EXHIBIT 1

Part 7

EXHIBIT G

Attorney Docket No. 309101-203

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 7,139,761	)
	)
	) Examiner: Not Yet Assigned
Filed: December 10, 2003	)
	) Art Unit: Not Yet Assigned
Issued: November 21, 2006	)
	) Customer No.: 58249
For: DYNAMIC ASSOCIATION OF	)
ELECTRONICALLY STORED	)
INFORMATION WITH ITERATIVE	)
WORKFLOW CHANGES	)
	)
Requester: Facebook, Inc.	)

Mail Stop *Inter Partes* Reexamination
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR *INTER PARTES* REEXAMINATION
UNDER 35 U.S.C. §§ 311 ET SEQ. AND 37 CFR § 1.902 ET SEQ.

Dear Sir or Madam:

Pursuant to 35 U.S.C. §§ 311 *et seq.* and 37 C.F.R. § 1.902 *et seq.*, the undersigned, on behalf of Facebook, Inc., hereby requests an *inter partes* reexamination of claims 1-16, 21, 23-26, 29, 31-34 of U.S. Patent No. 7,139,761 (the "'761 patent") to Michael McKibben et al. A copy of the '761 patent is attached as **Exhibit A**. The '761 patent issued on November 21, 2006 from an application filed in the United States on December 10, 2003.

The '761 patent is currently involved in a pending *ex parte* reexamination proceeding (Control No. 90/010,591), assigned to Examiner Deandra M. Hughes. In the event the PTO grants the present Request, the Requester respectfully requests that the two reexaminations be merged so both can proceed expeditiously.

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I.   REQUIREMENTS FOR *INTER PARTES* REEXAMINATION UNDER 37 C.F.R. § 1.915

Pursuant to 37 C.F.R. §§ 1.913 and 1.915, each requirement for *Inter Partes* Reexamination of the '761 patent is satisfied. The application for the '761 patent was filed on December 10, 2003. As a patent issuing from an original application filed after November 29, 1999, the '761 patent qualifies for *Inter Partes* Reexamination. *See* 37 C.F.R. § 1.913.

A. Payment of Fees – 37 C.F.R. § 1.915(a)

The Requester authorizes the Patent and Trademark Office to charge the Deposit Account 50-1283 associated with the Customer Number listed on the face of this Request for the fees set forth in 37 C.F.R. § 1.20(c)(2).

B. Identification of Claims for Inter Partes Reexamination – 37 C.F.R. § 1.915(b)(1)

Facebook requests *inter partes* reexamination of claims 1-16, 21, 23-26, 29, 31-34 of the '761 patent. Detailed explanations of the pertinence and manner of applying the prior art references to each claim for which reexamination is requested may be found below under Section VII, beginning on page 27.

C. Citation of Prior Art Presented – 37 C.F.R. § 1.915(b)(2)

PTO Form SB/08a, filed concurrently herewith, identifies the patents and printed publications upon which this Request is based. A complete copy of each listed patent and printed publication is included herewith. This Request for reexamination is based on the following patents and printed publications:

Exhibit B: Christopher K. Hess & Roy H. Campbell, *A Context File System for Ubiquitous Computing Environments*, published by the Department of Computer Science, University of Illinois at Urbana-Champaign, July 2002 ("Hess")

Exhibit C: U.S. Patent No. 6,430,575 B1 to J. Paul Dourish et al. entitled "Collaborative Document Management System with Customizable Filing Structures that are Mutually Intelligible," issued on August 6, 2002 from an application filed in the United States on September 10, 1999 ("Dourish")

Exhibit D: European Patent Application EP 1 087 306 A2 to Laurence Hubert et al. entitled "Meta-Documents and Method of Ma naging Them," filed on August 29, 2000 and published internationally on March 28, 2001 ("Hubert")

Exhibit E: iManage,   Inc., *iManage DeskSite 6.0 User Reference Manual*, 2001, Chapters 1-5 ("iManage")

Exhibit F: U.S. Patent No. 6,236,994 B1 to Ronald   M. Swartz et al., entitled "Method and Apparatus for the Integration of Infor   mation and Knowledge," issued in the United States on May 22, 2001

Exhibit G: U.S. Patent No. 6,434,403 B1 to Michael   R. Ause ms et al. entitled   "Personal Digital Assistant with W ireless Telephone," issued on August 13, 2002 from an application filed in the United States on February 19, 1999 ("Ausems")

Exhibit H: Microsoft   Press, *Microsoft Computer Dictionary* (3d ed. 1997), pages 403-04, 462, 487, 505-506, 511-512 ("Microsoft")

Exhibit I: U.S. Patent Application Pub. No. 20 03/0120660 to L. Michael Maritzen entitled "Consumer-Centric Context-Aware Switching Model," filed in the United State s on December 7, 2001 and published on June 26, 2003 ("Maritzen")

D. Listing of Substantial New Questions – 37 C.F.R. § 1.915(b)(3)

This Request is based upon th   e newly cited prior art docum   ents identified on the accompanying Patent and Trademark Office Form SB/08a. None of these re ferences were cited or considered during the original prosecution. Th erefore, each raises a substantial new question of patentability ("SNQ"). Each of these prior art references constitutes effective prior art vis-à-vis claim s 1-16, 21, 23-26, 29,   31-34 under 35 U.S.C. § 102 and/or 35 U.S.C. § 103. The ____ detailed identification of each new SNQ is provided in Part VI, beginning at page 22. The SNQs presented by this Request are listed below:

No.	SNQs (Written as Proposed Rejections for the '761 Patent)
1	Whether claim s 1-13, 16, 21, 23-26, 29, 31-34 are **anticipated** by Christopher K. Hess and Roy H. Ca mpbell, *A Context File System for Ubiquitous Computing Environments* (July 2002) under 35 U.S.C. § 102(b).
2	Whether claim s 1-15, 21, 23-26, 29, 31-34 are **anticipated** by U.S. Patent No. 6,430,575 B1 to J. Paul Dourish et al. under 35 U.S.C. § 102(b).
3	Whether claims 1-15, 21, 23-26, 29, 31-34 are **anticipated** by EP 1 087 306 A2 to Laurence Hubert et al. under 35 U.S.C. § 102(b).

No.	SNQs (Written as Proposed Rejections for the '761 Patent)
4	Whether claims 1-2, 4-15, 21, 23-26, 29, 32-34 are **anticipated** by iManage, Inc., *iManage DeskSite 6.0 User Reference Manual*, December 17, 2002, Chapters 1-5, under 35 U.S.C. § 102(b).
5	Whether claim 3 is **anticipated** by U.S. Patent No. 6,236,994 to Robert M. Swartz et al. under 35 U.S.C. § 102(b).
6	Whether claims 9-15, 21, 23-26, 31-34 are **obvious** over Hess in view of Microsoft Press, *Microsoft Computer Dictionary*, pages 462, 487, 505-06 (3d ed. 1997).
7	Whether claim 16 is **obvious** over any one of Dourish, Hubert or iManage in view of U.S. Patent No. 6,434,403 B1 to Michael R. Ausems.
8	Whether claim 31 is **obvious** over any one of Hess, Dourish or iManage in view of Microsoft Press, *Microsoft Computer Dictionary*, pages 403-04 (3d ed. 1997).
9	Whether claims 1-16, 21, 23-26, 29, 31-34 are **obvious** in view of the combination of Hess and Dourish.
10	Whether claims 1-15, 21, 23-26, 29, 31-34 are **obvious** over Hubert in view of U.S. Patent Appl. Pub. 2003/0120660 to L. Michael Maritzen.

Detailed explanations of the pertinence and manner of applying the prior art references to each claim for which reexam ination is requested is set forth in this Request under Section VII, beginning on page 27.

E. Copy of Prior Art and Translations – 37 C.F.R. § 1.915(b)(4)

Copies of every patent and printed publication relied upon in this Request are included as Exhibits as required by 37 C.F.R. § 1.915(b)(4).

F. Copy of U.S. Patent No. 7,139,761 – 37 C.F.R. § 1.915(b)(5)

Attached as   **Exhibit A** is a copy of the '761 patent as required by 37 C.F.R. § 1.915(b)(5). To Requester's knowledge, the '761 pate nt is in force. The Requester is aware of no disclaimer, certificate of correction, or reexamination certificate. 37 C.F.R. § 1.915(b)(5).

G. **Certification of Service on Patent Owner – 37 C.F.R. § 1.915(b)(6)**

The undersigned certifies that a complete and entire copy of this Request for *Inter Partes* Reexamination and all supporting documents have been provided to the patent owner by serving the attorneys/agents of record at the Patent Office for the '761 patent:

KING AND SPALDING LLP 1700 Pennsylvania Ave, NW Suite 200 Hinckley Washington DC 20006	Eric D. Jorgenson 1457 King Road OH 44233

H. **Certification That Estoppel Does Not Prohibit *Inter Partes* Reexamination – 37 C.F.R. § 1.915(b)(7)**

Facebook hereby certifies that it is not prohibited under the provisions of 35 U.S.C. § 317 or 37 C.F.R. § 1.907 from filing this Request for *Inter Partes* reexamination. Neither Facebook nor those in privity with Facebook have previously requested *Inter Partes* reexamination of the '761 patent. 35 U.S.C. § 317(b); 37 C.F.R. § 1.907.

