Reply in the Main Action, Defense in the Counterclaim, District Court in the Hague, No. 2006/0782, 55 pages, date unknown.
Microsoft's Reply in the Main Action, Defense in the Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 51 pages, date unknown.
Microsoft's Reply in Counterclaim for Infringement, District Court in the Hague, No. 2006/0782, 26 pages, Sep. 24, 2008.
Microsoft's Reply in Counterclaim for Infringement, District Court in the Hague, No. 2006/0782, English Translation, 26 pages, Sep. 24, 2008.
Statement of Defense in the Principal Action and With Regard to the Interlocutory Claim Also Comprising A Counterclaim, With Exhibit, District Court in the Hague, No. 2006/0782, 57 pages, Jan. 31, 2007.
Statement of Defense in the Principal Action and With Regard to the Interlocutory Claim Also Comprising a Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 23 pages, Jan. 31, 2007.
Statement of Rejoinder in the Principal Action (Incl. With Regard to the Interlocutory Claims) Also Comprising Statement of Reply in the Counterclaim With Exhibits, District Court in the Hague, No. 2006/0782, 123 pages, Mar. 12, 2008.
Statement of Rejoinder in the Principal Action (Incl. With Regard to the Interlocutory Claims) Also Comprising Statement of Reply in the

Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 33 pages, Mar. 12, 2008.
Letter from Abraham H. Spierer to David Block, Dec. 19, 1994.
Claris Em@iler User's Manual, 187 pages, 1995-1997.
"Word Lookup Data Detectors," Dictionary.com, available at http://dictionary.reference.com/mac/add.html, 3 pages, Jan. 12, 2004.
Apple.com internet web pages (marked "MS 118139-MS 118143"), 5 pages, Dec. 7, 2001.
"Overview: What are Apple Data Detectors", Apple.com internet web pages (marked "MA 118078-MS 118092"), 15 pages, Jun. 1, 2002.
Addressmate Plus User Manual Addendum, 2 pages, Nov. 1, 1995.
Now Software, Inc., "Now Contact & Up•to•Date Quick Reference Guide", 18 pages, 1992-95.
Now Software, Inc., "Now Contact version 3.5 User's Guide", 229 pages, 1992-95.
Now Software, Inc., "Now Up•to•Date version 3.5 User's Guide", 232 pages, 1992-95.
Now Software, Inc., "Now Utilities Quick Reference Guide", (6 pages), 1992-1995.
Now Software, Inc., "What's New in Now Up•to•Date & Now Contact", 14 pages, 1995.
Microsoft's Supplemental Response to Arendi's Interrogatory No. 5, United States District Court for the District of Rhode Island, 4 pages, Apr. 7, 2003.
Microsoft's Supplemental Response to Arendi's Second and Thrid Sets of Interrogatories (Nos. 10,12), United States District Court for the District of Rhode Island, 22 pages, Sep. 8, 2003.
Reply Brief of Plaintiffs-Appellants Arendi Usa, Inc. and Arendi Holding Limited, United States Court of Appeals for the Federal Circuit, 37 pages, Sep. 2, 2005.
Apple Data Detectors/Internet Address Detectors, ADD-IAD_1.0.2_Info.txt, 1 page, Mar. 5, 1998.
Cortinas, M., Data Ratchet extracts info, ZD.com, 2 pages, Apr. 3, 1997.
Glucose Unveils Data Ratchet v.1.1!, Glucose Development Corp., 4 pages, 1997.
Glucose Releases Data Ratchet Source, Glucose Press Release, 1 page, Dec. 18, 1999.
Are you a document mechanic?, from Glucose Development Corp.'s webpage (http://glulabs.com), 2 pages, 2002.
Glucose Open Source Tools, from Glucose Development Corp., 2 pages, 1999.
E-Mail 'Net Differences—Eudora Pro and E-Mail Connection shine in their own ways . . . , Communications Week, 4 pages, Jan. 6, 1997.
Internet Update Sep. 10, 1997, Newsbytes news Network, 5 pages, Sep. 10, 1997.
Brouwer, r., ADD → Address Book, 1 page, Jun. 8, 1998.
Byrne, M., ADD → New Mail, 1 page, Aug. 23, 1998.
MacCentral: Apple Macintosh News, 4 pages, Jan. 12-13, 2004.
Plaintiff's Answer to Microsoft Corporation's and Dell Inc.'s Second Amended Counterclaims, in *Arendi Holding Ltd.* v. *Microsoft Corp. and Dell Inc.*, CA No. 09-119-JJF-LPS, from United States: District Court for the District of Delaware, pp. 1-20, Dec. 14, 2009.
Johannes, S., et al., "Active Messenger: Email Filtering and Mobile Delivery," *Massachusetts Institute of Technology*, Sep. 1999, pp. 1-122.
Srihari, S, et al., "A System to Read Names and Addresses on Tax Forms," *Proceedings of the IEEE*, vol. 14, No. 7, Jul. 1996, pp. 1038-1049.
U.S. Appl. No. 12/841,302, Interview Summary, 3 pages, Dec. 20, 2010.
US Patent No. 6,323,853, U.S. Appl. No. 09/189,626 As Filed, 58 pages, Nov. 10, 1998.
US Patent No. 6,323,853, Preliminary Amendment, U.S. Appl. No. 09/189,626, 20 pages, Apr. 29, 1999.
US Patent No. 6,323,853, Office Action, U.S. Appl. No. 09/189,626, 9 pages, Apr. 26, 2000.
US Patent No. 6,323,853, U.S. Appl. No. 09/189,626, Interview Summary, 2 pages, Jun. 14, 2000.
US Patent No. 6,323,853, Response, U.S. Appl. No. 09/189,626, 5 pages, Jul. 25, 2000.
US Patent No. 6,323,853, Final Office Action, U.S. Appl. No. 09/189,626, 10 pages, Sep. 18, 2000.
US Patent No. 6,323,853, Interview Summary, U.S. Appl. No. 09/189,626, 1 page, Oct. 17, 2000.
US Patent No. 6,323,853, Response, U.S. Appl. No. 09/189,626, 5 pages, Dec. 18, 2000.
US Patent No. 6,323,853, Notice of Allowance, U.S. Appl. No. 09/189,626, 7 pages, Jan. 4, 2001.
US Patent No. 6,323,853, Notice of Allowance, U.S. Appl. No. 09/189,626, 2 pages, Oct. 2, 2001.
US Patent No. 7,496,854, Application As Filed, 100 pages, Aug. 6, 2001.
US Patent No. 7,496,854, Preliminary Amendment, U.S. Appl. No. 09/923,134, 7 pages, Dec. 17, 2001.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 10 pages, Oct. 15, 2002.
US Patent No. 7,496,854, Response, 4 pages, U.S. Appl. No. 09/923,134, Apr. 15, 2003.
US Patent No. 7,496,854, Final Office Action, U.S. Appl. No. 09/923,134, 7 pages, Jun. 27, 2003.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 6 pages, Aug. 21, 2003.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 4 pages, Nov. 19, 2003.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 5 pages, Feb. 10, 2004.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 4 pages, May 19, 2004.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 14 pages, Dec. 30, 2004.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 7 pages, Aug. 29, 2005.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 17 pages, Nov. 16, 2005.
US Patent No. 7,496,854, Final Office Action, U.S. Appl. No. 09/923,134, 10 pages, Feb. 6, 2006.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 22 pages, Aug. 4, 2006.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 8 pages, Oct. 18, 2006.
US Patent No. 7,496,854, Interview Summary, U.S. Appl. No. 09/923,134, 3 pages, Jan. 23, 2007.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 32 pages, Apr. 18, 2007.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 8 pages, Jul. 13, 2007.
US Patent No. 7,496,854, Interview Summary, U.S. Appl. No. 09/923,134, 4 pages, Oct. 19, 2007.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 9 pages, Nov. 9, 2007.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 32 pages, Jan. 24, 2008.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 7 pages, Jul. 2, 2008.
US Patent No. 7,496,854, Amendment Under Rule 312; U.S. Appl. No. 09/923,134, 27 pages, Jul. 8, 2008.
US Patent No. 7,496,854, Response to Amendment Under Rule 312, U.S. Appl. No. 09/923,134, 4 pages, Jan. 21, 2009.
U.S. Appl. No. 12/182,048, Application as Filed, 47 pages, Jul. 29, 2008.
U.S. Appl. No. 12/182,048, Office Action, 34 pages, Oct. 28, 2010.
U.S. Appl. No. 12/182,048, Interview Summary, 4 pages, Dec. 1, 2010.
U.S. Appl. No. 12/182,048, Response, 36 pages, Dec. 8, 2010.
U.S. Appl. No. 12/841,302, Application As Filed, 47 pages, Jul. 22, 2010.
U.S. Appl. No. 12/841,302, Accelerated Examination Support Document, 150 pages, Jul. 22, 2010.
U.S. Appl. No. 12/841,302, Office Action, 22 pages, Nov. 24, 2010.
U.S. Appl. No. 12/841,302, Response, 18 pages, Dec. 14, 2010.
US Patent No. 7,272,604, U.S. Appl. No. 09/390,303 As Filed, 55 pages, Sep. 3, 1999.

US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 9 pages, May 8, 2002.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 7 pages, Aug. 8, 2002.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 11 pages, Sep. 27, 2002.
US Patent No. 7,272,604, Proposed Response, U.S. Appl. No. 09/390,303, 4 pages, Oct. 24, 2002.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 3 pages, Mar. 27, 2003.
US Patent No. 7,272,604, Final Office Action, U.S. Appl. No. 09/390,303, 9 pages, Apr. 21, 2003.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 16 pages, Oct. 21, 2003.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 7 pages, Nov. 17, 2003.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 6 pages, Apr. 6, 2004.
US Patent No. 7,272,604, Supplemental Notice of Allowance, U.S. Appl. No. 09/390,303, 2 pages, Mar. 7, 2006.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 10 pages, Jun. 6, 2006.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 19 pages, Dec. 5, 2006.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 7 pages, Feb. 7, 2007.
U.S. Appl. No. 12/963,744, Application As Filed, 53 pages, Dec. 9, 2010.
U.S. Appl. No. 12/963,744, Accelerated Examination Support Document, 80 pages, Dec. 9, 2010.
Person et al., "Special Edition Using Microsoft Word 97" Que Publishing, pp. 475-514, Dec. 16, 1996.
U.S. Appl. No. 12/182,048, Notice of Allowance, 53 pages, Jan. 19, 2011.
U.S. Appl. No. 12/841,302, Notice of Allowance, 31 pages, Jan. 13, 2011.
Deposition of Atle Hedloy in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 162-213, Mar. 7, 2010.
Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-67, Apr. 9, 2010.
Exhibit 15, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware , pp. 1-26, Apr. 9, 2010.
Exhibit 16, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-2, Apr. 9, 2010.
Exhibit 17, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Apr. 9, 2010.
Exhibit 18, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Apr. 9, 2010.
Exhibit 19, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-13, Apr. 9, 2010.
Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-115, Apr. 9, 2010.
Exhibit 11, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-7, Apr. 9, 2010.
Exhibit 12, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-2, Apr. 9, 2010.
Exhibit 13, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Apr. 9, 2010.
Exhibit 14, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-18, Apr. 9, 2010.
Exhibit 15, Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Apr. 9, 2010.
Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-166, Apr. 30, 2010.
Exhibit a, in Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-30, Apr. 30, 2010.
Exhibit B, in Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-15, Apr. 30, 2010.
Exhibit C, Expert Report of Bruce Croft ,in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-90, Apr. 30, 2010.
Michael Bieber "On Automating Hypertext Links in Knowledge-Based Decision Support Systems", Technical Report BCCS-90-08, pp. 1-22, Apr. 1990.
N. Streitz, A. Rizk and J. André, Hypertext: Concepts, Systems and Applications: Proceedings of the First European Conference on Hypertext, Inria, France, pp. 1-8, Nov. 1990.
Michael Bieber, "Issues in Modeling A "Dynamic" Hypertext Interface", Technical Report BCCS-91-2, pp. 1-13, Apr. 1991.
Michael Bieber and Tomás Isakowitz, "Valuation Links: Extending the Computational Power of Hypertext", Technical Report BCCS-91-1, pp. 1-11, Apr. 1991.
Michael Bieber, Template-Driven Hypertext: A Methodology for Integrating a Hypertext Interface into Information Systems, Technical Report BCCS-91-3, pp. 1-23, Jun. 1991.
Michael Bieber and Steven O. Kimbrough, "On Generalizing the Concept of Hypertext", Technical report BCCS-91-5, pp. 1-11, Jun. 1991.
Michael Bieber and Tomás Isakowitz, "Bridge Laws in Hypertext A Logic Modeling Approach", Technical Report BCCS-91-4, pp. 1-30, Jun. 1991.
Michael Bieber, "On Merging Hypertext Into Dynamic, Non-Hypertext Systems", Technical Report BCCS-91-14, pp. 1-24, Nov. 8, 1991.
Mark Bernstein, Jay David Bolter, Michael Joyce and Elli Mylonas, "Architectures for Volatile Hypertext", Hypertext '91 Proceedings, pp. 243-280, Dec. 1991.
Michael Bieber, "Providing Information Systems With Full Hypermedia Functionality", pp. 1-15, Oct. 1992.
Mail Address Change Notification, IBM Technical Disclosure Bulletin, vol. 36 No. 1, pp. 70-72, Jan. 1993.
D.D. Cowan, C.J.P. Lucena and R.G. Veitch, Towards CAAI: Computer Assisted Application Integration, Technical Report Series CS-93-17, University of Waterloo, pp. 1-23, Oct. 1993.
Herman Kaind and Stefan Kramer, Semiautomatic Generation of Dictionary Links in Hypertext, pp. 1-14, Feb. 1, 1995.
Michael Bieber, "On Integrating Hypermedia into Decision Support and Other Information Systems", Decision Support Systems 14, pp. 251-267, 1995.
Proceedings, Sixth Message Understanding Conference (MUC-6), pp. 1-64, Nov. 6-8, 1995.
Sargur N. Srihari, et al, "A System to Read Names and Addresses on Tax Forms", Proceedings of the IEEE, vol. 84, No's, Jul. 1996.
Ph. Bonnet and S. Bressan, "Extraction and Integration of Data from Semi-structured Documents into Business Applications", Sloan WP#3979, CISL WP# 97-12, pp. 1-9, Sep. 1997.
Borland, Russell, "Advance Self-Study Step by Step Microsoft Word 97 Advance Topics", Microsoft Press, 331 pages, 1997.
Microsoft Word Language Reference, Official Technical Reference to Visual Basic for Applications, Microsoft Press, 1133 pages, 1997.
Microsoft PowerPoint and Microsoft Outlook Language References, Official Technical Reference to Visual Basic for Applications, Microsoft Press, vol. 4, 539 pages, 1997.
Microsoft Visual Basic for Applications and Shared Libraries References, vol. 5 of 5, Microsoft Press, 1005 pages, part No. 097-001685, 1997.
Microsoft Office 97 Resource Kit, Technical Information and Tools for the Support Professional, Microsoft Press, 1162 pages, 1997.

Microsoft Office97 Reviewer's Guide, Professional Edition, 546 pages, Aug. 1996.
Russell Borland, Running Microsoft Word for Windows 95, In Depth Reference and Inside Tips from the Software Experts, Russell Borland, Microsoft Press, 1040 pages, 1995.
Michael Halvorson and Michael Young, Running Microsoft Office 97, Standard and Professional, Michael Halvorson and Michael Young, Microsoft Press, 1130 pages, 1997.
Microsoft Word 97, self-Study Kit, Covers Microsoft Word 97 for Windows 95 and Windows NT version 4.0, Microsoft Press, 314 pages, 1997.
Microsoft Outlook 97, Step by Step,Self-Study Kit, Microsoft Press, 359 pages, 1997.
Ken Getz and Mike Gilbert, VBA Developer's Handbook, Reusable Code, Visio Professional Demo Copy, and VB5CCE, 1997.
Microsoft97/Visual Basic Programmer's Guide, Microsoft Press, 548 pages, 1997.
Microsoft Access Language Reference and Office Data Access Reference, Official Technical Reference to Visual Basic for Applications, Microsoft Press, 1287 pages, 1997.
Davis Boctor, Microsoft Office97 Step by Step, Visual Basic, Developer's Self-Study Guide, Microsoft Press, 359 pages, 1997.
Christine Solomon, Microsoft Office97 Developer's Handbook, Microsoft Press, 596 pages, 1997.
Microsoft Word Developer's Kit, Microsoft Professional Editions, Third Edition, Manufacturing Copy 1st, Microsoft Press, 1106 pages, 1995.
Inside Microsoft Word, vol. 4, No. 1, The Cobb Group, pp. 1-16, Jan. 1997.
Inside Microsoft Word, vol. 4, No. 2, The Cobb Group, pp. 1-16, Feb. 1997.
Inside Microsoft Word, vol. 4, No. 3, The Cobb Group, pp. 1-16, Mar. 1997.
Inside Microsoft Word, vol. 4, No. 4, The Cobb Group, pp. 1-16, Apr. 1997.
Inside Microsoft Word, vol. 4, No. 7, The Cobb Group, pp. 1-16, Jul. 1997.
Inside Microsoft Word, vol. 5, No. 9, ZD Journals, pp. 1-16, Sep. 1998.
Inside Microsoft Word, vol. 5, No. 10, ZD Journals, pp. 1-16, Oct. 1998.
Inside Microsoft Word, vol. 5, No. 11, ZD Journals, pp. 1-16, Nov. 1998.
Eudora Mail Pro, Version 3.0 for Windows, User Manual, QUALCOMM Incorporated, 198 pages, Jun. 1997.
Eudora Mail Pro, Version 3.1 for Macintosh, User Manual, QUALCOMM Incorporated, 199 pages, Jun. 1997.
Non-Confidential Redacted Jun. 11, 2010 Rebuttal Expert Report Richard Taylor, 311 pages, Jun. 11, 2010.
Spell Checking for Microsoft Windows, Palantir Software, 36 pages, © 1986.
Opposition for European Patent No. EP-B-1171836, in the European Patent Office, pp. 1-2, Jul. 26, 2006.
In Response to Notice of Opposition for European Patent No. EP-B-1171836, in the European Patent Office, pp. 1-21, Mar. 7, 2007.
Brangan, James, Department 1824 Job card System: A New Web-based Business Tool, Sandia National Laboratories, 50 pages, Feb. 1998.
Fox, Heidi, et al., Learning to Extract and Classify Names from Text, IEEE International Conference on Systems, Man, and Cybernetics, vol. 2, 6 pages, Oct. 11-14, 1998.
Frank, Martin, et al., Adaptive Forms: An Interaction Technique for Entering Structured Data, University of Southern California, Information Sciences Institute, 11 pages, Sep. 30, 1998.
Novasoft Systems, Infomax Messaging System v.2.0 User's Manual, 46 pages, Jul. 1, 1996.
U.S. Appl. No. 13/041,210, Application As Filed, 52 pages, Mar. 4, 2011.
U.S. Appl. No. 12/963,744, Office Action, 14 pages, Mar. 10, 2011.
U.S. Appl. No. 12/987,840, Application As Filed, 52 pages, Jan. 10, 2011.
U.S. Appl. No. 12/987,840, Accelerated Examination Support Document, 74 pages, Jan. 10, 2011.
U.S. Appl. No. 12/987,939, Application As Filed, 52 pages, Jan. 10, 2011.
U.S. Appl. No. 12/987,939, Accelerated Examination Support Document, 72 pages, Jan. 10, 2011.
Plaintiff's Supplemental Opening Brief in Support of Its Proposed Claim Constructions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-LPS, from United States District Court for the District of Delaware, pp. 1-26, Jan. 21, 2011.
Microsoft Corporation's Supplemental Claim Construction Brief for Additional Terms to Be Construed, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-LPS, from United States District Court for the District of Delaware, pp. 1-25, Jan. 21, 2011.
Plaintiff's Supplemental Answering Brief in Support of Its Proposed Claim Constructions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-LPS, from United States District Court for the District of Delaware, pp. 1-26, Feb. 4, 2011.
Microsoft Corporation's Responsive Supplemental Claim Construction Brief for Additional Terms to Be Construed, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-LPS, from United States District Court for the District of Delaware, pp. 1-18, Feb. 4, 2011.
U.S. Appl. No. 12/963,744, Response, 20 pages, Apr. 11, 2011.
U.S. Appl. No. 13/111,639, Application as Filed; 48 pages, May 19, 2011.
U.S. Appl. No. 13/111,639, Accelerated Examination Support Document, 160 pages, May 19, 2011.
U. S. Appl. No. 12/963,744, Office Action, 33 pages, issued Oct. 11, 2011.
U. S. Appl. No. 12/963,744, Response C, 18 pages, filed Nov. 11, 2011.
U. S. Appl. No. 12/963,744, Supplement to Response C, 12 pages, filed Nov. 30, 2011.
U. S. Appl. No. 12/963,744, Office Action, 13 pages, issued Dec. 6, 2011.
U. S. Appl. No. 12/963,744, Request for Continued Examination and Response D, 16 pages, filed Jan. 6, 2012.
U. S. Appl. No. 12/963,744 Supplemental to Response D, 15 pages, filed Mar. 19, 2012.
U. S. Appl. No. 12/963,744 Office Action, 10 pages, issued Mar. 20, 2012.
U. S. Appl. No. 12/963,744 Response E, 11 pages, filed Mar. 26, 2012.
U. S. Appl. No. 12/987,840, Office Action, 49 pages, issued Oct. 11, 2011.
U. S. Appl. No. 12/987,840, Appeal Brief, 36 pages, filed Jan. 11, 2012.
U. S. Appl. No. 12/987,840, Response to Notice of Non-Compliant Appeal Brief, 7 pages, filed Feb. 22, 2012.
U. S. Appl. No. 12/987,840, Examiner's Answer, 19 pages, issued Mar. 9, 2012.
U. S. Appl. No. 12/987,939, Office Action, 48 pages, issued Oct. 11, 2011.
U. S. Appl. No. 12/987,939, Appeal Brief, 33 pages, filed Jan. 11, 2012.
U. S. Appl. No. 12/987,939, Examiner's Answer, 18 pages, issued Feb. 27, 2012.
U.S. Appl. No. 13/041,210, Office Action, 64 pages, issued Jan. 9, 2012.
U.S. Appl. No. 13/111,639, Office Action, 60 pages, issued Sep. 1, 2011.
U.S. Appl. No. 13/111,639, Response A, 24 pages, filed Sep. 21, 2011.
U.S. Appl. No. 13/111,639, Office Action, 36 pages, issued Nov. 10, 2011.
U.S. Appl. No. 13/111,639, Office Action, 3 pages, issued Nov. 28, 2011.
U.S. Appl. No. 13/111,639, Response B, 19 pages, filed Dec. 9, 2011.
U.S. Appl. No. 13/111,639, Advisory Action, 3 pages, issued Dec. 22, 2011.
User Manual for AddressMate and AddressMate Plus 1994-1995 by AddressMate Software.
Abowd, Gregory D., et al, "Applying Dynamic Integration as a Software infrastructure for Context-Aware Computing," GVU Technical Report, GIT-GVU-97-18 (Sep. 1997) (MS 019683-MS 019692).

Abowd, Gregory D., et al, "Context-Awareness in Wearable and Ubiquitous Computing," GVU Technical Report, GIT-GVU-97-11 (Mar. 1997) (MS 096928-MS 096936).
Apple Data Detectors User's Manual (Jul. 1, 1997) (MS 019711-MS 019726).
Apple Internet Address Data Detectors User's Manual (Aug. 28, 1997) (MS 110172-MS 110187).
Apple Introduces Internet Address Detectors (Sep. 8, 1997) (MS 049582-MS 049589).
Wood, Andrew, et al., CyberDesk: Automated Integration of Desktop and Network Services, GVU Technical Report, OIT-GVU-97-11, May 1997.
Gregory D. Abowd, Anion Dey and Andy M. Wood, Applying Dynamic Integration as a Software Infastructure for Context-Aware Computing, GVU Technical Report, GIT-GVU-97-18, Sep. 1997.
Gregory D. Abowd, Anind Dey, Robert Orr and Jason Brotherson, Context-awareness in wearable and ubiquitous computing, GVU Technical Report, GIT-GVU-97-11, Mar. 1997.
Apple Data Detectors User's Manual, Jul. 1, 1997.
Apple Internet Address Detector User's Manual, Aug. 28, 1997.
Apple Introduces Internet Address Detectors, Sep. 8, 1997.
Anind K. Dey and Gregory D. Abowd, CyberDesk: The Use of Perception in Context-Aware Computing, PUI Workshop Submission, Proc. of 1997 Workshop on Perceptual User Interfaces (PUI '97), pp. 26-27, Oct. 1997.
Anind K. Dey, Context-Aware Computing: The CyberDesk Project, Future Computing Environments, AAAI '98 Spring Symposium, Stanford Univesity, pp. 51-55, Mar. 23-25, 1998.
Anind K. Dey, Gregory D. Abowd and Andrew Wood, CyberDesk: A framework for providing self-integrating context-aware services, Knowledge-Based Systems, vol. 11, No. 1, pp. 3-13, Sep. 1998.
Anind K. Dey, Gregory D. Abowd, Mike Pinkerton and Andrew Wood, CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, GVU Technical Report, GIT-GVU-97-10, May 1997.
L. Nancy Garrett, Karen E. Smith and Norman Meyrowitz, Intermedia: Issues, Strategies, and Tactics in the Design of a Hypermedia Document System, (c) 1986, pp. 163-174.
Eve Wilson, Links and Structures in hypertext databases for law, Proceedings of the First European Conference on Hypertext, INRIA, Nov. 1990.
Mike Langberg, 'Innovation is at the heart of what we do', Apple breaks new ground by displaying what's on its drawing board, Mercury News, Aug. 7, 1996, pp. 1-2.
Henry Lieberman, Bonnie A . Nardi and David Wright, Training Agents to Recognize Text by Example, Proc. of the Third Annual Conference on Autonomous Agents, Seattle, WA, pp. 116-122, 1999.
Bonnie A. Nardi, James R. Miller and David J. Wright, Collaborative, Programmable Intelligent Agents, Website, Mar. 1998, pp. 1-11.
Milind S, Pandit and Sameer Kalbag, The Selection Recognition Agent: Instance Access to Relevant Information and Operations, Proc. of Intelligent User Interfaces 1997, Orlando, FL, 1997.
Addressmate Automatic Envelope Addressing Program, User's Manual, 1991.
Peter Brown, Unix Guide, 1995.
Lee E. McMahon, SED—A Non-interactive Text Editor, Bell Laboratories, Aug. 15, 1978.
AddressMate Incorproates Correction Capability, The New York Law Publishing Company, Jan. 1996.
Lawrence J. Magid, Addressing the Matter of Labels, Los Angeles Times, Sep. 23, 1996.
Mar. 1996 Reviews, website available at www.techweb.com/winmag/library/1996/0396/03rvh002.htm.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* v. *Microsoft Corporationm et al.*, Sep. 23, 2004.
Trial Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* v. *Microsoft Corporationm et al.*, Sep. 27, 2004.
Excerpt from Jury Charge Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* v. *Microsoft Corporationm et al.*, Sep. 28, 2004.
United States Court of Appeals for the Federal Circuit, Appeal From the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Judge Ernest C. Torres. Brief for Defendant-Cross Apellant Frank E. Scherkenbach Jul. 7, 2005.
United States District Court for the District of Rhode Island, 02-CV-343 (ECT) Defendant Microsoft Corporation'S Motion for Judgment as a Matter of Law That the '853 Patent Is Invalid, Oct. 15, 2004.
United States District Court District of Rhode Island, CIV. A. No. 02-CV-343 (ECT), Plaintiffs' Reply Memorandum in Support of Their Motion for New Trial.Francis A. Connor. Nov. 4, 2004.
United States Court of Appeals Federal Circuit, Brief for Plaintiff-Apellant, Frank E. Scherkenbach, Sep. 2, 2005.
United States District Court for the District of Rhode Island 02-CV-343 (ECT). Memorandum in Support of Defendant Microsoft Corporation'S Opposition to Arendi'S Motion for a New Trial. Patricia A. Sullivan, Oct. 27, 2004.
United States Court of Appeals for the Federal Circuit, Appeal From the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Brief of Plaintiffs-Appellants Arendi U.S.A., Inc. And Arend Holding Limited. Donald R. Dunner, Apr. 25, 2005.
United States Court of Appeals for the Federal Circuit, Appeal From the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Reply Brief for Defendant-Cross Appellant. Frank E. Scherkenbach, Oct. 3, 2005.
United States District Court for the District of Rhode Island, Order Denying Defendant Microsoft Corporation'S Motion for Judgment as a Matter of Law that the '853 Patent Is Invalid, C.A. No. 02-343T. Ernest C. Torres, Chief Judge, Nov. 30, 2004.
United States District Court for the District of Rhode Island. C.A. No. 02-343T. Order Denying Plaintiffs' Motion for New Trial. Ernest C. Torres, Chief Judge, Nov. 30, 2004.
Press Release: Apple Introduces Internet Address Detectors, Sep. 8, 1997.
MacWEEK Report, Aug. 8, 1996.
Mike Langber, Show of Potential Apple Breaks New Ground by Displaying What's on Its Drawing Board 'Innovation is at the heart of what we do', in San Jose Mercury News, Aug. 7, 1996, p. 1C.
Apple Introduces Internet Address Detectors, Newsbytes, Sep. 29, 1997.
Greg Williams, Strategy Mosaic: Understanding Apple's Dual OS Strategy.
Taking [control] of your Mac with System 8, The MacAuthority, Jan. 1998.
Apple Data Detectors 1.0.2, TidBITS Updates, Mar. 8, 1998.

* cited by examiner

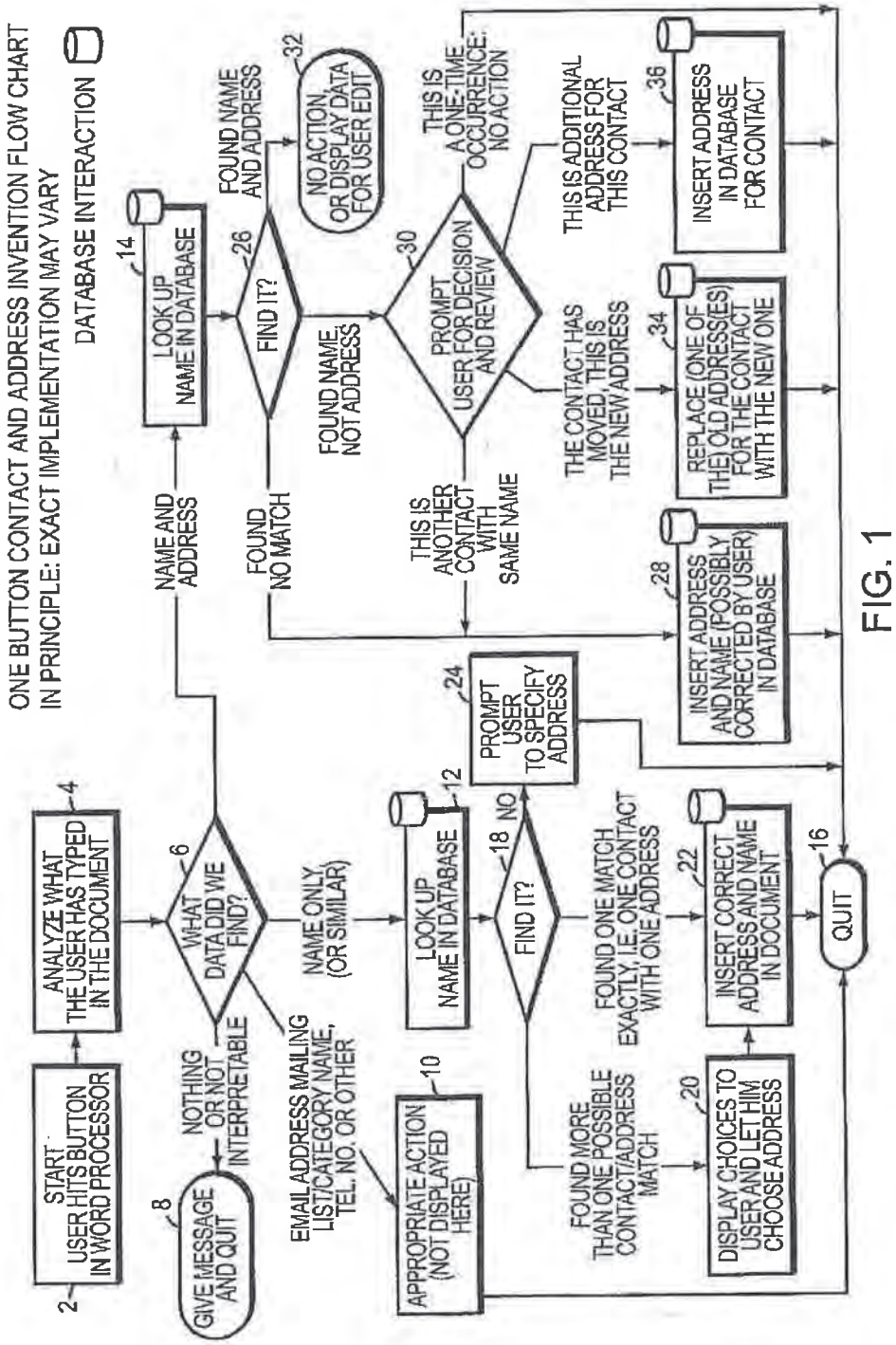

ONE BUTTON CONTACT AND ADDRESS INVENTION FLOW CHART
IN PRINCIPLE: EXACT IMPLEMENTATION MAY VARY
DATABASE INTERACTION
START: USER HITS BUTTON IN WORD PROCESSOR
2
ANALYZE WHAT THE USER HAS TYPED IN THE DOCUMENT
4
WHAT DATA DID WE FIND?
6
NOTHING OR NOT INTERPRETABLE
GIVE MESSAGE AND QUIT
8
EMAIL ADDRESS MAILING LIST/CATEGORY NAME, TEL. NO. OR OTHER
APPROPRIATE ACTION (NOT DISPLAYED HERE)
10
NAME ONLY, (OR SIMILAR)
LOOK UP NAME IN DATABASE
12
FIND IT?
18
NO
PROMPT USER TO SPECIFY ADDRESS
24
FOUND MORE THAN ONE POSSIBLE CONTACT/ADDRESS MATCH
DISPLAY CHOICES TO USER AND LET HIM CHOOSE ADDRESS
20
FOUND ONE MATCH EXACTLY, I.E. ONE CONTACT WITH ONE ADDRESS
INSERT CORRECT ADDRESS AND NAME IN DOCUMENT
22
QUIT
16
NAME AND ADDRESS
LOOK UP NAME IN DATABASE
14
FIND IT?
26
FOUND NAME AND ADDRESS
NO ACTION, OR DISPLAY DATA FOR USER EDIT
32
FOUND NO MATCH
INSERT ADDRESS AND NAME (POSSIBLY CORRECTED BY USER) IN DATABASE
28
FOUND NAME, NOT ADDRESS
PROMPT USER FOR DECISION AND REVIEW
30
THIS IS ANOTHER CONTACT WITH SAME NAME
THIS IS A ONE-TIME OCCURRENCE: NO ACTION
THIS IS ADDITIONAL ADDRESS FOR THIS CONTACT
INSERT ADDRESS IN DATABASE FOR CONTACT
36
THE CONTACT HAS MOVED, THIS IS THE NEW ADDRESS
REPLACE (ONE OF THE) OLD ADDRESS(ES) FOR THE CONTACT WITH THE NEW ONE
34

FIG. 1

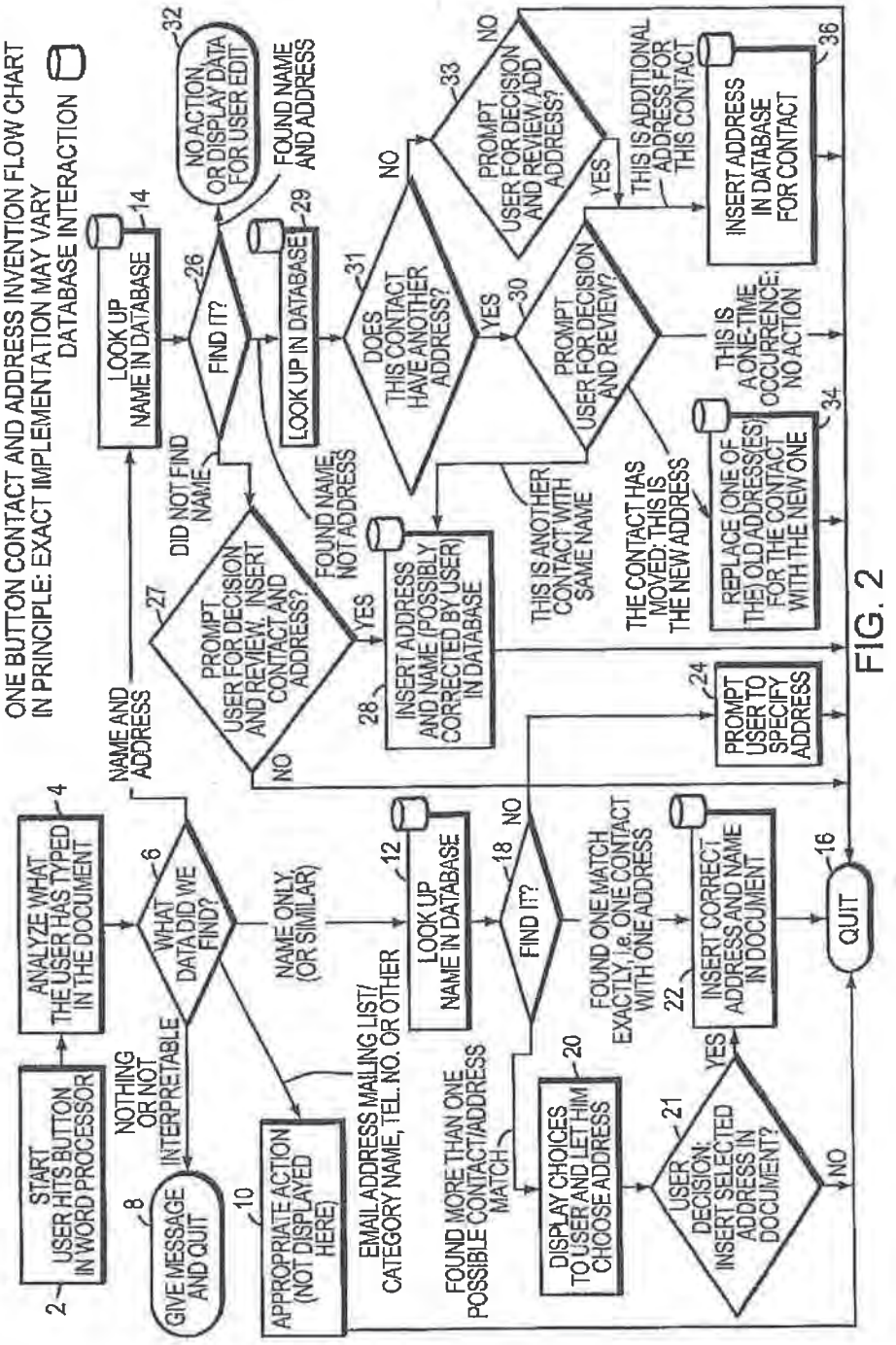

ONE BUTTON CONTACT AND ADDRESS INVENTION FLOW CHART
IN PRINCIPLE: EXACT IMPLEMENTATION MAY VARY
DATABASE INTERACTION
START USER HITS BUTTON IN WORD PROCESSOR
2
ANALYZE WHAT THE USER HAS TYPED IN THE DOCUMENT
4
WHAT DATA DID WE FIND?
6
NOTHING OR NOT INTERPRETABLE
GIVE MESSAGE AND QUIT
8
NAME ONLY, (OR SIMILAR)
LOOK UP NAME IN DATABASE
12
FIND IT?
18
NO
FOUND MORE THAN ONE POSSIBLE CONTACT/ADDRESS MATCH
DISPLAY CHOICES TO USER AND LET HIM CHOOSE ADDRESS
20
USER DECISION: INSERT SELECTED ADDRESS IN DOCUMENT?
21
YES
NO
FOUND ONE MATCH EXACTLY, i.e. ONE CONTACT WITH ONE ADDRESS
INSERT CORRECT ADDRESS AND NAME IN DOCUMENT
22
QUIT
16
EMAIL ADDRESS MAILING LIST/ CATEGORY NAME, TEL. NO. OR OTHER
APPROPRIATE ACTION (NOT DISPLAYED HERE)
10
NAME AND ADDRESS
LOOK UP NAME IN DATABASE
14
FIND IT?
26
NO ACTION, OR DISPLAY DATA FOR USER EDIT
32
FOUND NAME AND ADDRESS
DID NOT FIND NAME
FOUND NAME, NOT ADDRESS
PROMPT USER FOR DECISION AND REVIEW, INSERT CONTACT AND ADDRESS?
27
NO
YES
INSERT ADDRESS AND NAME (POSSIBLY CORRECTED BY USER) IN DATABASE
28
PROMPT USER TO SPECIFY ADDRESS
24
LOOK UP IN DATABASE
29
DOES THIS CONTACT HAVE ANOTHER ADDRESS?
31
NO
YES
THIS IS ANOTHER CONTACT WITH SAME NAME
PROMPT USER FOR DECISION AND REVIEW?
30
THE CONTACT HAS MOVED. THIS IS THE NEW ADDRESS
REPLACE (ONE OF THE) OLD ADDRESS(ES) FOR THE CONTACT WITH THE NEW ONE
34
THIS IS A ONE-TIME OCCURRENCE: NO ACTION
PROMPT USER FOR DECISION AND REVIEW, ADD ADDRESS?
33
NO
YES
THIS IS ADDITIONAL ADDRESS FOR THIS CONTACT
INSERT ADDRESS IN DATABASE FOR CONTACT
36

FIG. 2

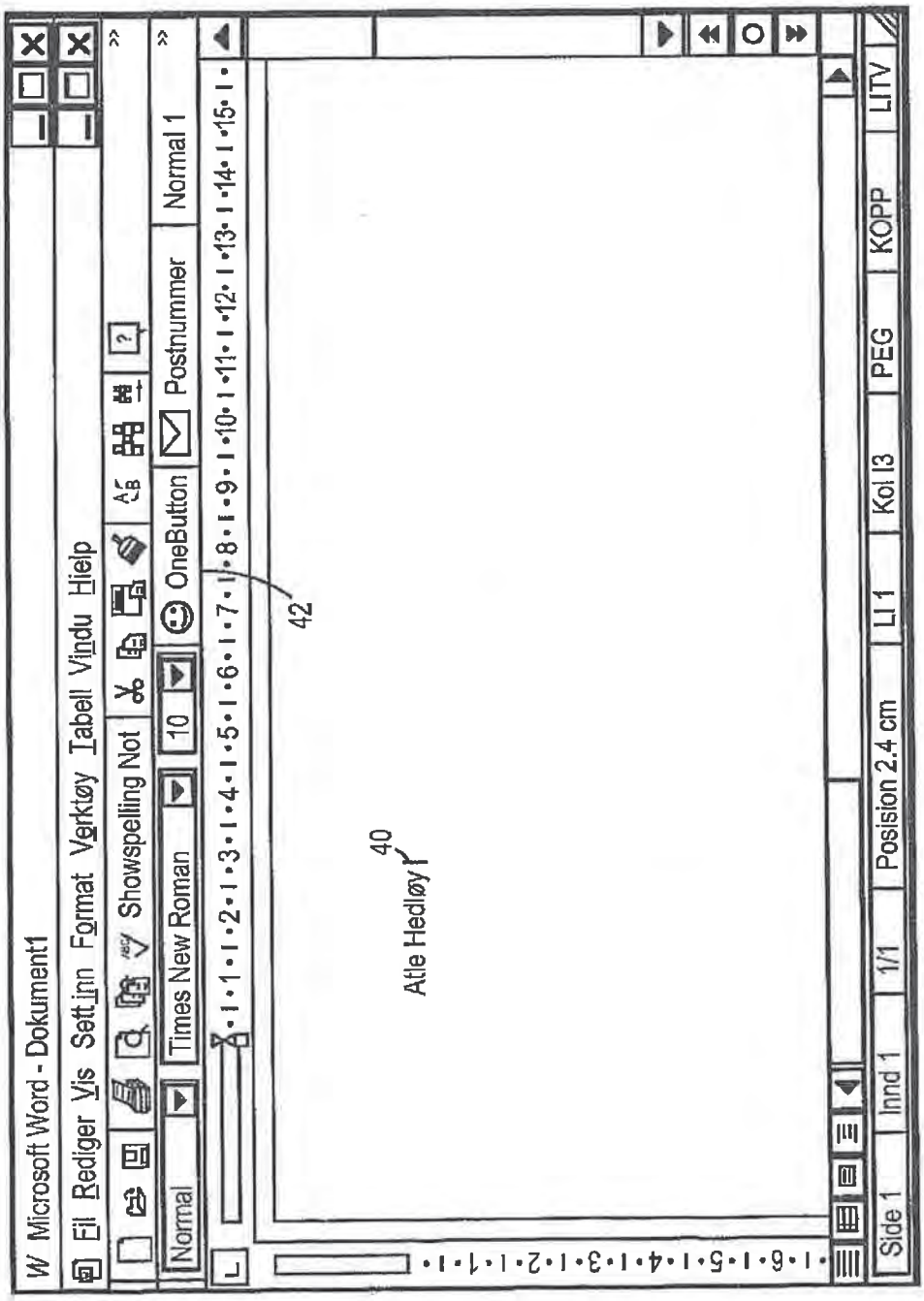

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
40
Atle Hedløy
Side 1
Innd 1
1/1
Posision 2.4 cm
Ll 1
Kol l3
PEG
KOPP
LITV

FIG. 3

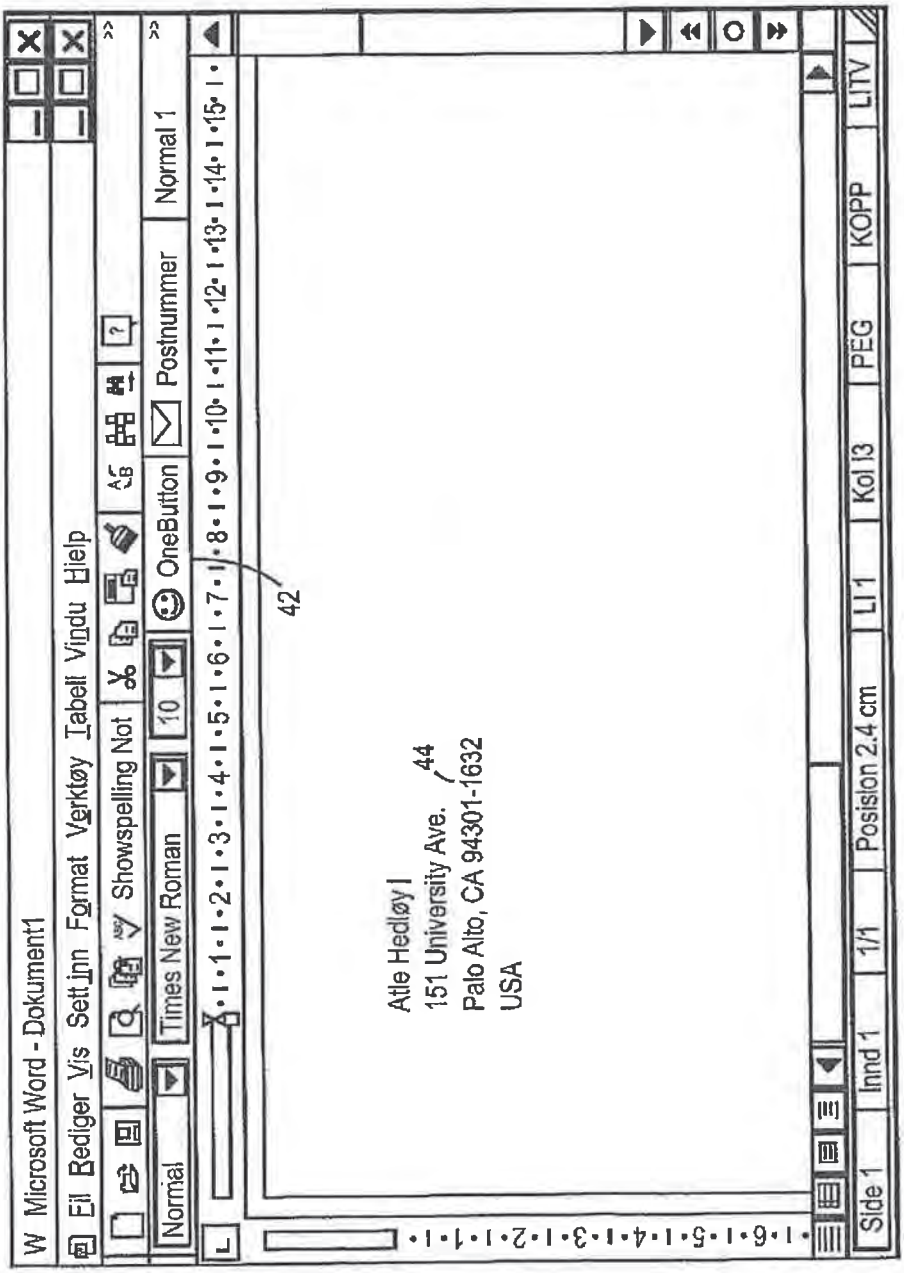

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
Atle Hedløy
151 University Ave.
Palo Alto, CA 94301-1632
USA
44
Side 1
Innd 1
1/1
Posision 2.4 cm
Ll1
Kol l3
PEG
KOPP
LITV