I. **Statement Identifying Real Party in Interest – 37 C.F.R. § 1.915(b)(8)**

Facebook, as the real party in interest, request s reexamination of the '761 patent in view of the SNQs explained in detail below. F acebook reserves all rights and defenses available including, without limitation, defens es as to invalid ity an d unenf orceability. By filing this Request in compliance with the Patent Rules, F acebook does not represent, agree, or concur that the '761 patent is enforceable. Facebook specially asserts that the claim s of the '761 patent are in fact not patentable and as such the Patent and Trad emark Office should reexam ine and find them unpatentable and cancel those claim s, rendering them null, void, or otherwise unenforceable.

II. **IDENTIFICATION AND STATUS OF PENDING LITIGATION INVOLVING THE '761 PATENT**

The '761 patent is the subject of pending litigation; in particular:

- <u>Leader Technologies, Inc.</u> v. <u>Facebook, Inc.</u>, No. 1:08-CV-00862 JJF, filed Novem ber 19, 2008 in the United States Di strict Court for the District of Delaware. Facebook has

denied that it infringes any claim of the '761 patent and contends that the patent is invalid and unenforceable.

Discovery is ongoing in this action and written discovery is due to close on November 20, 2009. The Court overseeing the litigation has not construed a ny claims of the '761 patent and will not do so until no earlie r than January 2010. Tr ial in the action has been prelim inarily set to begin in late June 2010.

III. OVERVIEW OF THE '761 PATENT

A. Summary of the Disclosure and Claims of the '761 Patent

The '761 patent purports to disclose a com puter-implemented data m anagement system for organizing inform ation. '761 patent, col. 3, ll. 17-19. T he "Background of the Invention" asserts that prior art techniques for storing and organizing information failed to capture and store certain "context information" about documents created in data management systems:

> Prior art communications tools do not know the busin ess and/or personal context(s) within whic h the files ar e created and used. For exam ple, a person may create three files in a word processor, one relating to sales, the second relating to operations, and the third relating to a son's football team. However, the w ord processor itself has no way of knowing to automatically store those three files in at least three different places. . . .
>
> Known software applications create a nd store files outside of a contextual framework. For example, when a user creates a word processing file using a conventional word processor applicati on, the user typically m ust select a single folder within which to store the f ile. The f ile may be stored in a n existing folder or the user m ay create a new folder to receive the file. This file m anagement method is known as Lightweight Directory Application Protocol (L DAP). LDAP borrowed the physical world paper file management schem e where a m achine/application creates files, sto res those files in individual folders, and stores those folders in cabinets. Under this s cheme, context is com pletely independent of the application. File context is lim ited to the decision made by the user abo ut the folder in which the file should be stored. The user decision does not adequately represent o r ref lect the true con text of the f ile given that the f ile m ay contain information that could reasonabl[y] be stored in multiple folders.

'761 patent, col. 2, ll. 6-13, 17-34.

In an attempt to address these and other perceived deficiencies, claim 1 of the '761 patent purports to disclose a "context com ponent" that captures "context inform ation" and stores that information in "metadata." Claim 1 recites:

> 1. A computer-implemented network-based system that facilitates m anagement of data, comprising:
>
> a computer-implemented context component of the network-based system for capturing context inform ation asso ciated with user-def ined data created by user interaction of a user in a first context of the network-based system , the context component dynam ically storing th e context inform ation in m etadata associated with user-defined data, the user-defined data an d m etadata stored on a storage component of the network-based system; and
>
> a computer-implemented tracking component of the network-based system for tracking a change of the user from the first context to a second context of the network-based system and dynamically updating the stored metadata based on the change, wherein the user accesses the data from the second context.

The other independent claim s of the '761 patent for which reexam ination is requested (claim s 9, 21, 22, and 23) recite elem ents that are sim ilar to claim 1, but use slightly different term inology. Claim 9 uses "user environm ent" to refer to wh at claim 1 calls a "context," while claim s 21, 22 and 23 use the term "user workspace." The other claim s for which reexam ination is requested (claims 2, 4-8, 10-16, 24-29 and 31-35) are dependent claims that derive di rectly or indirectly from independent claims 1, 9 or 23. They add nothing of patentable significance.

B. Original Prosecution History of the '761 Patent

On Decem ber 10, 2003 , the app licants filed th e application that resu lted in th e '761 patent, claim ing priority to a U.S. Provisiona 1 Patent Application Serial No. 60/432,255 filed December 11, 2002. The applicatio n included 44 claims that bore little resemblance to the later-issued claim s of the '761 patent. Claim s 18 and 26, for exam ple, which later issued as independent claims 1 and 9 after substantial amendments, read as follows:

> 18. A system that facilitates the management of data, comprising:
>
> a context component that captures context inform ation associated with a user in a first context; and

a tracking component that tracks a change of the user from the first context to a second context, and automatically associates at least a portion of the context information with the second context.

26. A method of facilitating data management, comprising:

creating data within a user en   vironment using an application; and automatically assoc iating to a   user of the use r environment, inf ormation related to the data, the application and the user environment.

On June 3, 2005, the PTO issued its first   Office action rejecting all claim   s. The Examiner found 33 of the pending claims to recite unpatentable subject matter under 35 U.S.C. § 101, and found all 44 claim s anticipated by U.S. Patent A pplication No. 2003/0217096 filed by Samuel J. McKelvie, et al. under 35 U.S.C. §   102(e). T he applicants filed their response on November 3, 2005 which, am ong other things, substantially amended the claims. Claim 26 was amended to require tracking user move   ment a nd to require "an association of   data and application with the second user   environm ent such that the us   er employs the at least one application and data from the second user environm ent." *Reply to Office Action (November 3, 2005)*, at page 6. Claim 40 (which would later   issue as claim 21) was am ended to require "indexing data of the user workspace such that a   plurality of different users can access the data from a plurality of different user workspaces,   " *id.* at page 9. The applicants also added "computer-implemented" to the independent cl   aims in an attem   pt to overcom e the § 101 rejections, and canceled three claims (11, 27, 30).

On January 5, 2006, the PTO issued a final Offi ce action rejecting all 41 of the remaining claims. The Examiner found all claims were obvious in view of McKelvie and in further view of U.S. Patent No. 6,421,678 to Brian Sm iga et al. under 35 U.S.C. § 103(a). On May 5, 2006, the applicants filed a respon se to the Office acti on cancelling 22 of the 41 claim s, adding 15 new claims, and amending the remaining claims. *See Reply to Final Office Action* (May 5, 2005).

The prosecution record is unclear as to what occurred shortly after th is point. It appears that the Examiner conducted multiple extensive interviews with the app licants between May and June 2006, but no record of the subs tance of any of these interviews appears in the file history. On June 21, 2006, the applicants filed a Reque   st for Continued Exam ination (RCE) and a "Supplemental Reply" to the final Office action, in   which the applicants thanked the Exa miner "for courte sies ex tended during multiple in terviews reg arding p rosecution of the sub ject

application," *Supplemental Reply to Final Office Action (June 21, 2006)* at 10, but provided no summary of the substance of those interviews. The file history does not include any interview summary filed by either the Examiner or the applicants.[1]

On August 30, 2006, th e PTO issued a Notice of Allowability as to all pending claim s, subject to a n Examiner's amendment that added several new limitations to the allo wed claim s. For exam ple, claim 18 (issu ing as claim 1) was amended to require that stored m etadata be dynamically updated based on a change of the user fr om one context to another, and that the user "accesses the data from the second context." *Notice of Allowability and Examiner's Amendment (Aug. 30, 2006)*, at 3. A substantially sim ilar am endment was added to claim 45 (issuing as claim 23). *Id.* at 11. Claim 26 (issuing as claim 9) was amended to require that the m etadata be dynamically updated w ith an association of "the data, the applicatio n, and the second user environment." *Id.* at 5. As the file hist ory included neither summaries of any May or June 2006 interview, n or any state ment of Reasons f or Allo wance, it is not clea r why these am endments were significant or why they were sufficient to overcome t he cited prior art. The '761 patent issued with the revised claims on November 21, 2006.

IV.   PRIORITY DATE TO WHICH THE '761 PATENT IS ENTITLED

As noted above, the applicants filed th eir patent application on Decem ber 10, 2003, claiming priority to U.S. Provisional Patent Application Serial No. 60/432,255, filed Dece mber 11, 2002. As explained below, the issued claim s of the '761 patent are entitle d to a priority date of December 10, 2003 and are <u>not</u> entitled to the filing date of the earlier provisional application.

The provisional application contained no figures and included just over six double-spaced pages of text, and an attachm ent consisting of two m ore pages of text and nine pages of source code that was om itted from the late r-filed patent applic ation. The provisional app lication was extremely cursory when com pared when the later-filed '761 patent appli cation, which more than tripled the length of the textual disclosure with 31 pages and 21 figures.