FIG. 4

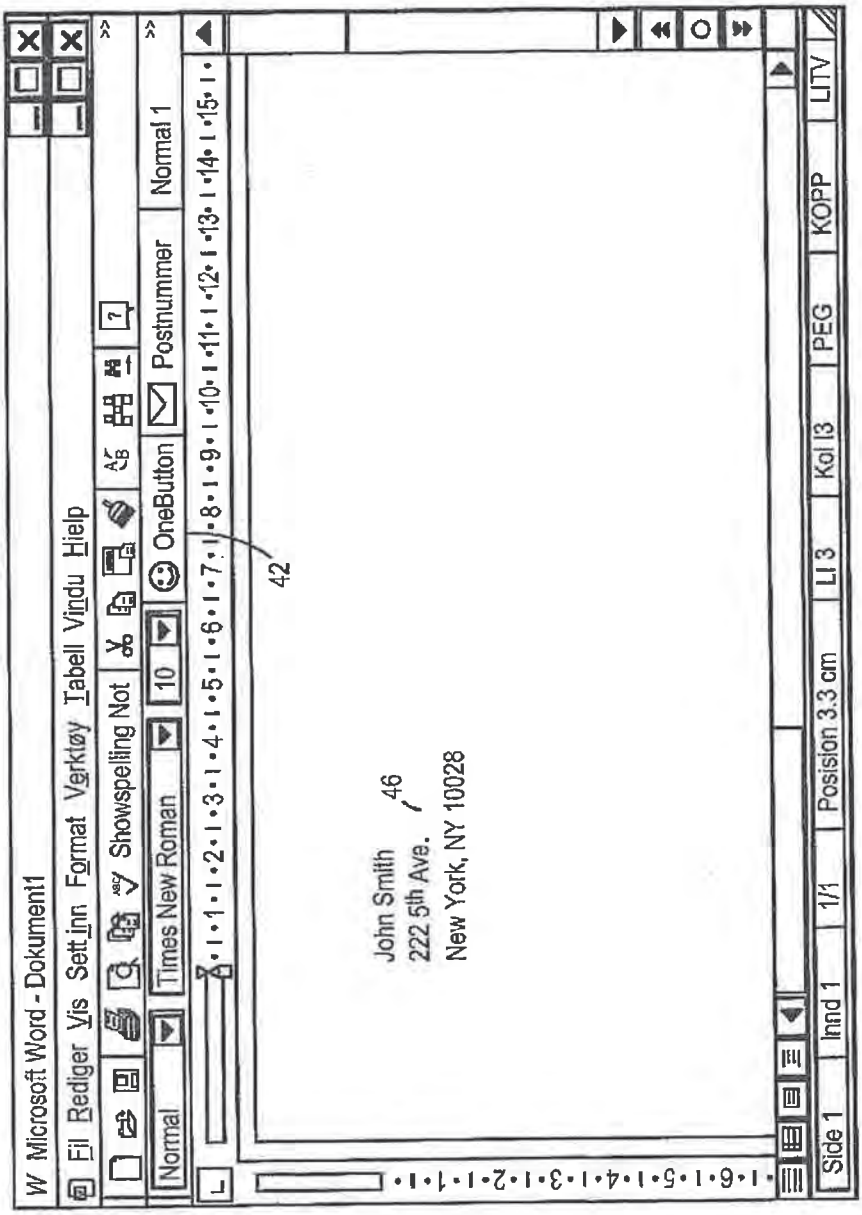

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
John Smith
222 5th Ave.
New York, NY 10028
46
Side 1
Ind 1
1/1
Posisjon 3.3 cm
Ll 3
Kol 13
PEG
KOPP
LITV

FIG. 5

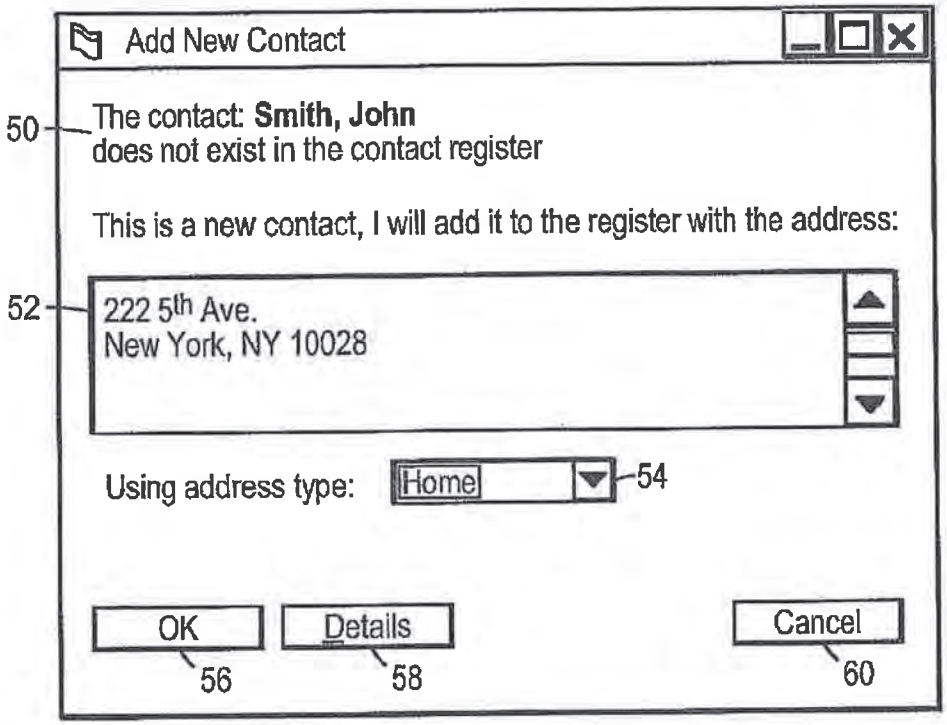

Add New Contact
50
The contact: Smith, John
does not exist in the contact register
This is a new contact, I will add it to the register with the address:
52
222 5th Ave.
New York, NY 10028
Using address type:
Home
54
OK
56
Details
58
Cancel
60

FIG. 6

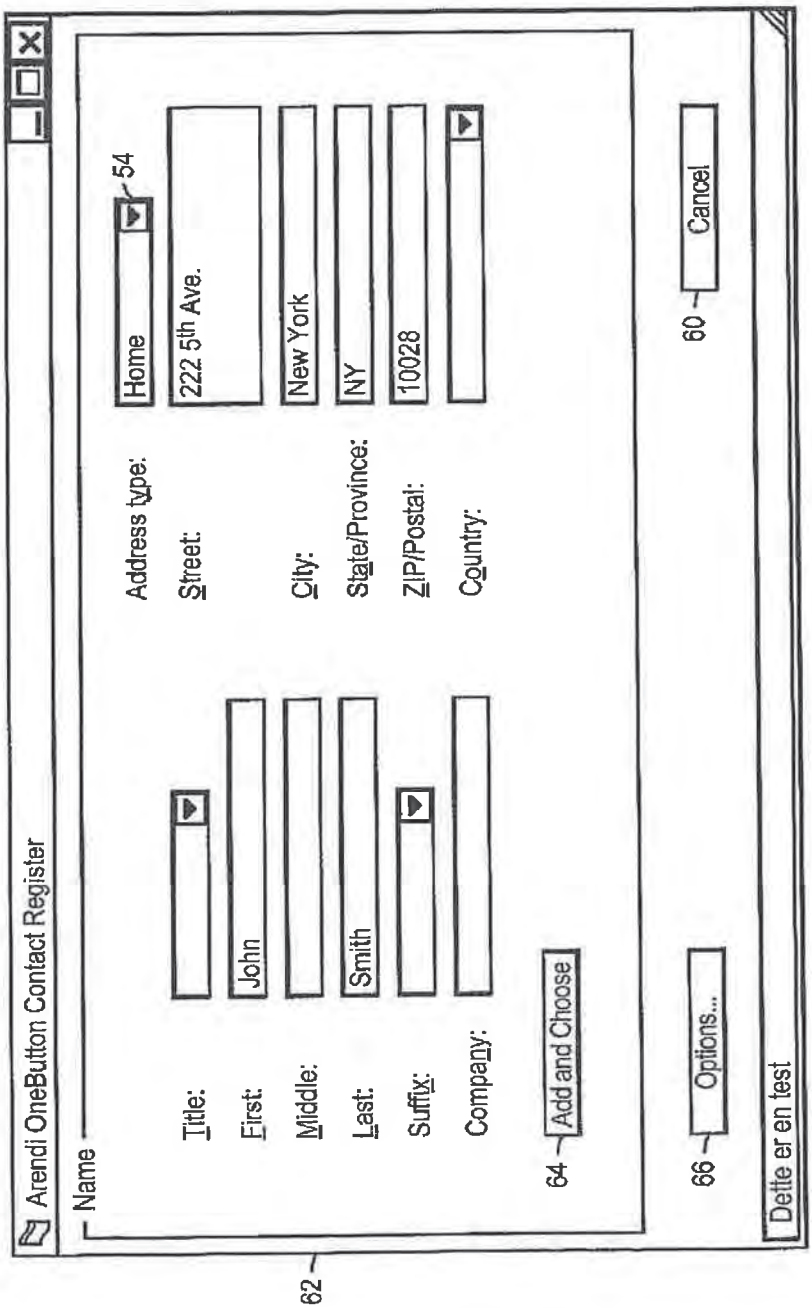

Arendi OneButton Contact Register
Name
Title:
First:
John
Middle:
Last:
Smith
Suffix:
Company:
64
Add and Choose
Address type:
54
Home
Street:
222 5th Ave.
City:
New York
State/Province:
NY
ZIP/Postal:
10028
Country:
60
Cancel
66
Options...
Dette er en test
62

FIG. 7

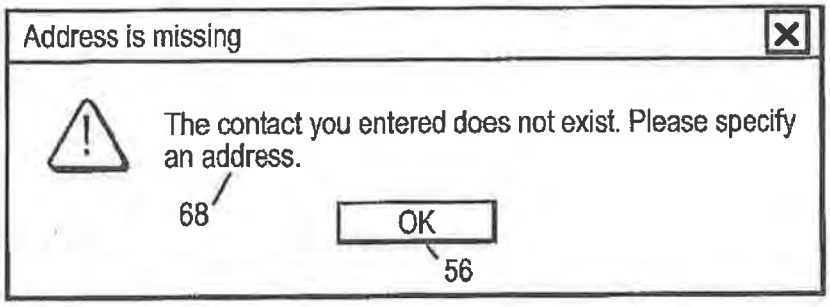

Address is missing
The contact you entered does not exist. Please specify an address.
68
OK
56

FIG. 8

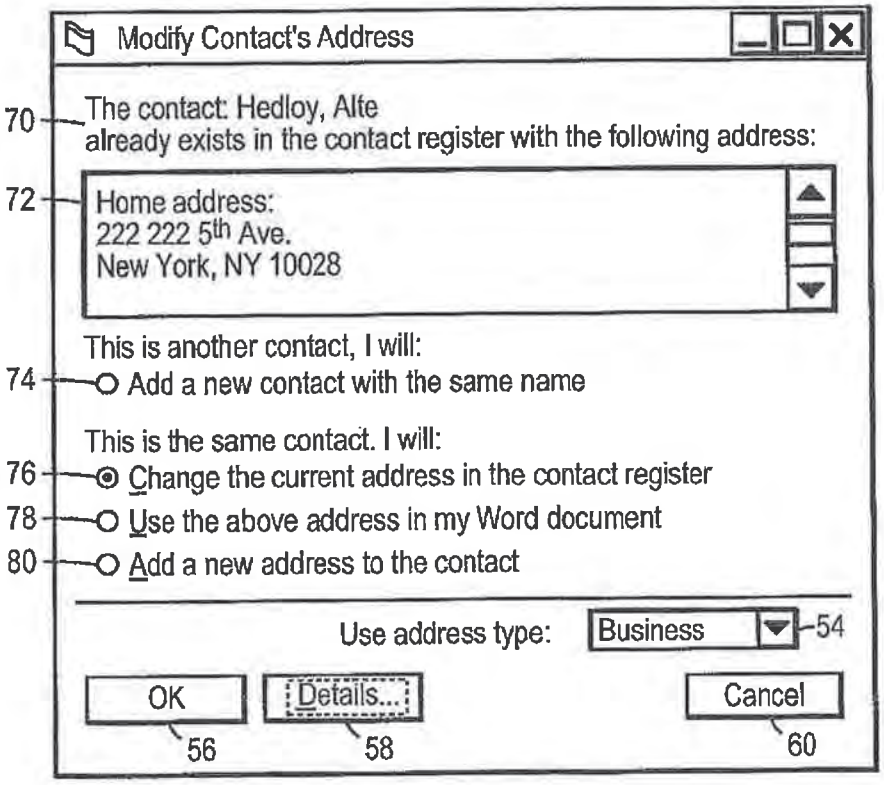

Modify Contact's Address
70
The contact: Hedloy, Alte
already exists in the contact register with the following address:
72
Home address:
222 222 5th Ave.
New York, NY 10028
This is another contact, I will:
74
Add a new contact with the same name
This is the same contact. I will:
76
Change the current address in the contact register
78
Use the above address in my Word document
80
Add a new address to the contact
Use address type:
Business
54
OK
56
Details...
58
Cancel
60

FIG. 9

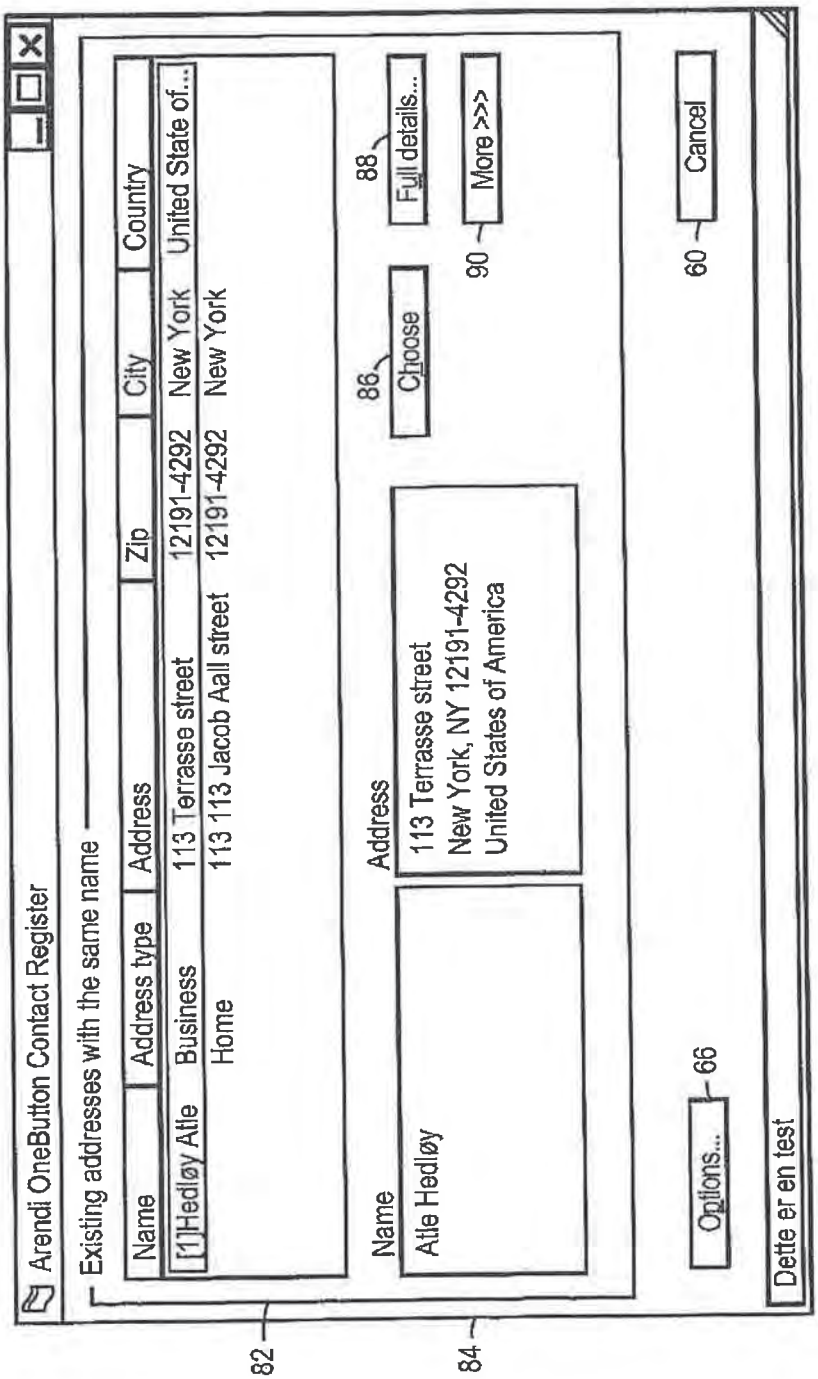

Arendi OneButton Contact Register
Existing addresses with the same name
Name
Address type
Address
Zip
City
Country
[1]Hedløy Atle Business 113 Terrasse street 12191-4292 New York United State of...
Home 113 113 Jacob Aall street 12191-4292 New York
Name
Atle Hedløy
Address
113 Terrasse street
New York, NY 12191-4292
United States of America
Choose
Full details...
More >>>
Cancel
Options...
Dette er en test
82
84
86
88
90
60
66

FIG. 10

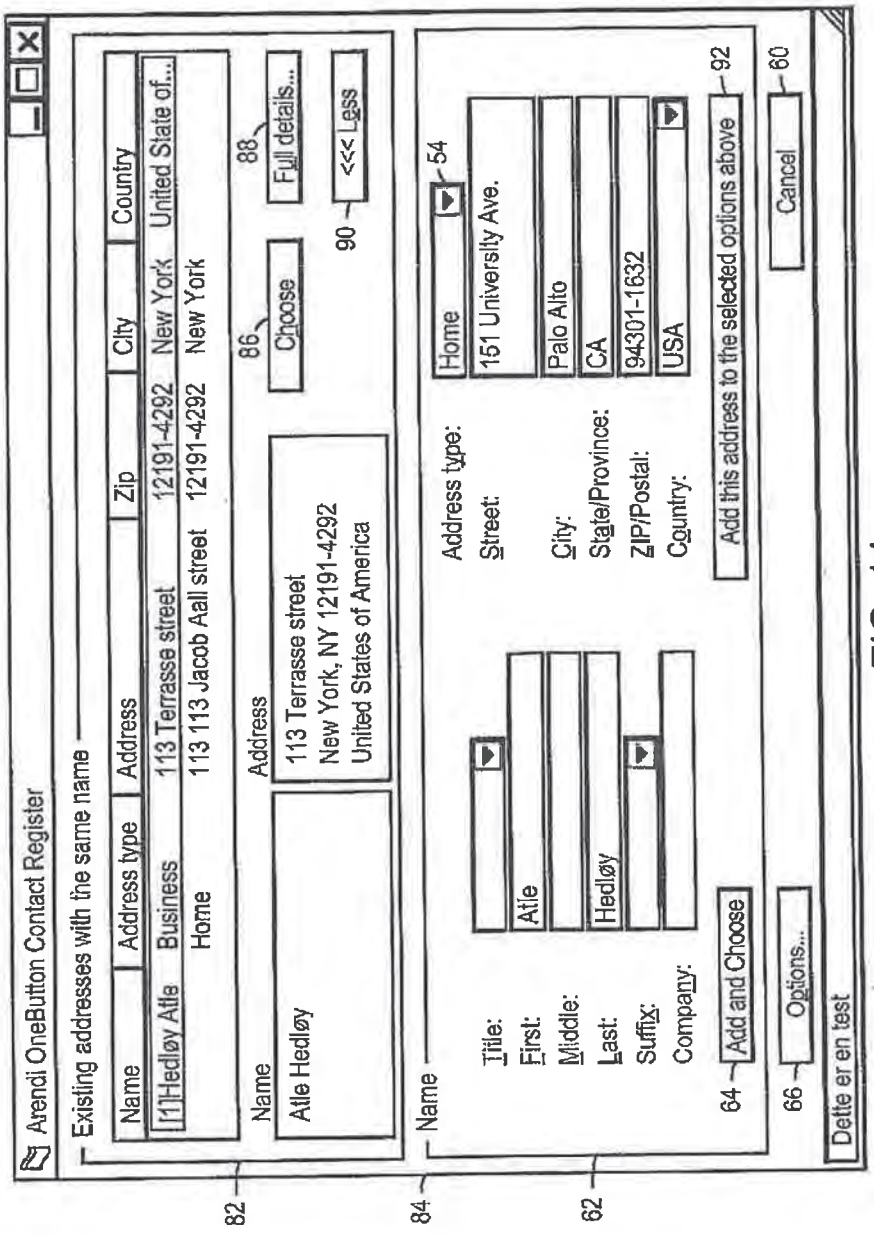

Arendi OneButton Contact Register
Existing addresses with the same name
Name
Address type
Address
Zip
City
Country
[1]Hedløy Atle
Business
113 Terrasse street
12191-4292
New York
United State of...
Home
113 113 Jacob Aall street
12191-4292
New York
Name
Atle Hedløy
Address
113 Terrasse street
New York, NY 12191-4292
United States of America
86
Choose
88
Full details...
90
<<< Less
82
Name
Title:
First:
Middle:
Last:
Suffix:
Company:
Atle
Hedløy
Address type:
Street:
City:
State/Province:
ZIP/Postal:
Country:
Home
54
151 University Ave.
Palo Alto
CA
94301-1632
USA
84
62
64
Add and Choose
66
Options...
Add this address to the selected options above
92
Cancel
60
Dette er en test

FIG. 11

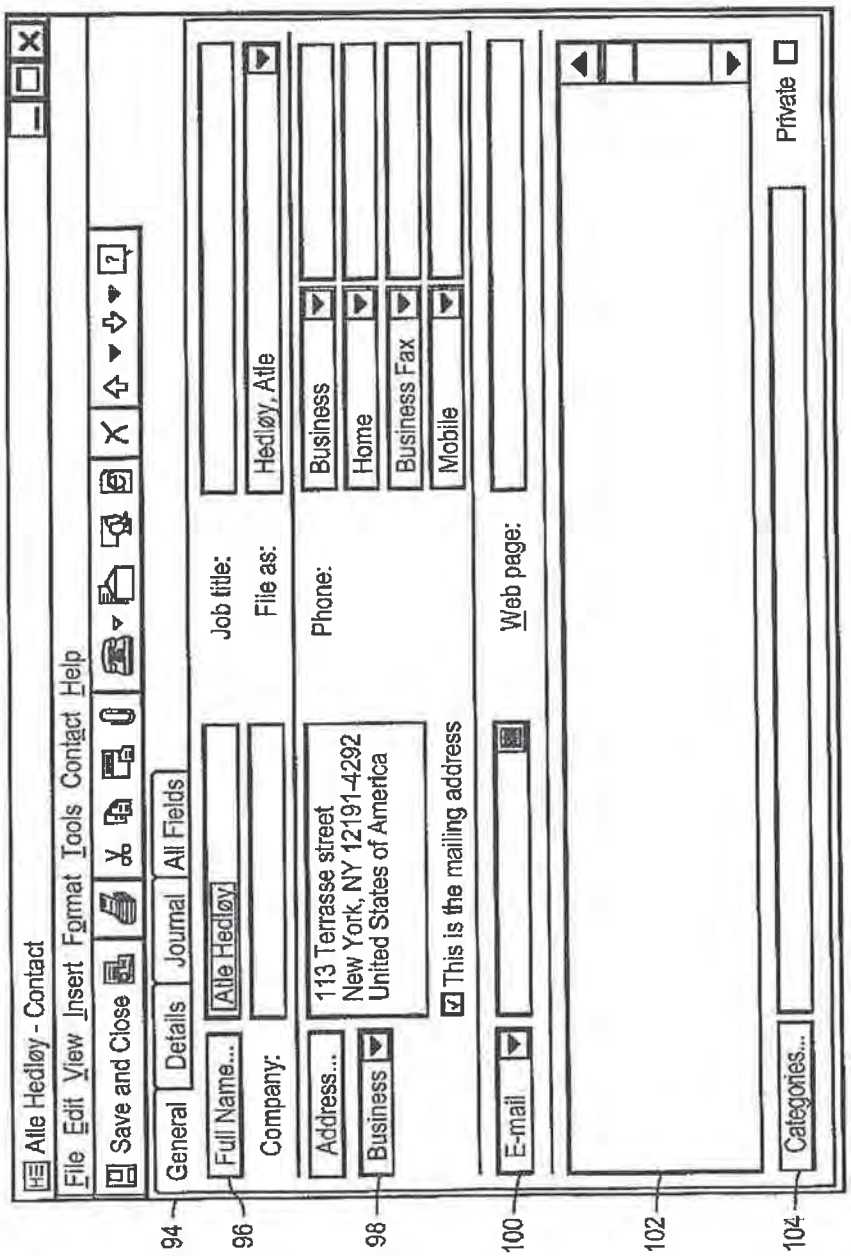

Alle Hedløy - Contact
File Edit View Insert Format Tools Contact Help
Save and Close
General
Details
Journal
All Fields
Full Name...
Alle Hedløy
Company:
Job title:
File as:
Hedløy, Atle
Address...
113 Terrasse street
New York, NY 12191-4292
United States of America
Business
Phone:
Business
Home
Business Fax
Mobile
This is the mailing address
E-mail
Web page:
Private
Categories...
94
96
98
100
102
104

FIG. 12

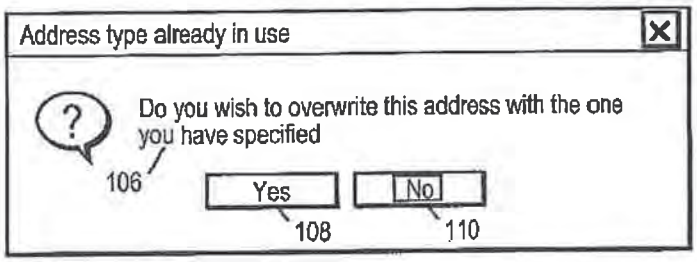

Address type already in use
Do you wish to overwrite this address with the one you have specified
106
Yes
No
108
110

FIG. 13

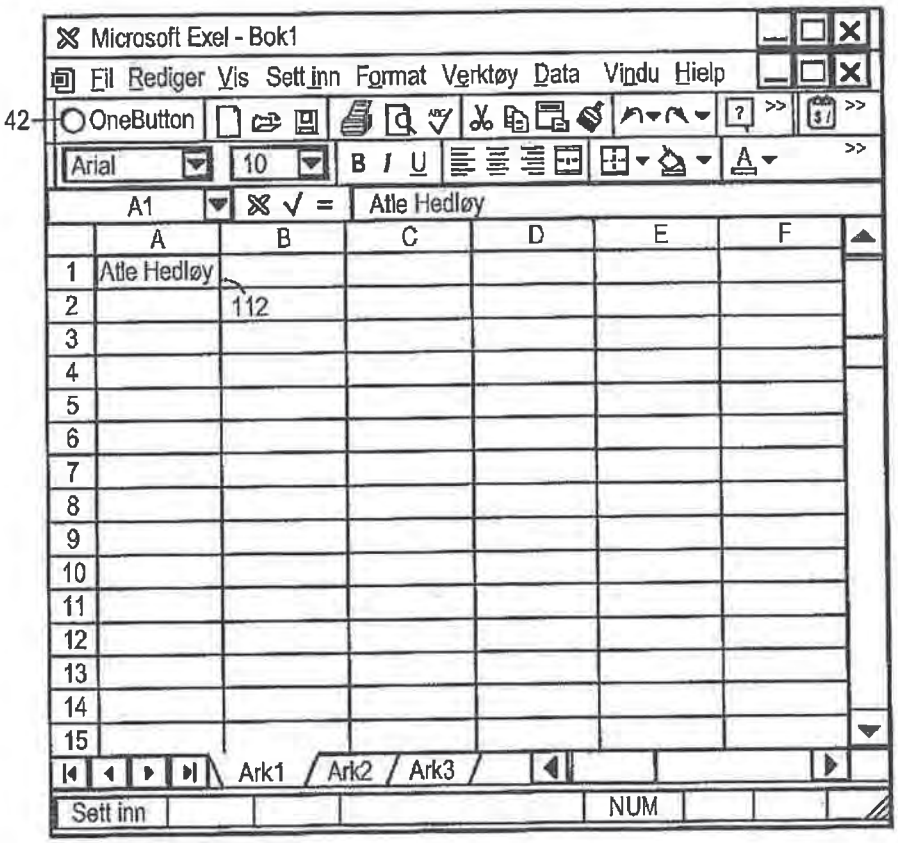

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hielp
42
OneButton
Arial
10
A1
Atle Hedløy
112
Ark1
Ark2
Ark3
Sett inn
NUM

FIG. 14

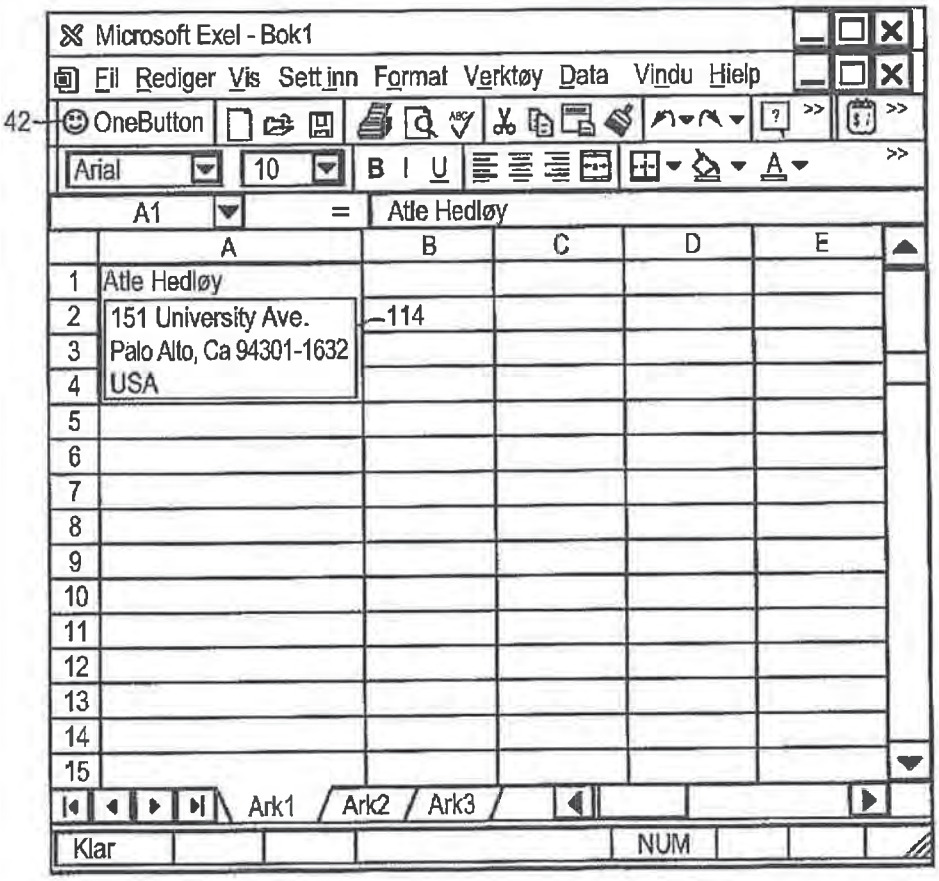

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hielp
42
OneButton
Arial
10
A1
=
Atle Hedløy
A
B
C
D
E
1 Atle Hedløy
2 151 University Ave.
3 Palo Alto, Ca 94301-1632
4 USA
114
5
6
7
8
9
10
11
12
13
14
15
Ark1
Ark2
Ark3
Klar
NUM

FIG. 15

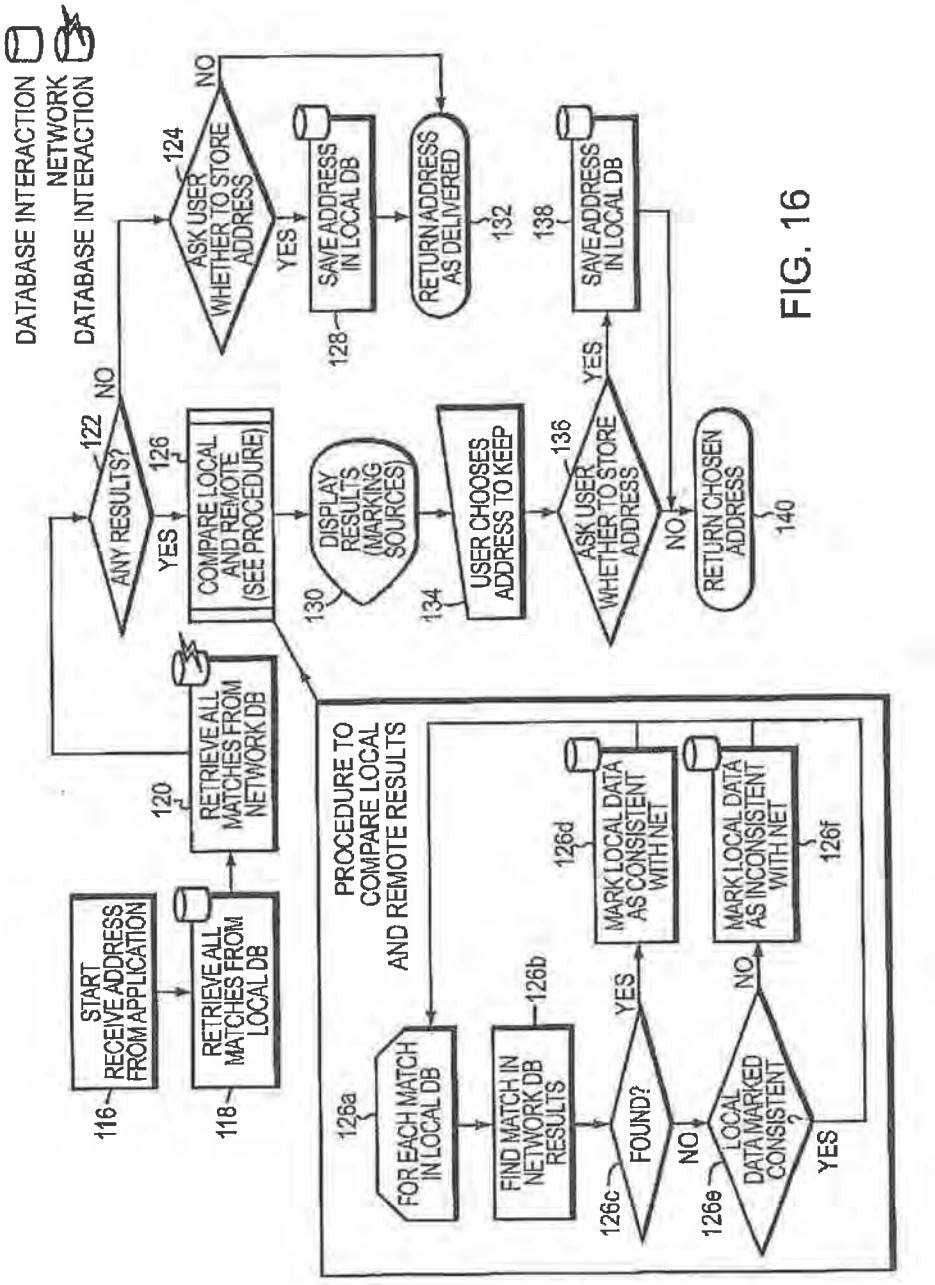

DATABASE INTERACTION
NETWORK
DATABASE INTERACTION
START
RECEIVE ADDRESS FROM APPLICATION
116
RETRIEVE ALL MATCHES FROM LOCAL DB
118
RETRIEVE ALL MATCHES FROM NETWORK DB
120
ANY RESULTS?
122
NO
YES
COMPARE LOCAL AND REMOTE (SEE PROCEDURE)
126
DISPLAY RESULTS (MARKING SOURCES)
130
USER CHOOSES ADDRESS TO KEEP
134
ASK USER WHETHER TO STORE ADDRESS
136
YES
NO
RETURN CHOSEN ADDRESS
140
ASK USER WHETHER TO STORE ADDRESS
124
NO
YES
SAVE ADDRESS IN LOCAL DB
128
RETURN ADDRESS AS DELIVERED
132
SAVE ADDRESS IN LOCAL DB
138
PROCEDURE TO COMPARE LOCAL AND REMOTE RESULTS
FOR EACH MATCH IN LOCAL DB
126a
FIND MATCH IN NETWORK DB RESULTS
126b
FOUND?
126c
YES
NO
LOCAL DATA MARKED CONSISTENT?
126e
NO
YES
MARK LOCAL DATA AS CONSISTENT WITH NET
126d
MARK LOCAL DATA AS INCONSISTENT WITH NET
126f

FIG. 16

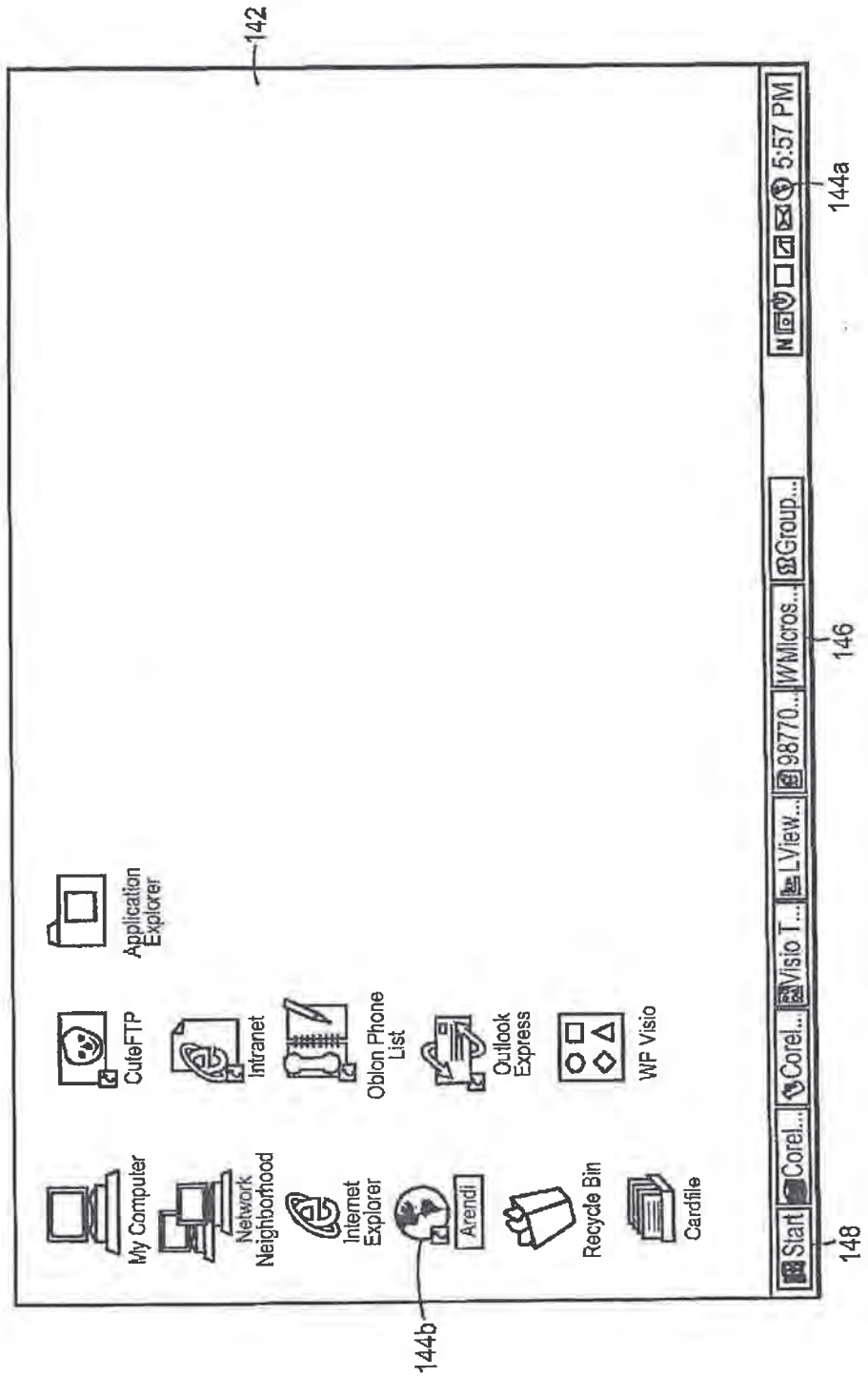

142
Application Explorer
CuteFTP
Intranet
Oblon Phone List
Outlook Express
WP Visio
My Computer
Network Neighborhood
Internet Explorer
Arendi
Recycle Bin
Cardfile
Start
Corel...
Corel...
Visio T...
LView...
98770...
Micros...
Group...
5:57 PM
144a
144b
146
148

FIG. 17

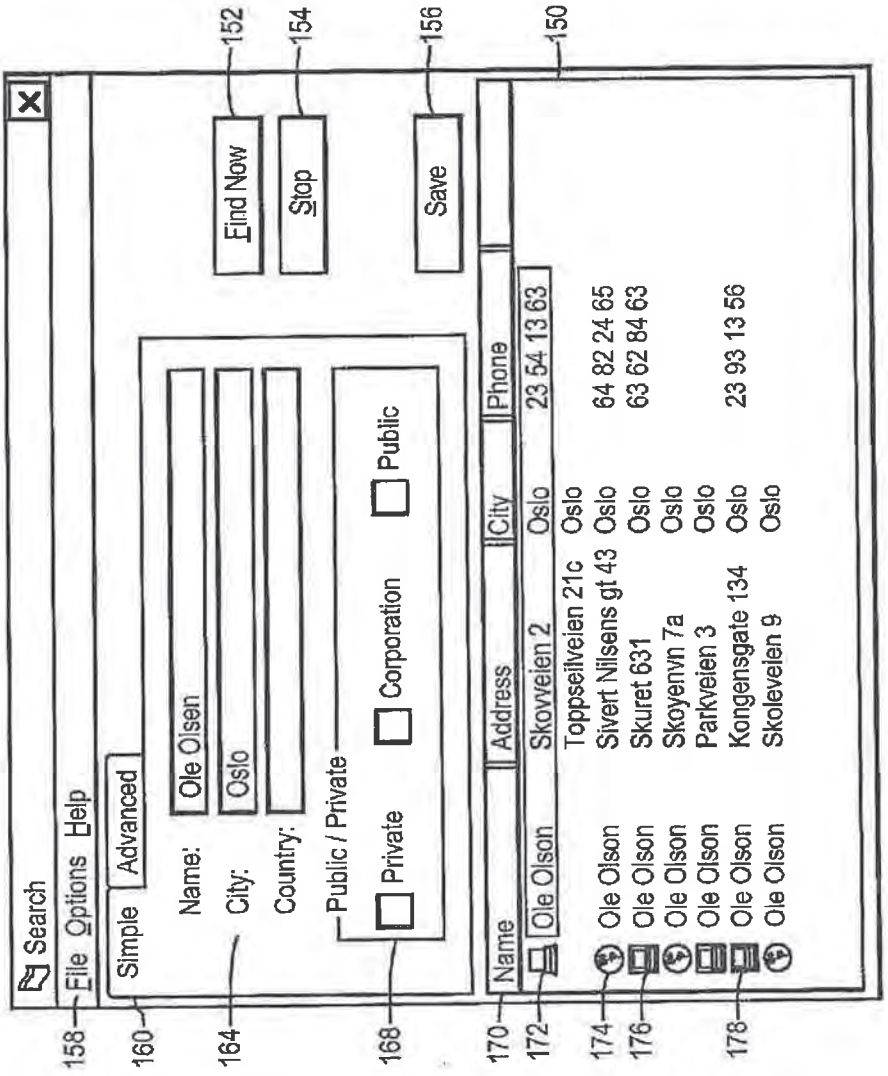

Search
File Options Help
Simple
Advanced
Name:
Ole Olsen
City:
Oslo
Country:
Public / Private
Private
Corporation
Public
Find Now
Stop
Save
Name
Address
City
Phone
Ole Olson
Skovveien 2
Oslo
23 54 13 63
Ole Olson
Toppseilveien 21c
Oslo
Ole Olson
Sivert Nilsens gt 43
Oslo
64 82 24 65
Ole Olson
Skuret 631
Oslo
63 62 84 63
Ole Olson
Skoyenvn 7a
Oslo
Ole Olson
Parkveien 3
Oslo
Ole Olson
Kongensgate 134
Oslo
23 93 13 56
Ole Olson
Skoleveien 9
Oslo
158
160
164
168
170
172
174
176
178
150
152
154
156

FIG. 18

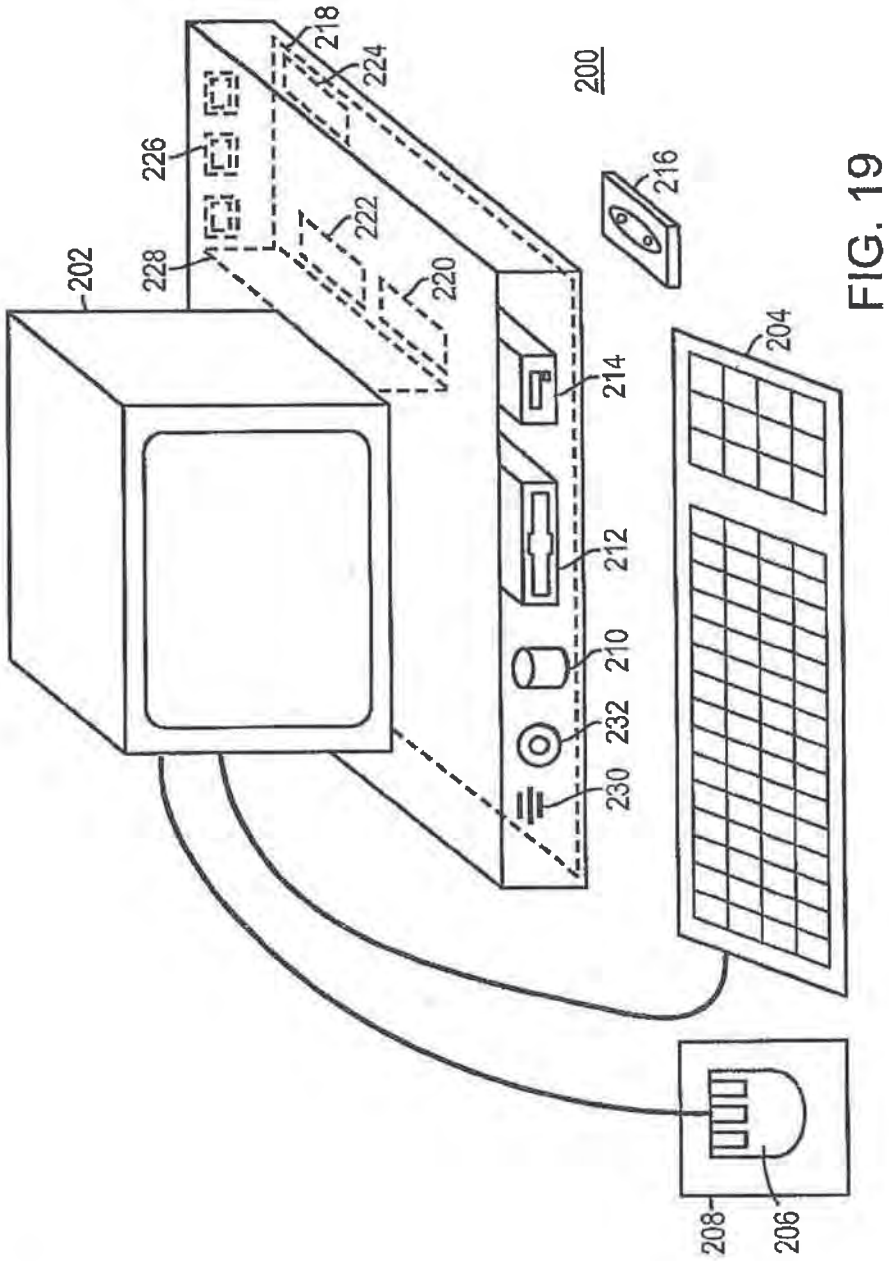

200
202
204
206
208
210
212
214
216
218
220
222
224
226
228
230
232

FIG. 19

METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM AN OPERATING SYSTEM

CROSS REFERENCES TO RELATED APPLICATIONS

The present application is a continuation of U.S. patent application Ser. No. 09/390,303, which was filed on Sep. 3, 1999, by Atle Hedloy, which is presently incorporated herein by reference.

The present invention is related to commonly owned U.S. patent application Ser. No. 09/189,626, incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a method, system and computer readable medium for name and address handling (hereinafter called "address handling"), and more particularly to a touch screen, keyboard button, icon, menu, voice command device, etc. (hereinafter called "button") provided in a computer program, such as a word processing program, spreadsheet program, etc., or operating system, such as WINDOWS™ operating system, MACINTOSH™ operating system, etc., and coupled to an information management source for providing address handling within a document created by the computer program or within the operating system.