The Federal Circu it h as held that unless the Pa tent Office explic itly co nsidered pr iority date issues during prosecution of the patent (whi ch did not occur here), the patentee bears the

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[1] The only interview summ ary in the prosecution record was filed on August 30, 2006 following an August 15 interview to discuss possible claim amendments through the Exam iner's Amendment. That summ ary did not summ arize the substa nce of the multiple interviews th at apparently took place between May and June 2006.

burden of estab lishing entitlem ent to the p   riority da te of an earlier-f iled a pplication. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1303-07, 86 U.S.P.Q.2d 1385, 1388-89 (Fed. Cir. 2008). To establish entitlement to the prio rity date of the pr ovisional application, it must be shown that the provisi onal application discloses the claimed invention "in the m anner provided by the first paragraph of [35 U.S.C. § 112]." 35 U.S.C. § 119(e)(1).

No such sh owing can possibly be m ade here because sev eral lim itations of the issued claims of the '761 patent for wh ich reexamination is requested we re first disclosed in the later-filed application. For ex ample, claims 1 and 23 of the '761 pa tent recite a "tracking component" for tracking movement of the user from one context or workspace to another. Claim 22 similarly requires a "m eans for tracking," and m ethod claim 9 recites the step of "tracking move ment of the user." However, the claim ed "tracking component" and tracking of us er movement was first disclosed in the December 11, 2003 patent app lication. *See* '761 patent, Col. 7, ll. 1-7; fig. 1 (tracking component 116). The words "track" or "t racking," in fact, do not appear anywhere in the provisional patent application. Nor does the provisional application provide any disclosur e of the "workspaces" required by in dependent claims 22-23, or the "u ser environments" required by independent claim 9. The priority date to w hich the '761 patent is entitled, therefore, is no earlier than December 10, 2003.

V.   SUMMARY AND 102/103 DATE QUALIFICATION OF THE PRIOR ART

A. Hess

Christopher K. Hess & Roy H. Ca   mpbell, *A Context File System for Ubiquitous Computing Environments*, published by the Departm ent of Co mputer Science, University of Illinois at Urbana-Cham paign, July 2002 ("Hess"), discloses a context-based data m anagement and document filing system. Hess qualifies as prior art under 35 U.S.C. § 102(b) because it was published more than one year before the De   cember 10, 2003 filing date of th   e '761 paten t application. In particular,   the front page of Hess bears a   publication date of July 2002. Additionally, the paper was published on the Worl d Wide Web and available for download from the University of Illinois website no later th   an Nove mber 2002, as conf irmed by the Internet

Archive (*see* attached Affidavit attached as Exhibit J, Ex. A page 2 of 6).[2] *See* MPEP 2128 ("An electronic publication, including an on-line database or Internet publication, is considered to be a 'printed publication' within the m eaning of 35 U.S.C. 102(a) and (b) provided the publication was accessible to persons concerned with the art to which the document relates.").

As explained in m ore detail in Part VII(A) beg inning on pa ge 29 below, Hess desc ribes an "ubiquitous computing" environment, *e.g.*, an environm ent in which users access d ata from a wide variety of devices, locati ons or contexts. Hess presents a system known as the Context Filing System ("CFS") which, am ong other things, organizes and presents data to a user based upon the current "context" in wh ich the user is operating. *See* Hess, § 1, page 4. A "context" can include, for example, a user's location, the topi c, category or event to which the data relates, or the user com puter system and configuration preferences. *See* Hess, § 2.2, page 7. As further explained in Hess:

> "One of the distinguishing factors that differentiates ubiquitous com puting
> from traditional distributed computing is context. Context allows a system
> to adapt to the curren t surrounding s in order to facilitate the use of the
> computational environment. In this pa per, we p resent a file system for
> ubiquitous computing applications that is context-aware. Context m ay be
> associated to f iles and direc tories and is us ed to lim it the scope of
> available data to what is im portant for the current task, ag gregate related
> material, and trigger data type conve rsions, therefore simplifying the tasks
> of application developers and users of the system." Hess, Abstract.

Hess explains that th e user's data is dynamically organized by "lim iting the visib ility of data to what is important for the current context, which may include user preferences, application configurations, and application data." Hess, § 2. 2, page 6. As the user moves from one context to another, his or her data follows the user to the new context:

> "Users are highly mobile in active spaces and should not be burdened with
> manually transferring files or data, be it configurations, preferences, or
> application data from one environm ent to another. The environm ent

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[2] Attached as Exhibit J to th is Request is an affidavit from Christopher Butler, Office Manage r of the Internet Archive, a service has been archiving and indexing web pages since the early days of the W orld W ide W eb. The affi davit confirm s that the University of Illinois at Urbana-Champaign had the Hess paper available for do wnload in PDF for mat on a "Pub lications an d Reports" web page no later than Novem ber 14, 2002. *See* Ex. J at ¶ 5; Ex. J (Ex. A t o Ex. J.) at p. 2 of 6. The Univers ity of I llinois continues to th is day to maintain its publicatio ns for the Context File System on the web, for example at <http://gaia.cs.uiuc.edu/html/cfs.htm>.

should assist in m aking personal stor age autom atically available in the users' present lo cation. Storage b ecomes im plicitly linked to a user an d can 'follow' them around, becom ing available whenever they enter a new space. Therefore, the physical location of the user triggers the autom atic configuration of the user's environment." Hess, § 1, page 4.

CFS keeps track of the location of the u ser's docum ents irrespec tive of the current context by storing namespace mappings that "act[] as m eta-data for files on disk." Hess, § 3.1, pages 8-9. The system tracks when a user leaves a particular context and enters another context, dynamically updating the metadata based on the movement. Hess, § 2.1, page 5 ("Therefore, the space file system na mespace chang es as users phys ically move in and out of the space."). Finally, Hess discloses a browser-b ased user interface for locating and accessing files within the available contexts. Hess, § 5, page 13.

Hess was not cited during the original prosecution or during in the pending reexamination. As explained below, iManage raises substantial new questions as to claim s 1-16, 21, 23-26, 29, and 32-34 of the '761 patent.

B. **Dourish**

U.S. Patent No. 6,430,575 B1 to J. Paul Douris h et al. entitled "Collaborative Docum ent Management System with Custo mizable Filing Struc tures tha t a re Mutua lly Inte lligible" ("Dourish") issued on August 6, 2002 from an application filed on September 10, 1999. Dourish qualifies as prior art to the '761 patent under 35 U.S.C § 102(b) and § 102(e).

Dourish re lates gen erally to "a collabo rative docum ent m anagement system for classifying shared collections of documents, and more particularly, to a method and apparatus for providing custom izable categorizati ons of the s hared co llection of documents that a re m utually intelligible." Col. 1, ll. 8-13. The system in Dourish categ orizes docu ments by placing them within a series of cu stomized "filing struct ures," each filing structu re correspon ding to a particular context in which the documents m ay be accessed. *See* Col. 8, ln. 67 – col. 9, ln. 2 ("Each of these documents is assigned a context property in the Placeless Environment to record which filing structures it is a part of."). As Dourish explains:

"After docum ents are categorized using the category m   anager **122**, the documents can be view ed (i.e., retrie ved) acco rding to the context of a particular filing structure that is distinct from the context under which they were filed. That is, once a document is filed according to a particular filing structure, the context in which tha t document was filed can be m apped to other customized filing structures in a manner that is trans parent to us ers operating the application program interfaces." Col. 4, ll. 33-47.

"Once categories have been defined and documents organized therein, the application program interface **110** can be used to view docum ents in the shared repo sitory **114** in one of a plura lity of contexts. T he contex t in which documents are organized is impor tant in understanding a particular document's relationship to other docum   ents in the shared repository." Col. 6, ll. 59-62.