2. Discussion of the Background

In recent years, with the advent of programs, such as word processors, spreadsheets, etc. (hereinafter called "word processors") and operating systems, such as WINDOWS™ operating system, MACINTOSH™ operating system, etc., users may require retrieval of information, such as name and address information, etc., for insertion into a document, such a letter, fax, etc., created with the word processor or for contact management at the operating system level. Typically, the information is retrieved by the user from an information management source external to the word processor, such as a database program, contact management program, etc., or from the word processor itself, for insertion into the document. Examples of such word processors are WORD™, NOTEPAD™, EXCEL™, WORDPAD™, WORDPERFECT™, QUATROPRO™, AMIPRO™, etc., and examples of such information management sources are ACCESS™, OUTLOOK™, ORACLE™, DBASE™, RBASE™, CARDFILE™, etc.

However, the information in the database must constantly be updated by the user. This requires the user to learn how to use and have access to the database. In this case, a change in the information, such as change in an address or a name, etc., requires the user of the word processor to implement this change in the database, or alternatively, the change is made to the database centrally by a database administrator.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program or operating system.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc, or operating system, such as such as WINDOWS™ operating system, MACINTOSH™ operating system, etc.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program or operating system, using an input device provided in the computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program or operating system, using an input device, such as a touch screen, keyboard button, icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program or operating system using an input device provided in the computer program or operating system and coupled to local and/or remote information management source, such as a database program, contact management program, computer network, Internet site, etc.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program or operating system using an input device provided in the computer program or operating system and coupled to local and remote information management source, such as a database program, contact management program, computer network, Internet site, etc., wherein data found in the local database is related to data found in the remote database.

The above and other objects are achieved according to the present invention by providing a novel method, system and computer readable medium for information handling within an operating system, including providing a record retrieval program; providing an input device within a window or screen of the operating system and configured to enter an execute command which initiates a record retrieval from local and remote information sources using the record retrieval program; using the record retrieval program to enter first information into search fields provided in the record retrieval program; entering the execute command using the input device after the step of entering the first information; searching, using the record retrieval program, the local and remote information sources for second information associated with the first information; and displaying the second information in the record retrieval program, when one of the local and remote information sources includes second information associated with the first information.

BRIEF DESCRIPTION OF THE DRAWINGS

A more complete appreciation of the invention and many of the attendant advantages thereof will be readily obtained as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIG. 1 is a flow chart illustrating a method for address handling within a computer program, according to an exemplary embodiment of the present invention;

FIG. 2 is a flow chart illustrating a method for address handling within a computer program, according to another exemplary embodiment of the present invention;

FIG. 3 is a screen shot illustrating the inputting of a name to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **4** is a screen shot illustrating a retrieved address in a word processor, according to an exemplary embodiment of the present invention;

FIG. **5** is a screen shot illustrating the inputting of a name and address to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **6** is a screen shot illustrating an add new contact message window, according to an exemplary embodiment of the present invention;

FIG. **7** is a screen shot illustrating a contact register message window, according to an exemplary embodiment of the present invention;

FIG. **8** is a screen shot illustrating an address missing message window, according to an exemplary embodiment of the present invention;

FIG. **9** is a screen shot illustrating a modify contact's address message window, according to an exemplary embodiment of the present invention;

FIG. **10** is a screen shot illustrating a select a contact address register message window, according to an exemplary embodiment of the present invention;

FIG. **11** is a screen shot illustrating a more detailed mode of registering an additional address for the contact register of FIG. **9**, according to an exemplary embodiment of the present invention;

FIG. **12** is a screen shot illustrating a contact management program window in a full detailed mode, according to an exemplary embodiment of the present invention;

FIG. **13** is a screen shot illustrating an address already in use message window, according to an exemplary embodiment of the present invention;

FIG. **14** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a spreadsheet, according to an exemplary embodiment of the present invention;

FIG. **15** is a screen shot illustrating a retrieved address in a spreadsheet, according to an exemplary embodiment of the present invention;

FIG. **16** is a flow chart illustrating a method for address handling within an operating system, according to another exemplary embodiment of the present invention;

FIG. **17** is a screen shot illustrating an operating system window including means for address handling therein, according to an exemplary embodiment of the present invention;

FIG. **18** is a screen shot illustrating an address handling program, according to an exemplary embodiment of the present invention; and

FIG. **19** is a schematic illustration of a general purpose computer for performing the processes of the present invention, according to an exemplary embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In an embodiment of the present invention, single button addressing is achieved by providing an input device, such as a touch screen, keyboard, icon, menu, voice command device, etc. (hereinafter called "button"), in a computer program, such as a word processing program, spreadsheet program, etc. (hereinafter called "word processor"), or an operating system, such as WINDOWS™ operating system, MACINTOSH™ operating system, etc., for executing address handling therein.

Accordingly, in a word processor or operating system, the button is added and a user types information, such as an addressee's name, or a part of the name, etc. in a document created with the word processor, such as a letter, fax, etc., and then clicks, selects, commands, etc. the button via the appropriate input device, such as a touch screen button, keyboard button, icon, menu choice, voice command device, etc. A program then executes and retrieves the typed information from the document, and searches a local (i.e., the user's personal computer or an Intranet coupled to the user's personal computer) or remote (i.e., the Internet) information management source, such as a database, file, database program, contact management program, etc. (hereinafter called "database") to determine if the information, such as the name or part of the name typed and searched by the program exists in the database. If the program does not find stored information, such as a name, corresponding to the name or part of the name typed, the user is asked by the program whether the information, such as the name that was not found, should be added to the local database. In addition, the user may enter any other information besides the name, such as addresses, businesses, telephone numbers, fax numbers, e-mail address, etc., so that this other information can be stored in the local database for later use.

If the program finds name(s) and address(es) corresponding to the part of the addressee's name typed, this additional information is automatically entered into the user's word processor, optionally with a confirmation from the user that this is the correct data and stored in the local and/or remote database. If the typed address information does not correspond to data already stored in the local or remote database, after clicking on the button, the program, for example, lets the user decide: (1) if this is new data (e.g., a new address) for an existing contact; (2) if the stored data should be changed to what the user just typed; (3) if this is a new contact with the same name as one already entered into the database; or (4) if the typed address is only to be used once, and therefore not to be stored in the database at all. If, later, for example, a name with several address stored in the local or remote database is recalled, all addresses for this contact will be displayed, so that the correct address can be selected by the user.

The program may be extended to also store and retrieve other information, such as telephone numbers, fax numbers, e-mail addresses, etc. Once the program recalls the telephone numbers, fax numbers, e-mail addresses, etc., the user can command the program to send e-mails, faxes, etc. Similarly, if the user types in the name of a mailing list, the program create merge letters, group e-mails, etc.

Referring now to the drawings, wherein like reference numerals designate identical or corresponding parts throughout the several views, and more particularly to FIGS. **1** and **2** thereof, there is illustrated flow charts of single button addressing, according to exemplary embodiments of the present invention.

In FIG. **1**, after the user has inserted the address in the word processor, the user commands the button at step **2** and the program analyzes what the user has typed in the document at step **4**. At step **6**, the program decides what was found in the document and if the program found nothing in the document or what it found was un-interpretable the program goes to step **8** and outputs an appropriate message to the user and then quits at step **16**. The program analyzes what the user has typed in the document at step **4**, for example, by analyzing (i) paragraph/line separations/formatting, etc.; (ii) street, avenue, drive, lane, boulevard, city, state, zip code, county designators and abbreviations, etc.; (iii) Mr., Mrs., Sir, Madam, Jr., Sr. designators and abbreviations, etc.; (iv) Inc.,

Ltd., P.C., L.L.C, designators and abbreviations, etc.; and (v) a database of common male/female names, etc.

If the program finds an e-mail address mailing list/category name telephone number or other information, at step **10** an appropriate action is performed by the program and then the program execution quits at step **16**. If the program only finds a name or initials, or the like, the program looks up the name in the database at step **12** and at step **18** the program determines what was found. If the program finds more than one possible contact/address match, at step **20** the program displays menu choices to the user to let him choose an appropriate answer. Then at step **22** the program inserts a correct address and name in the document and then at step **16** the program quits execution. If the program finds one match exactly, i.e., one contact with one address, the program inserts the correct address and name in the document at step **22** and then quits execution at step **16**. If the program does not find a name in the database, at step **24** the program prompts the user to specify an address and then quits execution at step **16**. If the program at step **6** finds a name and an address, at step **14** the name is looked up in the database. Then, at step **26**, if no match is found, at step **28** the program inserts an address and a name which are possibly corrected by the user into the database and then quits execution at step **16**. If at step **26**, the name and address is found, at step **32** the program either takes no action or displays the data for the user to edit. If at step **26**, the name is found but not the address, the program prompts the user for a decision at step **30**. If the user decides that this another contact with a same name, the program goes to step **28**. If the user decides that this is a one time occurrence, no action is taken and the program quits at step **16**. If the user decides that the contact has, for example, moved and that this is a new address, at step **34** one of the old addresses for the contact is replaced with the new one and the program quits at step **16**. If the user decides that this is an additional address for the contact, at step **36** the additional address is inserted into the database for that contact and execution quits at step **16**.

The flowchart shown in FIG. **2** is similar to the flowchart in FIG. **1**, except for some additional steps which will now be discussed. At step **6**, if the program only finds a name or a similar name then the name is looked up in the database at step **12**, then at step **18** if the program found more than one possible contact/address match, the program displays choices to the user to let him choose an address at step **20**. Then at step **21** the user decides whether to insert the selected address into the document. If the user does not decide to select the address into the document the program quits execution at step **16**. If the user decides to insert the selected address into the document, the program inserts the address and name into the document at step **22** and then quits at step **16**.

If the program finds a name and address in the database at step **6**, then at step **14** the program looks up the name in the database and at step **26** the program determines what it has found. If the program does not find the name at step **26**, at step **27** the program prompts the user for a decision and review and whether to insert the contact and address. If the user does not decide to insert the contact address, the program quits at step **16**. If the user decides to insert the contact address, at step **28** the program inserts the address and name which may be possibly corrected by the user or program in the database and then execution quits at step **16**.

If at step **26** the program finds a name and not an address, then at step **29** the name is looked up in the database. Then at step **31** the program decides whether this contact has another address. If the contact does not have another address, at step **33** the program prompts the user for a decision and review and whether to add the address. If the user does not want to add the address at step **33**, the program quits at step **16**. If the user wants to add the address at step **33** because this is an additional address for the contact, at step **36** the address is inserted in the database for the contact and execution quits at step **16**.

At step **30**, if the user decides that this is another contact with a same name, then the program goes to step **28**. If at step **30** the user decides that this is a one time occurrence, then the program quits at step **16**. If at step **30**, the user decides that the contact has, for example, moved, the program goes to step **34**. If at step **30**, the user decides that this is an additional address for the contact, at step **36** the program inserts the address in the database for the contact and then quits at step **16**.

Various exemplary screen shots which are generated during execution of the program, according to the present invention, will now be described with reference to FIGS. **3-15** and examples 1-7 as follows.

Example 1

Retrieving an Existing Address from the Database

FIG. **3** illustrates a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name **40**. The user hits the button **42**, for example, marked "OneButton" and the program according to the present invention retrieves the name **40** from the document, searches a database for the name **40**, and inserts the retrieved address **44** associated with the name **40** into the document as shown in, for example, FIG. **4**.

The above example corresponds to steps **2, 4, 6, 12, 18, 22** and **16** in the flow charts of FIGS. **1** and **2**.

Example 2

Adding a New Contact to the Database

FIG. **5** illustrates a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name and address of a new contact **46**. The user commands the button **42**, for example, marked "OneButton," and the program according to the invention retrieves the new contact **46** from the document, searches a database for the name of the new contact **46** and generates a screen as shown in, for example, FIG. **6**. This screen includes a message **50** informing the user that the new contact does not exist in the database, a message **52** including the address retrieved from the document, an address type selection **54**, such as home, business, etc., and "OK," "Details," and "Cancel" buttons **56, 58**, and **60**, respectively.

At this point, the user can cancel the operation by commanding the Cancel button **60**, ask the program to store data in the database and return to the document by commanding the OK button **56**, or check details before storing data into the database by commanding the Details button **58**. If the user commands the Details button **58**, as shown in, for example, FIG. **7**, a message screen is provided so that the user can review and edit data **62** and the selection **54**, store the data **62** and **54** in the database by commanding a "Add and Choose" button **64**, see more options by commanding an "Options" button **66**, or cancel the operation by commanding the Cancel button **60**.

The above example corresponds to steps **2, 4, 6, 14, 26, 28** and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 14, 26, 27, 28** and **16** in the flow chart of FIG. **2**.

Example 3

Try to Retrieve Existing Address but Contact is not in Database

FIG. **3** illustrates a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name of a contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **40** from the document, searches a database for the name of the contact **40** and generates a screen as shown in, for example, FIG. **8**. This screen includes a message **68** informing the user that the contact does not exist in the database and to specify an address, and "OK" buttons **56**. At this point when the user commands the OK button **56**, the user returns to the document so that the contact's address can be included as in Example 2 above.

The above example corresponds to steps **2, 4, 6, 12, 18, 24** and **16** in the flow charts of FIGS. **1** and **2**.

Example 4

Adding a New Address for an Existing Contact (Short Version)

FIG. **4** illustrates a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. This screen includes a message **70** informing the user that the contact already exits in the database with an existing address, a message **72** including the existing address, add new contact with same name selection **74**, change existing address selection **76**, use existing address in document selection **78**, add the new address to contact selection **80**, the address type selection **54**, such as home, business, etc., and the "OK," "Details," and "Cancel" buttons **56, 58**, and **60** respectively. At this point, the user may select one of the four options **74-80**, and command the OK button **56** to execute the selected options. The user can also cancel the operation by commanding the Cancel button **60**, or check details before storing data into the database by commanding the Details button **58**.

The above example corresponds to steps **2, 4, 6, 14, 26, 28, 30, 34, 36**, and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 14, 26, 29, 31, 30, 28, 34, 36**, and **16** in the flow chart of FIG. **2**.

Example 5

Selecting Between Several Possible Matching Addresses

FIG. **3** illustrates a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name and possibly address of at least one existing contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **40** from the document, searches a database for the name of the existing contact **40** and generates a screen as shown in, for example, FIG. **10**. This screen includes a message informing the user that the name corresponds to several addresses and possible contacts which already exist in the database, with existing contacts and addresses for selection **82**, a message **84** including the full name and address for the contact that the user selects in **82**, the Options button **66**, a "Choose" button **86**, a "Full details" button **88**, a "More>>>" button **90**, and the Cancel button **60**. The above screen indicates to the user that at least one contact with the same name exists, and that there are more than one addresses and/or contacts that match.

At this point, the user may command the Choose button **86** to use the selected address and return to the document, or the user may command the More>>> button **90** to view how the program interpreted what the user typed in the word processor, and possibly change this data, wherein the program generates an updated screen as shown in, for example, FIG. **11**. The updated screen includes the data **62** which displays the name typed in the word processor as interpreted by the program, address fields, and the fields for the address type selection **54**, such as home, business, etc., which may be changed by the user before the program stores it in the database, the Add and Choose button **64**, a "<<<Less" button **90** corresponding to the More>>> button **90** for returning to the screen of FIG. **10**, and an "Add this address to the selected contact above" button **92**. The user might then command the Add this address to the selected contact above button **92** and the result in the word processor is illustrated in FIG. **4**. The user can also cancel the operation by commanding the Cancel button **60**, or command the add choose button **64** to add this name and address as a new contact and address, or open the database before storing data into the database by commanding a "Full details" button **88** as will be later described.

The above example corresponds to steps **2, 4, 6, 12, 18, 20, 22**, and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 12, 18, 20, 21, 22**, and **16** in the flow chart of FIG. **2**.

Example 6

Adding a New Address for an Existing Contact (Long Version)

FIG. **4** illustrates a starting point in word processor document, such as a WORD™ document, wherein the user has typed a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. As previously described, the screen includes a message **70** informing the user that the contact already exits in the database with an existing address, and the user may command the Details button **58** to see the details of the new address for potentially modify the details before they are stored in the database and the program generates a screen as shown in, for example, FIG. **10**. From this screen, the user may choose to use another address than the one he typed, and return to the document, or the user may command the "Full details" button **88** to enter a database program, such as OUTLOOK™, directly as shown in, for example, FIG. **12**. In FIG. **12**, the database program, such as OUTLOOK™, may include portions **94-104** for allowing the user to modify various pieces of data before they are stored in the database.

Alternatively, in the screen shown in FIG. **10**, the user may command the More>>> button **90** at which time the program generates the screen as shown in, for example, FIG. **11** and as previously described. In this screen, the user might then command the Add this address to the selected contact above button **92**. If the address typed is already in use, the program

generates a screen including a message **106**, and "Yes" and "No" buttons, **108** and **110**, respectively, as shown in, for example, FIG. **13**. If the user hits the Yes button **108** the program overwrites the contact address with the address specified by the user (e.g., if the contact has moved) and the result in the word processor is shown in, for example, FIG. **4**.

The above example corresponds to steps **2**, **4**, **6**, **12**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36** and **16** in the flow chart of FIG. **2**.

Example 7

Spreadsheet Application

FIG. **14** illustrates a starting point in word processor document, such as an EXCEL™ spreadsheet, wherein the user has typed a name **112**. The user hits the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **112** from the spreadsheet, searches a database for the name **112**, and inserts the retrieved address **114** into the spreadsheet as shown in, for example, FIG. **15**. Accordingly, the examples 1-6 apply not only to word processor documents, such as WORD™ documents, etc., but to other word processor documents, and spread sheets, such as EXCEL™ spreadsheets, etc.

The above example corresponds to steps **2**, **4**, **6**, **12**, **18**, **22** and **16** in the flow charts of FIGS. **1** and **2**.

Up to this point, the single button addressing program has been described in terms of providing a device for address handling within a computer program, such as a word processor or spread sheet. The following embodiment of the single button addressing program runs on a client (e.g., a computer, cell phone, or palm top device) operating system and integrates local address and phone number data with network data, such as data obtained from an Intranet or the Internet, resolving differences and presenting them in a unified format.

The single button addressing program works within word processing, personal information management, etc., software (e.g., as previously described). The single button addressing program allows the data found on a network Intranet or Internet site to be saved in the local database and checked against network data as it changes, without the network database being aware of the local database. The network can be a public network, such as the Internet, or a private data network, such as an Intranet. The local database can be a database management system, such as Microsoft ACCESS™, Microsoft SQL server, etc., running on the local computer or any accessible server. The local database can also be an application, such as a personal information manager like Microsoft OUTLOOK™ or Symantec Act!™, etc., that maintains a database therein. Similarly, the remote database may be a public or private data service, a Web-based data source, or a CD-ROM of information used in the user's computer or computer network.

The invention according to the present embodiment performs data integration in the following way: (1) the address handling function is typically implemented as a subprogram within a larger program, such as the single button address program provided in a word processor as previously described or as single button address program provided in an operating system as will be later described; (2) the subprogram is started with a complete or partial name and address; (3) the subprogram queries the local and remote databases and compares the results; (4) the subprogram provides user interface for the user to select the appropriate result wherein the choices are marked based on whether the data is remote or local. If data was originally remote and the user saved it locally, the user is alerted if the data has changed on the remote database; (5) if the data chosen by the user is different or not present in the local database, the user is given the opportunity to save the data locally; and (6) the chosen address is returned to the calling program, which may, for example, include it in a document.

FIG. **16** illustrates a method for address handling from an operating system, such as WINDOWS™ operating system, MACINTOSH™ operating system, etc., according to the present embodiment of the invention. In FIG. **16**, at step **116**, an address is received from an application or is entered directly into the single button addressing subprogram. At step **118**, the subprogram retrieves all matches from a local database. At step **120**, the subprogram retrieves all matches from a network or remote database.

At step **122**, the subprogram determines whether or not there are any matching address results. If there are no matching results, the user is given the opportunity to store or not to store the address at step **124**. If the user chooses to store the address, at step **128** the address is stored in the local database. If the user chooses not to store the address, at step **132** the address is returned to the calling program as delivered to the user and without being stored in the local database.

If at step **122** the subprogram determines that there are matching results, the local and remote matching database results are compared at step **126** as follows. At step **126***a*, for each match in the local database, step **126***b* determines whether or not there is a corresponding match in the remote or network database results. At step **126***c*, if a match is found between the local and remote databases, the matching result is marked as local data which is consistent with the network data. At step **126***c*, if no match is found between the local and remote databases, step **126***e* determines whether or no the local data was marked as consistent with the network data. If the local data was not marked as consistent with the network data, at step **126***f* the local data is marked as inconsistent with the network data. If the local data was marked as consistent with the network data, control transfers back to step **126***a* to process the next match in the local database.

FIG. **17**, illustrates an exemplary operating system screen **142**, such as a WINDOWS 95™ operating system screen, including the single button addressing subprogram implemented as tool bar subprogram **144***a* or as a desktop icon subprogram **144***b*. The single button addressing subprogram can also be launched from a word processing application **146**, as previously discussed, or via the WINDOWS 95™ Start menu **148**.

FIG. **18** illustrates an exemplary search screen **150** generated by the single button addressing subprogram after it has been launched. In this example, a user ran a search (i.e., from the standalone single button addressing subprogram) against local data stored in, for example, Microsoft OUTLOOK™ and remote data stored in, for example, a remote web service.

In FIG. **18**, the search screen **150** includes, for example, a Find Now button **152** for executing a search, a Stop button for stopping a search in progress and a Save button **156** for saving found data. The search screen **150** includes, for example, File, Option and Help menu selections **158**, search criteria **164**, including, for example, fields for inputting a Name, a City and/or Country, and Public/Private indicators **168**, for indicating Private, Corporation and/or Public database searching options. The search results are displayed in a search window including Name, Address, City and Phone sort buttons **170**, which sort the search results according to the button selected.

The search results are further marked with status indicators **172**-**178**. Status indicator **172**, for example, includes a com-

puter icon with no color which indicates that the same data was found both locally and on the remote database (e.g., the Internet). Status indicator **174**, for example, includes a globe icon which indicates that the same data was found on the remote database, but not on the local database. Status indicator **176**, for example, includes a computer icon of a first color (e.g., yellow) which indicates that the same data was found on the local database, but not on the remote database. Status indicator **178**, for example, includes a computer icon of a second color (e.g., red) which indicates that the data was originally added to the local database from the remote database, but now is no longer found on the remote database.

FIG. **19** is a schematic illustration of a computer system for implementing the single button addressing according to the present invention. A computer **200** implements the method of the present invention, wherein the computer includes, for example, a display device **202**, such as a conventional display device or a touch screen monitor with a touch-screen interface, etc., a keyboard **204**, a pointing device **206**, a mouse pad or digitizing pad **208**, a hard disk **210**, or other fixed, high density media drives, connected using an appropriate device bus (e.g., a SCSI bus, an Enhanced IDE bus, an Ultra DMA bus, a PCI bus, etc.), a floppy drive **212**, a tape or CD ROM drive **214** with tape or CD media **216**, or other removable media devices, such as magneto-optical media, etc., and a mother board **218**. The mother board **218** includes, for example, a processor **220**, a RAM **222**, and a ROM **224** (e.g., DRAM, ROM, EPROM, EEPROM, SRAM, SDRAM, and Flash RAM, etc.), I/O ports **226** which may be used to couple to external devices, networks, etc., (not shown), and optional special purpose logic devices (e.g., ASICs) or configurable logic devices (e.g., GAL and re-programmable FPGA) **228** for performing specialized hardware/software functions, such as sound processing, image processing, signal processing, neural network processing, object character recognition (OCR) processing, etc., a microphone **230**, and a speaker or speakers **232**.

As stated above, the system includes at least one computer readable medium, or alternatively, the computer readable medium may be accessed through various paths, such as networks, internet, drives, etc. Examples of computer readable media are compact discs, hard disks, floppy disks, tape, magneto-optical disks, PROMs (EPROM, EEPROM, Flash EPROM), DRAM, SRAM, SDRAM, etc. Stored on any one or on a combination of computer readable media, the present invention includes software for controlling both the hardware of the computer **200** and for enabling the computer **200** to interact with a human user. Such software may include, but is not limited to, device drivers, operating systems and user applications, such as development tools. Such computer readable media further includes the computer program product of the present invention for performing any of the processes according to the present invention, described above (see, e.g., FIGS. **1-18**). The computer code devices of the present invention can be any interpreted or executable code mechanism, including but not limited to scripts, interpreters, dynamic link libraries, Java classes, and complete executable programs, etc.

The invention may also be implemented by the preparation of application specific integrated circuits or by interconnecting an appropriate network of conventional component circuits, as will be readily apparent to those skilled in the art.

Address handling, according to this invention, is a significant simplification relative to existing methods, and requires little or no training on the part of a user, as correct addresses are retrieved with a minimal number of user commands, "clicks", keystrokes, etc. In addition, a program according to the present invention, can be programmed and created in most existing programming languages and be connected to most modern word processors. Therefore, according to the present invention, the process of creating and updating records in an address database is significantly simplified, since this may now be performed directly from the word processor.

Although the present invention is defined in terms of word processing documents, such as WORD™ documents and Excel™ spreadsheets, the present invention is applicable to all types of word processing documents, such as NOTEPAD™, WORDPAD™, WORDPERFECT™, QUATRO-PRO™, AMIPRO™, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of information management or database programs, such as OUTLOOK™, etc., the present invention is applicable to all types of information management or database programs, such as ACCESS™, ORACLE™, DBASE™, RBASE™, CARDFILE™, including "flat files," etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of operating systems, such as WINDOWS™, MACINTOSH™, etc., the present invention is applicable to all types of operating systems, such as UNIX™, LINUX™, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of providing an input device, such as a button **42** in a word processor for address handling therein, the present invention may be practiced with all types of input devices, such as a touch screen, keyboard button, icon, menu, voice command device, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving information from a document before searching a database, the user may select the information in the document to be searched by the program in the database (e.g., by highlighting, selecting, italicizing, underlining, etc.), as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving a name or portion thereof from a document before searching a database, the program may retrieve an address or portion thereof from the document before searching the database and insert, correct, complete, etc., the retrieved address based on the information found in the database corresponding to the retrieved address or portion thereof, as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of an embodiment as described with respect to FIGS. **16-18**, all of the relevant features as described with respect to FIGS. **1-15** apply to the embodiment as described with respect to FIGS. **16-18**, as will be readily apparent to those skilled in the art. Similarly, although the present invention is defined in terms of an embodiment as described with respect to FIGS. **1-15**, all of the relevant features as described with respect to FIGS. **16-18** apply to the embodiment as described with respect to FIGS. **1-15**, as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of an address handling program provided in an operating system environment, such as WINDOWS™, MACINTOSH™, etc., of a personal computer, the program may run on an operating system environment, such as WINDOWS CE™, etc., of a client, such as cell phone, palm top device, personal organizer, etc., as will be readily apparent to those skilled in the art.

Obviously, numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of the

appended claims, the invention may be practiced otherwise than as specifically described herein.

This application claims priority and contains subject matter related to Norwegian patent application No. 984066 filed on Sep. 3, 1998, the entire contents of which are hereby incorporated by reference.

What is claimed is:

1. A computer implemented method for information handling, the method comprising:

providing access to a contact database that can also be separately accessed and edited by a user and wherein the contact database includes at least three fields for storing contact information associated with each of one or more contacts, each of the at least three fields within the contact database being specific to a particular type of contact information selected from the group consisting of name, title, address, telephone number, and email address;

analyzing in a computer process textual information in a document configured to be stored for later retrieval to identify a portion of the document as first contact information, without user designation of a specific part of the textual information to be subject to the analyzing, wherein the first contact information is at least one of a name, a title, an address, a telephone number, and an email address;

after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact information previously identified as a result of the analyzing, wherein the set of potential actions includes:

(i) initiating an electronic search in the contact database for the first contact information while it is electronically displayed in order to find whether the first contact information is included in the contact database; and

when a contact in the contact database includes the first contact information, if second contact information in the contact database is associated with that contact, electronically displaying at least a portion of the second contact information, wherein the second contact information is at least one of a name, a title, an address, a telephone number, and an email address;

(ii) initiating electronic communication using the first contact information; and

(iii) allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact in the contact database;

wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing; and

providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing.

2. A method according to claim 1, wherein the computer implemented method is embodied in a client and the client is selected from a group consisting of a computer, a cell phone, a palm top device, and a personal organizer.

3. A method according to claim 2, wherein the first contact information is a name, the second contact information is an address, and the client is a computer.

4. A method according to claim 2, wherein the first contact information is a telephone number.

5. A method according to claim 2, wherein the first contact information is a telephone number, the second contact information is a name, and the client is a cell phone.

6. A method according to claim 1, wherein the input device is a menu and the single execute command includes the user's selection of a menu choice from the menu.

7. A method according to claim 1, wherein the input device is a button within a window.

8. A method according to claim 1, wherein when the first contact information is an e-mail address, initiating electronic communication using the first contact information comprises creating an e-mail using the e-mail address.

9. At least one non-transitory computer readable medium encoded with instructions which when loaded on at least one computer, establish processes for information handling, the processes comprising:

providing access to a contact database that can also be separately accessed and edited by a user and wherein the contact database includes at least three fields for storing contact information associated with each of one or more contacts, each of the at least three fields within the contact database being specific to a particular type of contact information selected from the group consisting of name, title, address, telephone number, and email address;

analyzing in a computer process textual information in a document configured to be stored for later retrieval to identify a portion of the document as first contact information, without user designation of a specific part of the textual information to be subject to the analyzing, wherein the first contact information is at least one of a name, a title, an address, a telephone number, and an email address;

after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact information previously identified as a result of the analyzing, wherein the set of potential actions includes:

(i) initiating an electronic search the contact database for the first contact information while it is electronically displayed in order to find whether the first contact information is included in the contact database; and

when a contact in the contact database includes the first contact information, if second contact information in the contact database is associated with that contact, electronically displaying at least a portion of the second contact information, wherein the second contact information is at least one of a name, a title, an address, a telephone number, and an email address;

(ii) initiating electronic communication using the first contact information; and

(iii) allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact in the contact database;

wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing; and

providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing.

10. At least one non-transitory computer readable medium according to claim 9, wherein the at least one non-transitory computer readable medium is embodied in a client and the client selected from a group consisting of a computer, a cell phone, a palm top device, and a personal organizer.

11. At least one non-transitory computer readable medium according to claim 10, wherein the first contact information is a name, the second contact information is an address, and the client is a computer.

12. At least one non-transitory computer readable medium according to claim 10, wherein the first contact information is a telephone number.

13. At least one non-transitory computer readable medium according to claim 10, wherein the first contact information is a telephone number, the second contact information is a name, and the client is a cell phone.

14. At least one non-transitory computer readable medium according to claim 9, wherein the input device is a menu and the single execute command includes the user's selection of a menu choice from the menu.

15. At least one non-transitory computer readable medium according to claim 9, wherein the input device is a button within a window.

16. At least one non-transitory computer readable medium according to claim 9, wherein when the first contact information is an e-mail address, initiating electronic communication using the first contact information comprises creating an e-mail using the e-mail address.

17. An apparatus for information handling, the apparatus comprising:

a processor; and

a memory storing instructions executable by the processor to perform processes that include:

providing access to a contact database that can also be separately accessed and edited by a user and wherein the contact database includes at least three fields for storing contact information associated with each of one or more contacts, each of the at least three fields within the contact database being specific to a particular type of contact information selected from the group consisting of name, title, address, telephone number, and email address;

analyzing in a computer process textual information in a document configured to be stored for later retrieval to identify a portion of the document as first contact information, without user designation of a specific part of the textual information to be subject to the analyzing, wherein the first contact information is at least one of a name, a title, an address, a telephone number, and an email address;

after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact information previously identified as a result of the analyzing, wherein the set of potential actions includes:

(i) initiating an electronic search in the contact database for the first contact information while it is electronically displayed in order to find whether the first contact information is included in the contact database; and

when a contact in the contact database includes the first contact information, if second contact information in the contact database is associated with that contact, electronically displaying at least a portion of the second contact information, wherein the second contact information is at least one of a name, a title, an address, a telephone number, and an email address;

(ii) initiating electronic communication using the first contact information; and

(iii) allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact in the contact database;

wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing; and

providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing.

18. An apparatus according to claim 17, wherein the apparatus is selected from a group consisting of a computer, a cell phone, a palm top device, and a personal organizer.

19. An apparatus according to claim 18, wherein the first contact information is a name, the second contact information is an address, and the apparatus is a computer.

20. An apparatus according to claim 18, wherein the first contact information is a telephone number.

21. An apparatus according to claim 18, wherein the first contact information is a telephone number, the second contact information is a name, and the apparatus is a cell phone.

22. An apparatus according to claim 17, wherein the input device is a menu and the single execute command includes the user's selection of a menu choice from the menu.

23. An apparatus according to claim 17, wherein the input device is a button within a window.

24. An apparatus according to claim 17, wherein when the first contact information is an e-mail address, initiating electronic communication using the first contact information comprises creating an e-mail using the e-mail address.

25. A computerized method for information handling, the method comprising:

displaying information in a document electronically using a computer program;

electronically analyzing the information to identify a portion of that information as contact information including at least one of a name without an address and a name with an address;

providing an input device configured to allow a user to use the input device to command the program to perform at least one of:

(i) inserting address information from an information source and associated with the name into the document, and

(ii) storing at least part of the contact information in the information source;

wherein the program is configured to perform both actions (i) and action (ii);

during the displaying, receiving an execute command from the input device, wherein accessing and manipulating the input device are the only user actions required to cause initiation and completion of the analyzing;

when the contact information is identified as including a name without an address, electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes the name, if address information in the information source is associated with the name, causing insertion of the address information into the document; and

when the contact information is identified as including a name with an address, (a) electronically prompting the user with an option to save electronically in the information source at least some of the contact information, and (b) electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes at least one contact with the name, prompting the user to make a decision whether to store the name and address as a new contact or to update one of the at least one contact.

26. At least one non-transitory computer readable medium encoded with instructions which when loaded on at least one computer, establish processes for information handling, comprising:

displaying information in a document electronically using a computer program;

electronically analyzing the information to identify a portion of that information as contact information including at least one of a name without an address and a name with an address;

providing an input device configured to allow a user to use the input device to command the program to perform at least one of:

(i) inserting address information from an information source and associated with the name into the document, and

(ii) storing at least part of the contact information in the information source;

wherein the program is configured to perform both action (i) and action (ii);

during the displaying, receiving an execute command from the input device, wherein accessing and manipulating the input device are the only user actions required to cause initiation and completion of the analyzing;

when the contact information is identified as including a name without an address, electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes the name, if address information in the information source is associated with the name, causing insertion of the address information into the document; and

when the contact information is identified as including a name with an address, (a) electronically prompting the user with an option to save electronically in the information source at least some of the contact information, and (b) electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes at least one contact with the name, prompting the user to make a decision whether to store the name and address as a new contact or to update one of the at least one contact.

27. A computerized method for information handling, the method comprising:

displaying information in a document electronically using a computer program;

electronically analyzing the information to identify a portion of that information as contact information including at least a name;

providing an input device configured to allow a user to use the input device to command the program to perform at least one action selected from the group consisting of:

(i) inserting address information from an information source and associated with the name into the document, and

(ii) storing at least part of the contact information in the information source;

wherein the program is configured to perform both action (i) and action (ii);

during the displaying, receiving an execute command from the input device, wherein accessing and manipulating the input device are the only user actions required to cause initiation and completion of the analyzing;

when the program performs action (i), electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes the name, if address information in the information source is associated with the name, causing insertion of the address information into the document; and

when the program performs action (ii), electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes at least one contact with the name, prompting the user to make a decision whether to store the name as a new contact or to update one of the at least one contact.

28. A computerized method for information handling according to claim 27, further comprising:

when the program performs action (i) and the information source includes more than one address associated with the name, prompting the user to choose one of the addresses to use for insertion into the document.

29. At least one non-transitory computer readable medium encoded with instructions which when loaded on at least one computer, establish processes for information handling, comprising:

displaying information in a document electronically using a computer program;

electronically analyzing the information to identify a portion of that information as contact information including at least a name;

providing an input device configured to allow a user to use the input device to command the program to perform at least one action selected from the group consisting of:

(i) inserting address information from an information source and associated with the name into the document, and

(ii) storing at least part of the contact information in the information source;

wherein the program is configured to perform both action (i) and action (ii);

during the displaying, receiving an execute command from the input device, wherein accessing and manipulating the input device are the only user actions required to cause initiation and completion of the analyzing;

when the program performs action (i), electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes the name, if address information in the information source is associated with the name, causing insertion of the address information into the document; and

when the program performs action (ii), electronically searching for the name in the information source, in order to find whether the name is included in the information source; and

when the information source includes at least one contact with the name, prompting the user to make a decision whether to store the name as a new contact or to update one of the at least one contact.

30. At least one non-transitory computer readable medium according to 29, wherein the instructions further establish processes wherein:

when the program performs action (i) and the information source includes more than one address associated with the name, prompting the user to choose one of the addresses to use for insertion into the document.

* * * * *

US007921356B2

(12) **United States Patent**
Hedloy

(10) **Patent No.: US 7,921,356 B2**
(45) **Date of Patent: Apr. 5, 2011**

(54) **METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM**

(75) Inventor: **Atle Hedloy**, Madrid (ES)

(73) Assignee: **Arendi S.A.R.L.**, Luxembourg (LU)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/841,302**

(22) Filed: **Jul. 22, 2010**

(65) **Prior Publication Data**

US 2010/0281354 A1 Nov. 4, 2010

Related U.S. Application Data

(63) Continuation of application No. 12/182,048, filed on Jul. 29, 2008, which is a continuation of application No. 09/923,134, filed on Aug. 6, 2001, now Pat. No. 7,496,854, which is a continuation of application No. 09/189,626, filed on Nov. 10, 1998, now Pat. No. 6,323,853.

(51) **Int. Cl.**
G06F 17/00 (2006.01)

(52) **U.S. Cl.** **715/230**; 715/825; 715/234; 715/752; 715/853; 715/711

(58) **Field of Classification Search** 715/230, 715/209, 231, 273, 277, 792, 783
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,350,695 A 10/1967 Kaufman et al. 340/172.5
4,270,182 A 5/1981 Asija 364/900
(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 093 250 A2 9/1983
(Continued)

OTHER PUBLICATIONS

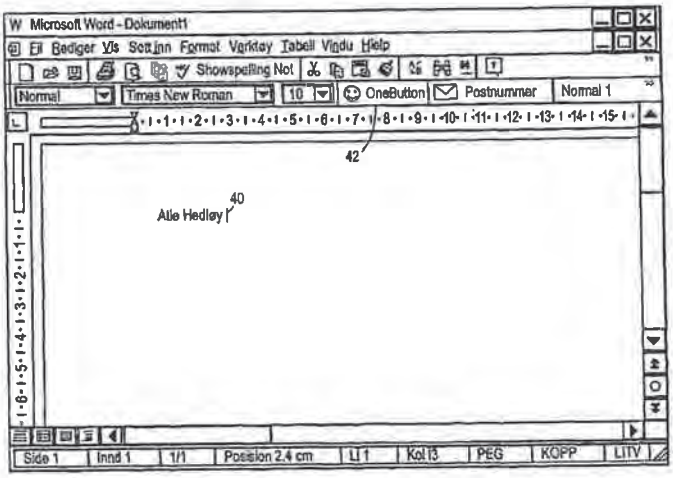
Person et al., "Special Edition Using Microsoft Word 97" by Que Publisher Pub. date Dec. 16, 1996, pp. 475-514.*
(Continued)

Primary Examiner — Doug Hutton
Assistant Examiner — Quoc A Tran
(74) *Attorney, Agent, or Firm* — Sunstein Kann Murphy & Timbers LLP

(57) **ABSTRACT**

A method, system and computer readable medium for providing for providing a function item, such as a key, button, icon, or menu, tied to a user operation in a computer, whereby a single click on the function item in a window or program on a computer screen, or one single selection in a menu in a program, initiates retrieval of name and addresses and/or other person or company related information, while the user works simultaneously in another program, e.g., a word processor. The click on the function item initiates a program connected to the button to search a database or file available on or through the computer, containing the person, company or address related data, in order to look up data corresponding to what the user types, or partly typed, e.g., name and/or address in the word processor, the correct data from the database, data related to the typed data, e.g., the name of the person, company, or the traditional or electronic address, or other person, or company, or address related data, and alternatively the persons, companies, or addresses, are displayed and possibly entered into the word processor, if such related data exists.

20 Claims, 14 Drawing Sheets



PLAINTIFF'S TRIAL EXHIBIT **PX0003**

AHL0117377

U.S. PATENT DOCUMENTS

4,674,065	A		6/1987	Lange et al. 364/900
5,226,117	A		7/1993	Miklos 395/157
5,267,155	A		11/1993	Buchanan et al. 364/419.14
5,331,555	A		7/1994	Hashimoto et al. 364/419.07
5,355,472	A		10/1994	Lewis 395/600
5,375,200	A		12/1994	Dugan et al. 395/159
5,388,150	A		2/1995	Schneyer et al. 379/67
5,392,386	A		2/1995	Chalas 395/155
5,416,901	A		5/1995	Torres 395/159
5,491,783	A		2/1996	Douglas et al. 395/159
5,491,784	A		2/1996	Douglas et al. 395/159
5,491,785	A		2/1996	Robson et al. 395/162
5,495,565	A		2/1996	Millard et al. 395/146
5,500,859	A		3/1996	Sharma et al. 370/81
5,530,853	A		6/1996	Schell et al. 395/600
5,546,447	A		8/1996	Skarbo et al. 379/142
5,566,330	A		10/1996	Sheffield 395/600
5,576,955	A		11/1996	Newbold et al. 395/795
5,579,467	A		11/1996	Capps 395/768
5,587,911	A		12/1996	Asano et al. 364/444.2
5,606,712	A		2/1997	Hidaka 395/800
5,634,121	A		5/1997	Tracz et al. 395/602
5,640,565	A		6/1997	Dickinson 395/683
5,666,502	A		9/1997	Capps 345/352
5,708,804	A		1/1998	Goodwin et al. 395/603
5,724,597	A		3/1998	Cuthbertson et al. 395/793
5,732,229	A		3/1998	Dickinson 395/334
5,732,395	A		3/1998	Alexander Silverman ... 704/260
5,734,871	A		3/1998	Kleinerman et al. 395/500
5,742,905	A		4/1998	Pepe et al. 455/461
5,754,636	A		5/1998	Bayless et al. 379/142
5,761,656	A		6/1998	Ben-Shachar 707/4
5,761,663	A		6/1998	Lagarde et al. 707/10
5,774,887	A		6/1998	Wolff et al. 707/1
5,778,367	A		7/1998	Wesinger, Jr. et al. 707/10
5,781,189	A		7/1998	Holleran et al. 345/335
5,787,451	A		7/1998	Mogilevsky 707/533
5,793,972	A		8/1998	Shane 395/200.49
5,794,228	A		8/1998	French et al. 767/2
5,794,259	A		8/1998	Kikinis 707/507
5,799,302	A		8/1998	Johnson et al. 707/7
5,805,886	A		9/1998	Skarbo et al. 395/685
5,805,911	A		9/1998	Miller 395/796
5,815,830	A		9/1998	Anthony 707/6
5,826,257	A		10/1998	Snelling, Jr. 707/4
5,835,089	A		11/1998	Skarbo et al. 345/335
5,859,636	A	*	1/1999	Pandit 715/204
5,860,073	A		1/1999	Ferrel et al. 715/255
5,864,848	A		1/1999	Horvitz et al. 707/6
5,873,107	A		2/1999	Borovoy et al. 707/501
5,873,108	A		2/1999	Goyal et al. 707/507
5,884,309	A		3/1999	Vanechanos, Jr. 707/10
5,893,093	A		4/1999	Wills 707/5
5,896,321	A		4/1999	Miller et al. 365/189.01
5,896,533	A		4/1999	Ramos et al. 395/680
5,907,838	A		5/1999	Miyasaka et al. 707/4
5,913,214	A		6/1999	Madnick et al. 707/10
5,923,848	A		7/1999	Goodhand et al. 395/200.49
5,924,074	A		7/1999	Evans 705/3
5,924,090	A		7/1999	Krellenstein 707/5
5,926,808	A		7/1999	Evans et al. 707/3
5,930,471	A		7/1999	Milewski et al. 395/200.04
5,930,764	A		7/1999	Melchione et al. 705/10
5,940,484	A		8/1999	DeFazio et al. 379/142
5,946,647	A	*	8/1999	Miller et al. 704/9
5,946,679	A		8/1999	Ahuja et al. 707/3
5,999,938	A		12/1999	Bliss et al. 707/102
6,006,218	A		12/1999	Breese et al. 707/3
6,006,351	A		12/1999	Peretz et al. 714/751
6,012,075	A		1/2000	Fein et al. 707/540
6,018,571	A		1/2000	Langlois et al. 379/207
6,021,403	A		2/2000	Horvitz et al. 706/45
6,026,398	A		2/2000	Brown et al. 707/5
6,028,605	A		2/2000	Conrad et al. 345/354
6,067,565	A		5/2000	Horvitz 709/218
6,081,788	A		6/2000	Appleman et al. 705/14
6,085,201	A		7/2000	Tso 707/505
6,085,226	A		7/2000	Horvitz 709/203
6,092,074	A		7/2000	Rodkin et al. 707/102
6,108,686	A		8/2000	Williams 709/202
6,151,584	A		11/2000	Papierniak et al. 705/10
6,178,411	B1		1/2001	Reiter 705/408
6,182,133	B1		1/2001	Horvitz 709/223
6,192,380	B1		2/2001	Light et al. 707/505
6,208,975	B1		3/2001	Bull et al. 705/14
6,233,570	B1		5/2001	Horvitz et al. 706/11
6,253,188	B1		6/2001	Witek et al. 705/14
6,260,035	B1		7/2001	Horvitz et al. 706/60
6,262,730	B1		7/2001	Horvitz et al. 345/337
6,285,987	B1		9/2001	Roth et al. 705/27
6,304,881	B1		10/2001	Halim et al. 707/201
6,317,761	B1		11/2001	Landsman et al. 707/513
6,323,853	B1		11/2001	Hedloy 345/339
6,338,957	B2		1/2002	Onishi et al. 435/108
6,373,940	B2		4/2002	Shaffer et al. 379/355.02
6,377,965	B1		4/2002	Hachamovitch et al. 707/534
6,385,592	B1		5/2002	Angles et al. 705/14
6,421,691	B1		7/2002	Nishiyama et al. 707/507
6,421,693	B1		7/2002	Nishiyama et al. 707/507
6,499,021	B1		12/2002	Abu-Hakima 706/10
6,651,217	B1		11/2003	Kennedy et al. 715/507
6,738,615	B1		5/2004	Chow et al. 455/415
6,826,407	B1		11/2004	Helferich 455/466
7,039,599	B2		5/2006	Merriman et al. 705/14
7,051,019	B1		5/2006	Land et al. 707/4
7,136,853	B1		11/2006	Kohda et al. 707/6
7,155,451	B1		12/2006	Torres 707/104.1
7,216,292	B1		5/2007	Snapper et al. 715/507
7,272,604	B1		9/2007	Hedloy 707/10
7,496,854	B2		2/2009	Hedloy 715/780
7,505,974	B2		3/2009	Gropper 707/10
7,509,349	B2		3/2009	Celik 707/200
2002/0188683	A1		12/2002	Lytle et al. 709/206
2003/0033288	A1		2/2003	Shanahan et al. 707/3
2006/0047644	A1		3/2006	Bocking et al. 707/4
2007/0244907	A1		10/2007	Hedloy 707/10
2008/0313159	A1		12/2008	Hedloy 707/3
2010/0211600	A2		8/2010	Hedloy 707/770

FOREIGN PATENT DOCUMENTS

EP	1 630 642	3/2006
GB	2 318 703	4/1998
GP	2196454	4/1988
WO	WO 97/21183	6/1997
WO	WO 98/16890	4/1998
WO	WO 98/19259	5/1998
WO	WO 98/34391	8/1998

OTHER PUBLICATIONS

Getting Results with Microsoft Office 97, 701 pages, © 1995-1997.
Apple Data Detectors User's Manual, 16 pages, © 1997.
CoStar User Manual for AddressMate and AddressMate Plus, 226 pages, © 1994-1995.
Anind K. Dey, et al., "CyberDesk: A Framework for Providing Self-Integrating ContextAware Services," *Knowledge-Based Systems*, vol. 11, No. 1, pp. 3-13, 1998.
Bonnie A. Nardi, et al., Collaborative, Programmable Intelligent Agents, Website, pp. 1-11, Mar. 1998.
Addressmate Automatic Envelope Addressing Program, User'S Manual, 24 pages, © 1991.
Brown, Peter, Unix Guide, 1 page, 1995.
N.D. Beitner, et al., Multimedia Support and Authoring in Microcosm: an Extended Model, 12 pages, no date available.
McMahon, Lee E., SED—A Non-interactive Text Editor, Bell Laboratories, 10 pages, Aug. 15, 1978.
SED(1), BSD Reference Manual Page, 6 pages, Dec. 30, 1993.
"AddressMate Incorporates Correction Capability," The New York Law Publishing Company, 1 page, Jan. 1996.
Mar. 1996 Reviews, website available at www.techweb.com/winmag/library/1996/0396/03rvh002.htm, 9 pages.
Magid, Lawrence J., "Addressing the Matter of Labels," Los Angeles Times, 2 pages, Sep. 23, 1996.
Important Note for New AddressMate Users, 1 page.
Important Tips for LabelWriter Owners Using AddressMate, 3 pages, Jan. 1995.

AHL0117378

Addressing the Issues, 4 pages, Jun. 24, 1993.
"Whye Do it the Olde Way" AddressMate Advertisement, 2 pages, no date available.
Robinson, Philip, "The Envelope, Please: It's AddressMate, "San Jose Mercury News, Sunday, 1 page, Jul. 19, 1992.
Supkoff, Steve, AddressMate, PCM, 2 pages, Aug. 1992.
Shannon, L.R., "Addressing Envelopes," The New York Times, 2 pages, Tuesday, Jul. 14, 1992.
Schwabach, Bob, "Addressing for Success," On Computers Column, 1 page, Mar. 16, 1992.
Infoworld, p. 15, Mar. 16, 1992.
Hart, Ken, Simplify Envelope Printing with AddressMate, Computer Shopper, 1 page, no date available.
"Colvin's Beta-Testing of AddressMate Sparks Developer's Appreciation," Westview, 1 page, Apr. 6, 1992.
Press Release: AddressMate Software Automatically Addresses and Bar Codes Envelopes to Save Time and Money, 2 pages, Mar. 9, 1992.
Long, George M., Letter to Mr. David Block, 1 page, Nov. 11, 1994.
Damiano, Philip J., Letter to Mr. David Block, 2 pages, Jan. 5, 1994.
Kahn, Ed, "Envelope Addressing Finally Simplified AddressMate Does Addressing and Much More," Microtimes, 3 pages, Nov. 27, 1995.
Bernthal, Kristen, "LabelWriter XI Plus," PC Catalog, 1 page, Aug. 18, 1995.
Plotkin, David, "Address for Success," Bay Area Computer Currents, p. 36-38, Mar. 21, 1995.
Address Fixer for Microsoft Word and Office, Product Box, 10 pages, no date available.
AddressMate Plus, Product Box and License Agreement, 16 pages, no date available.
Getting Results with Microsoft Office for Windows 95, Version 7.0, 635 pages, © 1995-1997.
Microsoft Word, User's Guide, Version 6.0, 449 pages, © 1993-1994.
CTAGS(1) Manual Page, 3 pages, Oct. 11, 1993 (Last Change).
Bernstein, Matt, An Apprentice that Discovers Hypertext Links, pp. 213-223, not date available.
Contextual Manu Manager/Apple Data Detectors, 5 pages, no date available.
Wilson, Eve, "Guiding Lawyers: Mapping Law into Hypertext," Artificial Intelligence Review 6, pp. 161-189, 1992.
P.J. Brown, et al., A Help System Based on UNIX Help Manual, 7 pages, Feb. 1987.
Charles H. Franke III, et al., Authoring a Hypertext Unix Help Manual, 8 pages, © 1995.
Brown, P.J., Guide User Manual, 1985, sixteenth impression, 55 pages, Apr. 1995.
Wilson, Eve, "Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System," Literary and Linguistic Computing, vol. 5, No. 2, 11 pages, 1990.
John Robertson, et al., The Hypermedia Authoring Research Toolkit, ECHT '94 proceedings, pp. 177-185, Sep. 1994.
What is Wild and Wild History webpages, available at wiki.org/wild.cgi?WhatIsWiki and www.c2.org/cgi/wild?WikiHistory, 8 pages, no date available.
Wilson, Eve, Integrated Information Retrieval for Law in a Hypertext Environment, Annual ACM Conference on Research and Development in Information Retrieval, INRIA, 23 pages, 1988.
Multimedia IIyperlinks Automatically Created for Reference Documents, Research Disclosure, 2 pages, Jun. 1993.
Wild Wild Origin, http://www.c2.com/cgi/wiki?WikiWikiOrigin, 2 pages, no date available.
Blake, Joy- Lyn, WikiWikiWeb, Computer World, 4 pages, Jan. 29, 2001.
Microsoft's Supplemental Responses to Arendi's Interrogatories, in *Arendi USA et al. v. Microsoft Corporation*, Civil Action 02CV-343 (ECT) from the United States District Court for the District of Rhode Island, 4 pages, Apr. 7, 2003.
"Apple Introduces Internet Address Detectors," Press Release, 3 pages, 2 pages, Sep. 8, 1997.
Cunningham, Cara, "Apple Kicks Off Macworld with Talk of Revival," new software demos, InfoWorld Electric, Aug. 7, 1996.
Staten, James, "Apple Looks to the Future," MacWeek, 2 pages, Aug. 7, 1996.
Simmons, Mark, "Striking a Key Note,"Mac Addict Online, 5 pages, Aug. 8, 1996.
Miller, Jim, Email regarding Apple Data Detectors, 1 page, Jan. 8, 1997.
Apple Data Detectors—Now Shipping web page, 5 pages, Jan. 6, 1997.
The Apple Data Detectors FAQ, 8 pages, Jan. 6, 1997.
Apple Data Detector Webpages, available on web.archive.org/web/20020601164217/www.apple.com/applescript/data_detectors, 15 pages, © 2002.
Apple Data Detectors 1.0.2 Read Me, 3 pages, no date available.
Developer's Guide to Apple Data Detectors, 34 pages, Dec. 1, 1997.
AppleScript Editors, Utilities & Environments, available at www.applescriptsourcebook.com/links/applescripteditors.html, 4 pages, dated Jan. 11, 2004.
eMailman Internet Address Detectors, 3 pages, © 1996-2000.
Tannehill, Steve, News from Jul. 1997, 6 pages, Jul. 31, 1997.
Control-Click! The Archive, 2 pages, © 1997-2000.
Contextual Menus: One of the System 8's Greatest Features, in ApplePress, 10 pages, no date available.
Trygve's CMM Plug-Ins Home, available at Web.archive.org/web/19980130053511/www.bombaydigital.com/cmms, 7 pages, no date available.
ADD Depot, available from Web.archive.org/web/20000819091818/http://homepage.mac.com/Mathewmiller/add, 4 pages, Jan. 12, 2004.
Press Release: Apple Introduces Internet Address Detectors, 4 pages, Sep. 8, 1997.
Langberg, Mike, "Show of Potential Apple Breaks New Ground By Displaying What's on Its Drawing Board 'Innovation is at the Heart of What We Do'", San Jose Mercury News, 2 pages, Aug. 7, 1996.
Apple Introduces Internet Address Detectors, Newsbytes, 11 pages, Sep. 29, 1997.
Williams, Greg Strategy Mosaic: Understanding Apple's Dual OS Strategy, 7 pages, no date available.
"Taking [control] of your Mac with System 8," The MacAuthority, 6 pages, Jan. 1998.
Apple Data Detectors 1.0.2, TidBITS Updates, 1 page, Mar. 8, 1998.
Apple Data Detectors 1.0.2, TidBITS #419, 1 page, Mar. 9, 1998.
Engst, Tanya, More on Context on Contextual Menus, tidbits #399, 2 pages, Sep. 29, 1997.
Engst, Tanya, Of Mice and Menus, TidBITS #399, 3 pages, Sep. 22, 1997.
Whaley, Charles "Will This be Enough to Kick-Start Apple?," Computing Canada, 4 pages, Aug. 4, 1997.
MacOS8.com—Mac OS 8 Indepth, 3 pages, no date available.
"A Farewell to the Apple Advanced Technology Group," SIGCHI, vol. 30, No. 2, 3 pages, Apr. 1998.
James R. Miller, et al., From Documents to Objects, in SIGCHI, vol. 30, No. 2, 11 pages, Apr. 1998.
Thomas Bonura et al., Drop Zones, in SIGCHI, vol. 30, No. 2, 8 pages, Apr. 1998.
United States Court of Appeals for the Federal Circuit, Appeal from the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Judge Ernest C. Tones, Brief for the Defendant-Cross Appellant Frank E. Scherkenbach, 59 pages, Jul. 7, 2005.
United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Defendant Microsoft Corporation's Motion for Judgment as a Matter of Law that the '853 Patent is Invalid, 16 pages, Oct. 15, 2004.
United States District Court for the District of Rhode Island, Civ. A. No. 02-CV-343 (ECT), Plaintiffs Reply Memorandum in Support of their Motion for New Trial, Francis A. Connor, 9 pages, Nov. 4, 2004.
United States Court of Appeals for the Federal Circuit, Arendi Reply Brief, 37 pages, Sep. 2, 2005.
United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Memorandum in Support of Defendant Microsoft Corporation's Opposition to Arendi's Motion for a New Trial, Patricia A. Sullivan,15 pages, Oct. 27, 2004.
United States Court of Appeals for the Federal Circuit, Appeal from the United States District Court for the District of Rhode Island,

AHL0117379

02-CV-343 (ECT), Brief of Plaintiffs-Appellants Arendi U.S.A., Inc. and Arend Holding Limited, Donald R. Dunner, 61 pages, Apr. 25, 2005.
United States Court of Appeals for the Federal Circuit, Appeal from the United States District Court for the District of Rhode Island, 02-CV-343 (ECT), Reply Brief for Defendant-Cross Appellant, Frank E. Scherkenbach, 27 pages, Oct. 3, 2005.
United States District Court for the District of Rhode Island, Order Denying Defendant Microsoft Corporation's Motion for Judgment as a Matter of Law That the '853 Patent is Invalid, C.A. No. 02-343T, Ernest C. Tones, Chief Judge, 6 pages, Nov. 30, 2004.
United States District Court for the District of Rhode Island, C.A. No. 02-343T, Order Denying Plaintiffs' Motion for New Trial, Ernest C. Tones, Chief Judge, 18 pages, Nov. 30, 2004.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from 2:00 Pm, 48 pages, Sep. 13, 2004, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 14, 2004, 165 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 15, 2004, 111 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 16, 2004, 142 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 17, 2004, 66 pages, Providence, RI.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 20, 2004, Providence, RI, 225 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 21, 2004, Providence, RI, 170 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 22, 2004, Providence, RI, 156 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 23, 2004, Providence, RI, 140 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 27, 2004, Providence, RI, 17 pages.
Arendi USA, Inc. et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from Sep. 28, 2004, Providence, RI, 106 pages.
Novell GroupWise User's Guide for Windows 16-BIT, Version 5.2, Novell, Inc., Orem, Utah, MS 125993, 235 pages, 1993.
Novell GroupWise Webaccess User's Guide, Novell, Inc., Orem, Utah, MS 126785, 37 pages, 1998.
Novell GroupWise User's Guide for Windows 32-BIT, Novell, Inc., Orem, Utah, MS 126463, 322 pages, 1998.
Andrew Wood, et al., "CyberDesk: Automated Integration of Desktop and Network Services", GVU Technical Support, OIT-GVU-97-11, 5 pages, May 1997.
Gregory D. Abowd, et al., "Applying Dynamic Integration as a Software Infrastructure for Context-Aware Computing,"GVU Techincal Report, GIT-GVU-97-18, 21 pages, Sep. 1997.
Gregory D. Abowd, et al., "Context-awareness in Wearable and Ubiquitous Computing," GVU Techincal Report, GIT-GVU-97-11, 13 pages, Mar. 1997.
Apple Internet Address Detectors User's Manual, 16 pages, © 1997.
Apple Introduces Internet Address Detectors, 4 pages, Sep. 8, 1997.
Contextual Menu Manager/Apple Data Detectors, 5 pages, date unavailable.
Anind K. Dey, et al., CyberDesk: The Use of Perception in Context-Aware Computing, PUI Workshop Submission, Proc. Of 1997 Workshop on Perceptual User Interfaces (PUI '97), 4 pages, Oct. 1997.
Dey, Anind K., "Context-Aware Computing: The CyberDesk Project," Future Computing Environments, AAAI '98 Spring Symposium, Stanford University, pp. 51-55, Mar. 23-25, 1998.
Anind K. Dey, et al., "CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services," GVU Technical Report, GIT-GVU-97-10, 18 pages, 1997.
L. Nancy Garrett, et al., "Intermedia: Issues, Strategies, and Tactics in the Design of a Hyermedia Document System," pp. 163-174, © 1986.
Wilson, Eve, "Links and Structures in Hypertext Databases for Law," Proceedings of the First European Conference on Hypertext, INRIA, 20 pages, Nov. 1990.
Langberg, Mike, "Innovation Is at the Heart of What We Do', Apple Breaks New Ground by Displaying What's on It's Drawing Board," Mercury News, pp. 1-2, Aug. 7, 1996.
Henry Lieberman, et al., Training Agents to Recognize Text by Example, Proc. of the Third Annual Conference on Autonomous Agents, Seattle, WA, 13 pages, 1999.
Milind S. Pandit, et al., "The Selection Recognition Agent: Instance Access to Relevant Information and Operations," Proc. of Intelligent User Interfaces 1997, Orlando, FL, 11 pages, 1997.
Spell, iSpell, Spellout, 71 pages, © 1994.
Microsoft Word 97 Help File entitled "Automatically Check Spelling and Grammar as You Type,"1 page, 2003.
Microsoft Word 97 Help File entitled "Turn Automatic Changes On or Off," 1 page, no date available.
Microsoft Word 97 Help File entitled "Automatically Correct Text," 1 page, no date available.
Microsoft Word 97 Help File entitled "Field Codes: Hyperlink Field," 1 page, no date available.
Microsoft Word 97 Help File entitled "Change the contents of an AutoCorrect Entry," 1 page, no date available.
Excerpt from Jury Charge Transcript for C.A. No. 02-343T, *Arendi USA, Inc. et al.* vs. *Microsoft Corporation, et al.*, 1 page, Sep. 28, 2004.
Microsoft Corporation and Dell Inc.'s Answer, Affirmative Defenses and Counterclaims to Complaint, *Arendi Holding Ltd.* vs. *Microsoft Corp. et al.*, C.A. No. 09-119-JJF, from the United States District Court for the District of Delaware, pp. 1-17, Apr. 30, 2009.
"More about The Database," http://c2.com/cgi/wiki?MoreAboutTheDatabase, pp. 1-3, last edited May 7, 2009.
"Ward Cunningham," http://c2.com/cgi/wiki?WardCunningham, pp. 1-15, last edited Apr. 23, 2009.
"Adding New Pages," http://c2.com/cgi/wiki?AddingNewPages, pp. 1-2, last edited Jun. 8, 2009.
"Wiki Wiki Web," http://c2.com/cgi/wild?WikiWikiWeb, 1 page, last edited Jun. 1, 2009.
Quinlan, Tom, "Apple System Software Branches Out," 3 pages, Mar. 16, 1992.
"Introducing AddressMate Plus, The Address Book Manager for Microsoft Word," 4 pages, May 1996.
"Corel Professional Office 7 Quick Results," 534 pages, no date available.
"Getting Results with Microsoft Office for Windows 95," Microsoft, 636 pages, 1995.
"AddressMate for Windows, Adds all the missing pieces to your word processor," 6 pages, no date available.
Opposition against European Patent EP 1 171 836, Letter to the European Patent Office in Preparation for the Oral Proceedings scheduled for May 26, 2009, 31 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 1 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 2 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 3 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 4 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 5 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 6 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 7 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 8 Claims, 3 pages, Mar. 26, 2009.

Opposition against European Patent EP 1 171 836, Auxiliary Request 9 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 10 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 11 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 12 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 13 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxillary Request 14 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 15 Claims, 3 pages, Mar. 26, 2009.
Opposition against European Patent EP 1 171 836, Auxiliary Request 16 Claims, 3 pages, Mar. 26, 2009.
Expert Report of Professor Benjamin Goldberg, 43 pages, dated Mar. 10, 2008.
Supplemental Expert Report of Professor Benjamin Goldberg, 15 pages, May 6, 2008.
Second Supplemental Expert Report of Professor Benjamin Goldberg, 32 pages, Mar. 26, 2009.
Expert Report of Professor Calvin Gidney, III, 3 pages, Mar. 26 2009.
European Patent Office, Summons to Attend Oral Proceedings pursuant to Rule 115(1) EPC, 18 pages, Jan. 23, 2009.
Affidavit of James Miller, 18 pages, Jul. 19, 2006.
Affidavit of David Block, 23 pages, Jul. 21, 2006.
Order Re Claim Construction, in *Arendi U.S.A. Inc. et al.* v. *Microsoft Corp.*, CA No. 02-343-T, from United States District Court for the District of Rhode Island, 4 pages, Sep. 27, 2004.
Expert Report of W. Bruce Croft, Ph.D., in *Arendi U.S.A., Inc. et al.* v. *Microsoft Corp.*, CA No. 02-CV-343 (ECT), from United States District Court for the District of Rhode Island, 66 pages, Mar. 1, 2004.
Supplemental Expert Report of W. Bruce Croft, Ph.D., in *Arendi U.S.A., Inc. et al.* v. *Microsoft Corp.*, CA No. 02-CV-343 (ECT), from United States District Court for the District of Rhode Island, 42 pages, Jun. 9, 2004.
Affirming Claim Construction Order, in *Arendi USA et al.* v. *Microsoft Corp.*, No. 05-1170, 05-1171, from Court of Appeals for the Federal Circuit, 1 page, Feb. 8, 2006.
Miller, Jim, "Portfolio; Innovative Interfaces for Information Management," Website: http://www.miramontes.com/portfolio/add/add1.html, 1 page, no date available.
Church, Kenneth et al., "Commercial Applications of Natural Language Processing," 30 pages, Mar. 13, 2003.
Yankelovich, Nichole et al., "Intermedia: The concept and the Construction of a Seamless Information Environment," *Electronic Publishing Technologies*, pp. 81-96, Jan. 1988.
Utting, Kenneth et al., "Context and Orientation in Hypermedia Networks," *AMC Transactions on Information Systems*, vol. 7, No. 1, pp. 58-84, Jan. 1989.
Kahn, Paul, "Linking Together Books: Experiments in Adapting Published Material into Intermedia Documents," *Hypermedia*, vol. 1 No. 2, pp. 1-37, 1989.
Combs, James, "Hypertext, Full-Text and Automatic Linking," pp. 83-98, 1990.
Catlin, Karen Smith et al., "Hypermedia Templates: An Authors Tools," *Hypertext 1991 Proceedings*, pp. 147-160, Dec. 1991.
Meyrowitz, Norman, "The Missing Link, Why We're All Doing Hypertext Wrong," *The Society of Text, Hypertext, Hypermedia, and the Social Construction of Information*, pp. 107-114, no date available.
Halasz, Frank, "Reflections on Notecards: Seven Issues for the Next Generation of Hypermedia Systems," *Hypertext 87 Papers*, pp. 345-365, Nov. 1987.
Haan, Bernard et al., "IRIS Hypermedia Services," pp. 36-51, Jan. 1992.
McKnight, Dillon, "Review, The Textbook of the Future," *Hypertext: a Psychological Perspective*, pp. 19-51, 8 pages, Mar. 1993.
Bouvin, Niels Olof, "Augmenting the Web Through Open Hypermedia," 95 pages, Nov. 2000.
Halasz, Frank et al., "The Dexter Hypertext Reference Model," pp. 95-133, Dec. 7, 1989.
Weinreich, Harald et al., "The Look of the Link—Concepts for the User Interface of Extended Hyperlinks," 10 pages, no date available.
Fountain, Andrew et al., "Microcosm: An Open Model for Hypermedia with Dynamic Linking," *Hypertext: Concept Systems and Applications, Proceedings of the First European Conference on Hypertext*, France, 16 pages, Nov. 1990.
Justus: Wilson, Eve, "Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System," *Library and Linguistics Computing*, vol. 5, No. 2, pp. 119-128, 1990.
"Claris Em@iler Getting Started," Claris Corporation, 57 pages, © 1995-1997.
"OmniPage Pro for Windows 95," Version 7.0 Caere Corporation, 57 pages, © 1996.
Moi Khor, Siew, Microsoft Office Excel 2003 Preview, 17 pages, Jun. 2003.
Microsoft Corporation and Dell Inc.'s Invalidity Contentions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 126, Aug. 14, 2009.
Exhibit A, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit AA, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Aug. 14, 2009.
Exhibit AAA, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit B, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit BB, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Aug. 14, 2009.
Exhibit C, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit CC, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit D, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit DD, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 14, 2009.
Exhibit E, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit EE, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Aug. 14, 2009.
Exhibit F, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit FF, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-40, Aug. 14, 2009.
Exhibit G, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit GG, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit H, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit HH, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit I-1 through I-6, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-1800, Aug. 14, 2009.

Exhibit II, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit J, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-89, Aug. 14, 2009.
Exhibit JJ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit K, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-260, Aug. 14, 2009.
Exhibit KK, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit L, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-190, Aug. 14, 2009.
Exhibit LL, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit M, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-58, Aug. 14, 2009.
Exhibit MM, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-29, Aug. 14, 2009.
Exhibit N, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-47, Aug. 14, 2009.
Exhibit NN, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-30, Aug. 14, 2009.
Exhibit O, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-51, Aug. 14, 2009.
Exhibit OO, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-29, Aug. 14, 2009.
Exhibit P, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-133, Aug. 14, 2009.
Exhibit PP, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 14, 2009.
Exhibit Q, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-40, Aug. 14, 2009.
Exhibit QQ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-52, Aug. 14, 2009.
Exhibit R, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-44, Aug. 14, 2009.
Exhibit RR, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit S, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-51, Aug. 14, 2009.
Exhibit SS, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit T, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit TT, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit U, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit UU, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit V, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit VV, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-33, Aug. 14, 2009.
Exhibit W, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-35, Aug. 14, 2009.
Exhibit WW, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Exhibit X, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-7, Aug. 14, 2009.
Exhibit XX, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-31, Aug. 14, 2009.
Exhibit Y, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit YY, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-31, Aug. 14, 2009.
Exhibit Z, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Aug. 14, 2009.
Exhibit ZZ, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-32, Aug. 14, 2009.
Defendants Microsoft Corp. and Dell, Inc.'s Brief in Support of their Motion for Summary Judgment of Invalidity for Failure to Comply with 35 U.S.C. § 112, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Aug. 10, 2009.
Declaration of W. Bruce Croft, Ph.D., in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-15, Aug. 10, 2009.
Plaintiff's Opening Brief in Support of Its Proposed Claim Constructions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Aug. 10, 2009.
Microsoft Corp. and Dell Inc.'s Claim Construction Brief, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Aug. 10, 2009.
Plaintiff's Counter-Statement of Disputed Material Facts in Opposition to Defendants' Motion for Summary Judgment of Invalidity, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-19, Aug. 24, 2009.
Plaintiffs Answering Brief in Support of its Proposed Claim Constructions, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-43, Aug. 25, 2009.
Microsoft Corp. and Dell, Inc.'s Answering Claim Construction Brief, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-25, Aug. 25, 2009.
Microsoft Corp. and Dell, Inc.'s Response to Plaintiff's Counter-Statement to Defendants' Motion for Summary Judgment of Invalidity, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-22, Aug. 31, 2009.
Microsoft Corp. and Dell, Inc.'s First Amended Answer, Affirmative Defenses and Counterclaims to Complaint, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Oct. 19, 2009.

AHL0117382

Plaintiffs Answer to Defendants' First Amended Counterclaims, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-19, Oct. 30, 2009.
Microsoft Corp. and Dell, Inc.'s Second Amended Answer, Affirmative Defenses and Counterclaims to Complaint, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-34, Dec. 8, 2009.
Opposition for European Patent No. EP-B- 1171836, in the European Patent Office, pp. 1-2, Jul. 26, 2006.
In Response to Notice of Opposition for European Patent No. EP-B-1171836, in the European Patent Office, pp. 1-21, Mar. 7, 2007.
Decision Revoking European Patent No. EP-B- 1171836, European Patent Office, pp. 1-13, Jul. 9. 2009.
Notice of Appeal for European Patent No. EP-B- 1171836, in the European Patent Office, pp. 1-2, Nov. 1, 2009.
Grounds of Appeal for European Patent No. EP-B- 1171836, in the European Patent Office, pp. 1-62, Nov. 19, 2009.
Plaintiff's Answer to Microsoft Corporation's and Dell Inc.'s Second Amended Counterclaims, in *Arendi Holding Ltd.* v. *Microsoft Corp. and Dell Inc.*, CA No. 09-119-JJF-LPS, from United States District Court for the District of Delaware, pp. 120, Dec. 14, 2009.
Submission of opponent (Microsoft) in opposition against European Patent No. 1 171 836, Appeal T1779/09-3501, in the European Patent Office, 32 pages, Mar. 25, 2010.
Second Affidavit of David Block, 15 pages, May 15, 2009.
Second Affidavit of James Miller, 36 pages, May 15, 2009.
Hall, Wendy, et al., "Rethinking Hypermedia," Kluwer Academic Publishers, 87 pages, 1996.
Deposition of David Block, *Arendi U.S.A., Inc.* v. *Microsoft Corp.*, Case No. 02-CV-343 (ECT), from United States District Court for the Northern District of California, 196 pages, Aug. 13, 2004.
Exhibits for the Deposition of David Block, *Arendi U.S.A., Inc.* v. *Microsoft Corp.*, Case No. 02-CV-343 (ECT), from United States District Court for the Northern District of California, 334 pages. Aug. 13, 2004.
Writ of Summons to Arendi Holding Co., District Court in the Hague and English translation, 65 pages, Oct. 26, 2005.
Microsoft's Reply in the Main Action, Defense in the Counterclaim, District Court in the Hague, No. 2006/0782, 55 pages, date unknown.
Microsoft's Reply in the Main Action, Defense in the Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 51 pages, date unknown.
Microsoft's Reply in Counterclaim for Infringement, District Court in the Hague, No. 2006/0782, 26 pages, Sep. 24, 2008.
Microsoft's Reply in Counterclaim for Infringement, District Court in the Hague, No. 2006/0782, English Translation, 23 pages, Sep. 24, 2008.
Statement of Defense in the Principal Action and With Regard to the Interlocutory Claim Also Comprising A Counterclaim, With Exhibit, District Court in the Hague, No. 2006/0782, 57 pages, Jan. 31, 2007.
Statement of Defense in the Principal Action and With Regard to the Interlocutory Claim Also Comprising A Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 23 pages, Jan. 31, 2007.
Statement of Rejoinder in the Principal Action (Incl. With Regard to the Interlocutory Claims) Also Comprising Statement of Reply in the Counterclaim With Exhibits, District Court in the Hague, No. 2006/0782, 123 pages, Mar. 12, 2008.
Statement of Rejoinder in the Principal Action (Incl. With Regard to the Interlocutory Claims) Also Comprising Statement of Reply in the Counterclaim, District Court in the Hague, No. 2006/0782, English Translation, 33 pages, Mar. 12, 2008.
Letter from Abraham H. Spierer to David Block, Dec. 19, 1994.
Claris Em@iler User's Manual, 187 pages, © 1995-1997.
"Word Lookup Data Detectors," Dictionary.com, available at http://dictionary.reference.com/mac/add.html, 3 pages, © 2004.
Apple.com internet web pages (*marked "MS 118139-MS 118143"*), 5 pages, © 2001.
"Overview: What are Apple Data Detectors", Apple.com internet web pages (*marked "MA 118078-MS 118092"*), 15 pages, © 2002.
Addressmate Plus User Manual Addendum, 2 pages, Nov. 1, 1995.
Now Software, Inc., "Now Contact & Up•to•Date Quick Reference Guide", 18 pages, © 1992-95.
Now Software, Inc., "Now Contact version 3.5 User's Guide", 229 pages, © 1992-95.
Now Software, Inc., "Now Up•to•Date version 3.5 User's Guide", 210 pages, © 1992-95.
Now Software, Inc., "Now Utilities Quick Reference Guide", 6 pages, no date available.
Now Software, Inc., "What's New in Now Up•to•Date & Now Contact", 14 pages, © 1995.
Reply Brief of Plaintiffs-Appellants Arendi USA, Inc. and Arendi Holding Limited, United States Court of Appeals for the Federal Circuit, 37 pages, Sep. 2, 2005.
Apple Data Detectors/Internet Address Detectors, ADD-IAD_1.0.2_Info.txt, 1 page, Mar. 5, 1998.
Cortinas, M., Data Ratchet extracts info, ZD.com, 2 pages, Apr. 3, 1997.
Glucose Unveils Data Ratchet v.1.1!, Glucose Development Corp., 4 pages, 1997.
Glucose Releases Data Ratchet Source, Glucose Press Release, 1 page, Dec. 18, 1999.
Are you a document mechanic?, from Glucose Development Corp.'s webpage (http://glulabs.com), 2 pages, 2002.
Glucose Open Source Tools, from Glucose Development Corp., 2 pages, 1999.
E-Mail Net Differences—Eudora Pro and E-Mail Connection shine in their own ways . . . , Communications Week, 4 pages, Jan. 6, 1997.
Internet Update Sep. 10, 1997, Newsbytes news Network, 5 pages, Sep. 10, 1997.
Brouwer, Rene, ADD → Address Book, 1 page, Jun. 8, 1998.
Byrne, Mike, Add → New Mail, 1 page, Aug. 23, 1998.
MacCentral: Apple Macintosh News, 4 pages, Jan. 12-13, 2004.
Turney, P., Learning to Extract Key Phrases from Text, National Research Council of Canada, 46 pages, Feb. 1999.
Deposition of Atle Hedloy in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 162-213, Mar. 7, 2010.
Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-67, Apr. 9, 2010.
Exhibit 15, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware , pp. 1-26, Apr. 9, 2010.
Exhibit 16, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-2, Apr. 9, 2010.
Exhibit 17, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Apr. 9, 2010.
Exhibit 18, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-23, Apr. 9, 2010.
Exhibit 19, in Deposition of David Block in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-13, Apr. 9, 2010.
Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-115, Apr. 9, 2010.
Exhibit 11, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-7, Apr. 9, 2010.
Exhibit 12, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-2, Apr. 9, 2010.
Exhibit 13, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-28, Apr. 9, 2010.
Exhibit 14, in Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-18, Apr. 9, 2010.
Exhibit 15, Deposition of James R. Miller in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-36, Apr. 9, 2010.

AHL0117383

Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-166, Apr. 30, 2010.
Exhibit A, in Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-30, Apr. 30, 2010.
Exhibit B, in Expert Report of Bruce Croft, in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-15, Apr. 30, 2010.
Exhibit C, Expert Report of Bruce Croft ,in *Arendi Holding Ltd.* v. *Microsoft Corp*, CA No. 09-119-JJF, from United States District Court for the District of Delaware, pp. 1-90, Apr. 30, 2010.
"On Automating Hypertext Links in Knowledge-Based Decision Support Systems", Technical Report BCCS-90-08, pp. 1-22, Apr. 1990.
Hypertext: Concepts, Systems and Applications: Proceedings of the First European Conference on Hypertext, INRIA, France, pp. 1-8, Nov. 1990.
"Issues in Modeling A "Dynamic" Hypertext Interface", Technical Report BCCS-91-2, pp. 1-13, Apr. 1991.
"Valuation Links: Extending the Computational Power of Hypertext", Technical Report BCCS-91-1, pp. 1-11, Apr. 1991.
Template-Driven Hypertext: A Methodology for Integrating a Hypertext Interface into Information Systems, Technical Report BCCS-91-3, pp. 1-23, Jun. 1991.
"On Generalizing the Concept of Hypertext", Technical report BCCS-91-5, pp. 1-11, Jun. 1991.
"Bridge Laws in Hypertext a Logic Modeling Approach", Technical Report BCCS-91-4, pp. 1-30, Jun. 1991.
"On Merging Hypertext Into Dynamic, Non-Hypertext Systems", Technical Report BCCS-91-14, pp. 1-24, Nov. 8, 1991.
"Architectures for Volatile Hypertext", Hypertext '91 Proceedings, pp. 243-280, Dec. 1991.
"Providing Information Systems With Full Hypermedia Functionality", pp. 1-15, Oct. 1992.
Mail Address Change Notification, IBM Technical Disclosure Bulletin, vol. 36 No. 1, pp. 70-72, Jan. 1993.
Towards CAAI: Computer Assisted Application Integration, Technical Report Series CS-93-17, University of Waterloo, pp. 1-23, Oct. 1993.
Semiautomatic Generation of Dictionary,Links in Hypertext, pp. 1-14, Feb. 1, 1995.
"On Integrating Hypermedia into Decision Support and Other Information Systems", Decision Support Systems 14, pp. 251-267, 1995.
Proceedings, Sixth Message Understanding Conference (MUC-6), pp. 1-64, Nov. 6-8, 1995.
"A System to Read Names and Addresses on Tax Forms", Proceedings of the IEEE, vol. 84, No's, Jul. 1996.
"Extraction and Integration of Data from Semi-structured Documents into Business Applications", Sloan WP#3979, CISL WP# 97-12, pp. 1-9, Sep. 1997.
Borland, Russel, "Advance Self-Study Step by Step Microsoft Word 97 Advance Topics", Microsoft Press, 331 pages, 1997.
Microsoft Word Language Reference, Official Technical Reference to Visual Basic for Applications, Microsoft Press, 1133 pages, © 1997.
Microsoft PowerPoint and Microsoft Outlook Language References, Official Technical Reference to Visual Basic for Applications, Microsoft Press, vol. 4, 539 pages, 1997.
Microsoft Visual Basic for Applications and Shared Libraries References, vol. 5 of 5, Microsoft Press, 1005 pages, part No. 097-001685, © 1997.
Microsoft Office 97 Resource Kit, Technical Information and Tools for the Support Professional, Microsoft Press, 1162 pages, © 1997.
Microsoft Office97 Reviewer's Guide, Professional Edition, 546 pages, Aug. 1996.
Running Microsoft Word for Windows 95, In Depth Reference and Inside Tips from the Software Experts, Russell Borland, Microsoft Press, 1040 pages, © 1995.
Running Microsoft Office 97, Standard and Professional, Michael Halvorson and Michael Young, Microsoft Press, 1130 pages, © 1997.
Microsoft Word 97, self-Study Kit, Covers Microsoft Word 97 for Windows 95 and Windows NT version 4.0, Microsoft Press, 314 pages, © 1997.
Microsoft Outlook 97, Step by Step, Self-Study Kit, Microsoft Press, 359 pages, © 1997.
VBA Developer's Handbook, Reusable Code, Visio Professional Demo Copy, and VB5CCE, 1997.
Microsoft97/Visual Basic Programmer's Guide, Microsoft Press, 548 pages, © 1997.
Microsoft Access Language Reference and Office Data Access Reference, Official Technical Reference to Visual Basic for Applications, Microsoft Press, 1287 pages, © 1997.
Microsoft Office97 Step by Step, Visual Basic, Developer's Self-Study Guide, Microsoft Press, 359 pages, © 1997.
Microsoft Office97 Developer's Handbook, Microsoft Press, Christine Solomon, 596 pages, © 1997.
Microsoft Word Developer's Kit, Microsoft Professional Editions, Third Edition, Manufacturing Copy Ist, Microsoft Press, 1106 pages, © 1995.
Inside Microsoft Word, vol. 4, No. 1, The Cobb Group, pp. 1-16, Jan. 1997.
Inside Microsoft Word, vol. 4, No. 2, The Cobb Group, pp. 1-16, Feb. 1997.
Inside Microsoft Word, vol. 4, No. 3, The Cobb Group, pp. 1-16, Mar. 1997.
Inside Microsoft Word, vol. 4, No. 4, The Cobb Group, pp. 1-16, Apr. 1997.
Inside Microsoft Word, vol. 4, No. 7, The Cobb Group, pp. 1-16, Jul. 1997.
Inside Microsoft Word, vol. 5, No. 9, ZD Journals, pp. 1-16, Sep. 1998.
Inside Microsoft Word, vol. 5, No. 10, ZD Journals, pp. 1-16, Oct. 1998.
Inside Microsoft Word, vol. 5, No. 11, ZD Journals, pp. 1-16, Nov. 1998.
Eudora Mail Pro, Version 3.0 for Windows, User Manual, QUALCOMM Incorporated, 198 pages, Jun. 1997.
Eudora Mail Pro, Version 3.1 for Macintosh, User Manual, QUALCOMM Incorporated, 199 pages, Jun. 1997.
Non-Confidential Redacted Jun. 11, 2010 Rebuttal Expert Report Richard Taylor, 311 pages, Jun. 11, 2010.
Spell Checking for Microsoft Windows, Palantir Software, 36 pages, © 1986.
Johannes, S., et al., "Active Messenger: Email Filtering and Mobile Delivery," *Massachusetts Institute of Technology*, Sep. 1999, pp. 1-122.
Srihari, S, et al., "A System to Read Names and Addresses on Tax Forms," *Proceedings of the IEEE*, vol. 14, No. 7, Jul. 1996, pp. 1038-1049.
Person et al., "Special Edition Using Microsoft Word 97" Que Publishing, pp. 475-514, Dec. 16, 1996.
AddressMate for Windows, Version 2.0, Product Box and License Agreement, 24 pages, no date available.
U.S. Appl. No. 12/963,744, filed Dec. 9, 2010.
US Patent No. 6,323,853, U.S. Appl. No. 09/189,626 As Filed, 58 pages, Nov. 10, 1998.
US Patent No. 6,323,853, Preliminary Amendment, U.S. Appl. No. 09/189,626, 20 pages, Apr. 29, 1999.
US Patent No. 6,323,853, Office Action, U.S. Appl. No. 09/189,626, 9 pages, Apr. 26, 2000.
US Patent No. 6,323,853, U.S. Appl. No. 09/189,626, Interview Summary, 2 pages, Jun. 14, 2000.
US Patent No. 6,323,853, Response, U.S. Appl. No. 09/189,626, 5 pages, Jul. 25, 2000.
US Patent No. 6,323,853, Final Office Action, U.S. Appl. No. 09/189,626, 10 pages, Sep. 18, 2000.
US Patent No. 6,323,853, Interview Summary, U.S. Appl. No. 09/189,626, 1 page, Oct. 17, 2000.
US Patent No. 6,323,853, Response, U.S. Appl. No. 09/189,626, 5 pages, Dec. 18, 2000.
US Patent No. 6,323,853, Notice of Allowance, U.S. Appl. No. 09/189,626, 7 pages, Jan. 4, 2001.

AHL0117384

US Patent No. 6,323,853, Notice of Allowance, U.S. Appl. No. 09/189,626, 2 pages, Oct. 2, 2001.
US Patent No. 7,496,854, Application As Filed, 100 pages, Aug. 6, 2001.
US Patent No. 7,496,854, Preliminary Amendment, U.S. Appl. No. 09/923,134, 7 pages, Dec. 17, 2001.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 10 pages, Oct. 15, 2002.
US Patent No. 7,496,854, Response, 4 pages, U.S. Appl. No. 09/923,134, Apr. 15, 2003.
US Patent No. 7,496,854, Final Office Action, U.S. Appl. No. 09/923,134, 7 pages, Jun 27, 2003.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 6 pages, Aug. 21, 2003.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 4 pages, Nov. 19, 2003.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 5 pages, Feb. 10, 2004.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 4 pages, May 19, 2004.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 14 pages, Dec. 30, 2004.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 7 pages, Aug. 29, 2005.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 17 pages, Nov. 16, 2005.
US Patent No. 7,496,854, Final Office Action, U.S. Appl. No. 09/923,134, 10 pages, Feb. 6, 2006.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 22 pages, Aug. 4, 2006.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 8 pages, Oct. 18, 2006.
US Patent No. 7,496,854, Interview Summary, U.S. Appl. No. 09/923,134, 3 pages, Jan. 23, 2007.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 32 pages, Apr. 18, 2007.
US Patent No. 7,496,854, Notice of Allowance, U S. Appl. No. 09/923,134, 8 pages, Jul. 13, 2007.
US Patent No. 7,496,854, Interview Summary, U.S. Appl. No. 09/923,134, 4 pages, Oct. 19, 2007.
US Patent No. 7,496,854, Office Action, U.S. Appl. No. 09/923,134, 9 pages, Nov. 9, 2007.
US Patent No. 7,496,854, Response, U.S. Appl. No. 09/923,134, 32 pages, Jan. 24, 2008.
US Patent No. 7,496,854, Notice of Allowance, U.S. Appl. No. 09/923,134, 7 pages, Jul. 2, 2008.
US Patent No. 7,496,854, Amendment Under Rule 312; U.S. Appl. No. 09/923,134, 27 pages, Jul. 8, 2008.
US Patent No. 7,496,854, Response to Amendment Under Rule 312, U.S. Appl. No. 09/923,134, 4 pages, Jan 21, 2009.
U.S. Appl. No. 12/182,048, Application as Filed, 47 pages, Jul. 29, 2008.
U.S. Appl. No. 12/182,048, Office Action, 34 pages, Oct. 28, 2010.
U.S. Appl. No. 12/182,048, Interview Summary, 4 pages, Dec. 1, 2010.
U.S. Appl. No. 12/182,048, Response, 36 pages, Dec. 8, 2010.
US Patent No. 7,272,604, U.S. Appl. No. 09/390,303 As Filed, 55 pages, Sep. 3, 1999.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 9 pages, May 8, 2002.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 7 pages, Aug. 8, 2002.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 11 pages, Sep. 27, 2002.
US Patent No. 7,272,604, Proposed Response, U.S. Appl. No. 09/390,303, 4 pages, Oct. 24, 2002.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 3 pages, Mar. 27, 2003.
US Patent No. 7,272,604, Final Office Action, U.S. Appl. No. 09/390,303, 9 pages, Apr. 21, 2003.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 16 pages, Oct. 21, 2003.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 7 pages, Nov. 17, 2003.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 6 pages, Apr. 6, 2004.
US Patent No. 7,272,604, Supplemental Notice of Allowance, U.S. Appl. No. 09/390,303, 2 pages, Mar. 7, 2006.
US Patent No. 7,272,604, Office Action, U.S. Appl. No. 09/390,303, 10 pages, Jun. 6, 2006.
US Patent No. 7,272,604, Response, U.S. Appl. No. 09/390,303, 19 pages, Dec. 5, 2006.
US Patent No. 7,272,604, Notice of Allowance, U.S. Appl. No. 09/390,303, 7 pages, Feb. 7, 2007.
U.S. Appl. No. 11/745,186, Application As Filed, 61 pages, May 7, 2007.
U.S. Appl. No. 11/745,186, Office Action, 8 pages, Mar. 6, 2008.
U.S. Appl. No. 11/745,186, Response, 18 pages, May 14, 2008.
U.S. Appl. No. 11/745,186, Office Action, 17 pages, Oct. 14, 2008.
U.S. Appl. No. 11/745,186, Response, 28 pages, Feb. 13, 2009.
U.S. Appl. No. 11/745,186, Final Office Action, 16 pages, Mar. 26, 2009.
U.S. Appl. No. 11/745,186, Interview Summary, 4 pages, May 7, 2009.
U.S. Appl. No. 11/745,186, Response, 22 pages, Jun. 2, 2009.
U.S. Appl. No. 11/745,186, Advisory Action, 3 pages, Jun. 16, 2009.
U.S. Appl. No. 11/745,186, Request for Continued Examination, 3 pages, Jun. 22, 2009.
U.S. Appl. No. 11/745,186, Office Action, 40 pages, Sep. 29, 2009.
U.S. Appl. No. 11/745,186, Interview Summary, 3 pages, Mar. 26, 2010.
U.S. Appl. No. 11/745,186, Response, 29 pages, Mar. 29, 2010.
U.S. Appl. No. 11/745,186, Final Office Action, 10 pages, Jun. 15, 2010.
U.S. Appl. No. 11/745,186, Interview Summary, 3 pages, Aug. 5, 2010.
U.S. Appl. No. 11/745,186, Response, 24 pages, Aug. 10, 2010.
U.S. Appl. No. 11/745,186, Advisory Action, 3 pages, Aug. 16, 2010.
U.S. Appl. No. 11/745,186, Response, 18 pages, Sep. 23, 2010.
U.S. Appl. No. 11/745,186, Interview Summary, 3 pages, Dec. 14, 2010.
U.S. Appl. No. 12/963,744, Application As Filed, 53 pages, Dec. 9, 2010.
U.S. Appl. No. 12/963,744, Accelerated Examination Support Document, 80 pages, Dec. 9, 2010.