Figure 2 reproduced below provides an exam   ple of this capability with three different filing structures or contexts, *i.e.* a st ructure **202** for a "Co re Level" c ontext and custom ized structures **204** and **206** for "Group 1 Level" and "User 1 Level" contexts, respectively:
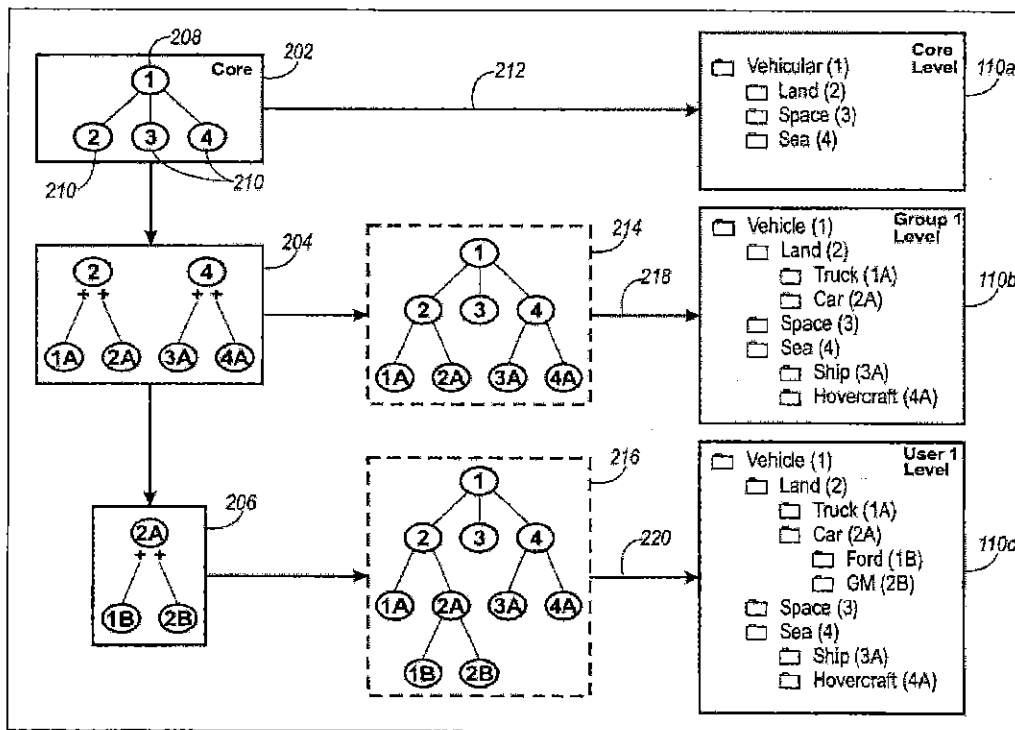

Fig. 2.

Dourish explains that "the customized filing structures **204** and **206** define sequences of layered modifications to the core filing structure   **202** and the cus tomized filing s tructure **204**,

respectively. Each sequence of m odifications defines a different c ontext in which to file (i. e., categorize) docum ents." Dourish further stat es th at in "viewing different custom ized categorizations, a user is able to view a shar ed repository of documents (i.e., infor mation) arranged in multiple contexts (i.e., perspective) that are mutually intelligible." Col. 5, ll. 62-66.

When a user moves from one context to anot her in the Dourish system, the system tracks the user's m ovement and dynam ically updates the context infor mation and associated m etadata based on the change. In particular, Dourish provi des a filing structure "translator" that updates the metadata associated with the data in order to display the files in the newly-selected context:

> "In accordance with an other aspect of the invention, a stru cture translator **124** translates between different leve ls of custom ization that provide different perspectives into the shared repos itory of docum ents **114**. More specifically, the structu re translator **124** com putes a m apping between different levels of custom ization to pr ovide different interpretations of the shared repository of documents." Col. 4, ll. 42-47.

The trans lation enables the system to adjus t the view of docum ents according to the current context and retrieve and meaningfully present documents in that context. *See* Col. 4, ll. 33-47.

Dourish was not cited during th e o riginal p rosecution or in the pending reexam ination. As explained below, it raises a substantial new question as to claims 1-15, 21, 23-26, 29, 31-34.

C. **Hubert**

European Patent Application EP 1 087 306 A2 to Laurence Hubert et al. entitled "Meta-Documents and Method of Managing Them " ("Hubert") was published internationally on March 28, 2001. It qualifies as prior art to the '761 patent under 35 U.S.C. § 102(b).

Hubert describes a structure known as a "m eta-document" that is used to encapsulate the user's data (*e.g.*, spreadsheet or word proc essing data), m etadata a nd processing infor mation. *See* Hubert, ¶ 0011-0014; Fig. 1. The system in Hube rt enables the user and its m eta-document to seamlessly move from one co mputing environment (source) to another, for example through the Internet. This is shown in Figure 2 below:

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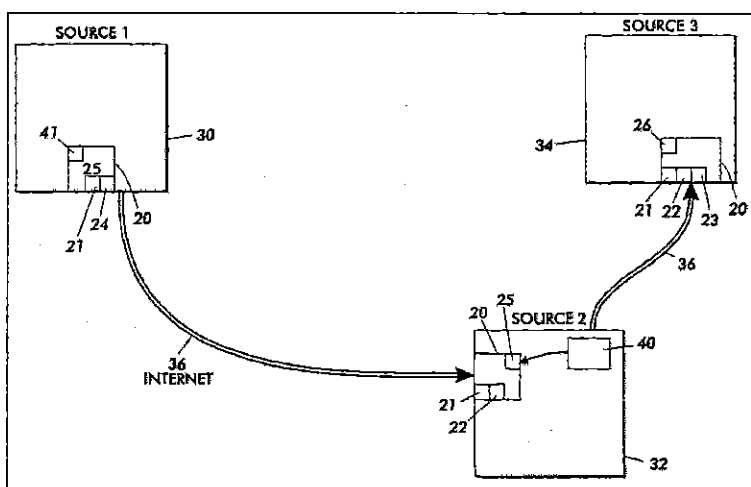
Hubert, Fig. 2.

Hubert further explains that th e movement from one environm ent (source) to another is tracked and the m etadata is dynam ically updated su ch that the user accesses the data from the second environment:

> "Meta-document 20 [in Fig. 2 above] is then transm itted over the In ternet 36 to source (or environm ent) 32. Source 32 includes a processing program 40 which processes the docum ent information 25 by copying the document text and storing it in a new docum ent. A record of this copying is stored as processing infor mation 26 (with its associa ted metadata - n ot shown). A record of the fact that the m eta-document 20 wa s received a t source 32 is stored as processing information 22 (with associated metadata not shown)." Hubert, ¶ 0023.

Hubert provides the followi ng analogy to explain how the meta-document, as it moves from one environm ent to another, can take acti ons based on the environm ent (context) in whic h it is accessed:

> "When m eta-document is transmitted from source to source and processing inf ormation is cre ated (stored in th e m eta-document) this is similar to a bee travelling to a flowe r and picking up pollen. Similarly, if a source finds certain processing infor mation on a m eta-document of interest, it can copy or use the pro cessing infor mation and of course, trigger ac tions based up on it. This is sim ilar to pollen carried on a bee' s body being left on another flower" Hubert, ¶ 0026.

Hubert was not cited during the original pros ecution or in the pending reexam ination. As explained below, it raises a substantial new question as to claims 1-15, 21, 23-26, 29, 31-34.

D. **iManage**

The   *iManage DeskSite 6.0 User Reference Manual*, 2001, Chapters 1-5 ("iManage")
describes features and f unctionalities of the iM anage docu ment m anagement syste m (DMS).
The iManage m anual was published in July 2001, two   and a half years before the filing date of
the application for the '761 patent. *See* Copyright Page (AUT0020002). It therefore qualifies as
prior art under 35 U.S.C. § 102(b).

"iManage DeskSite is an enterprise-wide, mission-critical DMS. With iManage DeskSite,
you can greatly sim plify the task of m anaging repositories of millions of docum ents and making
them available to thou sands of users." Chapte r 1, p. 4. iManage provides a suite of tools for
organizing, searching and retrievi ng docum ents, as well as track   ing activities related to the
documents. A screenshot of the main user interface is provided below:
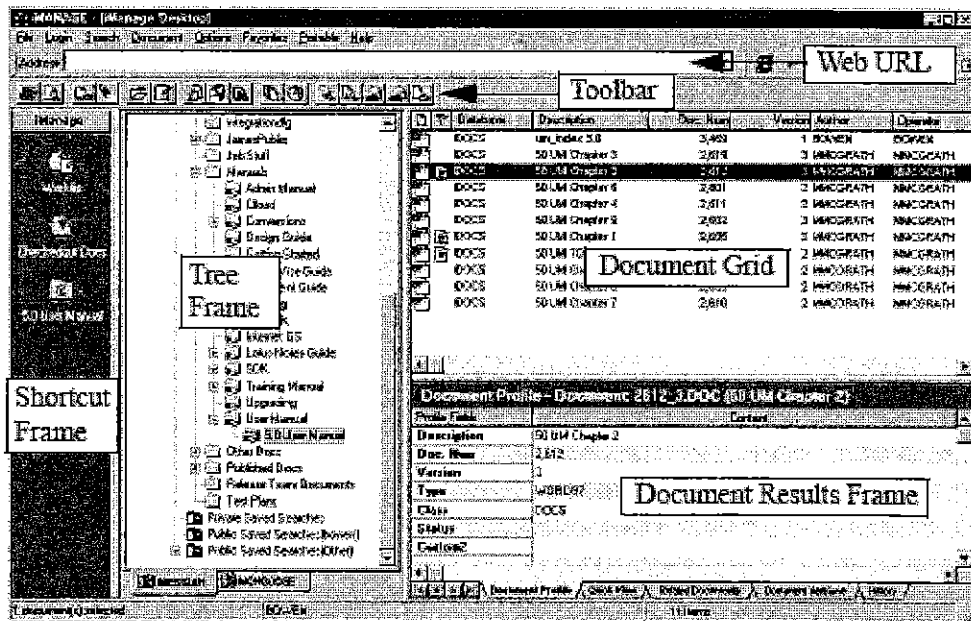
Chapter 2, Figure 2.1, p. 22. "The   iManage Integrat ed Application Operati on allows a user to
perform iManage functions directly from the application they are using." Chapter 5, p. 125.