* cited by examiner

AHL0117385

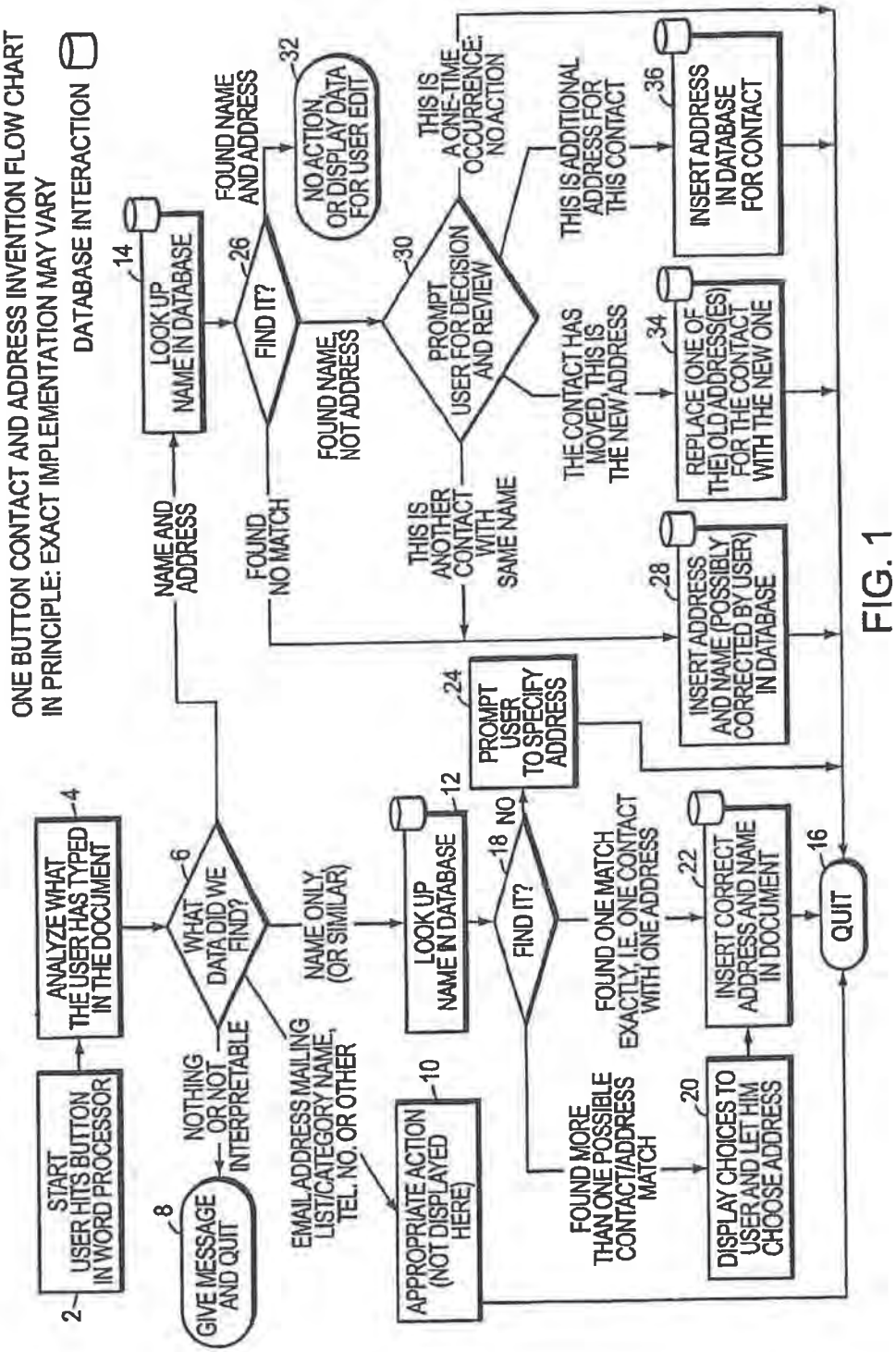

ONE BUTTON CONTACT AND ADDRESS INVENTION FLOW CHART
IN PRINCIPLE: EXACT IMPLEMENTATION MAY VARY
DATABASE INTERACTION
START USER HITS BUTTON IN WORD PROCESSOR
2
ANALYZE WHAT THE USER HAS TYPED IN THE DOCUMENT
4
WHAT DATA DID WE FIND?
6
NOTHING OR NOT INTERPRETABLE
GIVE MESSAGE AND QUIT
8
EMAIL ADDRESS MAILING LIST/CATEGORY NAME, TEL. NO. OR OTHER
APPROPRIATE ACTION (NOT DISPLAYED HERE)
10
NAME ONLY, (OR SIMILAR)
LOOK UP NAME IN DATABASE
12
FIND IT?
18
NO
PROMPT USER TO SPECIFY ADDRESS
24
FOUND ONE MATCH EXACTLY, I.E. ONE CONTACT WITH ONE ADDRESS
INSERT CORRECT ADDRESS AND NAME IN DOCUMENT
22
FOUND MORE THAN ONE POSSIBLE CONTACT/ADDRESS MATCH
DISPLAY CHOICES TO USER AND LET HIM CHOOSE ADDRESS
20
QUIT
16
NAME AND ADDRESS
LOOK UP NAME IN DATABASE
14
FIND IT?
26
FOUND NO MATCH
FOUND NAME AND ADDRESS
NO ACTION, OR DISPLAY DATA FOR USER EDIT
32
FOUND NAME, NOT ADDRESS
PROMPT USER FOR DECISION AND REVIEW
30
THIS IS ANOTHER CONTACT WITH SAME NAME
THIS IS A ONE-TIME OCCURRENCE: NO ACTION
THIS IS ADDITIONAL ADDRESS FOR THIS CONTACT
INSERT ADDRESS IN DATABASE FOR CONTACT
36
THE CONTACT HAS MOVED, THIS IS THE NEW ADDRESS
REPLACE (ONE OF THE OLD ADDRESS(ES) FOR THE CONTACT WITH THE NEW ONE
34
INSERT ADDRESS AND NAME (POSSIBLY CORRECTED BY USER) IN DATABASE
28

FIG. 1

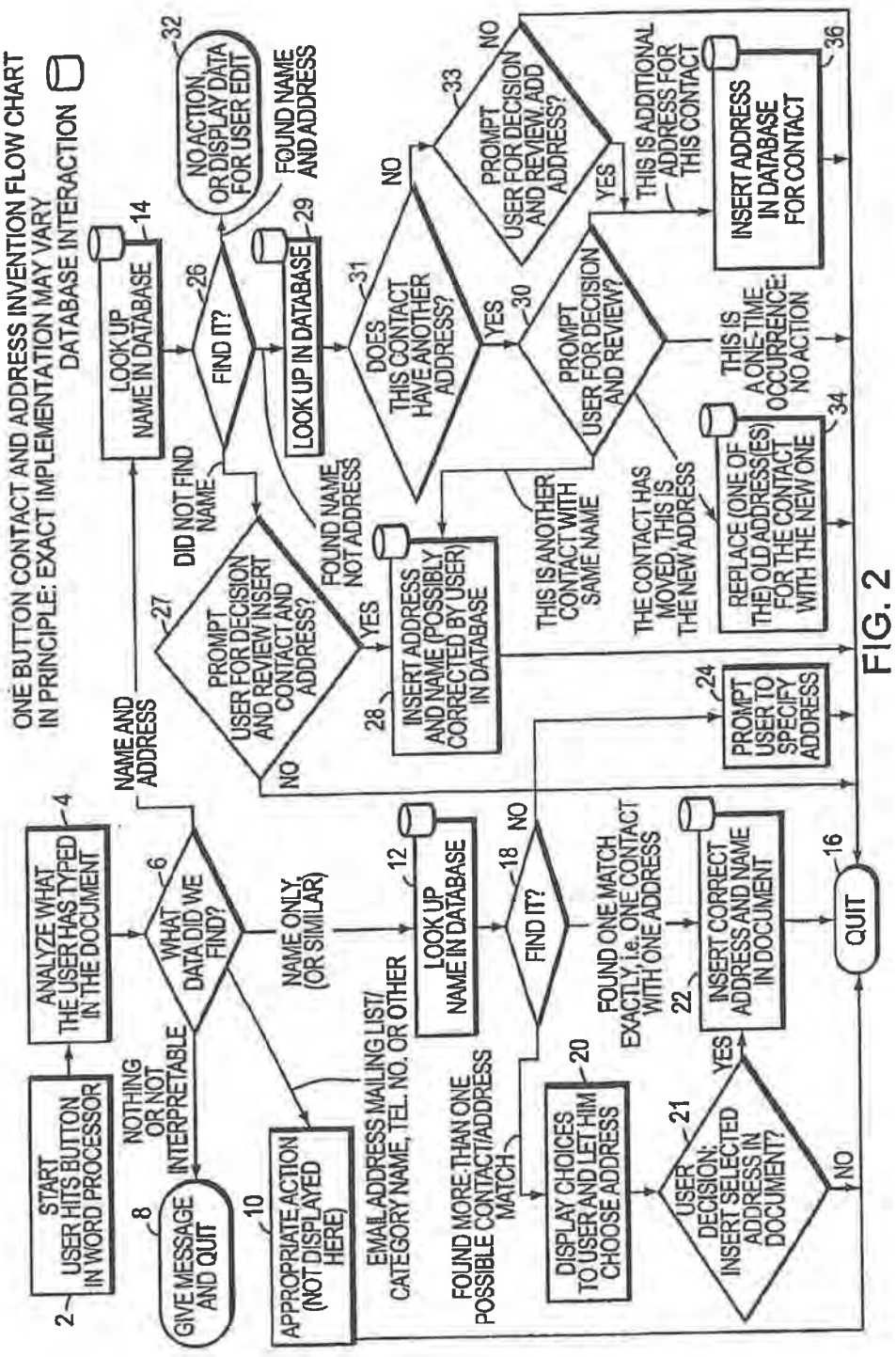

ONE BUTTON CONTACT AND ADDRESS INVENTION FLOW CHART
IN PRINCIPLE: EXACT IMPLEMENTATION MAY VARY
DATABASE INTERACTION
START USER HITS BUTTON IN WORD PROCESSOR
2
ANALYZE WHAT THE USER HAS TYPED IN THE DOCUMENT
4
WHAT DATA DID WE FIND?
6
NOTHING OR NOT INTERPRETABLE
8
GIVE MESSAGE AND QUIT
APPROPRIATE ACTION (NOT DISPLAYED HERE)
10
EMAIL ADDRESS MAILING LIST/ CATEGORY NAME, TEL. NO. OR OTHER
NAME ONLY, (OR SIMILAR)
LOOK UP NAME IN DATABASE
12
FIND IT?
18
NO
FOUND MORE THAN ONE POSSIBLE CONTACT/ADDRESS MATCH
DISPLAY CHOICES TO USER AND LET HIM CHOOSE ADDRESS
20
USER DECISION: INSERT SELECTED ADDRESS IN DOCUMENT?
21
YES
NO
FOUND ONE MATCH EXACTLY, i.e. ONE CONTACT WITH ONE ADDRESS
INSERT CORRECT ADDRESS AND NAME IN DOCUMENT
22
QUIT
16
NAME AND ADDRESS
LOOK UP NAME IN DATABASE
14
FIND IT?
26
NO ACTION OR DISPLAY DATA FOR USER EDIT
32
FOUND NAME AND ADDRESS
LOOK UP IN DATABASE
29
DID NOT FIND NAME
FOUND NAME NOT ADDRESS
PROMPT USER FOR DECISION AND REVIEW INSERT CONTACT AND ADDRESS?
27
NO
YES
INSERT ADDRESS AND NAME (POSSIBLY CORRECTED BY USER) IN DATABASE
28
PROMPT USER TO SPECIFY ADDRESS
24
DOES THIS CONTACT HAVE ANOTHER ADDRESS?
31
NO
YES
THIS IS ANOTHER CONTACT WITH SAME NAME
PROMPT USER FOR DECISION AND REVIEW?
30
THE CONTACT HAS MOVED, THIS IS THE NEW ADDRESS
REPLACE (ONE OF THE) OLD ADDRESS(ES) FOR THE CONTACT WITH THE NEW ONE
34
THIS IS A ONE-TIME OCCURRENCE: NO ACTION
PROMPT USER FOR DECISION AND REVIEW, ADD ADDRESS?
33
NO
YES
THIS IS ADDITIONAL ADDRESS FOR THIS CONTACT
INSERT ADDRESS IN DATABASE FOR CONTACT
36

FIG. 2

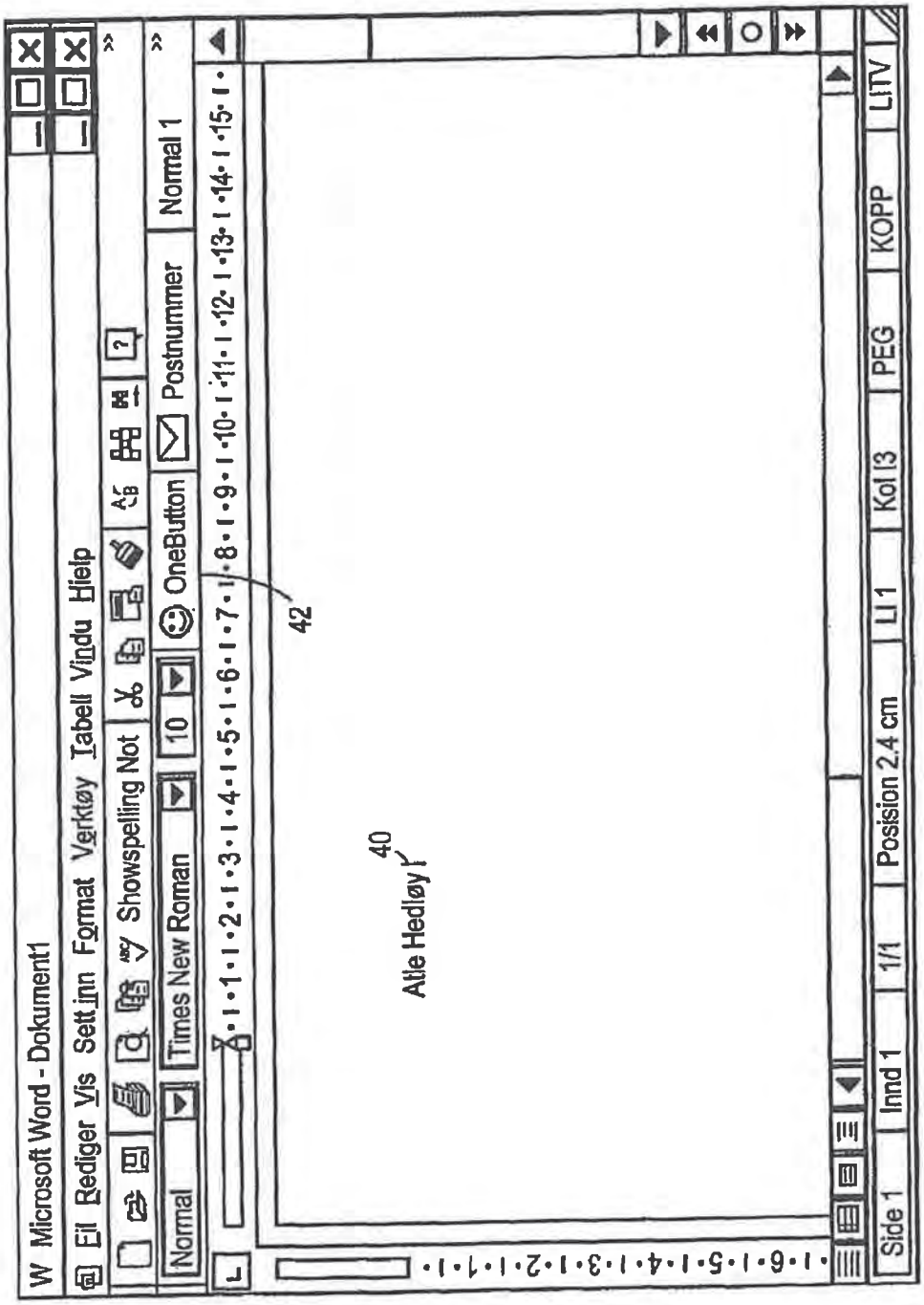

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
40
Atle Hedløy
Side 1
Innd 1
1/1
Posisjon 2.4 cm
Ll 1
Kol 13
PEG
KOPP
LITV

FIG. 3

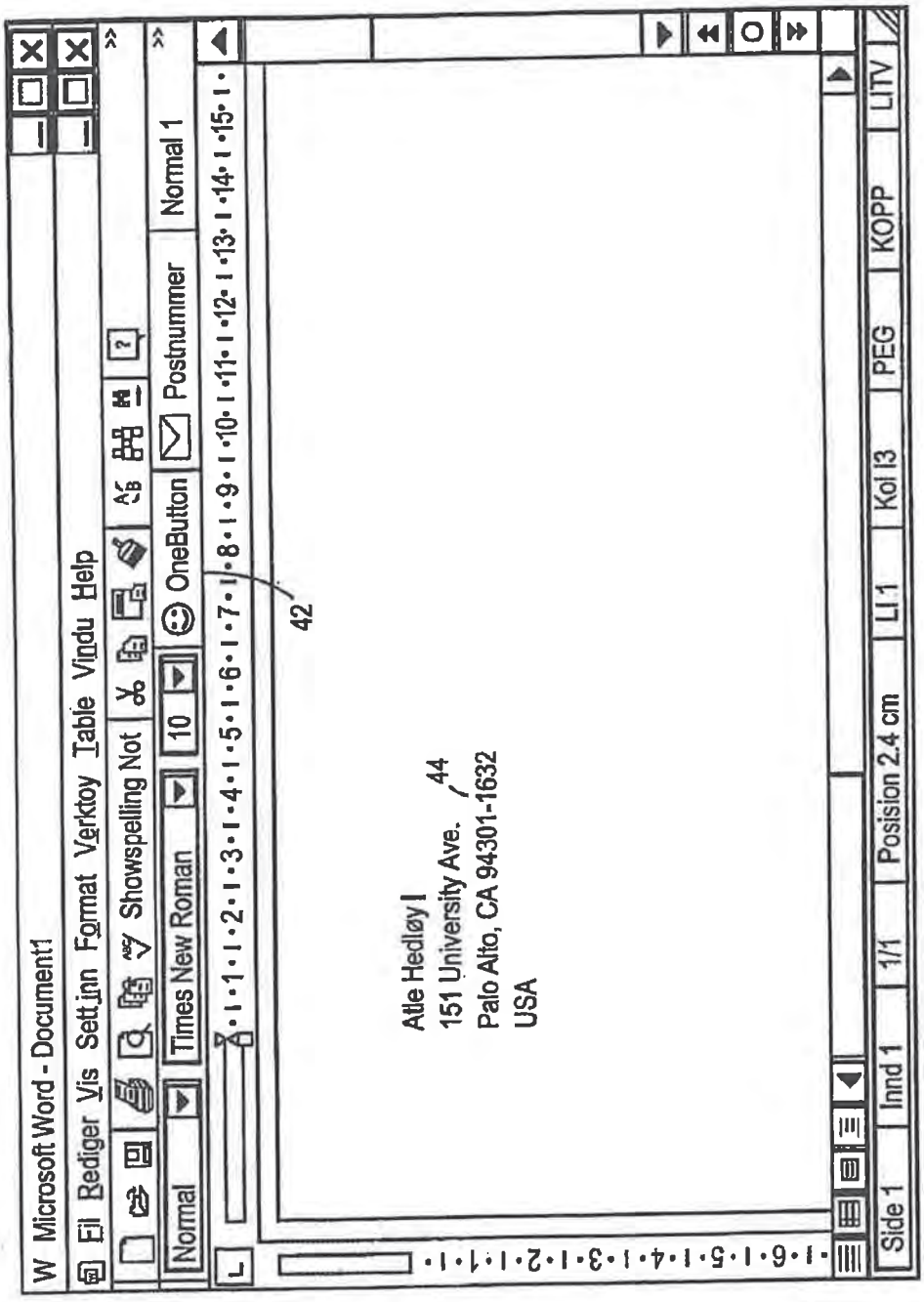

W Microsoft Word - Document1
Fil Rediger Vis Sett inn Format Verktoy Table Vindu Help
Showspelling Not
Normal
Times New Roman
10
OneButton
Postnummer
Normal 1
42
Atle Hedløy I
151 University Ave.
Palo Alto, CA 94301-1632
USA
44
Side 1
Innd 1
1/1
Posision 2.4 cm
LI 1
Kol l3
PEG
KOPP
LITV

FIG. 4

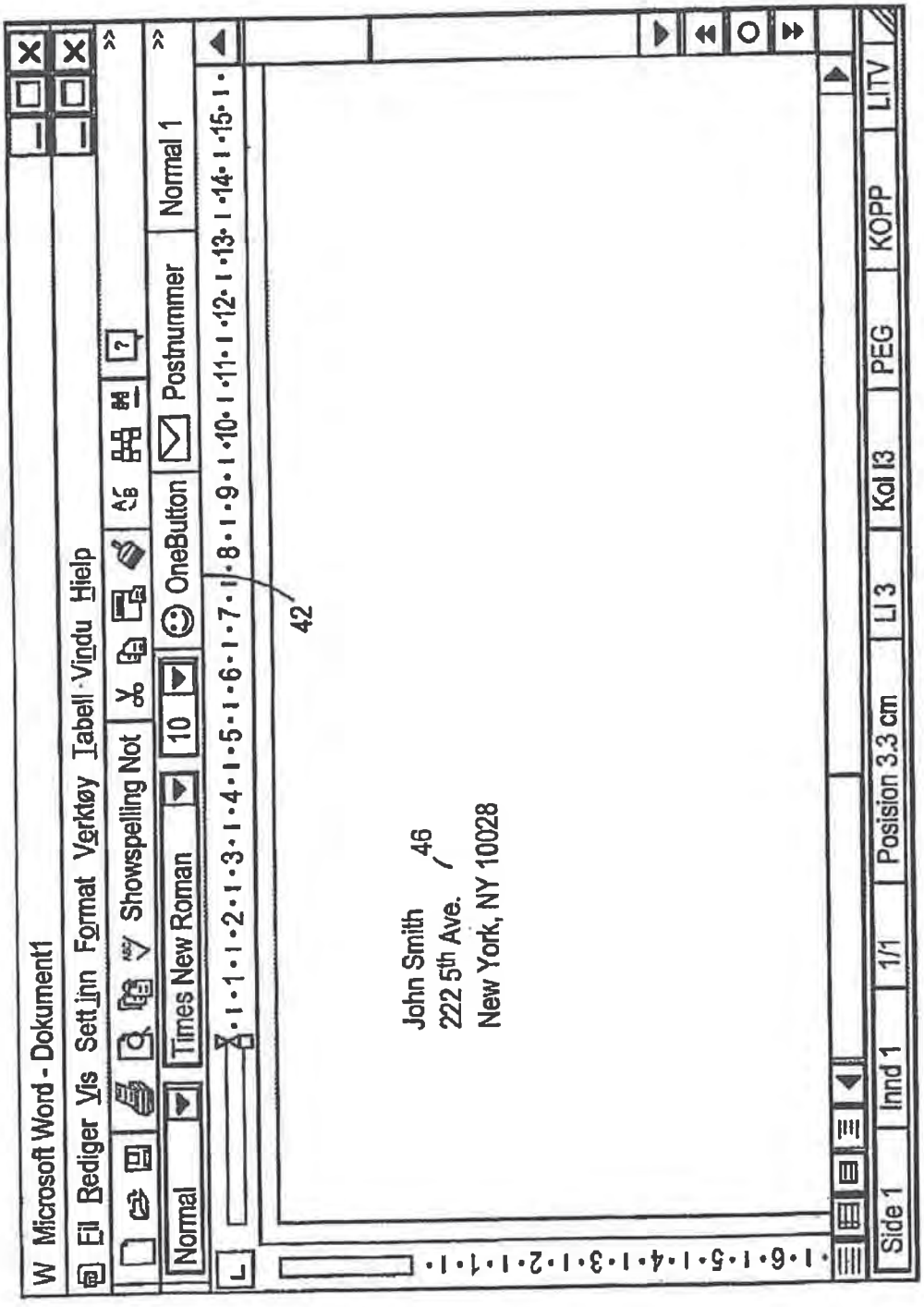

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
John Smith
222 5th Ave.
New York, NY 10028
46
Side 1
Innd 1
1/1
Posisjon 3.3 cm
Ll 3
Kol l3
PEG
KOPP
LITV

FIG. 5

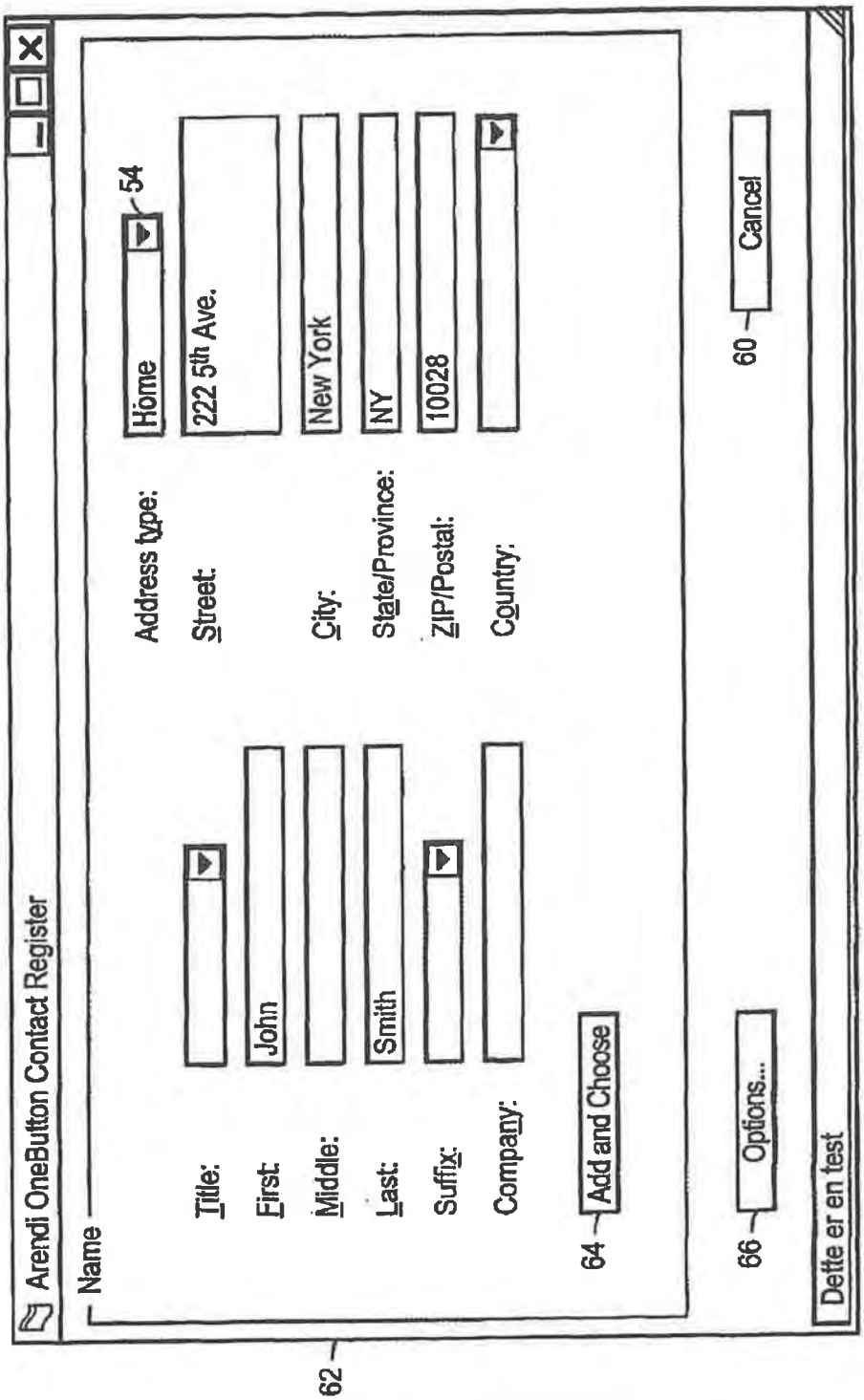

Arendi OneButton Contact Register
Name
Title:
First:
John
Middle:
Last:
Smith
Suffix:
Company:
Address type:
Home
54
Street:
222 5th Ave.
City:
New York
State/Province:
NY
ZIP/Postal:
10028
Country:
64
Add and Choose
66
Options...
60
Cancel
Dette er en test
62

FIG. 7

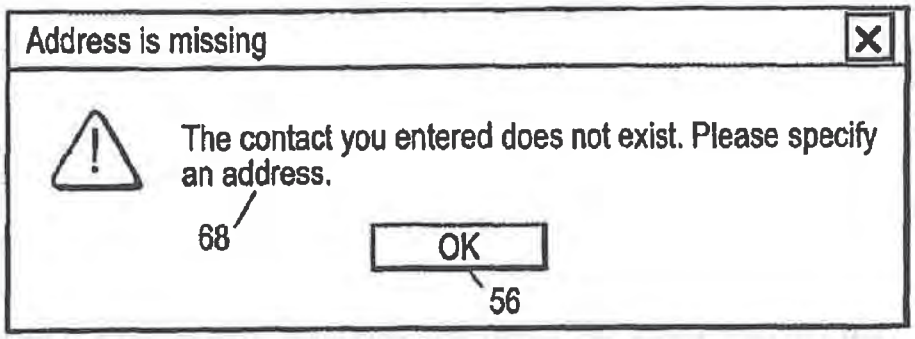

Address is missing
The contact you entered does not exist. Please specify an address.
68
OK
56

FIG. 8

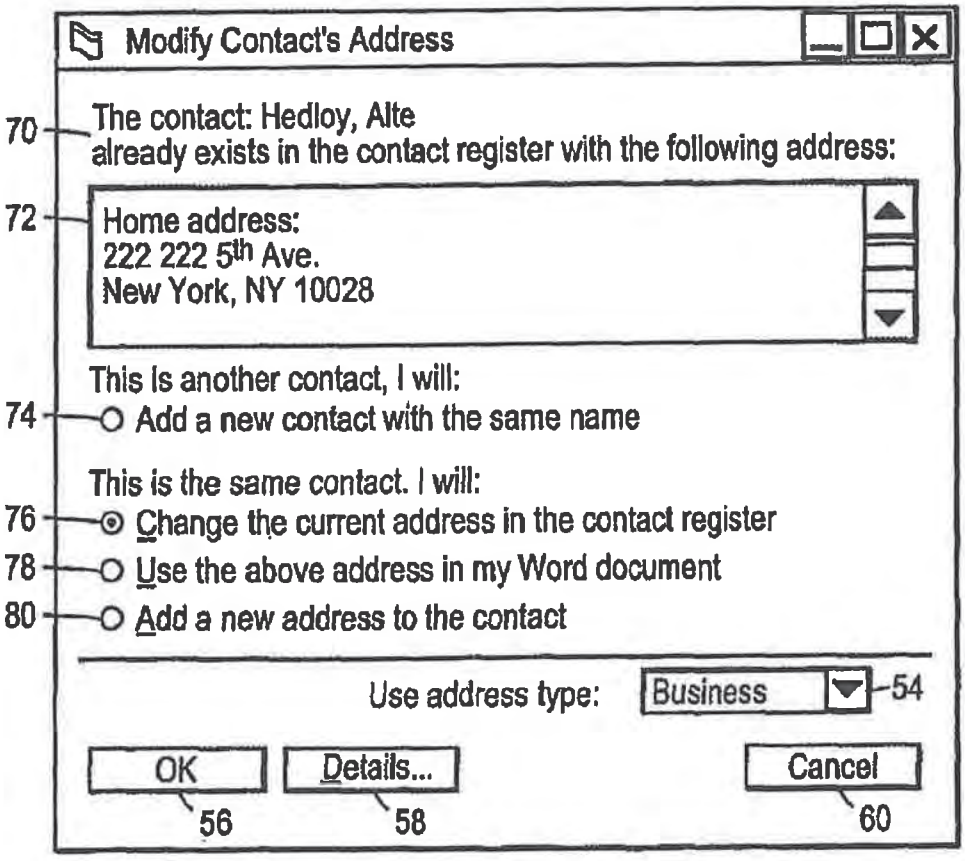

Modify Contact's Address
70
The contact: Hedloy, Alte
already exists in the contact register with the following address:
72
Home address:
222 222 5th Ave.
New York, NY 10028
This is another contact, I will:
74
Add a new contact with the same name
This is the same contact. I will:
76
Change the current address in the contact register
78
Use the above address in my Word document
80
Add a new address to the contact
Use address type:
Business
54
OK
56
Details...
58
Cancel
60

FIG. 9

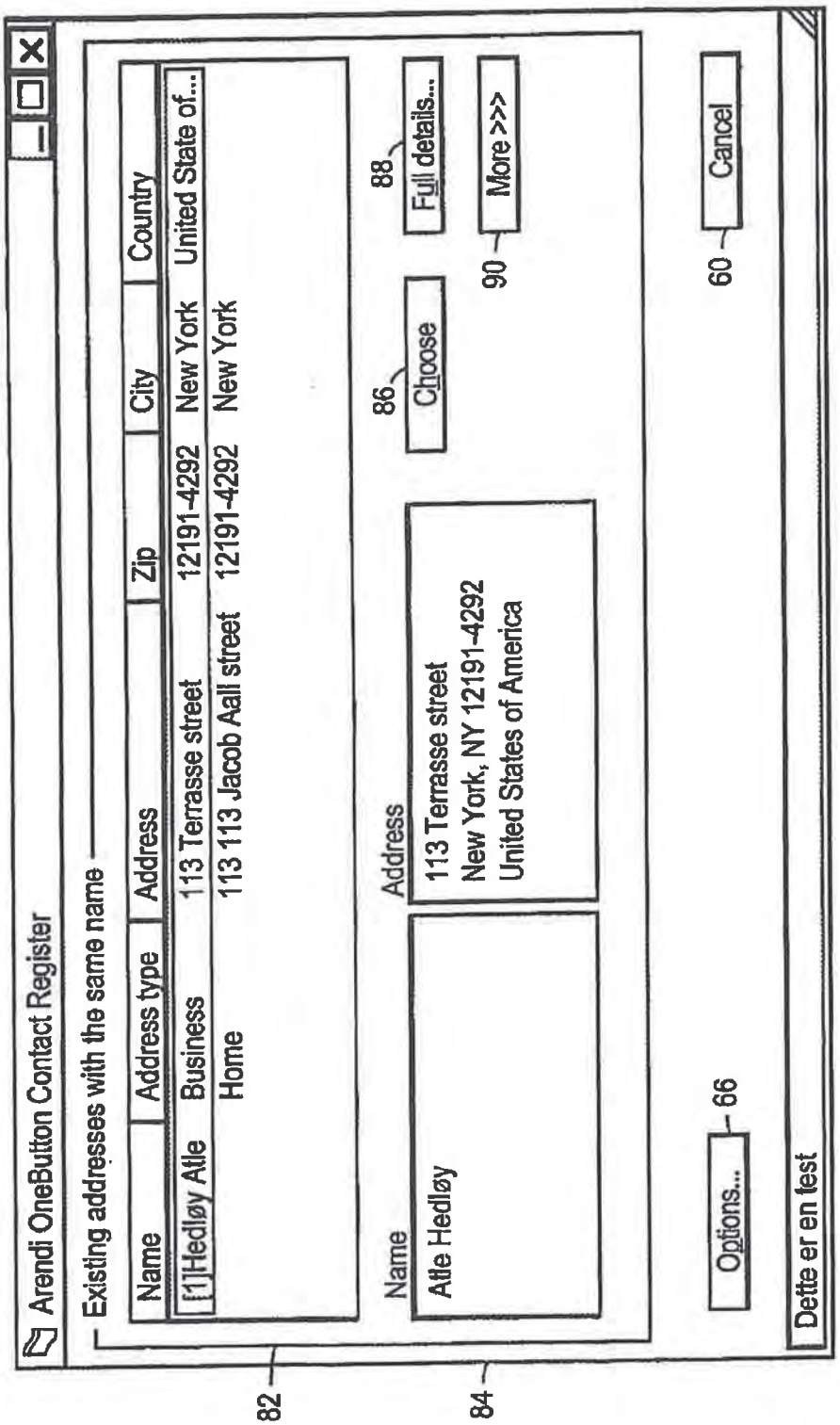

Arendi OneButton Contact Register
Existing addresses with the same name
Name
Address type
Address
Zip
City
Country
[1]Hedløy Atle
Business
113 Terrasse street
12191-4292
New York
United State of...
Home
113 113 Jacob Aall street
12191-4292
New York
82
Name
Atle Hedløy
Address
113 Terrasse street
New York, NY 12191-4292
United States of America
84
86
Choose
88
Full details...
90
More >>>
60
Cancel
Options...
66
Dette er en test

FIG. 10

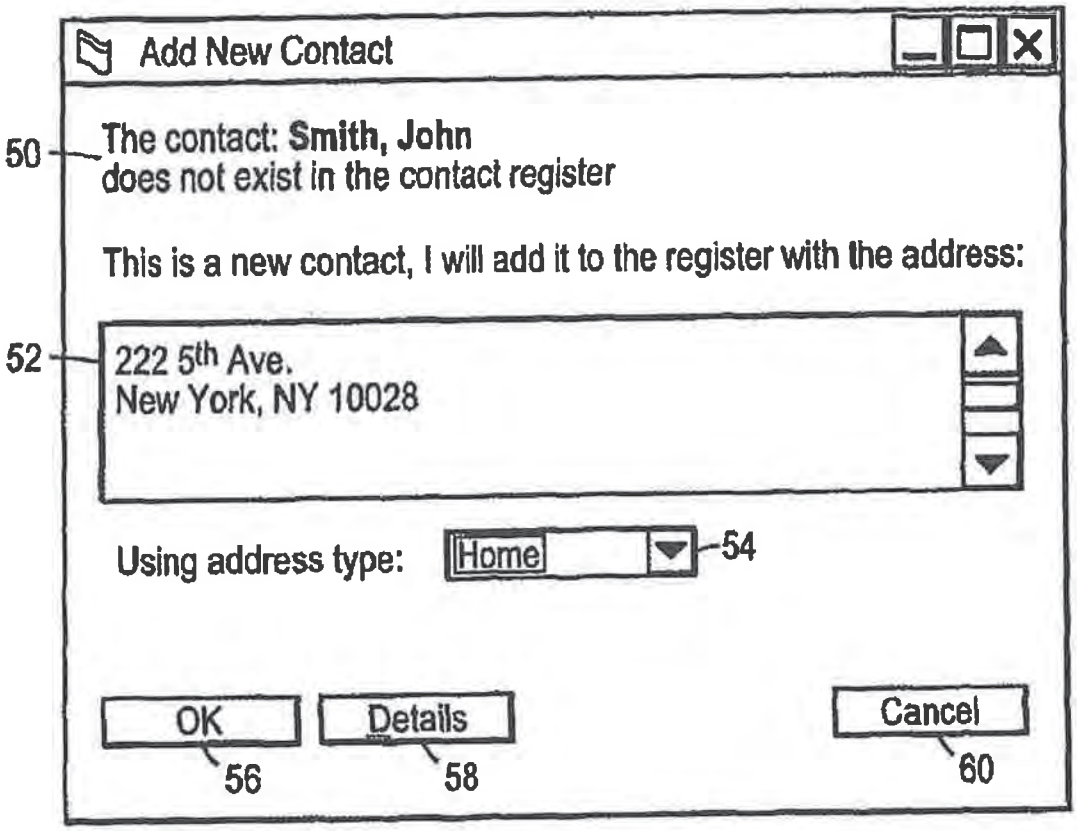

Add New Contact
50
The contact: Smith, John
does not exist in the contact register
This is a new contact, I will add it to the register with the address:
52
222 5th Ave.
New York, NY 10028
Using address type:
Home
54
OK
56
Details
58
Cancel
60

FIG. 6

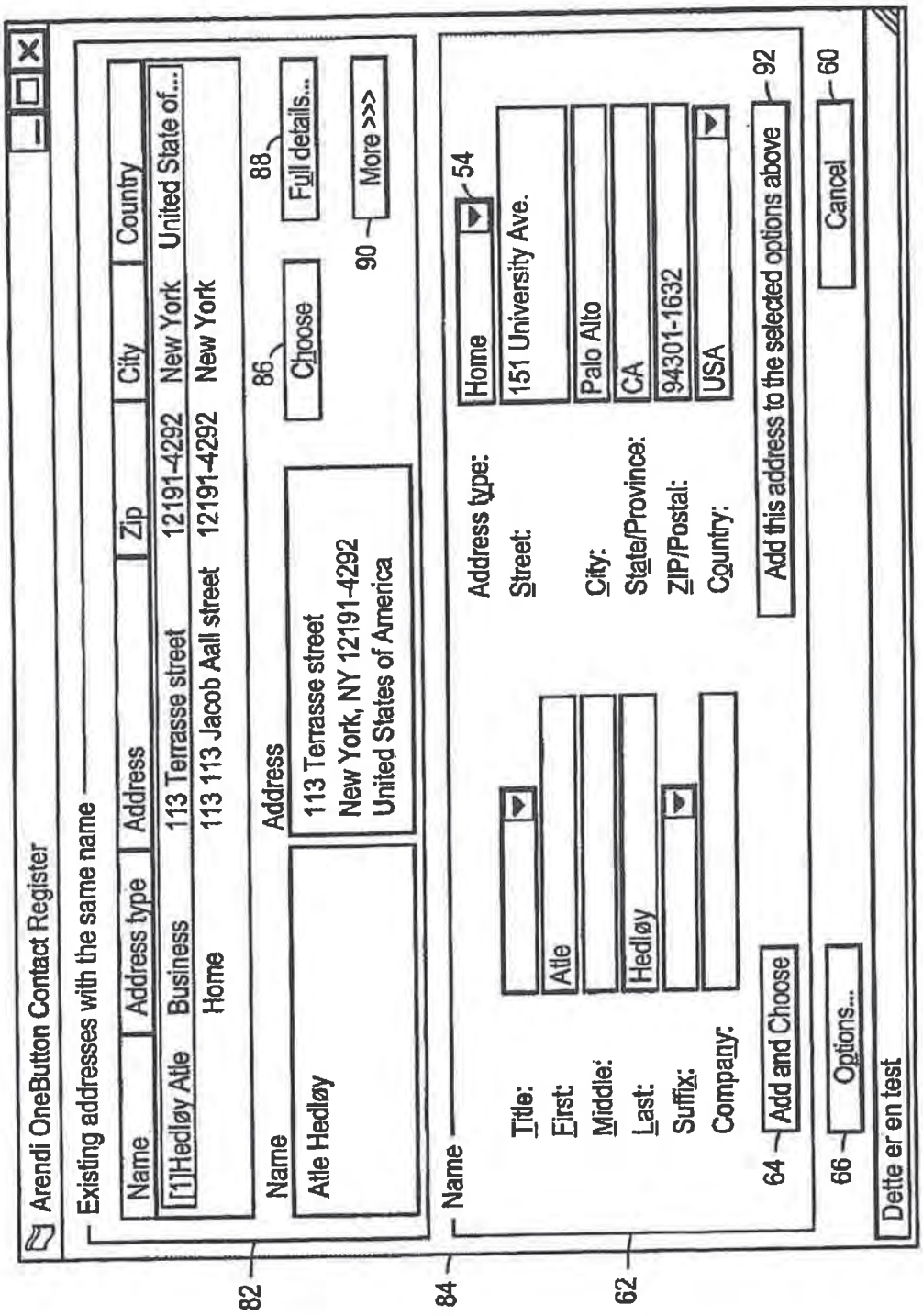

Arendi OneButton Contact Register
Existing addresses with the same name
Name
Address type
Address
Zip
City
Country
[1]Hedløy Atle
Business
113 Terrasse street
12191-4292
New York
United State of...
Home
113 113 Jacob Aall street
12191-4292
New York
Name
Atle Hedløy
Address
113 Terrasse street
New York, NY 12191-4292
United States of America
86
Choose
88
Full details...
90
More >>>
82
Name
Title:
First:
Middle:
Last:
Suffix:
Company:
Atle
Hedløy
Address type:
Street:
City:
State/Province:
ZIP/Postal:
Country:
Home
54
151 University Ave.
Palo Alto
CA
94301-1632
USA
84
62
64
Add and Choose
Add this address to the selected options above
92
66
Options...
Cancel
60
Dette er en test

FIG. 11

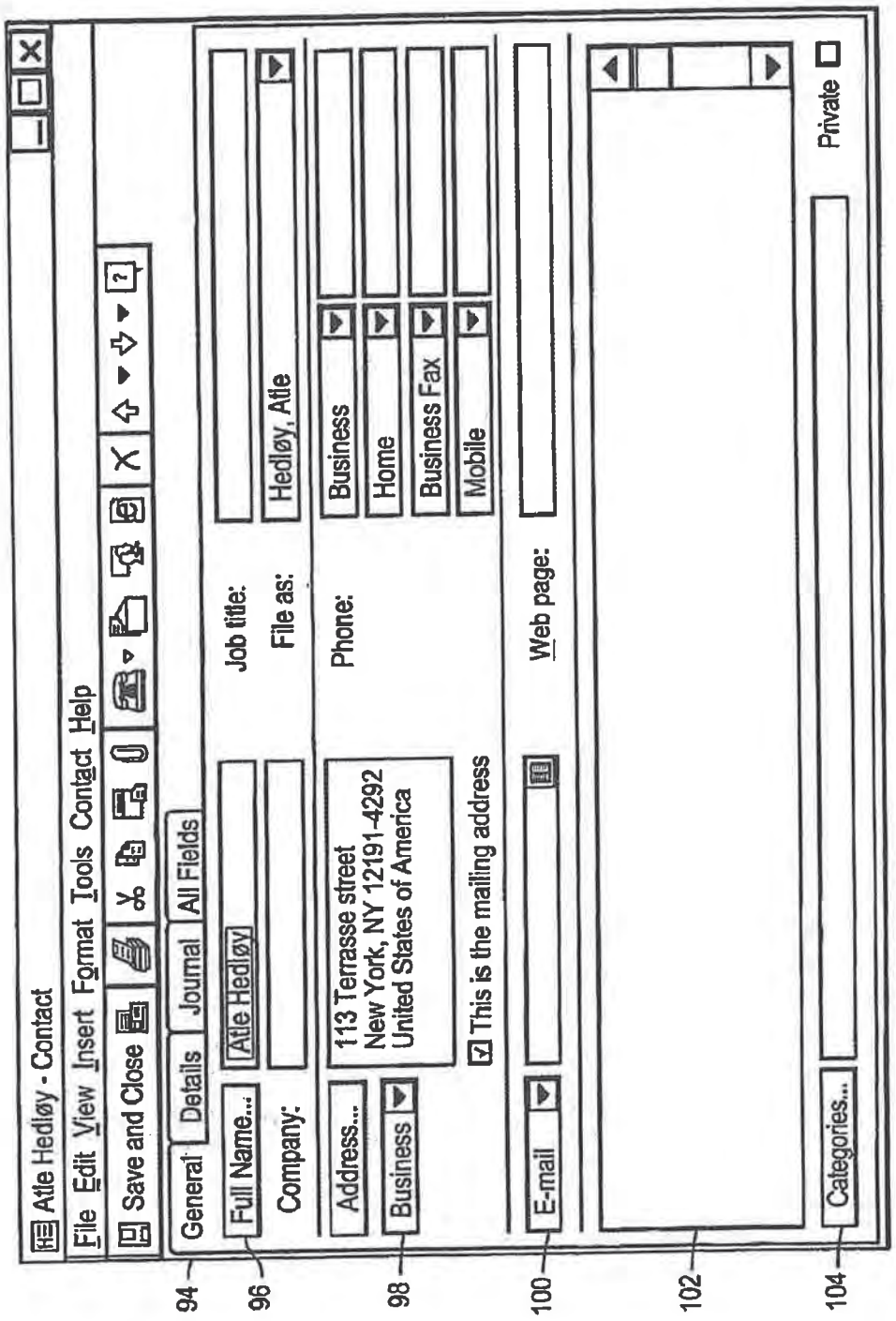

Atle Hedløy - Contact
File Edit View Insert Format Tools Contact Help
Save and Close
General
Details
Journal
All Fields
Full Name...
Atle Hedløy
Company:
Job title:
File as:
Hedløy, Atle
Address...
Business
113 Terrasse street
New York, NY 12191-4292
United States of America
This is the mailing address
Phone:
Business
Home
Business Fax
Mobile
E-mail
Web page:
Categories...
Private
94
96
98
100
102
104

FIG. 12

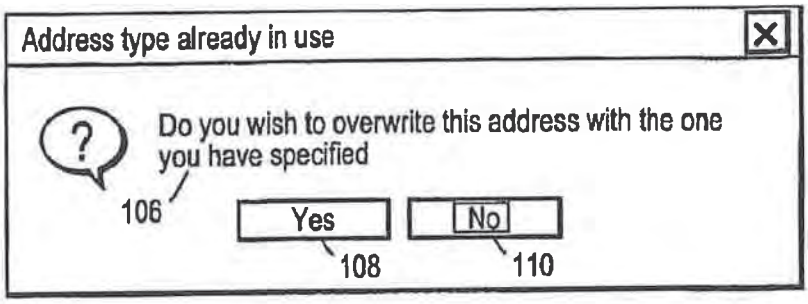

Address type already in use
Do you wish to overwrite this address with the one you have specified
106
Yes
No
108
110

FIG. 13

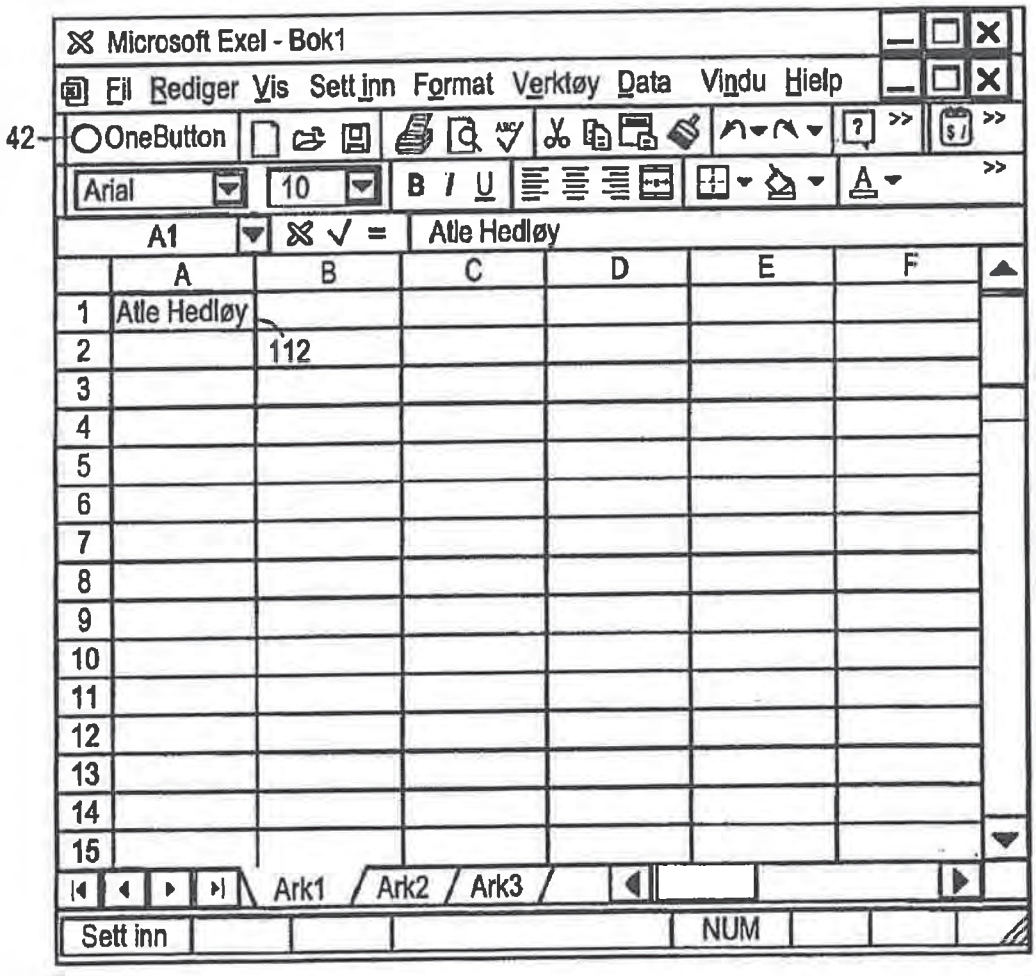

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hielp
42
OneButton
Arial
10
A1
Atle Hedløy
112
Ark1
Ark2
Ark3
Sett inn
NUM

FIG. 14

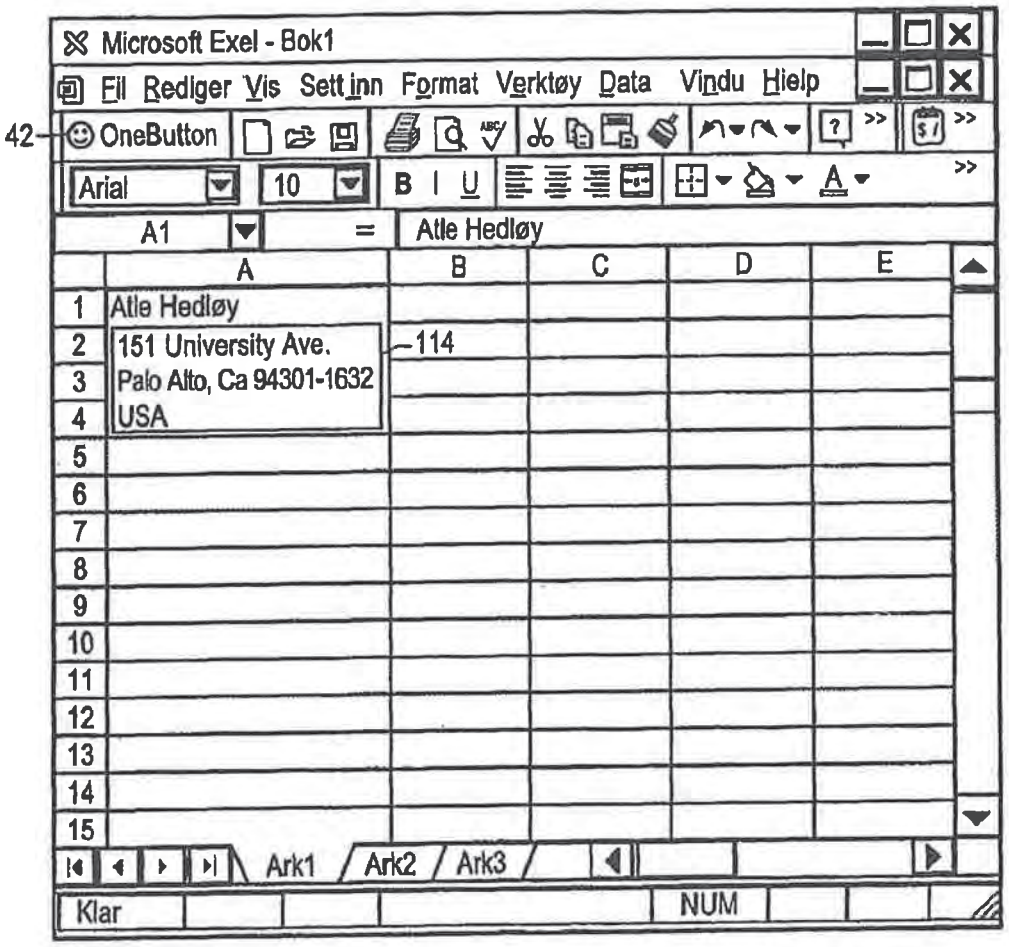

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hielp
42
OneButton
Arial
10
A1
=
Atle Hedløy
A
B
C
D
E
1 Atle Hedløy
2 151 University Ave.
3 Palo Alto, Ca 94301-1632
4 USA
114
5
6
7
8
9
10
11
12
13
14
15
Ark1
Ark2
Ark3
Klar
NUM

FIG. 15

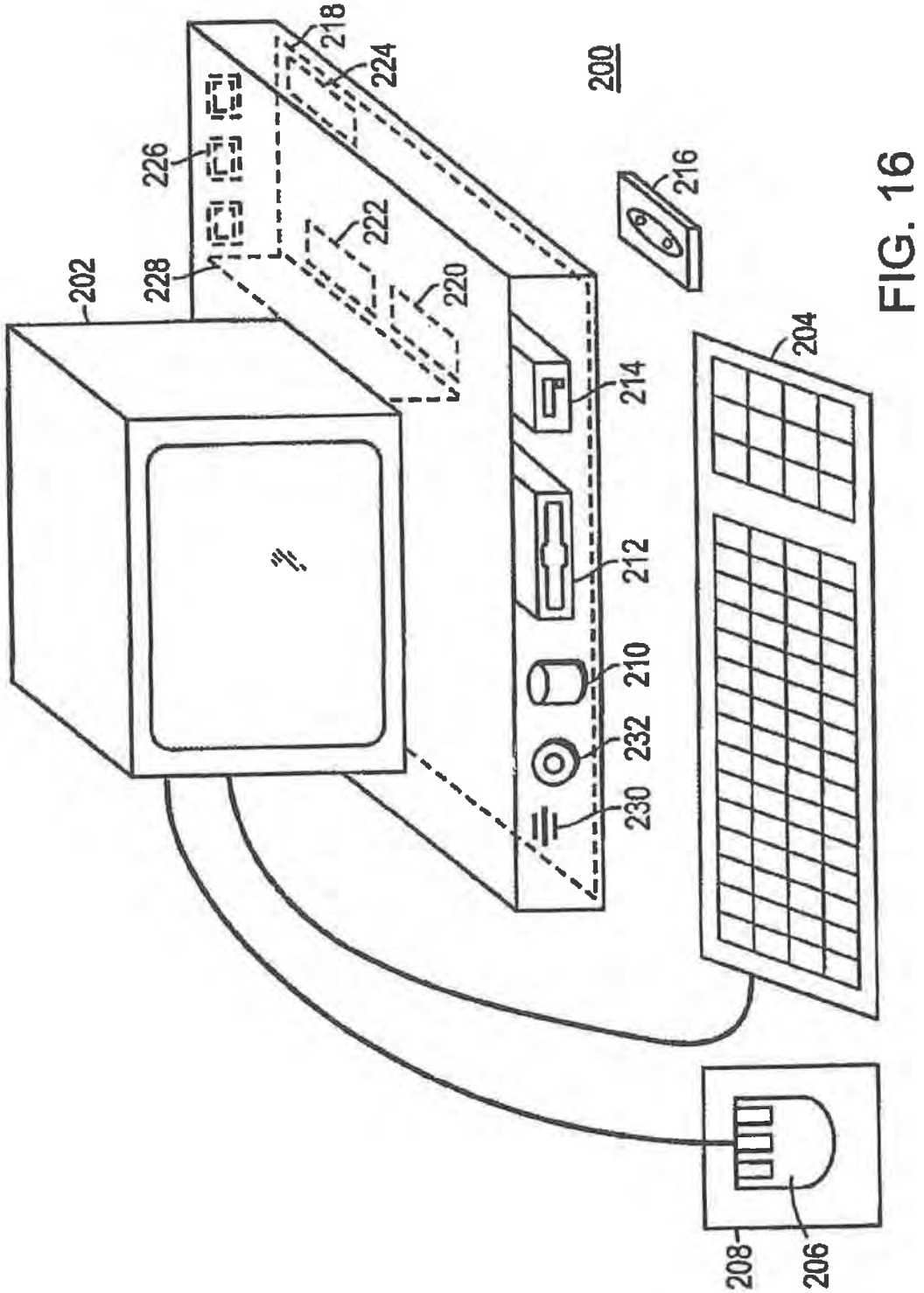

200
202
204
206
208
210
212
214
216
218
220
222
224
226
228
230
232

FIG. 16

METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM

CROSS REFERENCES TO RELATED APPLICATIONS

The present application is a continuation of U.S. application Ser. No. 12/182,048 filed on Jul. 29, 2008, which in turn is a continuation of U.S. application Ser. No. 09/923,134 filed on Aug. 6, 2001 and issued as U.S. Pat. No. 7,496,854, which in turn is a continuation of U.S. application Ser. No. 09/189,626 filed on Nov. 10, 1998 and issued as U.S. Pat. No. 6,323,853, from which the present application claims priority. Each of the above-described applications is hereby incorporated by reference in its entirety.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a method, system and computer readable medium for name and address handling (hereinafter called "address handling"), and more particularly to a touch screen, keyboard button, icon, menu, voice command device, etc. (hereinafter called "button") provided in a computer program, such as word processing program, spreadsheet program, etc., and coupled to an information management source for providing address handling within a document created by the computer program.