One of the features prov ided by iManage is a Docum ent History feature, which captures context information about the user's docum ents and tracks the m ovement of the us er from one context or environm ent to another. "The documen t history record displays all activities of the types selected for recording your system administrator." Chapter 3, pp. 82-83. The types of activities recorded by iManage include, for exam ple, accessing docu ments from particular applications or particular com puter system s (locations). *Id.* This is shown in th e f ollowing screenshot showing the History tracked with respect to a particular document:

History – Document 2_2.DOC (iManage Travel Policy)							
User	Applicati..	Activity	Date - Time	Duration	Pages Prin..	Location	Comments
BOWEN	WINWORD	Checkin	6/14/2001 2:20:48 PM	26	0	BOWEN	
BOWEN	WINWORD	Modify	6/14/2001 2:20:47 PM	0	0	BOWEN	
BOWEN	MANAGE32	Checkout	6/14/2001 2:20:22 PM	0	0	BOWEN	
BOWEN	MANAGE32	Create Versi	6/14/2001 2:14:39 PM	0	0	BOWEN	Created from version 1

Document Profile \ Quick View \ Related Documents \ Document Versions \ History /

Chapter 3, Figure 3.26, p. 83; see also Chapter 5, p. 141 ("The Hist ory dialog [shown above] displays the activity record for a particular document in chronological order. The fields displayed in the activity table are User , Application, Activity, Date-Tim e, Duration, Pages Printed, Location, and Comments.").

iManage w as not cited during the original prosecution or during in the pending reexamination. As explained below, iManage raises a substantial new questi on as to claims 1-2, 4-15, 21, 23-26, 29, and 32-34 of the '761 patent.

E. **Swartz**

U.S. Patent No. 6,236,994 B1 to Ronald M. Swartz et al., entitled "Method and Apparatus for the Integration of Infor mation a nd Knowledge," issued in the United States on May 22, 2001 ("Swartz"). Swartz qualifies as prior art under 35 U.S.C. § 102(b).

Swartz d iscloses a sy stem for m anaging information to facilitate eas y access to and organization of that inform ation. The system disclosed in S wartz integrates data from disparate

document and data sources and makes it available to a plurality of users over a network. Col. 3, ln. 61-col. 4, ln. 12. In one em bodiment, Swartz discloses a system known as "DataDocket," which is m iddleware th at "m anages the flow of information between two or m ore applications that com prise the inform ation system of an en terprise." Col. 9, ll. 5-8. The m anagement functions in Swartz rely on "cont ext information" that is autom atically collected from users and applications, which is stored in a "m etadata catalog." Col. 4, ll. 19, 33-35 ; col. 6, ll. 22-26; col. 18, ll. 9-13. In particular, Swartz disc loses a system that "captures m etadata associated with the information shared, stored and accessed by the users of the data so as to ch aracterize the 'context' in which the in formation is being used ." Col. 8, ll. 56-60; *see also* col. 6, ll. 22-26 ("More specifically, knowledge integration m iddleware is preferably employed to identify (including tracking, m onitoring, analyzing) the context in w hich information is em ployed so as to enable the use of such contex t in the m anagement of knowledge."). This context information and metadata can be used to create a "knowledge path" that allows users to reflect back and track all interactions and transactions that took place with respect to the data. *See* Col. 19, ll. 15-35.

Swartz was not cited during th e original prosecution of the '761 patent, and is not being applied against claim 3 in the pending reexam ination. As explained below, Swartz raises a substantial new question of patentability as to claim 3.

F. Microsoft Computer Dictionary

Microsoft Press, *Microsoft Computer Dictionary* (3d ed.) ("Microsoft"), was published in 1997 and therefore qual ifies as prior art to the '761 patent under 35 U.S.C. § 102(b). Microsoft is a well-known and comprehensive com puter dictionary. It is cited in this Request to estab lish the obviousness of several claims that add trivial details that lack patentable significance, such as the use of web browsers to access data.

G. **Ausems**

U.S. Patent No. 6,434,403 B1 to M ichael R. Ausem s et al., entitled "P ersonal Digital Assistant with W ireless Telephone," issued in the United Stat es on August 13, 2002 from an application filed on February 19, 1999 ("Ausems"). Ause ms qualifies as prior art to the '761 patent under 35 U.S.C. § 102(b) and § 102(e).

Ausems is cited in this Reque st solely in connection with dependent claim 16 of the '761 patent, which reads in its enti rety: "The m ethod of claim **9**, further com prising accessing the user environment via a portab le wireless device." Clai m 16 depends fr om independent claim 9, which is sep arately anticipated by e ach of Swartz, Seliger or La mping for the reasons explained in Parts V.B-D, above and in more detail in Parts VI.A-C, below, respectively.

Ausems discloses a portable wireless device that com bines a personal digital as sistant (PDA) and wireless telephone into a single communications device. *See* Ausems, Col. 1, ll. 5-9, 54-58. The portable wireless de vice in Ausems includes a CP U, runs the Microsoft W indows CE operating system and includes a web browser in order to facilitate wireles s Internet a ccess. *See* Ausems, Col. 7, ln. 63-col. 8, ln. 4. Ausem s further discloses that the device "may remotely communicate with a computer system." Ausems, Col. 9, ll. 17-18. As e xplained below, Ausems raises a substantial new question as to claim 16 of the '761 patent.

H. **Maritzen**

U.S. Patent Application Pub. No. 2003/ 0120660 to L. Michael Maritzen entitled "Consumer-Centric Context-Aware Switching Model," filed in the United States on December 7, 2001 and published on June 26, 2003. It therefore quali fies as prior art to the ''761 patent under 35 U.S.C. § 102(a) and § 102(e).

Maritzen d iscloses a co mputer-based networke d system in which conte xt information is captured, stored and transm itted for use at m ultiple different websites. Maritzen, ¶ 0076, Fig. 9, ¶¶ 81-83. The system as disclosed generally i nvolves three steps: (1) capturing context

information, (2) storing that information and (3) sharing that information with multiple different websites. As explained in Maritzen:

> "A user enters personal inform ation such as nam e, m ailing address, and age, when requesting infor mation fr om website #1. The user leaves website #1 and visits website #2. Subsequently, the user visits website #3. The progression of the user from website #1 through website #3 m ay occur during different sessions." ¶ 0081.

> "The website #3 r equests personal information such as name and m ailing address from the user. In response to the user's preselection, context data including the user name and m ailing address is autom atically sen t to website #3. This saves the user from re -entering this personal information." ¶ 0082.

> "Further, w ebsite #3 also requests th e context data including the user's website visitation history. In re sponse to the user 's p re-selection of allowable context data to be distributed, the user is prompted to permit this distribution of the user's website vis itation history. The user is able to decide whether to allow this context da ta to be distributed to website #3." ¶ 0083.

Maritzen was not cited during the orig inal prosecution of the '761 patent nor in the pending reexam ination. As explained below, Ma ritzen raises a substa ntial new question of patentability as to claims 1-15, 21, 23-26, 29, 31-34 when combined with Hubert.

VI. STATEMENT POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY

This Request is based on the prior art refere nces cited in Part I.C, above, starting on page 4. The Requester is sub mitting PTO Form SB/08a identifying these ref erences. None of these prior art references was cited during the original prosecution of the '761 pate nt. As all of these references are non-cumulative "new art," they raise questions of patentability that ar e substantially different from those before the Examiner during the original prosecution of the '761 patent. Furthermore, these references disclose the limitations of the '761 patent in a m anner not previously considered in either the original prosecution or the pending reexamination.

A. **Summary Identification of Substantial New Questions**

For ease of reference, the substantial new ques tions raised by the p rior art cited in this Request are set forth in the chart below, in the form of proposed rejections.

No.	SNQs (Written as Proposed Rejections for the '761 Patent)
1	Whether claims 1-13, 16, 21, 23-26, 29, 31-34 are **anticipated** by Christopher K. Hess and Roy H. Ca mpbell, *A Context File System for Ubiquitous Computing Environments* (July 2002) under 35 U.S.C. § 102(b).
2	Whether claim s 1-15, 21, 23-26, 29, 31-34 are **anticipated** by U.S. Patent No. 6,430,575 B1 to J. Paul Dourish et al. under 35 U.S.C. § 102(b).
3	Whether claims 1-15, 21, 23-26, 29, 31-34 are **anticipated** by EP 1 087 306 A2 to Laurence Hubert et al. under 35 U.S.C. § 102(b).
4	Whether claims 1-2, 4-15, 21, 23-26, 29, 32-34 are **anticipated** by iManage, Inc., *iManage DeskSite 6.0 User Reference Manual*, 2001, Chapters 1-5, under 35 U.S.C. § 102(b).
5	Whether claim 3 is **anticipated** by U.S. Patent No. 6,236,994 to Robert M. Swartz et al. under 35 U.S.C. § 102(b).
6	Whether claims 9-15, 21, 23-26, 31-34 are **obvious** over Hess in view of Microsoft Press, *Microsoft Computer Dictionary*, pages 462, 487, 505-06 (3d ed. 1997).
7	Whether claim 16 is **obvious** over any one of Dourish, Hube rt or iManage in view of U.S. Patent No. 6,434,403 B1 to Michael R. Ausems.
8	Whether claim 31 is **obvious** over any one of He ss, Dourish or iManage in view of Microsoft Press, *Microsoft Computer Dictionary*, pages 403-04 (3d ed. 1997).
9	Whether claims 1-16, 21, 23-26, 29, 31-34 are **obvious** in view of the combination of Hess and Dourish.
10	Whether claims 1-15, 21, 23-26, 29, 31-34 are **obvious** over Hubert in view of U.S. Patent Appl. Pub. 2003/0120660 to L. Michael Maritzen.

A detailed explanation of the substantia l new questions (S NQs) raised by each newly-cited prior art reference, along with a brief summary for each reference, is provided below.

B.   **Substantial New Questions Raised by Hess**

Claims 1-16, 21, 23-26, 29, 31-34 ar e unpatentable because they are either anticipated or rendered obvious by Hess (*see* SNQ Nos. 1, 6, 8, 9, listed above). Hess was not of record in the prosecution of the '761 patent, nor has it been cited in the pending *ex parte* reexamination, and is thus new art. The Requester believes that a reasonable examiner would consider the teachings of Hess to be i mportant in determ ining whether or not these claim s of the '761 patent are patentable. None of the prior art cited during the prosecution of the '76 1 patent disclosed (a) capturing context inform ation associ ated with user-defin ed data that is dyna mically stored in metadata, and (b) tracking a change of the user from a first context to a second context and dynamically updating the stored m etadata based on the change wher ein the user access the data from the second context, as recited in claim 1. As explained in Part III(B) beginning at page 9, the Examiner apparently thought those features distinguished the '761 patent from the prior art of record. *See Notice of Allowability and Examiner's Amendment (Aug. 30, 2006)*, at page 3. As explained in more detail in Part VII(A) starting at page 29 below, Hess discloses those features (and the other features claim ed in the '761 patent), and theref ore raises a substantial new question of patentability. Thus, a SNQ as is raised by this reference.

C.   **Substantial New Questions Raised by Dourish**

Claims 1-16, 21, 23-26, 29, 31-34 ar e unpatentable because they are either anticipated or rendered obvious by Dourish (*see* SNQ Nos. 2, 7, 8, 9, listed above). Dourish was not of record in the prosecution of the '761 patent, nor has it been cited in the pending *ex parte* reexamination, and is thus new art. T he Requester believes that a reaso nable exam iner would c onsider the teachings of Dourish to be im portant in determ ining whether o r not these claim s of the '76 1 patent are patentable. None of the prior ar t cited during the prosecution of the '761 patent disclosed (a) capturing context inform ation associated with user-defined data that is dynam ically stored in metadata, and (b) tracking a change of the user from a first context to a second context and dynamically updating the stored m etadata based on the change wherein the user access the

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data from the second context, as recited in claim 1. As explained in Part III(B) beginning at page 9, the Examiner apparently thought those features distinguished the '761 patent from the prior art of record. *See Notice of Allowability and Examiner's Amendment (Aug. 30, 2006)*, at page 3. As explained in m ore detail in Part VII(B) beginning at page 57, D ourish discloses those features (and the other features claim ed in the '761 patent), and theref ore raises a substantial new question of patentability. Thus , a S NQ as to claim s 1-13, 16, 21, 23-26, 29, 31-34 is raised by this reference.

D. **Substantial New Questions Raised by Hubert**

Claims 1-16, 21, 23-26, 29, 31-34 ar e unpatentable because they are either anticipated or rendered obvious by Hubert (*see* SNQ Nos. 3, 7, 10, above). Hubert was not of record in the prosecution of the '761 patent, nor has it been cited in the pending *ex parte* reexamination, and is thus new art. The Requester believes that a reasonable examiner would consider the teachings of Hubert to be im portant in determ ining whether or not these claim s of the '761 patent are patentable. None of the prior art cited during the prosecution of the '76 1 patent disclosed (a) capturing context inform ation associ ated with user-defin ed data that is dyna mically stored in metadata, and (b) tracking a change of the user from a first context to a second context and dynamically updating the stored m etadata based on the change wher ein the user access the data from the second context, as recited in claim 1. As explained in Part III(B) beginning at page 9, the Examiner apparently thought those features distinguished the '761 patent from the prior art of record. *See Notice of Allowability and Examiner's Amendment (Aug. 30, 2006)*, at page 3. As explained in m ore detail in Part VII(C) beginning at page 85, H ubert discloses those features (and the other features claim ed in the '761 patent), and theref ore raises a substantial new question of patentability. Thus, a SNQ as is raised by this reference.

E. **Substantial New Questions Raised by iManage**

Claims 1-2, 4-16, 21, 23-26, 29, 31-34 are unpatentable because they are either anticipated or rendered obvious by iManage (*see* SNQ Nos. 4, 7, 8, listed above). iManage was

not of record in the prosecution of the '761 patent, nor has it been cited in the pending *ex parte* reexamination, and is thus new art. The Requ ester believes that a re asonable exam iner would consider the teachings of iManage to be i mportant in determining whether or not th ese claims of the '761 patent are patentable. None of the pr ior art cited during the prosecution of the '761 patent disclosed (a) capturing context inform ation assoc iated with us er-defined d ata tha t is dynamically stored in m etadata, and (b) tracking a change of the user from a first context to a second context and dynam ically up dating the stored m etadata ba sed on the change wherein the user access the data fro m the second contex t, as recited in claim 1. As explained in Part III(B) beginning at page 9, the Exam iner apparently thought those features distinguished the '761 patent from the prior art of record. *See Notice of Allowability and Examiner's Amendment (Aug. 30, 2006)*, at page 3. As explained in more detail in Part VII(D) beginning at page 105, iManage discloses those features (and the other features claim ed in the '761 patent), and th erefore raises a substantial new question of patentability. Thus, a SNQ is raised by this reference.

F.   **Substantial New Questions Raised by Swartz**

Claim 3 is unpatentable because it is anticipated by Swartz (*see* SNQ No. 5 listed above). Swartz was not of reco rd in th e prosecution of the '761 patent. Swar tz has been cited in th e pending *ex parte* reexam ination proceedings, and has been found suffic ient to raise a SNQ as t o claims 1-2, 4-15, 21-27, 29 and 31-34 of th e '761 patent. Reexam ination was not requested with respect to claim 3 in tho se reexamination proceedings, and as such, Swartz has not been applied against that claim . The Requester believes th at a reason able exam iner would consider th e teachings of Swartz to be important in determ ining whether or not claim 3 of the '7 61 patent is patentable. Thus, a SNQ as to claim 3 is raised by this reference.

G.   **Substantial New Questions Raised by Microsoft**

Claims 9-15, 21, 23-26, 31-34 are unpatentable because of a combination of the *Microsoft Computer Dictionary* an d other p rior ar t cited in this Requ est (*see* SNQ Nos. 6, 8 ,

listed above). Microsoft was not of record in the prosecution of the '761 patent nor has it been cited in the pending reexam ination. The Requester believes that a reas onable examiner would consider the teachings of Microsoft to be important in determining whether or not these claims of the '761 patent are patentable. Thus, a SNQ is raised by this reference.

H.   **Substantial New Questions Raised by Ausems**

Claim 16 is unpatentable because it is obvious in view of the combination of Ausems and any one of Dourish, Hubert or iManage (*see* SNQ No. 7 listed above). Ausems was not of record in the prosecution of the '761 patent. Ausem   s has be en cited in the pending   *ex parte* reexamination proceedings against claim 16, but it has not been combined with Dourish, Hubert or iM anage. The com bination of Ausem s with these new references therefore raises a n ew combination that has not been considered by the PTO. The Requester b elieves that a reasonable examiner would consider the teachings of Ausems to be important in determining whether or not claim 16 of the '761 patent is patentable. Thus, a SNQ as to claim 16 is raised by this reference.

I.   **Substantial New Questions Raised by Maritzen**

Claims 1-15, 21, 23-26, 29, 31-34 are unpaten table because they are obv ious in light of the combination of Hubert and Maritzen (*see* SNQ No. 10 listed above).   Maritzen was not of record in the pros ecution of the '761 patent no r has it been cited in the pending reexam ination. The Requester believes that a reason able examiner would consider the teachings of Maritzen to be important in determining whether or not these claims of the '761 patent are patentable. Thus, a SNQ is raised by this reference.

VII.   DETAILED EXPLANATION OF THE PERTINENCE AND MANNER OF APPLYING THE PRIOR ART REFERENCES TO EVERY CLAIM FOR WHICH REEXAMINATION IS REQUESTED

A detailed explanation of the pertinence and manner of applying the prior art references to all of the claims for which reexamination is requested is provided below. The sub-parts of the claims of the '761 patent have reference labels in brackets for the sake of easy reference.