2. Discussion of the Background

In recent years, with the advent of programs, such as word processors, spread-sheets, etc. (hereinafter called "word processors") users may require retrieval of information, such as name and address information, etc., for insertion into a document, such a letter, fax, etc., created with the word processor. Typically, the information is retrieved by the user from an information management source external to the word processor, such as a database program, contact management program, etc., or from the word processor itself, for insertion into the document. Examples of such word processors are WORD™, NOTEPAD™, EXCEL™, WORDPAD™, WORDPERFECT™, QUATROPROT™, AMIPRO™, etc., and examples of such information management sources are ACCESS™, OUTLOOK™, ORACLE™, DBASE™, RBASE™, CARDFILE™, etc.

However, the information in the database must constantly be updated by the user. This requires the user to learn how to use and have access to the database. In this case, a change in the information, such as change in address or a name, etc., requires the user of the word processor to implement this change in the database, or alternatively, the change is made to the database centrally by a database administrator.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device provided in the computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device, such as a touch screen, keyboard button, icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device such as a touch screen, keyboard button icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source, such as a database program, contact management program, etc.

The above and other objects are achieved according to the present invention by providing a novel method, system and computer readable medium for providing a function item, such as a key, button, icon, or menu, tied to a user operation in a computer, whereby a single click on the function item in a window or program on a computer screen, or one single selection in a menu in a program, initiates retrieval of name and addresses and/or other person or company related information, while the user works simultaneously in another program, e.g., a word processor. The click on the function item initiates a program connected to the button to search a database or file available on or through the computer, containing the person, company or address related data, in order to look up data corresponding to what the user types, or partly typed, e.g., name and/or address in the word processor, the correct data from the database, data related to the typed data, e.g., the name of the person, company, or the traditional or electronic address, or other person, or company, or address related data, and alternatively the persons, companies, or addresses, are displayed and possibly entered into the word processor, if such related data exists.

The present invention also includes a computer readable medium storing program instructions by which the method of the invention can be performed when the stored program instructions are appropriately loaded into a computer, and a system for implementing the method of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention description below refers to the accompanying drawings, of which:

FIG. **1** is a flow chart illustrating a method for address handling within a computer program, according to an exemplary embodiment of the present invention;

FIG. **2** is a flow chart illustrating a method for address handling within a computer program, according to another exemplary embodiment of the present invention;

FIG. **3** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **4** is a screen shot illustrating a retrieved address in a word processor, according to an exemplary embodiment of the present invention;

FIG. **5** is a screen shot illustrating the inputting of a name and address to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **6** is a screen shot illustrating an add new contact message window, according to an exemplary embodiment of the present invention;

FIG. **7** is a screen shot illustrating a contact register message window, according to an exemplary embodiment of the present invention;

FIG. **8** is a screen shot illustrating an address missing message window, according to an exemplary embodiment of the present invention;

FIG. **9** is a screen shot illustrating a modify contact's address message window, according to an exemplary embodiment of the present invention;

FIG. **10** is a screen shot illustrating a select a contact address register message window, according to an exemplary embodiment of the present invention;

FIG. **11** is a screen shot illustrating a more detailed mode of registering an additional address for the contact register of FIG. **9**, according to an exemplary embodiment of the present invention;

FIG. **12** is a screen shot illustrating a contact management program window in a full detailed mode, according to an exemplary embodiment of the present invention;

FIG. **13** is a screen shot illustrating an address already in use message window, according to an exemplary embodiment of the present invention;

FIG. **14** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a spreadsheet, according to an exemplary embodiment of the present invention;

FIG. **15** is a screen shot illustrating a retrieved address in a spreadsheet, according to an exemplary embodiment of the present invention; and

FIG. **16** is a schematic illustration of a general purpose computer for performing the processes of the present invention, according to an exemplary embodiment of the present invention.

DETAILED DESCRIPTION OF AN ILLUSTRATIVE EMBODIMENT

In an embodiment of the present invention, single button addressing is a achieved by providing an input device, such as a touch screen, keyboard, icon, menu, voice command device, etc. (hereinafter called "button"), in a computer program, such as a word processing program, spreadsheet program, etc. (hereinafter called "word processor"), for executing address handling therein.

Accordingly, in a word processor, the button is added and a user types information, such as an addressee's name, or a part of the name, etc. in a document created with the word processor, such as a letter, fax, etc., and then clicks, selects, commands, etc. the button via the appropriate input device, such as a touch screen button, keyboard button, icon, menu choice, voice command device, etc. A program then executes and retrieves the typed information from the document, and searches an information management source, such as a database, file, database program, contact management program, etc. (hereinafter called "database") to determine if the information, such as the name or part of the name typed and searched by the program exists in the database. If the program does not find stored information, such as a name, corresponding to the name or part of the name typed, the user is asked by the program whether the information, such as the name that was not found, should be added to the database. In addition, the user may enter any other information besides the name, such as addresses, businesses, telephone numbers, fax numbers, e-mail address, etc., so that this other information can be stored in the database for later use.

If the program finds name(s) and address(es) corresponding to the part of the addressee's name typed, this additional information is automatically entered into the user's word processor, optionally with a confirmation from the user that this is the correct data. If the typed address information does not correspond to data already stored in the database, after clicking on the button, the program, for example, lets the user decide: (1) if this is new data (e.g., a new address) for an existing contact; (2) if the stored data should be changed to what the user just typed; (3) if this is a new contact with the same name as the one already entered into the database; or (4) if the typed address is only to be used once, and therefore not to be stored in the database at all. If, later, for example, a name with several address stored in the database is recalled, all addresses for this contact will be displayed, so that the correct address can be selected by the user.

The program may be extended to also store and retrieve other information, such as telephone numbers, fax numbers, e-mail addresses, etc. Once the program recalls the telephone numbers, fax numbers, email addresses, etc., the user can command the program to send e-mails, faxes, etc. Similarly, if the user types in the name of a mailing list, the program create merge letters, group emails, etc.

Referring now to the drawings, wherein like reference numerals designate identical or corresponding parts throughout the several views, and more particularly to FIGS. **1** and **2** thereof, there is illustrated flow charts of single button addressing, according to exemplary embodiments of the present invention.

In FIG. **1**, after the user has inserted the address in the word processor, the user commands the button at step **2** and the program analyzes what the user has typed in the document at step **4**. At step **6**, the program decides what was found in the document and if the program found nothing in the document or what it found was un-interpretable the program goes to step **8** and outputs an appropriate message to the user and then quits at step **16**. The program analyzes what the user has typed in the document at step **4**, for example, by analyzing (i) paragraph/line separations/formatting, etc.; (ii) street, avenue, drive, lane, boulevard, city, state, zip code, country designators and abbreviations, etc.; (iii) Mr., Mrs., Sir, Madam, Jr., Sr. designators and abbreviations, etc.; (iv) Inc., Ltd., P.C., L.L.C, designators and abbreviations, etc.; and (v) a database of common male/female names, etc.

If the program find an e-mail address mailing list/category name telephone number or other information, at step **10** an appropriate action is performed by the program and then the program execution quits at step **16**. If the program only finds a name or initials, or the like, the program looks up the name in the database at step **12** and at step **18** the program determines what was found. If the program finds more than one possible contact/address match, at step **20** the program displays menu choices to the user to let him choose an appropriate answer. Then at step **22** the program inserts a correct address and name in the document and then at step **16** the program quits execution. If the program finds one match exactly, i.e., one contact with one address, the program inserts the correct address and name in the document at step **22** then quits and then quits execution at step **16**. If the program does not find a name in the database, at step **24** the program prompts the user to specify an address and then quits execution at step **16**. If the program at step **6** finds a name and an address, at step **14** the name is looked up in the database. Then, at step **26**, if no match is found, at step **28** the program inserts an address and a name which are possibly corrected by the user into the database and then quits execution at step **16**. If at step **26**, the name and address is found, at step **32** the program either takes no action or displays the data for the user to edit. If at step **26**, the name is found but not the address, the

program prompts the user for a decision at step **30**. If the user decides that this is another contact with a same name, the program goes to step **28**. If the user decides that this is a one time occurrence, no action is taken and the program quits at step **16**. If the user decides that the contact has, for example, moved and that this is a new address, at step **34** one of the old addresses for the contact is replaced with the new one and the program quits at step **16**. If the user decides that this is an additional address for the contact, at step **36** the additional address is inserted into the database for that contact and execution quits at step **16**.

The flowchart shown in FIG. **2** is similar to the flowchart in FIG. **1**, except for some additional steps which will now be discussed. At step **6**, if the program only finds a name or a similar name then the name is looked up in the database at step **12**, then at step **18** if the program found more than one possible contact/address match, the program displays choices to the user to let him choose an address at step **20**. Then at step **21** the user decides whether to insert the selected address into the document. If the user does not decide to select the address into the document the program quits execution at step **16**. If the user decides to insert the selected address into the document the program inserts the address and name into the document at step **22** and then quits at step **16**.

If the program finds a name and address in the database at step **6**, then at step **14** the program looks up the name in the database and at step **26** the program determines what it has found. If the program does not find the name at step **26**, at step **27** the program prompts the user for a decision and review and whether to insert the contact and address. If the user does not decide to insert the contact address, the program quits at step **16**. If the user decides to insert the contact address, at step **28** the program inserts the address and name which may be possibly corrected by the user for program in the database then execution quits at step **16**.

If at step **26** the program finds a name and not an address, then at step **29** the name is looked up in the database. Then at step **31** the program decides whether this contact has another address. If the contact does not have another address, at step **33** the program prompts the user for a decision and review and whether to add the address. If the user does not want to add the address at step **33**, the program quits at step **16**. If the user wants to add the address at step **33** because this is an additional address for the contact, at step **36** the address is inserted in the database for the contact and execution quits at step **16**.

At step **30**, if the user decides that this is another contact with the same name, then the program goes to step **28**. If at step **30** the user decides that this is a one time occurrence, then the program quits at step **16**. If at step **30**, the user decides that the contact has, for example, moved, the program goes to step **34**. If at step **30**, the user decides that this is an additional address for the contact, at step **36** the program inserts the address in the database for the contact and then quits at step **16**.

Various exemplary screen shots which are generated during execution of the program, according to the present invention, will now be described with reference to FIGS. **3-15** and examples 1-7 as follows.

Example 1

Retrieving an Existing Address from the Database

FIG. **3** illustrates a starting point in word processor document such as WORD document, wherein the user has typed a name **40**. The user hits the button **42**, for example, marked "OneButton" and the program according to the present invention retrieves is the name **40** from the document, searches a database for the name **40**, and inserts the retrieved address **44** associated with the name **40** into the document as shown in, for example, FIG. **4**.

The above example corresponds to steps **2**, **4**, **6**, **12**, **18**, **22** and **16** in the flow charts of FIGS. **1** and **2**.

Example 2

Adding a New Contact to the Database

FIG. **5** illustrates a starting point in word processor document such as WORD document, wherein the user has typed a name and address of a new contact **46**. The user commands the button **42**, for example, marked "OneButton," and the program according to the invention retrieves the new contact **46** from the document, searches a database for the name of the new contact **46** and generates a screen as shown in, for example, FIG. **6**. This screen includes a message **50** informing the user that the new contact does not exist in the database, a message **52** including the address retrieved from the document, an address type selection **54**, such as home, business, etc., and "OK," "Details," and "Cancel" buttons **56**, **58**, and **60**, respectively.

At this point, the user can cancel the operation by commanding the Cancel button **60**, ask the program to store data in the database and return the document by commanding the OK button **56**, or check details before storing data into the database by commanding the Details button **58**. If the user commands the Details button **58**, as shown in, for example, FIG. **7**, a message screen is provided so that the user can review and edit data **62** and the selection **54**, store the data **62** and **54** in the database by commanding a "Add and Choose" button **64**, see more options by commanding an "Options" button **66**, or cancel is the operation by commanding the Cancel button **60**.

The above example corresponds to steps **2**, **4**, **6**, **14**, **26**, **28** and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **14**, **26**, **27**, **28** and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **26**, **27**, **28** and **16** in the flow chart of FIG. **2**.

Example 3

Try to Retrieve Existing Address, but Contact is not in Database

FIG. **3** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name of a contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **40** from the document, searches a database for the name of the contact **40** and generates a screen as shown in, for example, FIG. **8**. This screen includes a message **68** informing the user that the contact does not exist in the database and to specify an address, and "OK" buttons **56**. At this point when the user commands the OK button **56**, the user returns to the document so that the contact's address can be included as in Example 2 above.

The above example corresponds to steps **2**, **4**, **6**, **12**, **18**, **24**, and **16** in the flow of charts of FIGS. **1** and **2**.

Example 4

Adding a New Address for an Existing Contact

Short Version

FIG. **4** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed

a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the same name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. This screen includes a message **70** informing the user that the contact already exists in the database with an existing address, a message **72** including the existing address, add new contact with same name selection **74**, change existing address selection **76**, use existing address in document selection **78**, add the new address contact selection **80**, the address type selection **54**, such as home, business, etc., and the "OK," "Details," and "Cancel" buttons **56**, **58** and **60** respectively. AT this point, the user may select one of the four options **74-80**, and command the OK button **56** to execute the selected options. The user can also cancel the operation by commanding the Cancel button **60**, or check details before storing data into the database by commanding the Details button **58**.

The above example corresponds to steps **2**, **4**, **6**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36**, and **16** in the flow chart of FIG. **2**.

Example 5

Selecting Between Several Possible Matching Addresses

FIG. **3** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name and possibly address of at least one existing contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **40** from the document, searches a database for the name of the existing contact **40** and generates a screen as shown in, for example, FIG. **10**. This screen includes a message informing the user the name corresponds to several addresses and possible contacts which already exist in the database, with existing contacts and addresses for selection **82**, a message **84** including the full name and address for the contact that the user selects in **82**, the Options button **66**, a "Choose" button **86**, a "Full details" button **88**, a "More>>>" button **90**, and the Cancel button **60**. The above screen indicates to the user that at least one contact with the same name exists, and that there are more than one addresses and/or contacts that match.

At this point the user may command the Choose button **86** to use the selected address and return to the document, or the user may command the More>>> button **90** to view how the program interpreted what the user typed in the word processor, and possibly change this data, wherein the program generates an updated screen as shown in, for example, FIG. **11**. The updated screen includes the data **62** which displays the name typed in the word processor as interpreted by the program, address fields, and the fields for the address type selection **54**, such as home, business, etc., which may be changed by the user before the program stores it in the database, the Add and Choose button **64**, a "<<< Less" button **90** corresponding to the More>>> button **90** for returning to the screen of FIG. **10**, and an "Add this address to the selected contact above" button **92**. The user might then command the Add this address to the selected contact above button **92** and the result in the word processor is illustrated in FIG. **4**. The user can also cancel the operations by commanding the Cancel button **60**, or command the add choose button **64** to add this name and address as a new contact and address, or open the database before storing data into the database by commanding a "Full details" button **88** as will be later described.

The above example corresponds to steps **2**, **4**, **6**, **12**, **18**, **20**, **22**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **18**, **20**, **21**, **22**, and **16** in the flow chart of FIG. **2**.

Example 6

Adding a New Address for an Existing Contact

Long Version

FIG. **4** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. As previously described the screen includes a message **70** informing the user that the contact already exists in the database with an existing address, and the user may command the Details button **58** to see the details of the new address for potentially modify the details before they are stored in the database and the program generates a screen as shown in, for example, FIG. **10**. From this screen, the user may choose to use another address than the one he typed, and return to the document, or the user may command the "Full details" button **88** to enter a database program, such as OUTLOOK™, directly as shown in, for example, FIG. **12**. In FIG. **12**, the database program, such as OUTLOOK™, may include portions **94-104** for allowing the user to modify various pieces of data before they are stored in the database.

Alternatively, in the screen shown in FIG. **10**, the user may command the More>>> button **90** at which time the program generates the screen as shown in, for example, FIG. **11** and as previously described. In this screen, the user might then command the Add this address to the selected contact above button **92**. If the address typed is already in use, the program generates a screen including a message **106**, and "Yes" and "No" buttons, **108** and **110**, respectively, as shown in, for example, FIG. **13**. If the user hits the Yes button **108** the program overwrites the contact address with the address specified by the user (e.g., if the contact has moved) and the result in the word processor is shown in, for example FIG. **4**.

The above example corresponds to steps **2**, **4**, **6**, **12**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36**, and **16** in the flow chart of FIG. **2**.

Example 7

Spreadsheet Application

FIG. **14** illustrates a starting point in word processor document, such as an EXCEL spreadsheet, wherein the user has typed a name **112**. The user hits the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **112** from the spreadsheet, searches a database for the name **112**, and inserts the retrieved address **114** into the spreadsheet as shown in, for example, FIG. **15**. Accordingly, the examples 1-6 apply not only to word processor documents, such as WORD™ documents, etc., but to other word processor documents, and spreadsheets, such as EXCEL™ spreadsheets, etc.

The above example corresponds to steps **2**, **4**, **12**, **18**, **22**, and **16** in the flow of charts FIGS. **1** and **2**.

FIG. **16** is a schematic illustration of a computer system for implementing the single button addressing according to the present invention. A computer **200** implements the method of the present invention, wherein the computer includes, for example, a display device **202**, such as a conventional display device or a touch screen monitor with a touch screen interface, etc., a keyboard **204**, a pointing device **206**, a mouse pad or digitizing pad **208**, a hard disk **210**, or other fixed, high density media drives, connected using an appropriate device bus (e.g., a SCSI bus, an Ultra DMA bus, a PCI bus, etc.), a floppy drive **212**, a tape or CD ROM drive **214** with tape or CD media **216**, or other removable media devices, such as magneto-optical media, etc., and a mother board **218**. The mother board **218** includes, for example, a processor **220**, a RAM **222**, and ROM **224** (e.g., DRAM, ROM, EPROM, EEPROM, SRAM, SDRAM, and Flash RAM, etc.), I/O ports **226** which may be used to couple to external devices, networks, etc., (not shown), and optional special purpose logic devices (e.g., ASICs) or configurable logic devices (e.g., GAL and re-programmable FPGA) **228** for performing specialized hardware/software functions, such as sound processing, image processing, signal processing, neural network processing, object character recognition (OCR) processing, etc., a microphone **230**, and a speaker or speakers **232**.

As stated above, the system includes at least one computer readable medium or alternatively, the computer readable medium may be accessed through various paths, such as networks, internet, drives, etc. Examples of computer readable media are compact discs, hard disks, floppy disks, tape, magneto-optical disks, PROMs (EPROM, EEPROM, Flash, EPROM), DRAM, SRAM, SDRAM, etc. Stored on any one or on a combination of computer readable media, the present invention includes software for controlling both the hardware of the computer **200** and for enabling the computer **200** to interact with a human user. Such software may include, but is not limited to, device drivers, operating systems and user applications, such as development tools. Such computer readable media further includes the computer program product of the present invention for performing any of the processes according to the present invention, described above (see, e.g., FIGS. **1-15**). The computer code devices of the present invention can be any interpreted or executable code mechanism, including but not limited to scripts, interpreters, dynamic link libraries, Java classes, and complete executable programs, etc.

The invention may also be implemented by the preparation of application specific integrated circuits or by interconnecting an appropriate network of conventional component circuits, as will be readily apparent to those skilled in the art.

Address handling, according to this invention, is a significant simplification relative to existing methods, and requires little or no training on the part of a user, as correct addresses are retrieved with a minimal number of user commands, "clicks," keystrokes, etc. In addition, a program according to the present invention, can be programmed and created in most existing programming languages and be connected to most modern word processors. Therefore, according to the present invention, the process of creating and updating records in an address database is significantly simplified, since this may now be performed directly from the word processor.

Although the present invention is defined in terms of word processing documents, such as WORD™ documents and EXCEL™ spreadsheets, the present invention is applicable to all types of word processing documents such as NOTEPAD™, WORDPAD™, WORDPERFECT™, QUATROPROT™, AMIPRO™, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of information management or database programs, such as OUTLOOK™, etc., the present invention is applicable to all types of information management or database programs such as ACCESS™, ORACLE™, DBASE™, RBASE™, CARDFILE™, including "flat files," etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of providing an input device, such as a button **42** in a word processor for address handling therein, the present invention may be practiced with all types of input devices, such as touch screen, keyboard button, icon, menu, voice command device, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving information from a document before searching a database, the user may select the information in the document to be searched by the program in the database (e.g., by highlighting, selecting, italicizing, underlining, etc.), as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving a name or portion thereof from a document before searching a database the program may retrieve an address or portion thereof from the document before searching the database and insert, correct, complete, etc., the retrieved address based on the information found in the database corresponding to the retrieved address or portion thereof, as will be readily apparent to those skilled in the art.

Obviously, numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of appended claims, the invention may be practiced otherwise than as specifically described herein.

This application claims priority and contains subject matter related to Norwegian patent application No. 984066 filed on Sep. 3, 1998, the entire contents of which are hereby incorporated by reference.

What is claimed is:

1. At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for contact information handling, implemented by a document editing program running in the computer, the processes comprising:

allowing a user to enter textual information into a document using the document editing program;

displaying the textual information in the document electronically using the document editing program;

allowing, in the document editing program, the user to select in the document at least a portion of the textual information while the textual information is displayed;

following user selection of textual information in the document, analyzing, by the document editing program, the selected textual information to determine if the selected textual information is regarded by the document editing program as contact information and what type or types of contact information the selected textual information is;

providing an input device configured by the document editing program to allow the user to initiate an operation, such operation being of a type depending at least in part on the type or types of contact information of the selected textual information, the operation comprising identifying at least part of the selected textual information to use as a search term in order to find second

information, of a specific type or types, associated with the search term in an information source external to the document;

after identifying at least part of the selected information to use as a search term, and in consequence of receipt by the document editing program of an execute command from the input device, performing the operation, wherein the operation further comprises:

causing an electronic search in the information source, by an information management program external to the document editing program, for the search term in order to find whether the search term is included in the information source; and performing an action having a type,

wherein the type of action depends at least in part on whether the search term is included in the information source, and if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document.

2. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein:

when the information source does not include the search term, the action comprises causing indication to the user that the information source does not include the search term.

3. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein:

when (i) the information source includes the search term, (ii) the selected textual information includes a name, (iii) the information source further includes the second information, and (iv) the second information includes an address, the action further comprises causing insertion of at least part of the address into the document.

4. At least one non-transitory computer readable medium according to claim 3, wherein the instructions establish processes wherein, when the second information includes a plurality of addresses, the operation further comprises allowing the user to choose one of the plurality of addresses to use for insertion into the document.

5. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein, when the selected textual information includes information that is not in the information source, the operation further comprises:

allowing the user to cause storage of at least some of the selected textual information in the information source.

6. At least one non-transitory computer readable medium according to claim 5, wherein the instructions establish processes wherein, when the selected textual information includes a name and an address and the information source does not include the name, allowing the user to cause storage comprises allowing the user to cause storage of at least part of the selected information in the information source as a new contact.

7. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein the information source is available over a network.

8. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein the information source includes an e-mail address and the operation includes causing an e-mail to be sent to the e-mail address.

9. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein, when the type or types of contact information includes a name, the operation includes causing display by the information management program of at least part of a contact information record in the information source corresponding to the name.

10. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein the document editing program is a spreadsheet program.

11. At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein the type of operation includes updating the document with information from the information source.

12. A method, for contact information handling, implemented by running a document editing program in a computer, the method comprising:

allowing a user to enter textual information into a document using the document editing program;

displaying the textual information in the document electronically using the document editing program;

allowing, in the document editing program, the user to select in the document at least a portion of the textual information while the textual information is displayed;

following user selection of textual information in the document, analyzing, by the document editing program, the selected textual information to determine if the selected textual information is regarded by the document editing program as contact information and what type or types of contact information the selected textual information is;

providing an input device configured by the document editing program to allow the user to initiate an operation, such operation being of a type depending at least in part on the type or types of contact information of the selected textual information, the operation comprising identifying at least part of the selected textual information to use as a search term in order to find second information, of a specific type or types, associated with the search term in an information source external to the document;

after identifying at least part of the selected information to use as a search term, and in consequence of receipt by the document editing program of an execute command from the input device, performing the operation, wherein the operation further comprises:

causing an electronic search in the information source, by an information management program external to the document editing program, for the search term in order to find whether the search term is included in the information source; and performing an action having a type,

wherein the type of action depends at least in part on whether the search term is included in the information source, and if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document.

13. A method according to claim 12, wherein:

when the information source does not include the search term, the action comprises causing indication to the user that the information source does not include the search term; and

when (i) the information source does include the search term, (ii) the selected textual information includes a name, (iii) the information source further includes the

second information, and (iv) the second information includes an address, the action further comprises causing insertion of at least part of the address into the document.

14. A method according to claim **12**, wherein, when the second information includes a plurality of addresses, the operation further comprises allowing the user to choose one of the plurality of addresses to use for insertion into the document.

15. A method according to claim **12**, wherein, when the selected textual information includes information that is not in the information source, the operation further comprises:

allowing the user to cause storage of at least some of the selected textual information in the information source;

wherein, when the selected textual information includes a name and an address and the information source does not include the name, allowing the user to cause storage comprises allowing the user to cause storage of at least part of the selected information in the information source as a new contact.

16. A method according to claim **12**, wherein the information source is available over a network.

17. A method according to claim **12**, wherein the information source includes an e-mail address and the operation includes causing an e-mail to be sent to the e-mail address.

18. A method according to claim **12**, wherein, when the type or types of contact information includes a name, the operation includes causing display by the information management program of at least part of a contact information record in the information source corresponding to the name.

19. A method according to claim **12**, wherein the type of operation includes updating the document with information from the information source.

20. An apparatus for contact information handling, comprising:

a processor; and

a memory storing instructions executable by the processor to perform processes that include:

allowing a user to enter textual information into a document using a document editing program;

displaying the textual information in the document electronically using the document editing program;

allowing, in the document editing program, the user to select in the document at least a portion of the textual information while the textual information is displayed;

following user selection of textual information in the document, analyzing, by the document editing program, the selected textual information to determine if the selected textual information is regarded by the document editing program as contact information and what type or types of contact information the selected textual information is;

providing an input device configured by the program to allow the user to initiate an operation, such operation being of a type depending at least in part on the type or types of contact information of the selected textual information, the operation comprising identifying at least part of the selected textual information to use as a search term in order to find second information, of a specific type or types, associated with the search term in an information source external to the document;

after identifying at least part of the selected information to use as a search term, and in consequence of receipt by the document editing program of an execute command from the input device, performing the operation, wherein the operation further comprises:

causing an electronic search in the information source, by an information management program external to the document editing program, for the search term in order to find whether the search term is included in the information source; and performing an action having a type,

wherein the type of action depends at least in part on whether the search term is included in the information source, and if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document.

* * * * *

US007496854B2

(12) **United States Patent**
Hedloy

(10) **Patent No.: US 7,496,854 B2**
(45) **Date of Patent: Feb. 24, 2009**

(54) **METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM**

(75) Inventor: **Atle Hedloy**, Stabekk (NO)

(73) Assignee: **Arendl Holding Limited**, Grand Cayman (KY)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 20 days.

(21) Appl. No.: **09/923,134**

(22) Filed: **Aug. 6, 2001**

(65) **Prior Publication Data**

US 2002/0054092 A1 May 9, 2002

Related U.S. Application Data

(63) Continuation of application No. 09/189,626, filed on Nov. 10, 1998, now Pat. No. 6,323,853.

(51) **Int. Cl.**
G06F 3/00 (2006.01)

(52) **U.S. Cl.** **715/780**; 715/816

(58) **Field of Classification Search** 345/700, 345/705, 710, 744, 764, 804, 805, 808, 809, 345/835, 840, 853, 968; 707/1, 3, 500, 501.1, 707/505, 507, 513, 515, 530; 715/500, 501.1, 715/505, 507, 513, 515, 530, 780, 816
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,674,065 A 6/1987 Lange et al.
(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 093 250 A2 9/1983
(Continued)

OTHER PUBLICATIONS

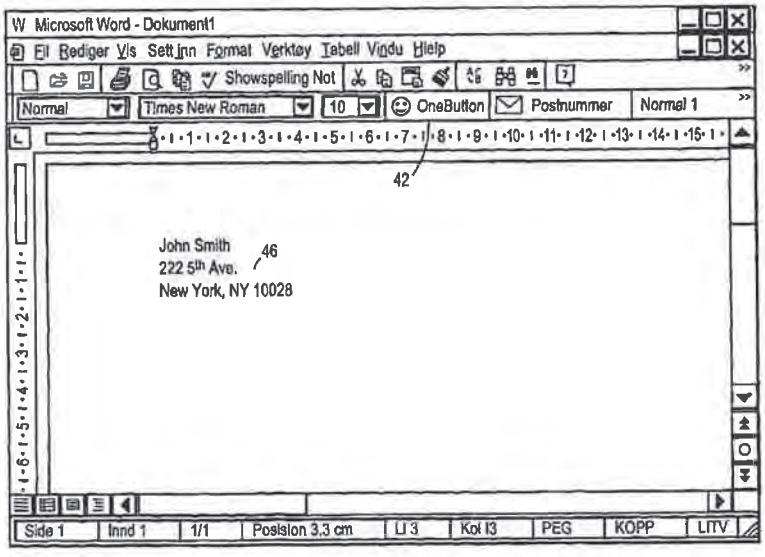
User Manual For AddressMate and AddressMate Plus 1994-1995 by AddressMate Software.
(Continued)

Primary Examiner—Sy D. Luu
(74) *Attorney, Agent, or Firm*—Cesari and McKenna, LLP

(57) **ABSTRACT**

A method, system and computer readable medium for providing for providing a function item, such as a key, button, icon, or menu, tied to a user operation in a computer, whereby a single click on the function item in a window or program on a computer screen, or one single selection in a menu in a program, initiates retrieval of name and addresses and/or other person or company related information, while the user works simultaneously in another program, e.g., a word processor. The click on the function item initiates a program connected to the button to search a database or file available on or through the computer, containing the person, company or address related data, in order to look up data corresponding to what the user types, or partly typed, e.g., name and/or address in the word processor, the correct data from the database, data related to the typed data, e.g., the name of the person, company, or the traditional or electronic address, or other person, or company, or address related data, and alternatively the persons, companies, or addresses, are displayed and possibly entered into the word processor, if such related data exists.

101 Claims, 14 Drawing Sheets



PLAINTIFF'S TRIAL EXHIBIT **PX0004**

U.S. PATENT DOCUMENTS

5,226,117	A		7/1993	Miklos 345/853
5,267,155	A		11/1993	Buchanan et al.
5,331,555	A		7/1994	Hashimoto et al. 707/531
5,375,200	A	*	12/1994	Dugan et al. 345/804
5,392,386	A		2/1995	Chalas
5,416,901	A		5/1995	Torres 345/835
5,491,783	A		2/1996	Douglas et al. 345/846
5,491,784	A		2/1996	Douglas et al. 345/810
5,500,859	A		3/1996	Sharma et al. 370/468
5,530,853	A		6/1996	Schell et al. 707/1
5,546,447	A		8/1996	Skarbo et al. 379/142.05
5,576,955	A		11/1996	Newbold et al.
5,606,712	A		2/1997	Hidaka 712/1
5,640,565	A		6/1997	Dickinson ..... 707/103 R
5,666,502	A		9/1997	Capps 345/811
5,708,804	A		1/1998	Goodwin et al. 707/3
5,724,597	A		3/1998	Cuthbertson et al. 707/531
5,732,229	A		3/1998	Dickinson 345/764
5,761,656	A		6/1998	Ben-Shachar 707/4
5,781,189	A		7/1998	Holleran et al. 345/826
5,793,972	A		8/1998	Shane 709/219
5,794,228	A		8/1998	French et al.
5,794,259	A		8/1998	Kikinis 707/507
5,799,302	A		8/1998	Johnson et al. 707/7
5,805,886	A		9/1998	Skarbo et al. 709/318
5,815,830	A		9/1998	Anthony
5,826,257	A		10/1998	Snelling, Jr. 707/4
5,835,089	A		11/1998	Skarbo et al. 345/751
5,859,636	A		1/1999	Pandit 707/501.1
5,864,848	A		1/1999	Horvitz et al.
5,873,107	A		2/1999	Borovoy et al. 707/501.1
5,884,309	A		3/1999	Vanechanos, Jr. 707/10
5,893,093	A		4/1999	Wills 707/5
5,896,533	A		4/1999	Ramos et al. 709/217
5,907,838	A		5/1999	Miyasaka et al. 707/4
5,913,214	A		6/1999	Madnick et al. 707/10
5,924,090	A		7/1999	Krellenstein 707/5
5,926,808	A		7/1999	Evans et al. 707/3
5,930,471	A		7/1999	Milewski et al. 709/204
5,946,647	A		8/1999	Miller et al.
5,999,938	A		12/1999	Bliss et al.
6,006,218	A		12/1999	Breese et al.
6,021,403	A		2/2000	Horvitx et al.
6,026,398	A		2/2000	Brown et al. 707/5
6,067,565	A		5/2000	Horvitz
6,085,201	A		7/2000	Tso 707/505
6,085,226	A		7/2000	Horvitz
6,182,133	B1		1/2001	Horvitz
6,223,570	B1		5/2001	Horvitz et al.
6,260,035	B1		7/2001	Horvitz et al.
6,262,730	B1		7/2001	Horvitz et al.
6,323,853	B1	*	11/2001	Hedloy 345/810

FOREIGN PATENT DOCUMENTS

EP	0093250	11/1983

OTHER PUBLICATIONS

Microsoft Word 97 Help File entitled "Automatically check spelling and grammar as you type".
Microsoft Word 97 Help File entitled "Turn automatic changes on or off".
Microsoft Word 97 Help File entitled "Automatically correct text".
Microsoft Word 97 Help File entitled "Field Codes: Hyperlink Field".
Microsoft Word 97 Help File entitled "Change the contents of an AutoCorrect entry".
Wood, Andrew, et al., CyberDesk: Automated Integration of Desktop and Network Services, GVU Technical Report, OIT-GVU-97-11, May 1997.
Gregory D. Abowd, Anidn Dey and Andy M. Wood, Applying Dynamic Integration as a Software Infrastructure for Context-Aware Computing, GVU Technical Report, GIT-GVU-97-18, Sep. 1997.
Gregory D. Abowd, Anind Dey, Robert Orr and Jason Brotherson, Context-awareness in wearable and ubiquitous computing, GVU Technical Report, GIT-GVU-97-11, Mar. 1997.
Apple Data Detectors User's Manual, Jul. 1, 1997.
Apple Internet Address Detector User's Manual, Aug. 28, 1997.
Apple Introduces Internet Address Detectors, Sep. 8, 1997.
Contextual Menu Manager/Apple Data Detectors.
CoStar User Manual for AddressMate and AddressMate Plus.
Ctags (UNIX Command).
Anind K. Dey and Gregory D. Abowd, CyberDesk: The Use of Perception in Context-Aware Computing, PUI Workshop Submission, Proc. of 1997 Workshop on Perceptual User Interfaces (PUI '97), pp. 26-27, Oct. 1997.
Anind K. Dey, Context-Aware Computing: The CyberDesk Project, Future Computing Environments, AAAI '98 Spring Symposium, Stanford University, pp. 51-55, Mar. 23-25, 1998.
Anind K. Dey, Gregory D. Abowd and Andrew Wood, CyberDesk: a framework for providing self-integrating context-aware services, Knowledge-Based Systems, vol. 11, No. 1, pp. 3-13, Sep. 1998.
Anind K. Dey, Gregory D. Abowd, Mike Pinkerton and Andrew Wood, CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, GVU Technical Report, GIT-GVU-97-10, May 1997.
L. Nancy Garrett, Karen E. Smith and Norman Meyrowitz, Intermedia: Issues, Strategies, and Tactics in the Design of a Hypermedia Document System, (c) 1986, pp. 163-174.
Eve Wilson, Links and Structures in hypertext databases for law, Proceedings of the First European Conference on Hypertext, INRIA, Nov. 1990.
Mike Langberg, 'Innovation is at the heart of what we do', Apple breaks new ground by displaying what's on its drawing board, Mercury News, Aug. 7, 1996, pp. 1-2.
Henry Lieberman, Bonnie A . Nardi and David Wright, Training Agents to Recognize Text by Example, Proc. of the Third4Annual Conference on Autonomous Agents, Seattle, WA, pp. 116-122, 1999.
User's Guide, Microsoft Word 6.0, for Windows and Macintosh.
Bonnie A. Nardi, James R. Miller and David J. Wright, Collaborative, Programmable Intelligent Agents, Website, Mar. 1998, pp. 1-11.
Milind S, Pandit and Sameer Kalbag, The Selection Recognition Agent: Instance Access to Relevant Information and Operations, Proc. of Intelligent User Interfaces 1997, Orlando, FL, 1997.
Spell, iSpell Spellout.
WikiWikiWeb.
United States Court of Appeals for the Federal Circuit, Appeal From the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Judge Ernest C. Torres. Brief for Defendant-Cross Apellant Frank E. Scherkenbach Jul. 7, 2005.
United States District Court for the District of Rhode Island, 02-CV-343 (ECT) Defendant Microsoft Corporation's Motion for Judgement as a Matter of Law That the '853 Patent is Invalid, Oct. 15, 2004.
United States District Court of Rhode Island, CIV. A. No. 02-CV-343 (ECT), Plaintiffs' Reply Memorandum in Support of Their Motion for New Trial.Francis A. Connor. Nov. 4, 2004.
United States Court of Appeals Federal Circuit, Brief for Plaintiff-Apellant, Frank E. Scherkenbach, Sep. 2, 2005.
United States District Court for the District of Rhode Island 02-CV-343 (ECT). Memorandum in Support of Defendant Microsoft Corporation's Opposition to Arendi's Motion for a New Trial. Patricia A. Sullivan, Oct. 27, 2004.
United States Court of Appeals for the Federal Circuit. Appeal From the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Brief of Plaintiffs-Appellants Arendi U.S.A., Inc. and Arend Holding Limited. Donald R. Dunner, Apr. 25, 2005.
United States Court of Appeals for the Federal Circuit, Appeal From the United States District Court for the District of Rhode Island in Case No. 02-CV-343, Reply Brief for Defendant-Cross Appellant. Frank E. Scherkenbach, Oct. 3, 2005.
United States District Court for the District of Rhode Island, Order Denying Defendant Microsoft Corporation's Motion for Judgment as

a Matter of Law That the '853 Patent is Invalid, C.A. No. 02-343T. Ernest C. Torres, Chief Judge, Nov. 30, 2004.
United States District Court for the District of Rhode Island. C.A. 02-343T. Order Denying Plaintiffs' Motion for New Trial. Ernest C. Torres, Chief Judge, Nov. 30, 2004.
Addressmate Automatic Envelope Addressing Program, User's Manual, 1991.
Peter Brown, Unix Guide, 1995.
N.D. Beitner, et al, Multimedia Support and Authoring in Microcosm: an extended model.
Lee E. McMahon, SED—A Non-interactive Text Editor, Bell Laboratories, Aug. 15, 1978.
SED(1), BSD Reference Manual Page.
AddressMate for Windows, Version 2.0, Product Box and License Agreement.
AddressMate Incorproates Correction Capability, The New York Law Publishing Company, Jan. 1996.
Lawrence J. Magid, Addressing the Matter of Labels, Los Angeles Times, Sep. 23, 1996.
Mar. 1996 Reviews, website available at www.techweb.com/winmag/library/1996/0396/03rvh002.htm.
Important Note for New AddressMate Users.
Important Tips for LabelWriter Owners Using AddressMate.
Adressing the Issues, Jun. 24, 1993.
AddressMate Advertisement "Whye Do it the Olde Way".
Philip Robinson, The Envelope, Please: It's AddressMate, San Jose Mercury News, Sunday, Jul. 19, 1992.
Steve Supkoff, AddressMate, PCM, Aug. 1992.
L.R. Shannon, Addressing Envelopes, The New York Times, Tuesday, Jul. 14, 1992.
Rob Schwabach, Addressing for Success, On Computers column, Mar. 16, 1992.
INFOWORLD, p. 15, Mar. 16, 1992.
Ken Hart, Simplify Envelope Printing with AddressMate, Computer Shopper.
Colvin's beta-testing of Addressmate sparks developer's appreciation, Westview, Apr. 6, 1992.
Press Release:AddressMate Software Automatically Addresses and bar Codes Envelopes to Save Time and money, Mar. 9, 1992.
Gearoge M> Long, Letter to Mr. David Block, Nov. 11, 1994.
Philip J. Damiano, Letter to Mr. David Block, Jan. 5, 1994.
AddressMate for Windows, Advertisement.
AddressMate Plus, Advertisement.
Ed Kahn, Envelope Addressing Finally Simplified AddressMate Does Addressing and Much More, Microtimes, Nov. 27, 1995.
Kirsten Bernthal, LabelWriter XL Plus, PC Catalog, Aug. 18, 1995.
David Plotkin, Address for Success, Bay Area Computer Currents, p. 36-38, Mar. 21, 1995.
Address Fixer for Microsoft Word and office, Product Box.
AddressMate Plus, Product Box and License Agreement.
Getting Results with Microsoft Office for Windows 95, Version 7.0, 1995.
Getting Results with Microsoft Office 97, copyright 1995-1997.
Microsoft Word, User's Guide, Verison 6.0, copyright 1993-1994.
Apple Internet Address Detectors User's Manual, copyright 1997.
CTAGS(1) Manual Page.
Eve Wilson, Links and Structures in Hypertext Databases for Law, in Hypertext: Concepts, Systems and Applications, Proceedings of the First European Conference opn Hypertext, Nov. 1990.
Matt Bernstein, An Apprentice that Discovers Hypertext Links.
Contextual Menu Manager/Apple Data Detectors.
Eve Wilson, Guiding Lawyers: Mapping Law into Hypertext, Artificial Intelligence Review 6, pp. 161-189, 1992.
P.J. Brown et al, A Help System Based on UNIX Man Pages.
Charles H. Franke III et al, Authoring a Hypertext Unix Help Manual, 1995.
P.J. Brown, Guide User Manual, 1985, sixteenth impression, Apr. 1995.
E. Wilson, Cases for Justus: Preparing a Case Database for a Hypertext Information Retrieval System, Literary and Linguistic COmputing, vol. 5, No. 2, 1990.
John Robertson, et al, The Hypermedia Authoring Research Toolkit, ECHT 194 proceedings, pp. 177-185.
Mike Langberg, Apple Breaks New Ground by Displaying What on its drawing board, Aug. 7, 1996.
What is Wiki and Wiki History webpages, available at wiki.org/wiki.cgi?WhatIsWiki and www.c2.org/cgi/wiki?WikiHistory.
E.Wilson, Integrated Information Retrieval for Law in a Hypertext Environment, Annual ACM Conference on Research and Development in information Retrieval, 1988.
Multimedia Hyperlinks Automatically Created for Reference Documents, Research Disclosure, Jun. 1993.
Wiki Wiki Origin.
Joy-Lyn Blak, WikiWikiWeb, Computer World, Jan. 29, 2001.
Microsoft's Supplemental Responses to Arendi's Interrogatories, in *Arendi U.S.A. et al* v. *Microsoft Corporation*, Civil Action 02-CV-343 (ECT) from United States District Court for the District of Rhode Island.
Apple Introduces Internet Address Detectors, Press Release, Sep. 7, 1997.
Cara Cunningham, Apple Kicks Off Macworld with talk of revival, new software demos, InfoWorld Electric, Aug. 7, 1996.
James Staten, Apple Looks to the Future, MacWeek, Aug. 7, 1996.
Mark Simmons, Striking a Key Note, Mac Addict Online, Aug. 8, 1996.
Jim Miller, email regarding Apple Data Detectors, Jan. 8, 1997.
Apple Data Detectors web page, Jan. 6, 1997.
Apple Data Detectors—Now Shipping web page, Jan. 6, 1997.
The Apple Data Detectors FAQ, Jan. 6, 1997.
Apple Data Detector Webpages, available on web.archive.org/web/20020601164217/www.apple.com/applescript/data_detectors.
Apple Data Detectors 1.0.2 Read Me.
Developer's Guide to Apple Data Detectors, Dec. 1, 1997.
AppleScript Editors, Utilities & Environments, available at www.applescriptsourcebook.com/links/applescripteditors.html, dated Jan. 11, 2004.
eMailman Internet Address Detectors.
Steve Tannehill, News from Jul. 1997.
Contol-Click! The Archive.
Contextual Menus: One of System 8's Greatest Features, in ApplePress.
Contextual Menu Manager/Apple Data Detectors, available at web.archive.org/web/20020803063750/www.macemail.com/emailer/CEMH/contextual.shtml.
Trygve's CMM Plug-Ins Homer, available at web.archive.org/web/19980130053511/www.bombaydigital.com/cmms.
ADD Depot, available from web.archive/web/20000819091818/http://homepage.mac.com/mathewmiller/add.
Press Release: Apple Introduces Internet Address Detectors, Sep. 8, 1997.
MacWEEK Report, Aug. 8, 1996.
Mike Langber, Show of Potential Apple Breaks New Ground By Displaying What's on Its Drawing Board 'Innovation is at the heart of what we do', in San Jose Mercury News, Aug. 7, 1996, p. 1C.
Apple Introduces Internet Address Detectors, Newsbytes, Sep. 29, 1997.
Greg Williams, Strategy Mosaic: Understanding Apple's Dual OS Strategy.
Taking [control] of your Mac with System 8, The MacAuthority, Jan. 1998.
Apple Data Detectors 1.0.2, TidBITS Updates, Mar. 8, 1998.
Apple Data Detectors 1.0.2, TidBITS #419, Mar. 9, 1998.
Tonya Engst, More Context on Contexual menus, TidBITS #399, Sep. 29, 1997.
Tonya Engst, Of Mice and Menus, TidBITS #398, Sep. 22, 1997.
Charles Whaley, Will this be enough to kick-start Apple?, Computing Canada, Aug. 4, 1997.
MacOS8.com—Mac OS 8 Indepth.
A Farewell to the Apple Advanced Technology Group, SIGCHI, vol. 30, No. 2, Apr. 1998.
James R. Miller and Thomas Bonura, From Documents to Objects, in SIGCHI, vol. 30, No. 2, Apr. 1998.
Thomas Bonura and James R. Miller, Drop Zones, in SIGCHI, vol. 30, No. 2, Apr. 1998.
Bonnie A. Nardi, et al., Collaborative, Programmable Intelligent Agents, Communicaitons of the ACM, vol. 41, No. 3, Mar. 1998.