Claims from the '761 patent wi ll likely be construed duri ng the course of the ongoing litigation between the patent owner and th e Requester. Th e MPEP m akes clear, however, that the "manner of claim interpretation that is used by courts in litigation is not the manner of claim interpretation that is ap plicable dur ing prosecu tion of a pe nding application before the PTO." MPEP § 2286(II) (citing *In re Zletz*, 893 F.2d 319, 322, 13 U.S.P.Q.2d 1320, 1322 (Fed. Cir. 1989)). As the Federal Circuit re cently reemphasized, claims in reexamination "must be given their broadest reasonable interpretation consistent with the specification":

> In PTO exa minations and reexam inations, the standard of proof – a preponderance of evidence – is subs tantially lower than in a civil case; th ere is no presu mption of valid ity; and the exam iner is no t attacking th e valid ity o f the patent but is con ducting a s ubjective examination of the claim s in light of prior art. And unlike in district courts, in reexam ination proceeding claims are given 'th eir broade st reasonable interpretation, consistent with the specification . . . .' *In re Swanson*, 540 F.3d 1368, 1377-78, 88 U.S.P.Q.2d 1196, 1203 (Fed. Cir. 2008) (internal citations and quotation marks omitted).

Therefore, by applying the claim language of th e '761 patent as set forth in the charts provided be low, the Requester is not adm itting and/or acq uiescing to the corr ectness and/or reasonableness of any particula r construction for the purpose s of any litigation or f or any othe r purpose. Many claim s of the '761 patent su ffer from significant § 112 indefinitenes s deficiencies that inhibit clear understanding of their scope. The Requester has for the m ost part relied on the patent owner's own interpretation, as reflected in the manner in which it has applied its claims in litigation, as a guide to how the prior art should be mapped against the claims of the '761 patent. To the extent any interpretation of the claim s can be discerned from the analysis provided in this Request, it does not necessarily reflect the construction that Requester believes should be given to the claim s in litigation but is consistent w ith the m anner in which the patent holder has attempted to apply them.

A. **Anticipation by Hess (SNQ No. 1)**

A claim chart showing how Hess anticipates claims 1-13, 16, 21, 23-26, 29, 31-34 of the '761 patent is provided below. Except as otherwise noted, all underlining in the quotations from the prior art have been added by the Requester for emphasis.

U.S. Patent No. 7,139,761	SNQ No. 1: Anticipation Based on Hess, *A Context File System for Ubiquitous Computing Environments* (July 2002)
Claim 1 (Independent)	
1. A computer-implemented network-based system that facilitates management of data, comprising:	*Hess discloses a computer-implemented network-based system that facilitates the management of data. In particular, Hess discloses a filing system known as the Context File System (CFS) that uses context to allow users to organize and manage their data.* "To address the foregoing issues, this paper presents a context-aware file system (CFS) targeted at ubiquitous computing environments. CFS uses context to facilitate data access for mobile users, to aggregate related data, and to drive dynamic data types to support heterogeneous devices and user preferences." Hess, § 1, page 4. "CFS uses context to alleviate many of the tasks that are traditionally performed manually or require additional programming effort. More specifically, context is used to 1) automatically make personal storage available to applications, conditioned on user presence, 2) <u>organize data to simplify locating data important for applications and users,</u> and 3) retrieve data in a format based on the context of user preferences or device characteristics." Hess, § 1, page 4.
[a1] a computer-implemented context component of the network-based system for capturing context information associated with user-defined data	*Hess discloses a computer-implemented context component of the network-based system (e.g. a mount server) for capturing context information associated with user-defined data (e.g., files created by the user):* "Context allows a system to adapt to the current surroundings in order to facilitate the use of the computational environment. In this paper, we present a file system for ubiquitous computing applications that is context-aware. <u>Context may be associated to files and</u>

U.S. Patent No. 7,139,761	SNQ No. 1: Anticipation Based on Hess, *A Context File System for Ubiquitous Computing Environments* (July 2002)
	directories and is used to limit the scope of available data to what is important for the current task, aggregate related material, and trigger data type conversions, therefore simplifying the tasks of application developers and users of the system." Hess, page 1, Abstract. "The system allows context to be attached (detached) to (from) files and directories by generating context-aware mount points, where mount points are owned by users and contain context tags. Once a context is associated to a file, the data is visible in the directory representing the context, as shown in Fig. 2." Hess, § 2.2, page 6. "CFS categorizes context into *external context* and *internal context*. We define external context as any information that is gathered from the surroundings, outside the scope of the current device or application, which the system uses to organize data so that material important to the current task is aggregated in well-known locations, thereby allowing relevant files and directories to be easily discovered by applications and other users. We define internal context as any information that is determined from the current device or application, for example, device characteristics (i.e., graphic context) or user preferences such as data format. This form of context is used to change the type of a data source so that it is compatible with application needs." Hess, § 2, pages 4-5 (italics in original).
[a2] created by user interaction of a user in a first context of the network-based system,	*The user-defined data is created by user interaction of a user in a first context (e.g., a context directory). For example, Hess discloses a mechanism of "implicit" attachment by which context information is associated when a user creates a file within a particular context directory:* "Implicit attachment of context is handled in a slightly different manner. In this case, when a file is created in one of the current context directories, the current context is used to generate the mount context tags." Hess, § 4.3, page 12.
[a3] the context component dynamically storing the context information in metadata associated with the	*The context component (e.g., mount server) dynamically stores the context information in metadata (e.g. the storage mappings and file system namespace) associated with the user-defined data (e.g. the user file(s)):*

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user-defined data, the user-defined data and metadata stored on a storage component of the network-based system; and	"We use mounts to store context information rather than directories on disk because context directories are not hierarchical and having the information in the mount points makes finding and aggregating files with a particular context easier and more efficient." Hess, § 4.3, page 12. "Each space maintains a single mount server, which stores the current storage namespace layout of the space file system and is essentially a database for searching for relevant material. The mount server contains both system and user storage mappings as described in Section 2.1. These mappings acts as meta-data for files on disk. We split the meta-data from the actual data so that the meta-data can be easily searched, but only a minimal amount of information needs to be transported as users move among spaces. The underlying data is stored as files, since most existing applications use files to store their data." Hess, § 3.1, pages 8-9. *As shown above, the user-defined data and the metadata are both stored in a storage component of the network-based system (e.g., the mount server and files, stored on disk).*
[b1] a computer-implemented tracking component of the network-based system for tracking a change of the user from the first context to a second context of the network-based system and dynamically updating the stored metadata based on the change,	*Hess discloses a computer implemented tracking component for tracking a change of the user from the first context to a second context. This is accomplished, for example, when a user leaves a first space and moves to a second space:* "Active spaces (or simply *spaces*) are often designated for specific tasks . . . and therefore typically have a context associated with them." Hess, § 1, page 3 (italics in original). "The mount server maintains the current context of the space in which it is running." Hess, § 3.1, page 10. "When the user leaves a space, the user's directory mappings are automatically deleted from the space file system, which restricts access unless the user is physically present. The mount server removes the need for users to manually transfer files that they will need when they move between spaces." Hess, § 3.1, page 9. "Users can move between spaces and their environment (i.e., applications, state, data, etc.) can move with them." Hess, § 1, page 3.

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	Hess further discloses that the metadata associated with the user-defined data (e.g. the storage mappings and file system namespace for the user's file(s)) is dynamically updated based on the user's movement from the first to the second context (e.g., new space): "Personal mount points may be carried with a user via a mobile handheld device or automatically retrieved from a home server and merged into the current environment to make personal storage available to applications and other users. Our current implementation employs the latter approach. This allows users to move between spaces and be able to find their data in a consistent location within the directory hierarchy of the space. Therefore, the space file system namespace changes as users physically move in and out of the space." Hess, § 2.1, page 5. "Users are highly mobile in active spaces and should not be burdened with manually transferring files or data, be it configurations, preferences, or application data from one environment to another. The environment should assist in making personal storage automatically available in the users' present location. Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space. Therefore, the physical location of the user triggers the automatic configuration of the user's environment." Hess, § 1, page 4.
[b2] wherein the user accesses the data from the second context.	*Hess discloses that the user accesses the data from the second context (space):* "Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space. Therefore, the physical location of the user triggers the automatic configuration of the user's environment." Hess, § 1, page 4. "[O]ur system is targeted at organizing data for applications in addition to users. Lastly, we incorporate the mobility of users, allowing them to merge their data into a new space." Hess, § 6, page 14.
Claim 2 (Dependent)	
2. The system of claim 1,	*Hess discloses that the context component (e.g., mount server) is*