Novell GroupWise User's Guide for Windows 16-BIT, Version 5.2, 1993, MS 125993, Novell, Inc., Orem, Utah.
Novell GroupWise Webaccess User's Guide, 1998, MS 126785, Novell, Inc., Orem, Utah.
Novell GroupWise User's Guide For Windows 32-BIT, 1998, MS 126463, Novell, Inc., Orem, Utah.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.* C.A. No. 02-343T Court Transcript from 2:00pm Sep. 13, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 14, 2004, Providence RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 15, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 16, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 17, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 20, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 21, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 22, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 23, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation:, et al.*C.A. No. 02-343T Court Transcript from Sep. 27, 2004, Providence, RI.
Arendi USA, Inc., et al. vs. *Microsoft Corporation, et al.*C.A. No. 02-343T Court Transcript from Sep. 28, 2004, Proovidence, RI.

* cited by examiner

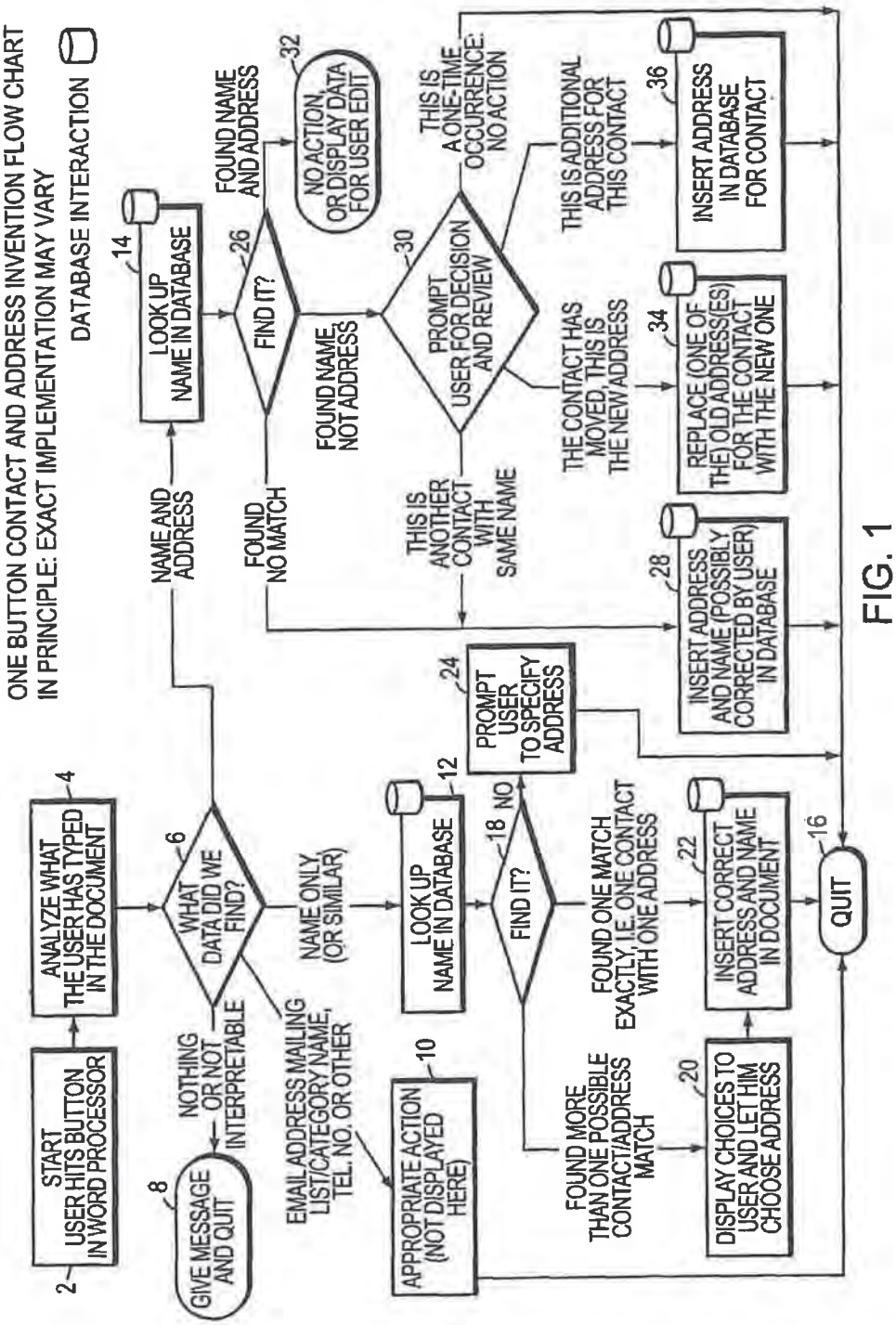

ONE BUTTON CONTACT AND ADDRESS INVENTION FLOW CHART
IN PRINCIPLE: EXACT IMPLEMENTATION MAY VARY
DATABASE INTERACTION
START USER HITS BUTTON IN WORD PROCESSOR
2
ANALYZE WHAT THE USER HAS TYPED IN THE DOCUMENT
4
WHAT DATA DID WE FIND?
6
NOTHING OR NOT INTERPRETABLE
GIVE MESSAGE AND QUIT
8
EMAIL ADDRESS MAILING LIST/CATEGORY NAME, TEL. NO. OR OTHER
APPROPRIATE ACTION (NOT DISPLAYED HERE)
10
NAME ONLY (OR SIMILAR)
LOOK UP NAME IN DATABASE
12
FIND IT?
18
NO
PROMPT USER TO SPECIFY ADDRESS
24
FOUND ONE MATCH EXACTLY, I.E. ONE CONTACT WITH ONE ADDRESS
INSERT CORRECT ADDRESS AND NAME IN DOCUMENT
22
16
QUIT
FOUND MORE THAN ONE POSSIBLE CONTACT/ADDRESS MATCH
DISPLAY CHOICES TO USER AND LET HIM CHOOSE ADDRESS
20
NAME AND ADDRESS
LOOK UP NAME IN DATABASE
14
FIND IT?
26
FOUND NAME AND ADDRESS
NO ACTION OR DISPLAY DATA FOR USER EDIT
32
FOUND NO MATCH
FOUND NAME, NOT ADDRESS
PROMPT USER FOR DECISION AND REVIEW
30
THIS IS ANOTHER CONTACT WITH SAME NAME
INSERT ADDRESS AND NAME (POSSIBLY CORRECTED BY USER) IN DATABASE
28
THE CONTACT HAS MOVED, THIS IS THE NEW ADDRESS
REPLACE (ONE OF THE) OLD ADDRESS(ES) FOR THE CONTACT WITH THE NEW ONE
34
THIS IS ADDITIONAL ADDRESS FOR THIS CONTACT
INSERT ADDRESS IN DATABASE FOR CONTACT
36
THIS IS A ONE-TIME OCCURRENCE: NO ACTION

FIG. 1

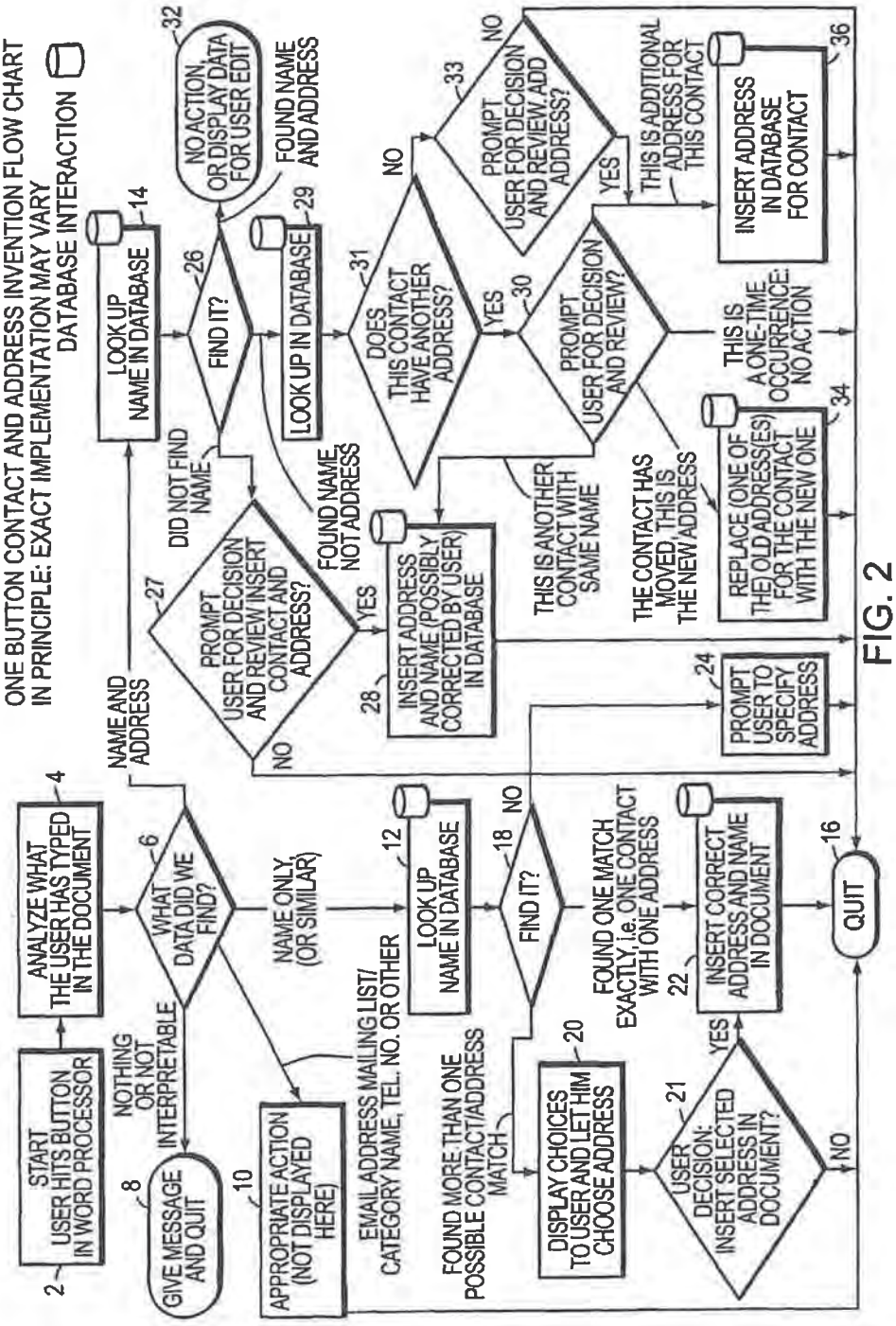

ONE BUTTON CONTACT AND ADDRESS INVENTION FLOW CHART
IN PRINCIPLE: EXACT IMPLEMENTATION MAY VARY
DATABASE INTERACTION
START USER HITS BUTTON IN WORD PROCESSOR
2
ANALYZE WHAT THE USER HAS TYPED IN THE DOCUMENT
4
WHAT DATA DID WE FIND?
6
NOTHING OR NOT INTERPRETABLE
GIVE MESSAGE AND QUIT
8
APPROPRIATE ACTION (NOT DISPLAYED HERE)
10
NAME ONLY, (OR SIMILAR)
EMAIL ADDRESS MAILING LIST/ CATEGORY NAME, TEL. NO. OR OTHER
LOOK UP NAME IN DATABASE
12
FIND IT?
18
NO
FOUND MORE THAN ONE POSSIBLE CONTACT/ADDRESS MATCH
DISPLAY CHOICES TO USER AND LET HIM CHOOSE ADDRESS
20
FOUND ONE MATCH EXACTLY, i.e. ONE CONTACT WITH ONE ADDRESS
INSERT CORRECT ADDRESS AND NAME IN DOCUMENT
22
USER DECISION: INSERT SELECTED ADDRESS IN DOCUMENT?
21
YES
NO
QUIT
16
NAME AND ADDRESS
LOOK UP NAME IN DATABASE
14
FIND IT?
26
NO ACTION, OR DISPLAY DATA FOR USER EDIT
32
FOUND NAME AND ADDRESS
DID NOT FIND NAME
LOOK UP IN DATABASE
29
FOUND NAME, NOT ADDRESS
PROMPT USER FOR DECISION AND REVIEW INSERT CONTACT AND ADDRESS?
27
YES
NO
INSERT ADDRESS AND NAME (POSSIBLY CORRECTED BY USER) IN DATABASE
28
PROMPT USER TO SPECIFY ADDRESS
24
DOES THIS CONTACT HAVE ANOTHER ADDRESS?
31
NO
YES
THIS IS ANOTHER CONTACT WITH SAME NAME
PROMPT USER FOR DECISION AND REVIEW?
30
YES
NO
THE CONTACT HAS MOVED, THIS IS THE NEW ADDRESS
REPLACE (ONE OF THE) OLD ADDRESS(ES) FOR THE CONTACT WITH THE NEW ONE
34
THIS IS A ONE-TIME OCCURRENCE: NO ACTION
PROMPT FOR DECISION AND REVIEW, ADD ADDRESS?
33
NO
YES
THIS IS ADDITIONAL ADDRESS FOR THIS CONTACT
INSERT ADDRESS IN DATABASE FOR CONTACT
36

FIG. 2

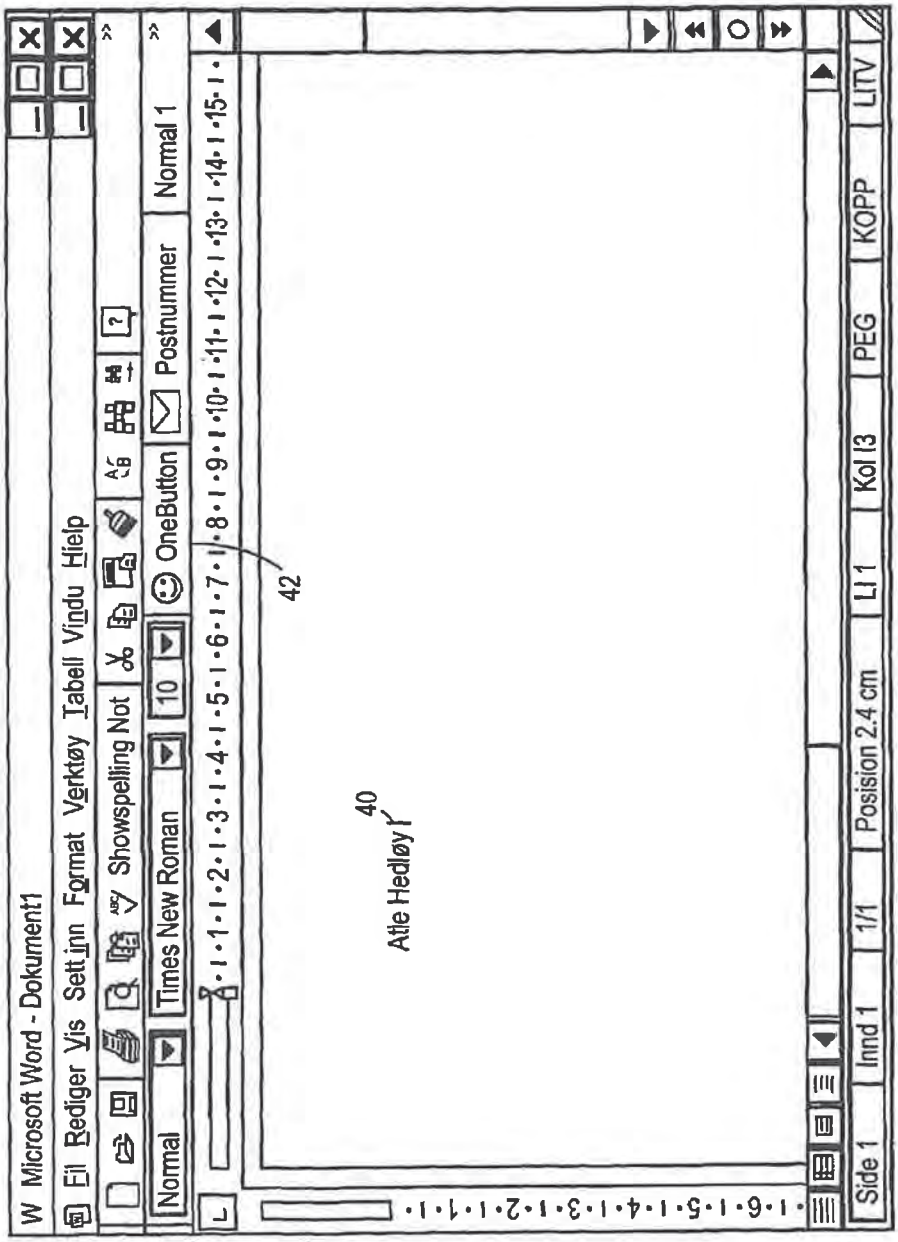

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
40
Atle Hedløy
Side 1
Innd 1
1/1
Posision 2.4 cm
Ll 1
Kol 13
PEG
KOPP
LITV

FIG. 3

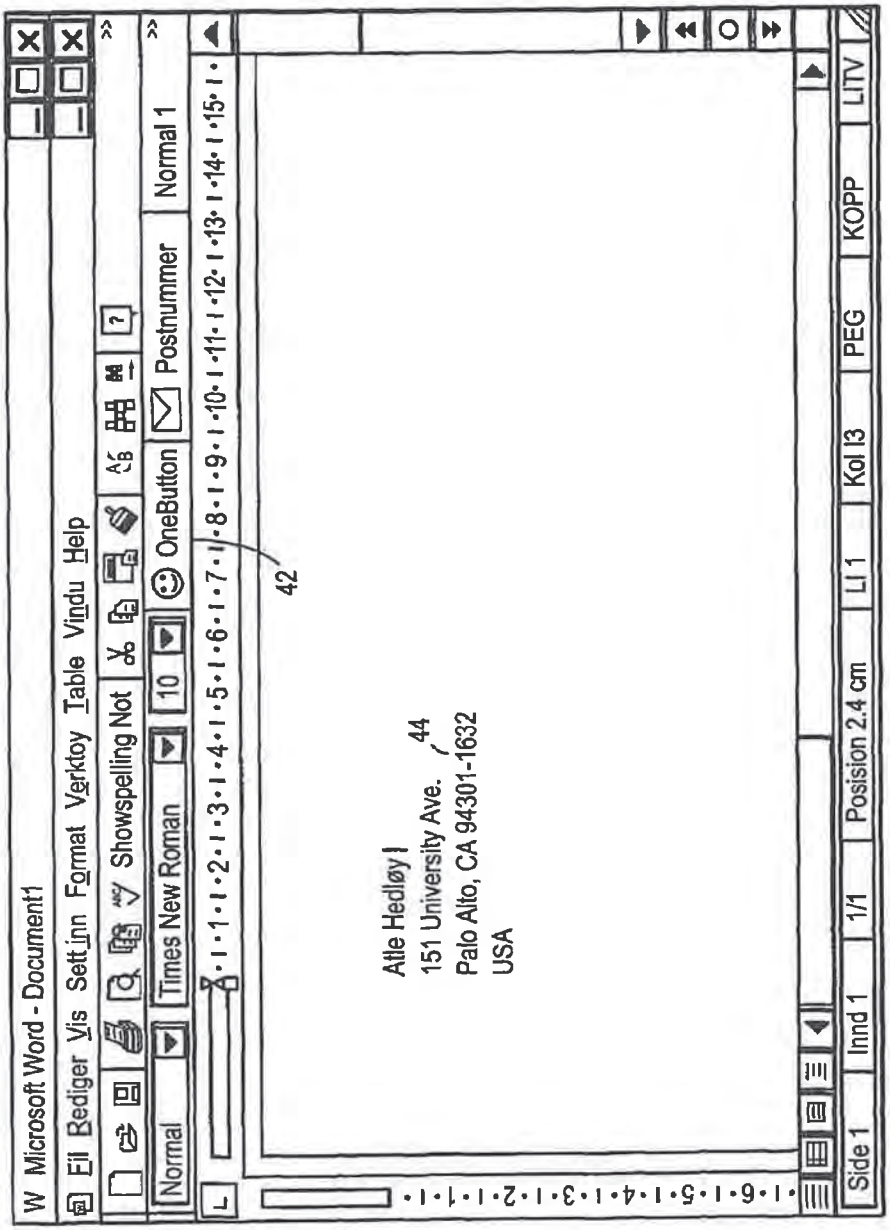

W Microsoft Word - Document1
Fil Rediger Vis Settinn Format Verktoy Table Vindu Help
Showspelling Not
Normal
Times New Roman
10
OneButton
Postnummer
Normal 1
42
Atle Hedløy
151 University Ave.
Palo Alto, CA 94301-1632
USA
44
Side 1
Innd 1
1/1
Posision 2.4 cm
LI 1
Kol 13
PEG
KOPP
LITV

FIG. 4

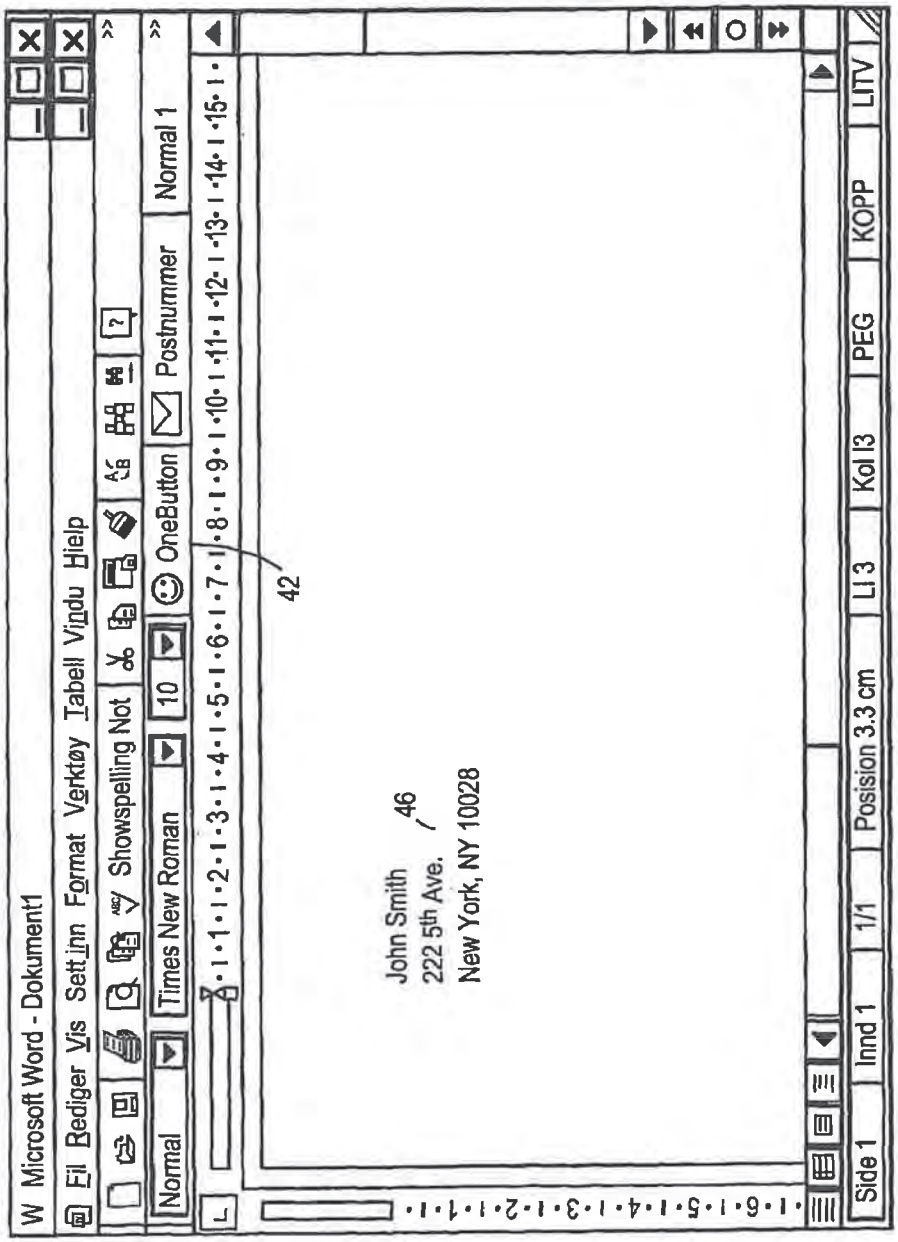

W Microsoft Word - Dokument1
Fil Rediger Vis Sett inn Format Verktøy Tabell Vindu Hjelp
Normal
Times New Roman
10
Showspelling Not
OneButton
Postnummer
Normal 1
42
John Smith
222 5th Ave.
New York, NY 10028
46
Side 1
Innd 1
1/1
Posision 3.3 cm
Ll3
Kol l3
PEG
KOPP
LITV

FIG. 5

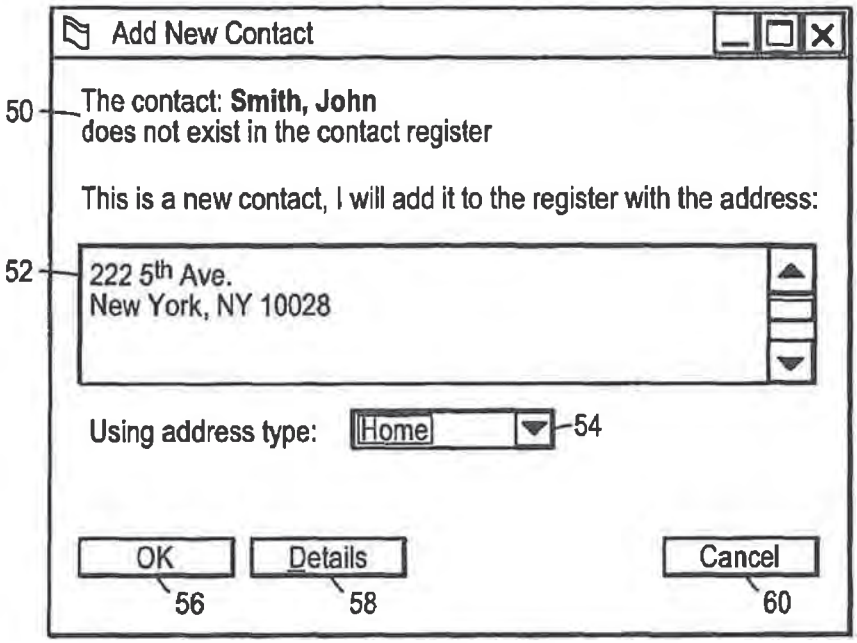

Add New Contact
50
The contact: Smith, John
does not exist in the contact register
This is a new contact, I will add it to the register with the address:
52
222 5th Ave.
New York, NY 10028
Using address type:
Home
54
OK
Details
Cancel
56
58
60

FIG. 6

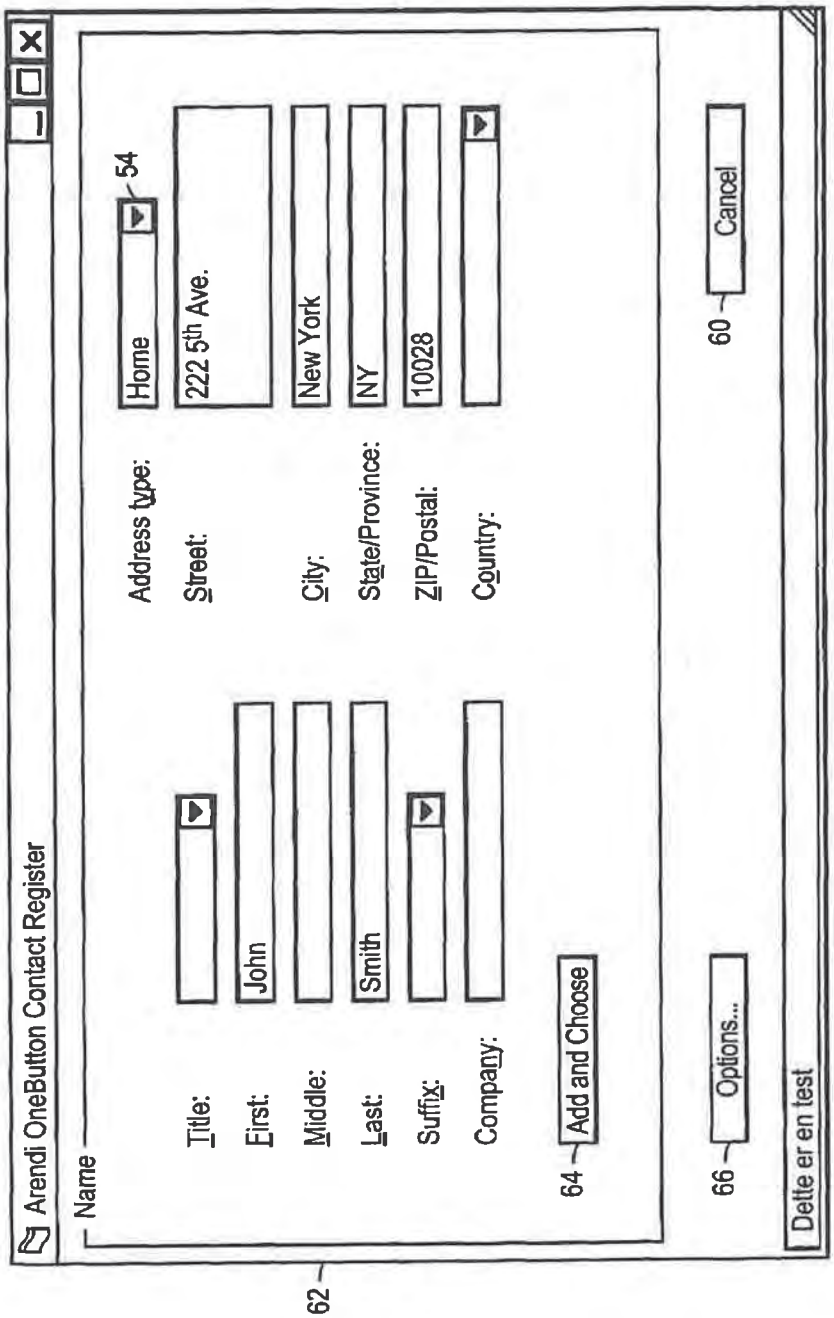

Arendi OneButton Contact Register
Name
Title:
First:
John
Middle:
Last:
Smith
Suffix:
Company:
64
Add and Choose
Address type:
Home
54
Street:
222 5th Ave.
City:
New York
State/Province:
NY
ZIP/Postal:
10028
Country:
60
Cancel
66
Options...
Dette er en test
62

FIG. 7

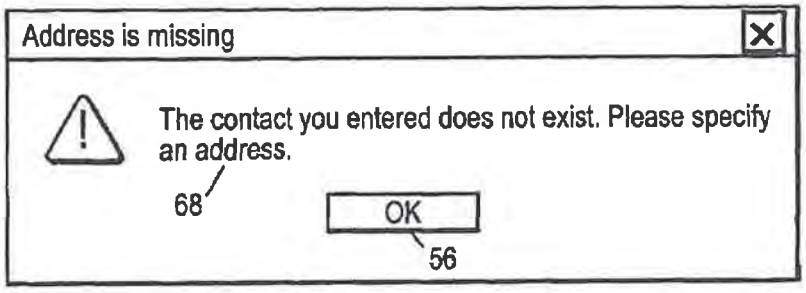

Address is missing
The contact you entered does not exist. Please specify an address.
68
OK
56

FIG. 8

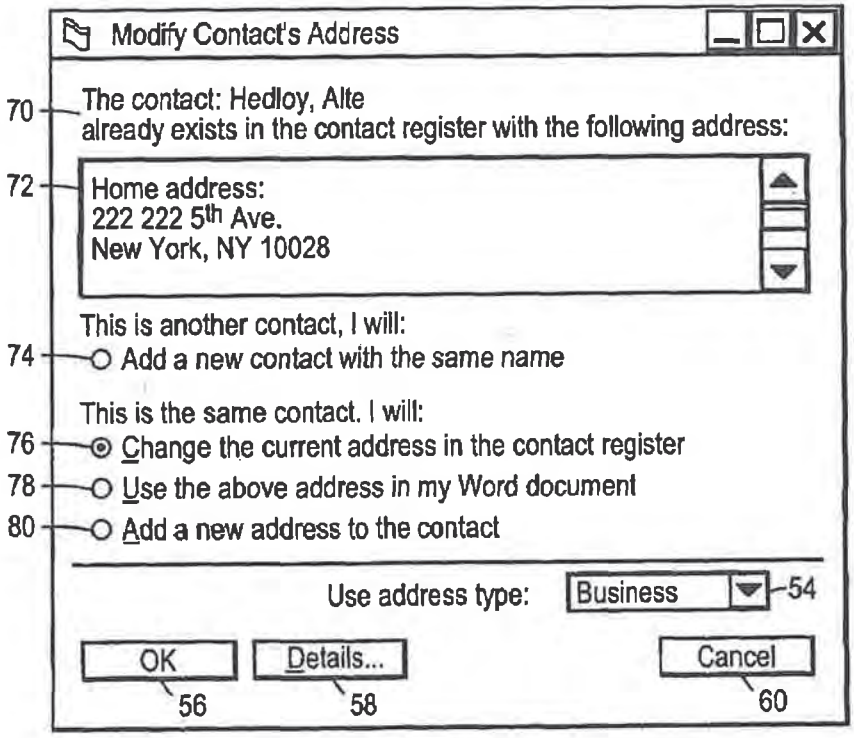

Modify Contact's Address
70
The contact: Hedloy, Alte
already exists in the contact register with the following address:
72
Home address:
222 222 5th Ave.
New York, NY 10028
This is another contact, I will:
74
Add a new contact with the same name
This is the same contact. I will:
76
Change the current address in the contact register
78
Use the above address in my Word document
80
Add a new address to the contact
Use address type:
Business
54
OK
56
Details...
58
Cancel
60

FIG. 9

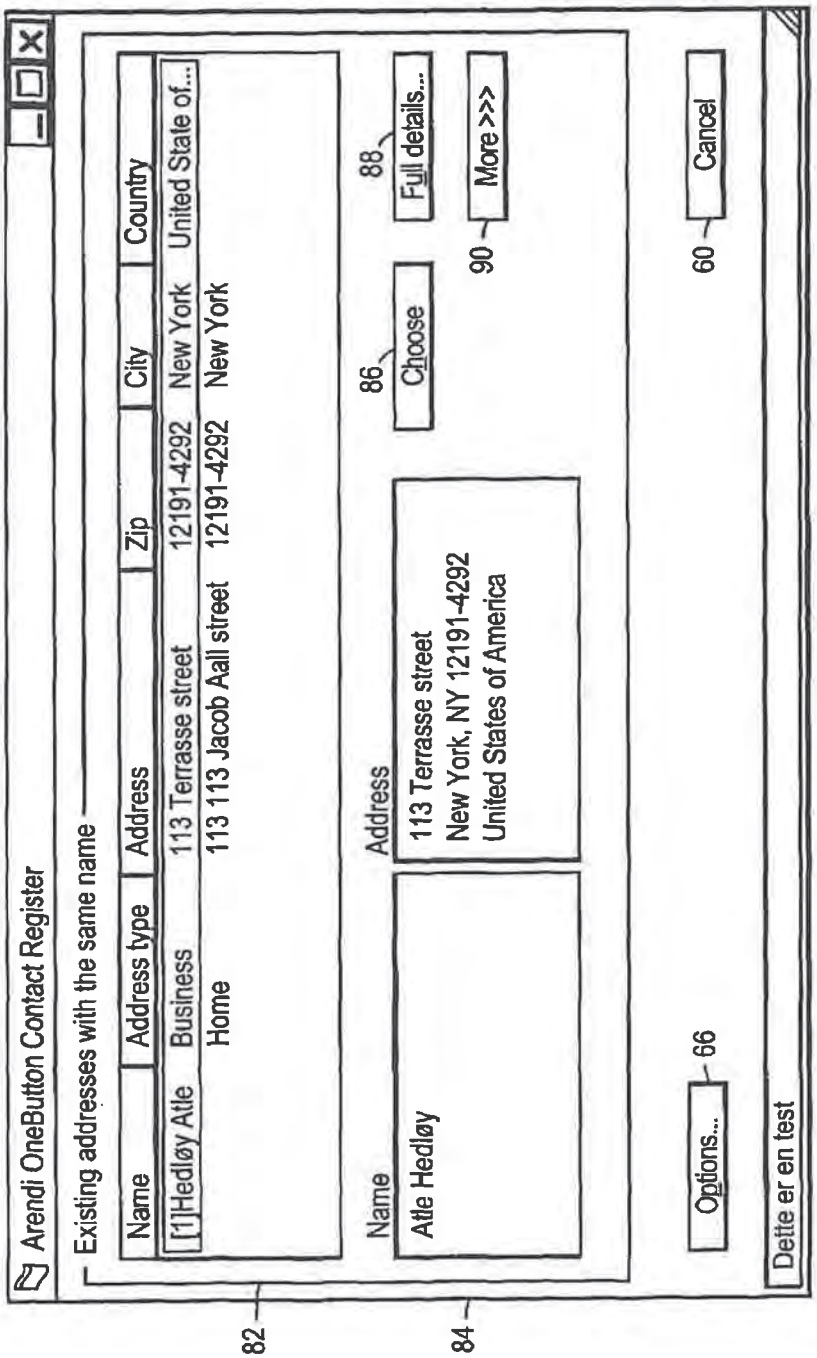

Arendi OneButton Contact Register
Existing addresses with the same name
Name
Address type
Address
Zip
City
Country
[1]Hedløy Atle
Business
113 Terrasse street
12191-4292
New York
United State of...
Home
113 113 Jacob Aall street
12191-4292
New York
Name
Atle Hedløy
Address
113 Terrasse street
New York, NY 12191-4292
United States of America
86
Choose
88
Full details...
90
More >>>
Options...
66
60
Cancel
Dette er en test
82
84

FIG. 10

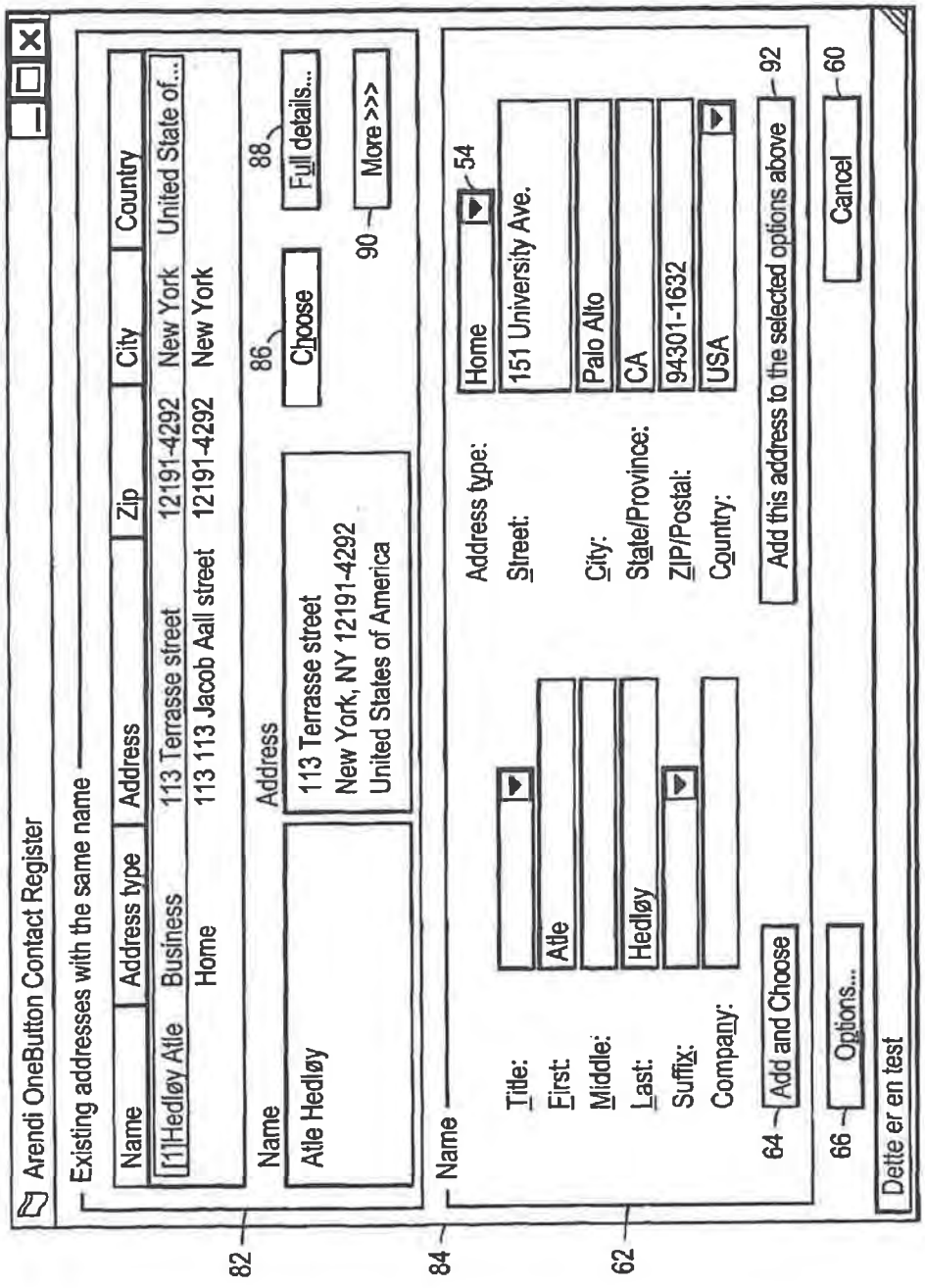

Arendi OneButton Contact Register
Existing addresses with the same name
Name
Address type
Address
Zip
City
Country
[1]Hedløy Atle
Business
113 Terrasse street
12191-4292
New York
United State of...
Home
113 113 Jacob Aall street
12191-4292
New York
82
Name
Atle Hedløy
Address
113 Terrasse street
New York, NY 12191-4292
United States of America
86
Choose
88
Full details...
90
More >>>
84
Name
Title:
First:
Middle:
Last:
Suffix:
Company:
Atle
Hedløy
62
64
Add and Choose
66
Options...
Address type:
Street:
City:
State/Province:
ZIP/Postal:
Country:
54
Home
151 University Ave.
Palo Alto
CA
94301-1632
USA
Add this address to the selected options above
92
Cancel
60
Dette er en test

FIG. 11

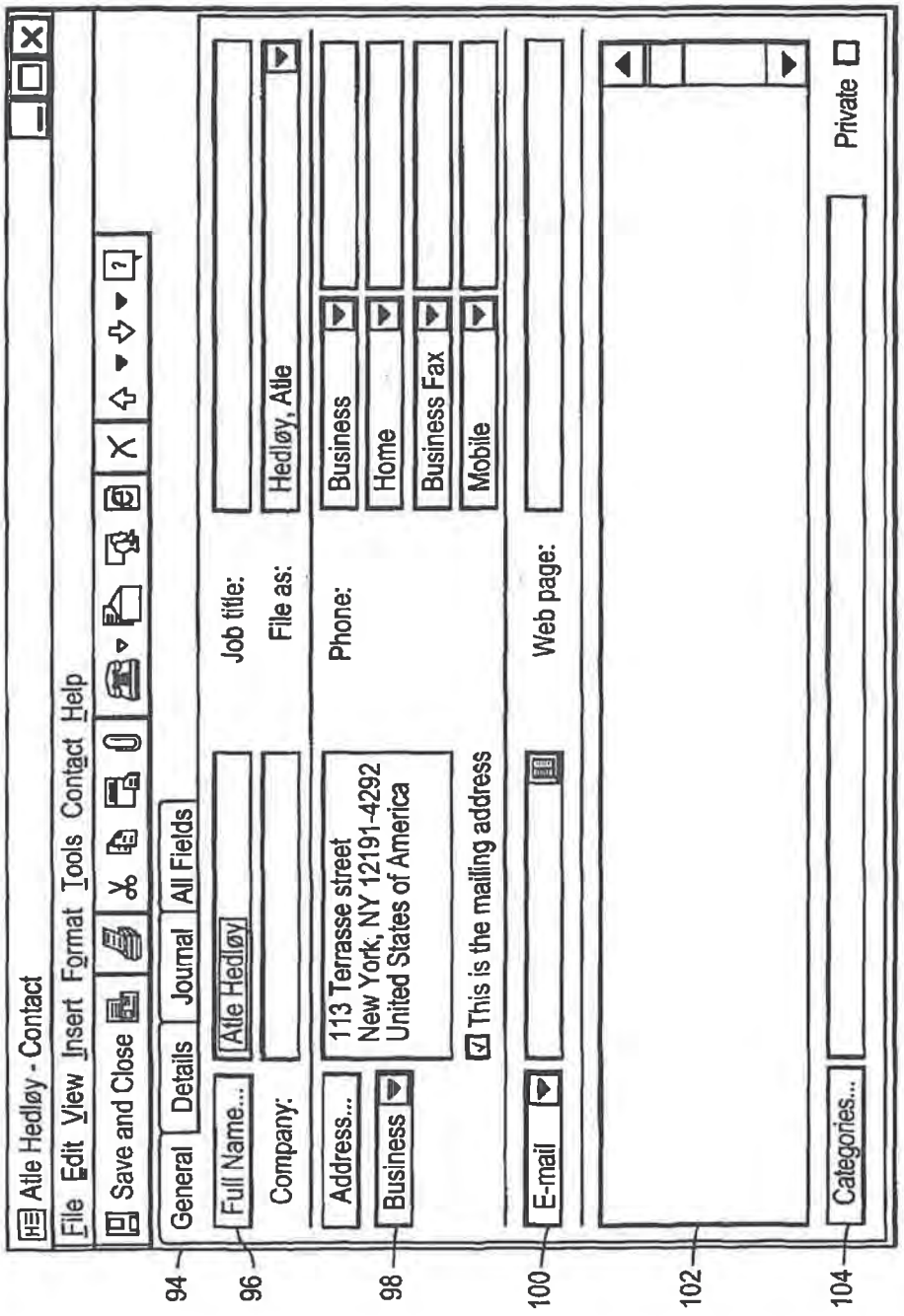

Atle Hedløy - Contact
File Edit View Insert Format Tools Contact Help
Save and Close
General
Details
Journal
All Fields
Full Name...
Atle Hedløy
Company:
Job title:
File as:
Hedløy, Atle
Address...
113 Terrasse street
New York, NY 12191-4292
United States of America
Business
Phone:
Business
Home
Business Fax
Mobile
This is the mailing address
E-mail
Web page:
Categories...
Private
94
96
98
100
102
104

FIG. 12

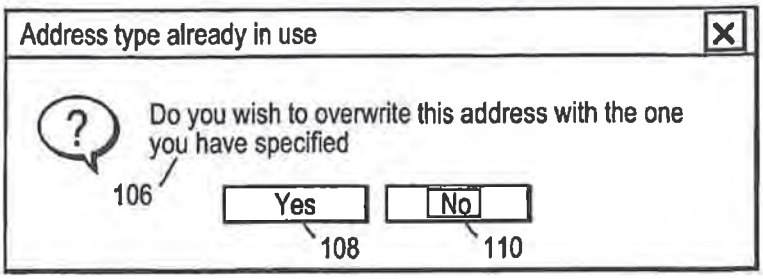

Address type already in use
Do you wish to overwrite this address with the one you have specified
106
Yes
No
108
110

FIG. 13

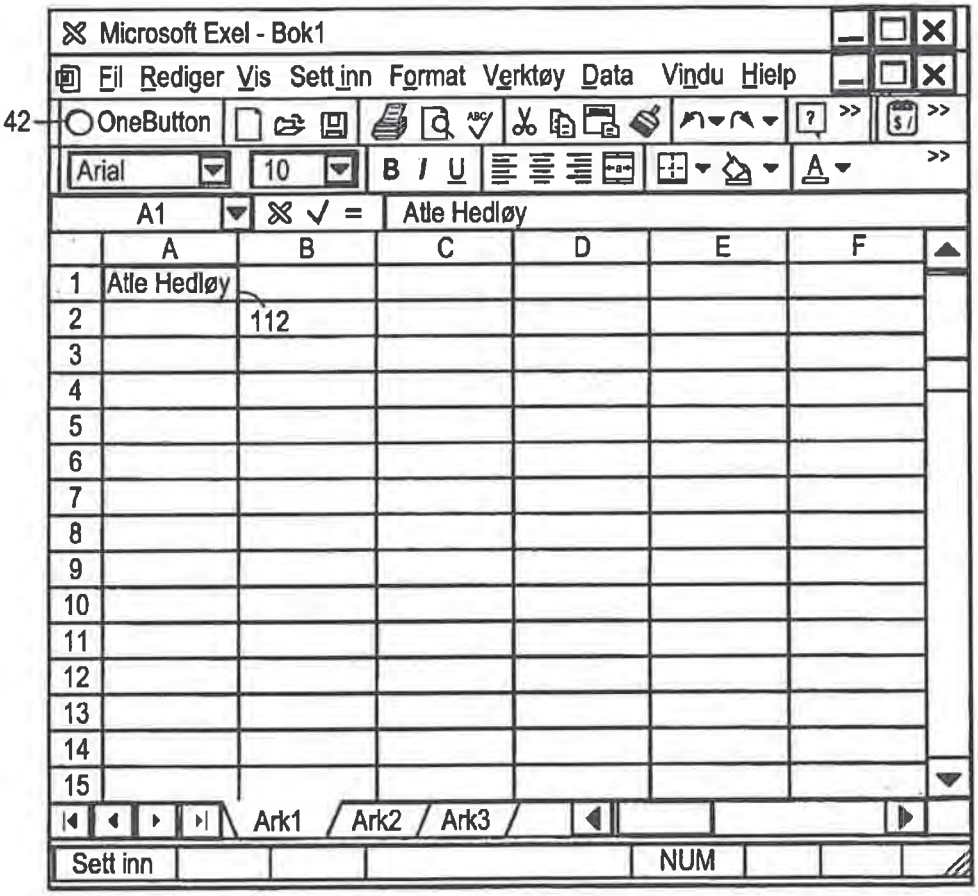

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hjelp
42
OneButton
Arial
10
A1
Atle Hedløy
Atle Hedløy
112
Ark1
Ark2
Ark3
Sett inn
NUM

FIG. 14

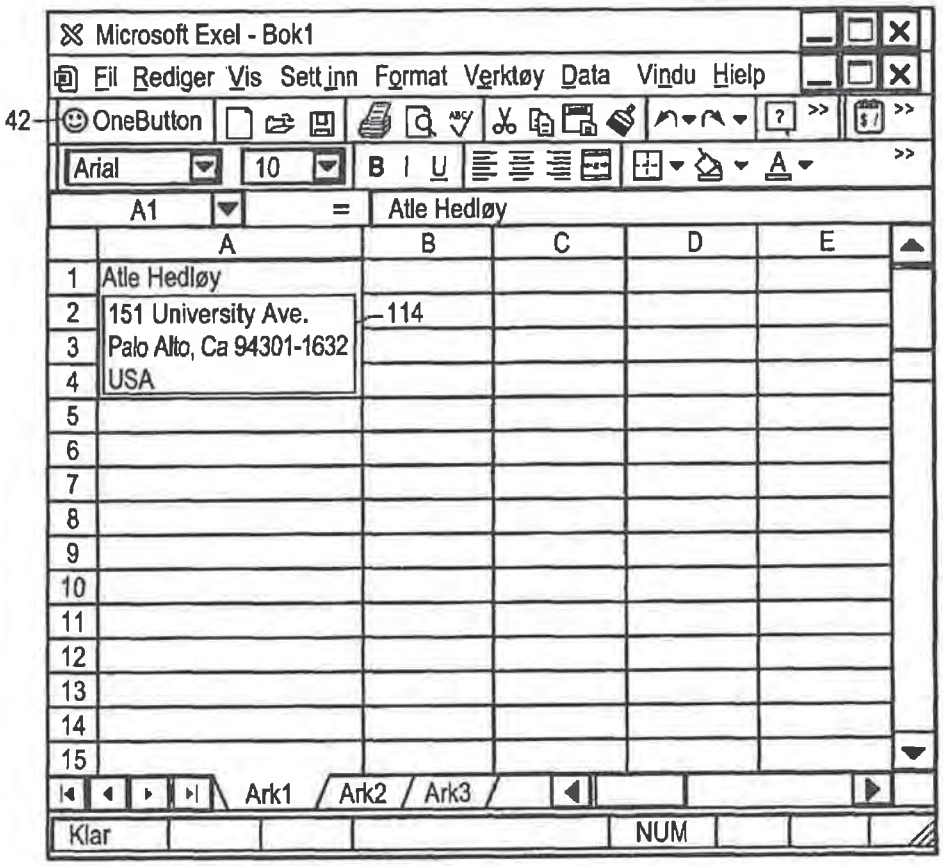

Microsoft Exel - Bok1
Fil Rediger Vis Sett inn Format Verktøy Data Vindu Hielp
42
OneButton
Arial
10
A1
=
Atle Hedløy
A
B
C
D
E
1
Atle Hedløy
2
151 University Ave.
3
Palo Alto, Ca 94301-1632
4
USA
114
5
6
7
8
9
10
11
12
13
14
15
Ark1
Ark2
Ark3
Klar
NUM

FIG. 15

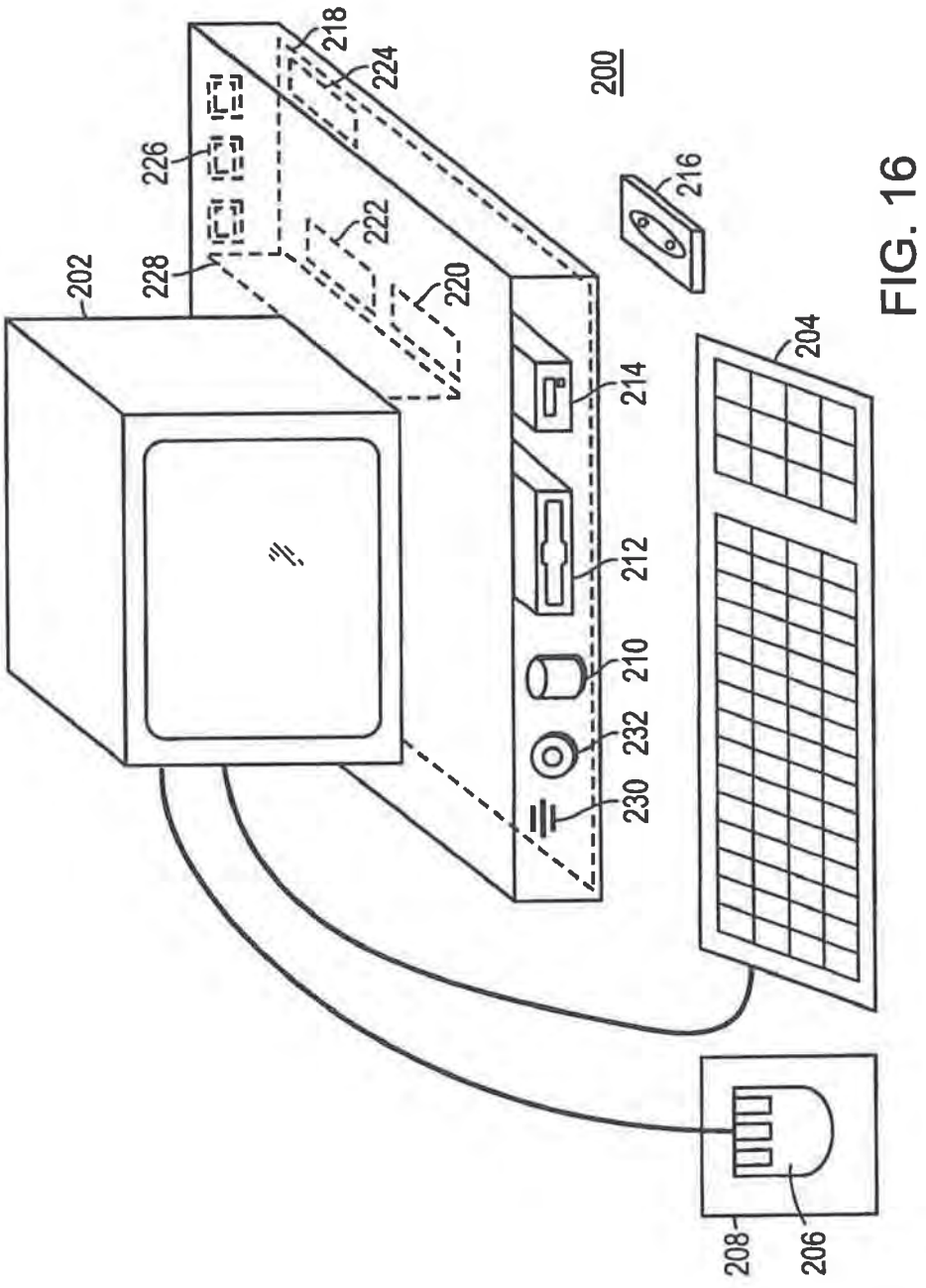

200
202
204
206
208
210
212
214
216
218
220
222
224
226
228
230
232

FIG. 16

METHOD, SYSTEM AND COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is a continuation of commonly assigned copending U.S. patent application Ser. No. 09/189,626, which was filed on Nov. 10, 1998 now U.S. Pat. No. 6,323,853, by Hedloy for a METHOD, SYSTEM and COMPUTER READABLE MEDIUM FOR ADDRESSING HANDLING FROM A COMPUTER PROGRAM and is hereby incorporated by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a method, system and computer readable medium for name and address handling (hereinafter called "address handling"), and more particularly to a touch screen, keyboard button, icon, menu, voice command device, etc. (hereinafter called "button") provided in a computer program, such as word processing program, spreadsheet program, etc., and coupled to an information management source for providing address handling within a document created by the computer program.

2. Background Information

In recent years, with the advent of programs, such as word processors, spreadsheets, etc. (hereinafter called "word processors") users may require retrieval of information, such as name and address information, etc., for insertion into a document, such a letter, fax, etc., created with the word processor. Typically, the information is retrieved by the user from an information management source external to the word processor, such as a database program, contact management program, etc., or from the word processor itself, for insertion into the document. Examples of such word processors are WORD™, NOTEPAD™, EXCEL™, WORDPAD™, WORDPERFECT™, QUATROPRO™, AMIPRO™, etc., and examples of such information management sources are ACCESS™, OUTLOOK™, ORACLE™, DBASE™, RBASE™, CARDFILE™, etc.

However, the information in the database must constantly be updated by the user. This requires the user to learn how to use and have access to the database. In this case, a change in the information, such as change in address or a name, etc., requires the user of the word processor to implement this change in the database, or alternatively, the change is made to the database centrally by a database administrator.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device provided in the computer program.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device, such as a touch screen, keyboard button, icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source.

Another object of the present invention is to provide a method, system and computer readable medium for address handling within a computer program, such as a word processing program, spreadsheet program, etc., using an input device such as a touch screen, keyboard button icon, menu, voice command device, etc., provided in the computer program and coupled to an information management source, such as a database program, contact management program, etc.

The above and other objects are achieved according to the present invention by providing a novel method, system and computer readable medium for providing a function item, such as a key, button, icon, or menu, tied to a user operation in a computer, whereby a single click on the function item in a window or program on a computer screen, or one single selection in a menu in a program, initiates retrieval of name and addresses and/or other person or company related information, while the user works simultaneously in another program, e.g., a word processor. The click on the function item initiates a program connected to the button to search a database or file available on or through the computer, containing the person, company or address related data, in order to look up data corresponding to what the user types, or partly typed, e.g., name and/or address in the word processor, the correct data from the database, data related to the typed data, e.g., the name of the person, company, or the traditional or electronic address, or other person, or company, or address related data, and alternatively the persons, companies, or addresses, are displayed and possibly entered into the word processor, if such related data exists.

The present invention also includes a computer readable medium storing program instructions by which the method of the invention can be performed when the stored program instructions are appropriately loaded into a computer, and a system for implementing the method of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention description below refers to the accompanying drawings, of which:

FIG. **1** is a flow chart illustrating a method for address handling within a computer program, according to an exemplary embodiment of the present invention;

FIG. **2** is a flow chart illustrating a method for address handling within a computer program, according to another exemplary embodiment of the present invention;

FIG. **3** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **4** is a screen shot illustrating a retrieved address in a word processor, according to an exemplary embodiment of the present invention;

FIG. **5** is a screen shot illustrating the inputting of a name and address to be searched and an address handling button within a word processor, according to an exemplary embodiment of the present invention;

FIG. **6** is a screen shot illustrating an add new contact message window, according to an exemplary embodiment of the present invention;

FIG. **7** is a screen shot illustrating a contact register message window, according to an exemplary embodiment of the present invention;

FIG. **8** is a screen shot illustrating an address missing message window, according to an exemplary embodiment of the present invention;

FIG. **9** is a screen shot illustrating a modify contact's address message window, according to an exemplary embodiment of the present invention;

FIG. **10** is a screen shot illustrating a select a contact address register message window, according to an exemplary embodiment of the present invention;

FIG. **11** is a screen shot illustrating a more detailed mode of registering an additional address for the contact register of FIG. **9**, according to an exemplary embodiment of the present invention;

FIG. **12** is a screen shot illustrating a contact management program window in a full detailed mode, according to an exemplary embodiment of the present invention;

FIG. **13** is a screen shot illustrating an address already in use message window, according to an exemplary embodiment of the present invention;

FIG. **14** is a screen shot illustrating the inputting of a name to be searched and an address handling button within a spreadsheet, according to an exemplary embodiment of the present invention;

FIG. **15** is a screen shot illustrating a retrieved address in a spreadsheet, according to an exemplary embodiment of the present invention; and

FIG. **16** is a schematic illustration of a general purpose computer for performing the processes of the present invention, according to an exemplary embodiment of the preis sent invention.

DETAILED DESCRIPTION OF AN ILLUSTRATIVE EMBODIMENT

In an embodiment of the present invention, single button addressing is a achieved by providing an input device, such as a touch screen, keyboard, icon, menu, voice command device, etc. (hereinafter called "button"), in a computer program, such as a word processing program, spreadsheet program, etc. (hereinafter called "word processor"), for executing address handling therein.

Accordingly, in a word processor, the button is added and a user types information, such as an addressee's name, or a part of the name, etc. in a document created with the word processor, such as a letter, fax, etc., and then clicks, selects, commands, etc. the button via the appropriate input device, such as a touch screen button, keyboard button, icon, menu choice, voice command device, etc. A program then executes and retrieves the typed information from the document, and searches an information management source, such as a database, file, database program, contact management program, etc. (hereinafter called "database") to determine if the information, such as the name or part of the name typed and searched by the program exists in the database. If the program does not find stored information, such as a name, corresponding to the name or part of the name typed, the user is asked by the program whether the information, such as the name that was not found, should be added to the database. In addition, the user may enter any other information besides the name, such as addresses, businesses, telephone numbers, fax numbers, e-mail address, etc., so that this other information can be stored in the database for later use.

If the program finds name(s) and address(es) corresponding to the part of the addressee's name typed, this additional information is automatically entered into the user's word processor, optionally with a confirmation from the user that this is the correct data. If the typed address information does not correspond to data already stored in the database, after clicking on the button, the program, for example, lets the user decide: (1) if this is new data (e.g., a new address) for an existing contact; (2) if the stored data should be changed to what the user just typed; (3) if this is a new contact with the same name as the one already entered into the database; or (4) if the typed address is only to be used once, and therefore not to be stored in the database at all. If, later, for example, a name with several address stored in the database is recalled, all addresses for this contact will be displayed, so that the correct address can be selected by the user.

The program may be extended to also store and retrieve other information, such as telephone numbers, fax numbers, e-mail addresses, etc. Once the program recalls the telephone numbers, fax numbers, email addresses, etc., the user can command the program to send e-mails, faxes, etc. Similarly, if the user types in the name of a mailing list, the program create merge letters, group emails, etc.

Referring now to the drawings, wherein like reference numerals designate identical or corresponding parts throughout the several views, and more particularly to FIGS. **1** and **2** thereof, there is illustrated flow charts of single button addressing, according to exemplary embodiments of the present invention.

In FIG. **1**, after the user has inserted the address in the word processor, the user commands the button at step **2** and the program analyzes what the user has typed in the document at step **4**. AT step **6**, the program decides what was found in the document and if the program found nothing in the document or what it found was un-interpretable the program goes to step **8** and outputs an appropriate message to the user and then quits at step **16**. The program analyzes what the user has typed in the document at step **4**, for example, by analyzing (i) paragraph/line separations/formatting, etc.; (ii) street, avenue, is drive, lane, boulevard, city, state, zip code, country designators and abbreviations, etc.; (iii) Mr., Mrs., Sir, Madam, Jr., Sr. designators and abbreviations, etc.; (iv) Inc., Ltd., P.C., L.L.C, designators and abbreviations, etc.; and (v) a database of common male/female names, etc.

If the program find an e-mail address mailing list/category name telephone number or other information, at step **10** an appropriate action is performed by the program and then the program execution quits at step **16**. If the program only finds a name or initials, or the like, the program looks up the name in the database at step **12** and at step **18** the program determines what was found. If the program finds more than one possible contact/address match, at step **20** the program displays menu choices to the user to let him choose an appropriate answer. Then at step **22** the program inserts a correct address and name in the document and then at step **16** the program quits execution. If the program finds one match exactly, i.e., one contact with one address, the program inserts the correct address and name in the document at step **22** then quits and then quits execution at step **16**. If the program does not find a name in the database, at step **24** the program prompts the user to specify an address and then quits execution at step **16**. If the program at step **6** finds a name and an address, at step **14** the name is looked up in the database. Then, at step **26**, if no match is found, at step **28** the program inserts an address and a name which are possibly corrected by the user into the database and then quits execution at step **16**. If at step **26**, the name and address is found, at step **32** the program either takes no action or displays the data for the user to edit. If at step **26**, the name is found but not the address, the program prompts the user for a decision at step **30**. If the user decides that this is another contact with a same name, the program goes to step **28**. If the is user decides that this is a one

time occurrence, no action is taken and the program quits at step **16**. If the user decides that the contact has, for example, moved and that this is a new address, at step **34** one of the old addresses for the contact is replaced with the new one and the program with the new one and the program quits at step **16**. If the user decides that this is an additional address for the contact, at step **36** the additional address is inserted into the database for that contact and execution quits at step **16**.

The flowchart shown in FIG. **2** is similar to the flowchart in FIG. **1**, except for some additional steps which will now be discussed. At step **6**, if the program only finds a name or a similar name then the name is looked up in the database at step **12**, then at step **18** if the program found more than one possible contact/address match, the program displays choices to the user to let him choose an address at step **20**. Then at step **21** the user decides whether to insert the selected address into the document. If the user does not decide to select the address into the document the program quits execution at step **16**. If the user decides to insert the selected address into the document the program inserts the address and name into the document at step **22** and then quits at step **16**.

If the program finds a name and address in the database at step **6**, then at step **14** the program looks up the name in the database and at step **26** the program determines what it has found. If the program does not find the name at step **26**, at step **27** the program prompts the user for a decision and review and whether to insert the contact and address. If the user does not decide to insert the contact address, the program quits at step **16**. If the user decides to insert the contact address, at step **28** the program inserts the address and name which may be possibly corrected by the user for program in the database then execution quits at step **16**.

If at step **26** the program finds a name and not an address, then at step **29** the name is looked up in the database. Then at step **31** the program decides whether this contact has another address. If the contact does not have another address, at step **33** the program prompts the user for a decision and review and whether to add the address. If the user does not want to add the address at step **33**, the program quits at step **16**. If the user wants to add the address at step **33** because this is an additional address for the contact, at step **36** the address is inserted in the database for the contact and execution quits at step **16**.

At step **30**, if the user decides that this is another contact with the same name, then the program goes to step **28**. If at step **30** the user decides that this is a one time occurrence, then the program quits at step **16**. If at step **30**, the user decides that the contact has, for example, moved, the program goes to step **34**. If at step **30**, the user decides that this is an additional address for the contact, at step **36** the program inserts the address in the database for the contact and then quits at step **16**.

Various exemplary screen shots which are generated during execution of the program, according to the present invention, will now be described with reference to FIGS. **3-15** and examples 1-7 as follows.

Example 1

Retrieving an Existing Address from the Database

FIG. **3** illustrates a starting point in word processor document such as WORD document, wherein the user has typed a name **40**. The user hits the button **42**, for example, marked "OneButton" and the program according to the present invention retrieves the name **40** from the document, searches a database for the name **40**, and inserts the retrieved address **44** associated with the name **40** into the document as shown in, for example, FIG. **4**.

The above example corresponds to steps **2, 4, 6, 12, 18, 22** and **16** in the flow charts of FIGS. **1** and **2**.

Example 2

Adding a New Contact to the Database

FIG. **5** illustrates a starting point in word processor document such as WORD document, wherein the user has typed a name and address of a new contact **46**. The user commands the button **42**, for example, marked "OneButton," and the program according to the invention retrieves the new contact **46** from the document, searches a database for the name of the new contact **46** and generates a screen as shown in, for example, FIG. **6**. This screen includes a message **50** informing the user that the new contact does not exist in the database, a message **52** including the address retrieved from the document, an address type selection **54**, such as home, business, etc., and "OK," "Details," and "Cancel" buttons **56**, **58**, and **60**, respectively.

At this point, the user can cancel the operation by commanding the Cancel button **60**, ask the program to store data in the database and return the document by commanding the OK button **56**, or check details before storing data into the database by commanding the Details button **58**. If the user commands the Details button **58**, as shown in, for example, FIG. **7**, a message screen is provided so that the user can review and edit data **62** and the selection **54**, store the data **62** and **54** in the database by commanding a "Add and Choose" button **64**, see more options by commanding an "Options" button **66**, or cancel the operation by commanding the Cancel button **60**.

The above example corresponds to steps **2, 4, 6, 14, 26, 28** and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 14, 26, 27, 28** and **16** in the flow chart of FIG. **1** and steps **2, 4, 6, 26, 27, 28** and **16** in the flow chart of FIG. **2**.

Example 3

Try to Retrieve Existing Address, But Contact is not in Database

FIG. **3** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name of a contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **40** from the document, searches a database for the name of the contact **40** and generates a screen as shown in, for example, FIG. **8**. This screen includes a message **68** informing the user that the contact does not exist in the database and to specify an address, and "OK" buttons **56**. At this point when the user commands the OK button **56**, the user returns to the document so that he contact's address can be included as in Example 2 above.

The above example corresponds to steps **2, 4, 6, 12, 18, 24,** and **16** in the flow of charts of FIGS. **1** and **2**.

Example 4

Adding a New Address for an Existing Contact (Short Version)

FIG. **4** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed

a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the same name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. This screen includes a message **70** informing the user that the contact already exists in the database with an existing address, a message **72** including the existing address, add new contact with same name selection **74**, change existing address selection **76**, use existing address in document selection **78**, add the new address contact selection **80**, the address type selection **54**, such as home, business, etc., and the "OK," "Details," and "Cancel" buttons **56**, **58** and **60** respectively. AT this point, the user may select one of the four options **74-80**, and command the OK button **56** to execute the selected options. The user can also cancel the operation by commanding the Cancel button **60**, or check details before storing data into the database by commanding the Details button **58**.

The above example corresponds to steps **2**, **4**, **6**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36**, and **16** in the flow chart of FIG. **2**.

Example 5

Selecting Between Several Possible Matching Addresses

FIG. **3** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name and possibly address of at least one existing contact **40**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **40** from the document, searches a database for the name of the existing contact **40** and generates a screen as shown in, for example, FIG. **10**. This screen includes a message informing the user the name corresponds to several addresses and possible contacts which already exist in the database, with existing contacts and addresses for selection **82**, a message **84** including the full name and address for the contact that the user selects in **82**, the Options button **66**, a "Choose" button **86**, a "Full details" button **88**, a "More>>>" button **90**, and the Cancel button **60**. The above screen indicates to the user that at least one contact with the same name exists, and that there are more than one addresses and/or contacts that match.

At this point, the user may command the Choose button **86** to use the selected address and return to the document, or the user may command the More>>> button **90** to view how the program interpreted what he user typed in the word processor, and possibly change this data, wherein the program generates an updated screen as shown in, for example, FIG. **11**. The updated screen includes the data **62** which displays the name for example, FIG. **11**. The updated screen includes the data **62** which displays the name typed in the word processor as interpreted by the program, address fields, and the fields for the address type selection **54**, such as home, business, etc., which may be changed by the user before the program stores it in the database, the Add and Choose button **64**, a "<<<Less" button **90** corresponding to the More>>> button **90** for returning to the screen of FIG. **10**, and an "Add this address to the selected contact above" button **92**. The user might then command the Add this address to the selected contact above button **92** and the result in the word processor is illustrated in FIG. **4**. The user can also cancel the operations by commanding the Cancel button **60**, or command the add choose button **64** to add this name and address as a new contact and address, or open the database before storing data into the database by commanding a "Full details" button **88** as will be later described.

The above example corresponds to steps **2**, **4**, **6**, **12**, **18**, **20**, **22**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **18**, **20**, **21**, **22**, and **16** in the flow chart of FIG. **2**.

Example 6

Adding a New Address for an Existing Contact (Long Version)

FIG. **4** illustrates a starting point in word processor document, such as WORD document, wherein the user has typed a name and new address of an existing contact **44**. The user commands the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the existing contact **44** from the document, searches a database for the name of the existing contact **44** and generates a screen as shown in, for example, FIG. **9**. As previously described the screen includes a message **70** informing the user that the contact already exists in the database with an existing address, and the user may command the Details button **58** to see the details of the new address for potentially modify the details before they are stored in the database and the program generates a screen as shown in, for example, FIG. **10**. From this screen, the user may choose to use another address than the one he typed, and return to the document, or the user may command the "Full details" button **88** to enter a database program, such as OUTLOOK™, directly as shown in, for example, FIG. **12**. In FIG. **12**, the database program, such as OUTLOOK™, may include portions **94-104** for allowing the user to modify various pieces of data before they are stored in the database.

Alternatively, in the screen shown in FIG. **10**, the user may command the More>>> button **90** at which time the program generates the screen as shown in, for example, FIG. **11** and as previously described. In this screen, the user might then command the Add this address to the selected contact above button **92**. If the address typed is already in use, the program generates a screen including a message **106**, and "Yes" and "No" buttons, **108** and **110**, respectively, as shown in, for example, FIG. **13**. If the user hits the Yes button **108** the program overwrites the contact address with the address specified by the user (e.g., if the contact has moved) and the result in the word processor is shown in, for example FIG. **4**.

The above example corresponds to steps **2**, **4**, **6**, **12**, **14**, **26**, **28**, **30**, **34**, **36**, and **16** in the flow chart of FIG. **1** and steps **2**, **4**, **6**, **12**, **14**, **26**, **29**, **31**, **30**, **28**, **34**, **36**, and **16** in the flow chart of FIG. **2**.

Example 7

Spreadsheet Application

FIG. **14** illustrates a starting point in word processor document, such as an EXCEL spreadsheet, wherein the user has typed a name **112**. The user hits the button **42**, for example, marked "OneButton," and the program according to the present invention retrieves the name **112** from the spreadsheet, searches a database for the name **112**, and inserts the retrieved address **114** into the spreadsheet as shown in, for example, FIG. **15**. Accordingly, the examples 1-6 apply not only to word processor documents, such as WORD™ documents, etc., but to other word processor documents, and spreadsheets, such as EXCEL™ spreadsheets, etc.

The above example corresponds to steps **2**, **4**, **12**, **18**, **22**, and **16** in the flow of charts FIGS. **1** and **2**.

FIG. **16** is a schematic illustration of a computer system for implementing the single button addressing according to the present invention. A computer **200** implements the method of the present invention, wherein the computer includes, for example, a display device **202**, such as a conventional display device or a touch screen monitor with a touch screen interface, etc., a keyboard **204**, a pointing device **206**, a mouse pad or digitizing pad **208**, a hard disk **210**, or other fixed, high density media drives, connected using an appropriate device bus (e.g., a SCSI bus, an Ultra DMA bus, a PCI bus, etc.), a floppy drive **212**, a tape or CD ROM drive **214** with tape or CD media **216**, or other removable media devices, such as magneto-optical media, etc., and a mother board **218**. The mother board **218** includes, for example, a processor **220**, a RAM **222**, and ROM **224** (e.g., DRAM, ROM, EPROM, EEPROM, SRAM, SDRAM, and Flash RAM, etc.), I/O ports **226** which may be used to couple to external devices, networks, etc., (not shown), and optional special purpose logic devices (e.g., ASICs) or configurable logic devices (e.g., GAL and re-programmable FPGA) **228** for performing specialized hardware/software functions, such as sound processing, image processing, signal processing, neural network processing, object character recognition (OCR) processing, etc., a microphone **230**, and a speaker or speakers **232**.

As stated above, the system includes at least one computer readable medium or alternatively, the computer readable medium may be accessed through various paths, such as networks, internet, drives, etc. Examples of computer readable media are compact discs, hard disks, floppy disks, tape, magneto-optical disks, PROMs (EPROM, EEPROM, Flash, EPROM), DRAM, SRAM, SDRAM, etc. Stored on any one or on a combination of computer readable media, the present invention includes software for controlling both the hardware of the computer **200** and for enabling the computer **200** to interact with a human user. Such software may include, but is not limited to, device drivers, operating systems and user applications, such as development tools. Such computer readable media further includes the computer program product of the present invention for performing any of the processes according to the present invention, described above (see, e.g., FIGS. **1-15**). The computer code devices of the present invention can be any interpreted or executable code mechanism, including but not limited to scripts, interpreters, dynamic link libraries, Java classes, and complete executable programs, etc.

The invention may also be implemented by the preparation of application specific integrated circuits or by interconnecting an appropriate network of conventional component circuits, as will be readily apparent to those skilled in the art.

Address handling, according to this invention, is a significant simplification relative to existing methods, and requires little or no training on the part of a user, as correct addresses are retrieved with a minimal number of user commands, "clicks," keystrokes, etc. In addition, a program according to the present invention, can be programmed and created in most existing programming languages and be connected to most modern word processors. Therefore, according to the present invention, the process of creating and updating records in an address database is significantly simplified, since this may now be performed directly from the word processor.

Although the present invention is defined in terms of word processing documents, such as WORD™ documents and EXCEL™ spreadsheets, the present invention is applicable to all types of word processing documents such as NOTEPAD™, WORDPAD™, WORDPERFECT™, QUATRO-PRO™, AMIPRO™, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of information management or is database programs, such as OUTLOOK™, etc., the present invention is applicable to all types of information management or database programs such as ACCESS™, ORACLE™, DBASE™, RBASE™, CARDFILE™, including "flat files," etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of providing an input device, such as a button **42** in a word processor for address handling therein, the present invention may be practiced with all types of input devices, such as touch screen, keyboard button, icon, menu, voice command device, etc., as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving information from a document before searching a database, the user may select the information in the document to be searched by the program in the database (e.g., by highlighting, selecting, italicizing, underlining, etc.), as will be readily apparent to those skilled in the art.

Although the present invention is defined in terms of a program retrieving a name or portion thereof from a document before searching a database the program may retrieve an address or portion thereof from the document before searching the database and insert, correct, complete, etc., the retrieved address based on the information found in the database corresponding to the retrieved address or portion thereof, as will be readily apparent to those skilled in the art.

Obviously, numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of appended claims, the invention may be practiced otherwise than as specifically described herein.

This application claims priority and contains subject matter related to Norwegian patent application No. 984066 filed on Sep. 3, 1998, the entire contents of which are hereby incorporated by reference.

What is claimed is:

1. A method for information handling within a document created using a first application program comprising the steps of:

entering a first information in the first application program;

marking without user intervention the first information to alert the user that the first information can be utilized in a second application program; and

responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program.

2. The method of claim **1** wherein the user selection further comprises an activation of a device selected from a group consisting of a touch screen, a keyboard button, a screen button, an icon, a menu, and a voice command device.

3. The method of claim **1**, wherein the step of inserting the second information into the document further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

retrieving the second information.

4. The method of claim **3**, wherein when the second application program includes second information associated with the first information, performing the further step of displaying the second information.

5. The method of claim 4, further comprising the step of completing at least one of the first and second information in the document.

6. The method of claim 1, wherein the first information comprises a name.

7. A computer readable medium, including program instructions related to information handling within a document created using a first application program and for performing the steps of:

entering a first information in the first application program;

marking without user intervention the first information to alert the user that the first information can be utilized in a second application program; and

responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program.

8. The computer readable medium of claim 7, wherein the user selection further comprises an activation of a device selected from a group consisting of a touch screen, a keyboard button, a screen button, an icon, a menu, and a voice command device.

9. The computer readable medium of claim 7, wherein the step of inserting the second information into the document further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

retrieving the second information.

10. The computer readable medium of claim 9, wherein when the second application program includes second information associated with the first information, performing the further step of displaying the second information.

11. The computer readable medium of claim 10, further comprising the step of completing at least one of the first and second information in the document.

12. The computer readable medium of claim 7, wherein the first information comprises a name.

13. A computer system related to information handling within a document created using a first application program, comprising:

means for entering a first information in the first application program;

means for marking without user intervention the first information to alert the user that the first information can be utilized in a second application program; and

means for responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program.

14. The computer system of claim 13, wherein the means for the user selection further comprises:

means for an activation of a device selected from a group consisting of a touch screen, a keyboard button, a screen button, an icon, a menu, and a voice command device.

15. The computer system of claim 13, wherein the means for inserting the second information into the document further comprises:

means for initializing the second application program;

means for searching, using the second application program, for the second information associated with the first information; and

means for retrieving the second information.

16. The computer system of claim 15, wherein when the second application program includes second information associated with the first information, and comprising means for performing the further step of displaying the second information.

17. The computer system of claim 16, further comprising means for completing at least one of the first and second information in the document.

18. The computer system of claim 13, wherein the first information comprises a name.

19. A method for information handling within a document created by a first application program comprising the steps of:

entering a first information in the first application program;

marking without user intervention the first information to alert the user that the first information can be utilized in a second application program; and

responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program.

20. The method of claim 19 wherein the operation comprises displaying the second information.

21. The method of claim 19, wherein the first information is a name, and the operation performed is selected from a group consisting of an electronic mail, a telex, a facsimile or a letter addressed to the name indicated by the first information.

22. The method of claim 19, wherein the operation performed is entering additional data into a database.

23. The method of claim 22, wherein the additional data is entered by a user.

24. The method of claim 22, wherein the additional data is located within the document.

25. A computer readable medium, including program instructions related to information handling within a document created by a first application program and for performing the steps of:

entering a first information in the first application program;

marking without user intervention the first information to alert the user that the first information can be utilized in a second application program; and

responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program.

26. The computer readable medium of claim 25 wherein the operation comprises displaying the second information.

27. The computer readable medium of claim 25, wherein the first information is a name, and the operation performed is selected from a group consisting of an electronic mail, a telex, a facsimile or a letter addressed to the name indicated by the first information.

28. The computer readable medium of claim 25, wherein the operation performed is entering additional data into a database.

29. The computer readable medium of claim 28, wherein the additional data is entered by a user.

30. The computer readable medium of claim 28, wherein the additional data is located within the document.

31. A computer system related to information handling within a document created by a first application program, comprising:

means for entering a first information in the first application program;

means for marking without user intervention the first information to alert the user that the first information can be utilized in a second application program; and

means for responding to a user selection by performing an operation related to a second information, the second

information associated with the first information from the second application program.

32. The computer system of claim 31 wherein the operation comprises displaying the second information.

33. The computer system of claim 31, wherein the first information is a name, and the operation performed is selected from a group consisting of an electronic mail, a telex, a facsimile or a letter addressed to the name indicated by the first information.

34. The computer system of claim 31, wherein the operation performed is entering additional data into a database.

35. The computer system of claim 34, wherein the additional data is entered by a user.

36. A method for information handling within a document operated on by a first application program, the document containing first information that can be utilized in a second application program, the method comprising the steps of:

identifying without user intervention or designation the first information; and

responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program.

37. The method of claim 36, wherein the user selection further comprises an activation of a device selected from a group consisting of a touch screen, a keyboard button, a screen button, an icon, a menu, and a voice command device.

38. The method of claim 36, wherein the step of inserting the second information into the document further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

retrieving the second information.

39. The method of claim 38 wherein the step of inserting the second information into the document further comprises adding the second information to the first information in the document.

40. The method of claim 38, wherein when the second application program includes second information associated with the first information, performing the further step of displaying the second information.

41. The method of claim 38, further comprising the step of completing at least one of the first and second information in the document.

42. The method of claim 36, wherein the first information comprises a name.

43. A computer readable medium, including program instructions related to information handling within a document operated on by a first application program, the document containing first information that can be utilized in a second application program, and for performing the steps of:

identifying without user intervention or designation the first information; and

responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program.

44. The computer readable medium of claim 43, wherein the user selection further comprises an activation of a device selected from a group consisting of a touch screen, a keyboard button, a screen button, an icon, a menu, and a voice command device.

45. The computer readable medium of claim 43, wherein the step of inserting the second information into the document further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

retrieving the second information.

46. The method of claim 45 wherein the step of inserting the second information into the document further comprises adding the second information to the first information in the document.

47. The computer readable medium of claim 46, wherein when the second application program includes second information associated with the first information, performing the further step of displaying the second information.

48. The computer readable medium of claim 46, further comprising the step of completing at least one of the first and second information in the document.

49. The computer readable medium of claim 43, wherein the first information comprises a name.

50. A computer system related to information handling within a document operated on by a first application program, the document containing first information that can be utilized in a second application program, comprising:

means for identifying without user intervention or designation the first information; and

means for responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program.

51. The computer system of claim 50, wherein the means for user selection further comprises means for an activation of a device selected from a group consisting of a touch screen, a keyboard button, a screen button, an icon, a menu, and a voice command device.

52. The computer system of claim 50, wherein the means for inserting the second information into the document further comprises:

means for initializing the second application program;

means for searching, using the second application program, for the second information associated with the first information; and

means for retrieving the second information.

53. The computer system of claim 50 wherein the means for inserting the second information into the document further comprises means for adding the second information to the first information in the document.

54. The computer system of claim 50, wherein when the second application program includes second information associated with the first information, and comprising means for performing the further step of displaying the second information.

55. The computer system of claim 54, further comprising means for completing at least one of the first and second information in the document.

56. The computer system of claim 50, wherein the first information comprises a name.

57. A method for information handling within a document operated on by a first application program, the document containing first information that can be utilized in a second application program the method comprising the steps of:

identifying without user intervention or designation the first information; and

responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program.

58. The method of claim 57 wherein the operation comprises displaying the second information.

59. The method of claim 57, wherein the first information is a name, and the operation performed is selected from a group consisting of generating an electronic mail, a telex, a facsimile or a letter addressed to the name indicated by the first information.

60. The method of claim 57, wherein the operation performed is entering additional data into a database.

61. The method of claim 60, wherein the additional data is entered by a user.

62. The method of claim 60, wherein the additional data is located within the document.

63. The method of claim 57 wherein the user selection comprises an activation of a menu.

64. The method of claim 63, wherein the step of performing the operation further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

retrieving the second information.

65. The method of claim 64, wherein when the second information associated with first information exists, performing the further step of displaying the second information.

66. The method of claim 65, wherein the first information comprises a name.

67. The method of claim 66, wherein the activation of the menu comprises

selecting the menu indicator for the menu

opening the menu

selecting a choice in the menu; and

activating the selected choice in the menu.

68. The method of claim 67, wherein selection of the menu indicator comprises moving a mouse pointer to the menu indicator.

69. The method of claim 68, wherein the opening of a menu comprises clicking on the menu indicator with a mouse button.

70. The method of claim 57 wherein at least part of the identifying occurs after the user selection.

71. The method of claim 57 wherein the identifying occurs after the user selection.

72. The method of claim 57, wherein the second information is associated with only part of the identified first information.

73. A computer readable medium, including program instructions related to information handling within a document operated on by a first application program, the document containing first information that can be utilized in a second application program, and for performing the steps of:

identifying without user intervention or designation the first information; and

responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program.

74. The computer readable medium of claim 73 wherein the operation comprises displaying the second information.

75. The computer readable media of claim 73, wherein the first information is a name, and the operation performed is selected from a group consisting of generating an electronic mail, a telex, a facsimile or a letter addressed to the name indicated by the first information.

76. The computer readable media of claim 73, wherein the operation performed is entering additional data into a database.

77. The computer readable media of claim 76, wherein the additional data is entered by a user.

78. The computer readable media of claim 76, wherein the additional data is located within the document.

79. A computer system related to information handling within a document operated on by a first application program, the document containing first information that can be utilized in a second application program, comprising:

means for identifying without user intervention or designation the first information; and

means for responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program.

80. The computer system of claim 79 wherein the operation comprises displaying the second information.

81. The computer system of claim 79, wherein the first information is a name, and the operation performed is selected from a group consisting of generating an electronic mail, a telex, a facsimile or a letter addressed to the name indicated by the first information.

82. The computer system of claim 79, wherein the operation performed is entering additional data into a database.

83. The computer system of claim 82, wherein the additional data is entered by a user.

84. The computer system of claim 82, wherein the additional data is located within the document.

85. A method for information handling within a document operated on by a first application program, the document containing first information entered by a user, the method comprising the steps of:

identifying without user intervention or designation the first information that can be utilized in a second application program, the first information selected from a group consisting of a name and an address; and

responding to a user selection by performing an operation related to a second information, the second information associated with all or part of the first information from the second application program, wherein the step of responding to the user selection further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

if said second information exists, retrieving and displaying the second information;

wherein said user selection comprises:

selecting a menu indicator for the menu;

opening the menu;

selecting a choice in the menu; and

activating the selected choice in the menu;

wherein selecting the menu indicator comprises moving the mouse pointer to the menu indicator;

wherein opening the menu comprises clicking on the menu indicator with a mouse button; and

wherein the second information is associated with at least part of the identified first information.

86. A method for assisting a computer operator to retrieve contact related information from a database when a document includes a name, the method comprising of the steps of:

(1) using a first computer program to analyze the document, without direction from the operator, to identify the name,

(2) using the identified name and a second computer program to search the database and to locate contact related information associated with the name, and

(3) inserting the contact related information into the document,

wherein steps (1)-(3) require only a single execute command.

87. The method of claim **86** wherein the contact related information comprises an address.

88. The method of claim **86** wherein the contact related information comprises a telephone number.

89. The method of claim **86** wherein the name comprises a business name.

90. The method of claim **86** wherein the name comprises a personal name.

91. The method according to claim **86** wherein the execute command is a selection from a menu.

92. The method according to claim **91** wherein the operator enters the execute command before step (2).

93. A method for assisting a computer operator to retrieve information from a database that is related to text in a document, the method comprising the steps of:

(1) using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information,

(2) using a second computer program and the text identified in step (1) to search the database and to locate related information, and

(3) inserting the information located in step (2) into the document.

94. The method according to claim **93** wherein at least steps (2)-(3) take place following entry a single execute command.

95. The method according to claim **94** wherein the execute command is a selection from a menu.

96. A computer readable medium for information handling within a document operated on by a first application program, the document containing first information entered by a user, the computer readable medium including program instructions for performing the steps of:

identifying without user intervention or designation the first information that can be utilized in a second application program, the first information selected from a group consisting of a name and an address; and

responding to a user selection by performing an operation related to a second information, the second information associated with all or part of the first information from the second application program, wherein the step of responding to the user selection further comprises the steps of:

initializing the second application program;

searching, using the second application program, for the second information associated with the first information; and

if said second information exists, retrieving and displaying the second information;

wherein said user selection comprises:

selecting a menu indicator for the menu;

opening the menu;

selecting a choice in the menu; and

activating the selected choice in the menu;

wherein selection the menu indicator comprises moving the mouse pointer to the menu indicator;

wherein the opening of a menu comprises clicking on the menu indicator with a mouse button; and

wherein the second information is associated with at least part of the identified first information.

97. A computer readable medium for assisting a computer operator to retrieve contact related information from a database when a document includes a name, the computer readable medium including program instructions for performing the steps of:

(1) using a first computer program to analyze the document, without direction from the operator, to identify the name,

(2) using the identified name and a second computer program to search the database and to locate contact related information associated with the name, and

(3) inserting the contact related information into the document,

wherein steps (1)-(3) require only a single execute command.

98. A computer readable medium for assisting a computer operator to retrieve information from a database that is related to text in a document, the computer readable medium including program instructions for performing the steps of:

(1) using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information,

(2) using a second computer program and the text identified in step (1) to search the database and to locate related information, and

(3) inserting the information located in step (2) into the document.

99. A system for information handling within a document operated on by a first application program, the system comprising:

means for identifying without user intervention or designation the first information that can be utilized in a second application program, the first information selected from a group consisting of a name and an address; and

means for responding to a user selection by performing an operation related to a second information, the second information associated with all or part of the first information from the second application program, wherein the means for responding to the user selection further comprises:

means for initializing the second application program;

means for searching, using the second application program, for the second information associated with the first information; and

if said second information exists, means for retrieving and displaying the second information;

wherein said user selection comprises:

selecting a menu indicator for the menu;

opening the menu;

selecting a choice in the menu; and

activating the selected choice in the menu;

wherein selection the menu indicator comprises moving the mouse pointer to the menu indicator;

wherein the opening of a menu comprises clicking on the menu indicator with a mouse button; and

wherein the second information is associated with at least part of the identified first information.

100. A system for assisting a computer operator to retrieve contact related information from a database when a document includes a name, the system comprising:

(1) means for using a first computer program to analyze the document, without direction from the operator, to identify the name,

(2) means for using the identified name and a second computer program to search the database and to locate contact related information associated with the name, and

(3) means for inserting the contact related information into the document,

wherein (1)-(3) require only a single execute command.

101. A system for assisting a computer operator to retrieve information from a database that is related to text in a document, the system comprising:

(1) means for using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information,

(2) means for using a second computer program and the text identified in (1) to search the database and to locate related information, and

(3) means for inserting the information located in (2) into the document.

* * * * *

CERTIFICATE OF COMPLIANCE

I, Kalpana Srinivasan, hereby certify that the foregoing filing complies with the relevant type-volume limitation of the Federal Rules of Appellate Procedure and Federal Circuit Rules because the filing has been prepared using a proportionally-spaced typeface and includes 13,974 words.

Dated: May 13, 2024

/s/ Kalpana Srinivasan

Kalpana Srinivasan
SUSMAN GODFREY L.L.P.
1900 Avenue of the Stars
Suite 1400
Los Angeles, CA 90067
Telephone: (310) 789-3100
Facsimile: (310) 789-3150

Attorney for Plaintiff-Appellant Arendi S.A.R.L

CERTIFICATE OF SERVICE

I, Kalpana Srinivasan, hereby certify that on May 13, 2024 I electronically filed the foregoing with the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF system, which will serve all counsel of record registered to receive electronic notices.

Dated: May 13, 2024

/s/ Kalpana Srinivasan

Kalpana Srinivasan
SUSMAN GODFREY L.L.P.
1900 Avenue of the Stars
Suite 1400
Los Angeles, CA 90067
Telephone: (310) 789-3100
Facsimile: (310) 789-3150

Attorney for Plaintiff-Appellant Arendi S.A.R.L