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the context component is associated with a workspace, which is a collection of data and application functionality related to the user-defined data.	associated with a workspace (e.g., space), which is a collection of data and application functionality related to the user-defined data: "The mount server maintains the current context of the space in which it is running." Hess, § 3.1, page 10. "Each space maintains a collection of data that constitutes the space file system, which consists of space-specific (system) data and remotely-located personal (user) data. Users maintain personal *mobile* mounts that may be merged into the space file system to make their data available within the space and act as pointers to remote storage, as shown in Fig. 1." Hess, § 2.1, page 5 (italics in original). "Figure 1: The mount points of mobile users may be dynamically added to the space file system to make data available to applications running in the space." Hess, § 2.1, page 5. "Users can move between spaces and their environment (i.e., applications, state, data, etc.) can move with them." Hess, § 1, page 3.
Claim 3 (Dependent)	
3. The system of claim 1, the context component is associated with a web, which web is a collection of interrelated workspaces, the web maintains a location of data of the respective interrelated workspaces when one or more of the interrelated workspaces are moved into a different workspace interrelationship.	*Hess discloses that the context component is associated with a web, i.e., a collection of interrelated workspaces (e.g., spaces), that maintain a location of data of the respective workspaces when one or more of the interrelated workspaces are moved into a different workspace interrelationship.* *For example, when a user moves his or her workspace to another workspace, the user's data is "merged" into the new space, which maintains the location of the user's data.* "The personal storage of users is dynamically mounted under the directory /users when they are detected within a space. Since many users may be present in a space, each user is allocated a temporary directory using their unique user name. Personal mount points may be carried with a user via a mobile handheld device or automatically retrieved from a home server and merged into the current environment to make personal storage available to applications and other users. Our current implementation employs the latter approach. This allows users to move

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	between spaces and be able to find their data in a consistent location within the directory hierarchy of the space." Hess, § 2.1, page 5. *See also Hess, § 2.1, page 5, Fig. 2.*
Claim 4 (Dependent)	
4. The system of claim 1, the context information includes a relationship between the user and <u>at least one of</u> an application, application data, and user environment.	*Hess discloses that the context information includes a relationship between the user (e.g., user preferences), the application and/or the application data (e.g., data format):* "CFS categorizes context into *external context* and *internal context*. We define external context as any information that is gathered from the surroundings, outside the scope of the current device or application, which the system uses to organize data so that material important to the current task is aggregated in well-known locations, thereby allowing relevant files and directories to be easily discovered by applications and other users. <u>We define internal context as any information that is determined from the current device or application, for example, device characteristics (i.e., graphic context) or user preferences such as data format</u>. This form of context is used to change the type of a data source so that it is compatible with application needs." Hess, § 2, pages 4-5 (italics in original). "Some examples of useful contexts are: • *Location* – represents the location of the current space, such as a specific room number. • *Situation* – refers to an activity that is taking place within a space, for example a meeting or lecture. • *Space* – represents the type of space, e.g., office or store." Hess, § 2.2, page 7.
Claim 5 (Dependent)	
5. The system of claim **1**, the context component captures context information of the first context and context information related to at least one other context.	*Hess discloses that the context component (e.g., mount server) captures context information of the first context (e.g., the current space in which the user is running) and at least one other context (e.g., a new space into which the user moves):* "The mount server maintains the current context of the

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	space in which it is running." Hess, § 3.1, page 10.
	"Personal mount points may be carried with a user via a mobile handheld device or automatically retrieved from a home server and merged into the current environment to make personal storage available to applications and other users. Our current implementation employs the latter approach. This allows users to move between spaces and be able to find their data in a consistent location within the directory hierarchy of the space. Therefore, the space file system namespace changes as users physically move in and out of the space." Hess, § 2.1, page 5.
	"Users are highly mobile in active spaces and should not be burdened with manually transferring files or data, be it configurations, preferences, or application data from one environment to another. The environment should assist in making personal storage automatically available in the users' present location. Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space." Hess, § 1, page 4.
Claim 6 (Dependent)	
6. The system of claim **5**, the context information of the at least one other context is <u>at least one of</u> stipulated by the user and suggested automatically by the system based upon search and association criteria set by the user.	*Hess discloses that the context information of the at least one other context may be stipulated by the user:* "The mount server maintains the current context of the space in which it is running. In our current implementation, the context is set manually; future versions may be able to detect the context automatically through environmental sensing." Hess, § 3.1, page 10. *Although not necessary to anticipate this claim, Hess also discloses that the context information of the at least one other context may be suggested automatically based upon search and association criteria set by the user (e.g., for locating specific mount points that contain context tags):* "The mount server exports a <u>query interface</u> and acts as a database, <u>which can be used to search for specific mount points</u>, based on the XML description tags, and is used to find mount points during the construction of the virtual directory structure. For example, to determine which files are important to the current task, the mount server is

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	queried for all mount points that match the current context of the space." Hess, § 3.1, page 10. "For example, a seminar application may automatically be started every week at a certain time, trigged by a calendar or when the moderator arrives. Suppose the application displays the papers that are to be discussed that week. The application knows that it requires papers. However, those papers may be specific to the seminar, which is held at a certain time each week in a designated room. Therefore, the environmental context (i.e., seminar, time, etc.) can be used to display the correct material for the given task." Hess, § 1, pages 3-4.
Claim 7 (Dependent)	
7. The system of claim **1**, wherein data created in the first context is associated with data created in the second context.	*Hess discloses that the data created in the first context is associated with data created in the second context:* "Personal mount points may be carried with a user via a mobile handheld device or automatically retrieved from a home server and merged into the current environment to make personal storage available to applications and other users. Our current implementation employs the latter approach. This allows users to move between spaces and be able to find their data in a consistent location within the directory hierarchy of the space. Therefore, the space file system namespace changes as users physically move in and out of the space." Hess, § 2.1, page 5. *For example, if the user moves from the first context to the second context, the data created in the first context "follows" the user to the second context and is associated the data created in that second context:* "The environment should assist in making personal storage automatically available in the users' present location. Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space. Therefore, the physical location of the user triggers the automatic configuration of the user's environment." Hess, § 1, page 4. "Each space maintains a collection of data that constitutes the space file system, which consists of space-specific (system) data and remotely-located personal (user) data.

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	Users maintain personal *mobile* mounts that may be merged into the space file system to make their data available within the space and act as pointers to remote storage, as shown in Fig. 1." Hess, § 2.1, page 5 (italics in original).. "Users can move between spaces and their environment (i.e., <u>applications</u>, state, <u>data</u>, etc.) can move with them." Hess, § 1, page 3. "Figure 1: The mount points of mobile users may be dynamically <u>added to the space file system</u> to make <u>data available to applications running in the space</u>." Hess, § 2.1, page 5. *See also Hess, § 2.1, page 5, Figure 1 (showing the "merging" of the user's data into a new context).*
Claim 8 (Dependent)	
8. The system of claim **1**, the context information is tagged to the user-defined data via the metadata when the user-defined data is created.	*Hess discloses that the context information is tagged to the user-defined data (e.g., user file(s)) via the metadata (e.g., the mount context flags) when the data is created.* *For example, Hess discloses a mechanism of "implicit" attachment by which context information is associated when a user creates a file within a particular context directory:* "Implicit attachment of context is handled in a slightly different manner. In this case, <u>when a file is created in one of the current context directories, the current context is used to generate the mount context tags</u>." Hess, § 4.3, page 12.
Claim 9 (Independent)	
9. A computer-implemented method of managing data, comprising computer-executable acts of:	*Hess discloses a computer-implemented method of managing data. In particular, Hess discloses a filing system known as the Context File System (CFS) that uses context to allow users to organize and manage their data.* "To address the foregoing issues, this paper presents a context-aware file system (CFS) targeted at ubiquitous computing environments. CFS uses context to facilitate data access for mobile users, to aggregate related data, and to drive dynamic data types to support heterogeneous devices and user preferences." Hess, § 1, page 4.

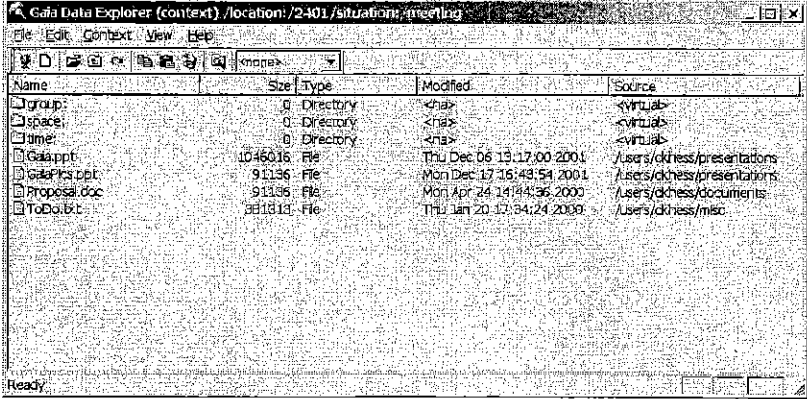| U.S. Patent No. 7,139,761	SNQ No. 1: Anticipation Based on Hess, *A Context File System for Ubiquitous Computing Environments* (July 2002)
	"CFS uses context to alleviate many of the tasks that are traditionally performed manually or require additional programming effort. More specifically, context is used to 1) automatically make personal storage available to applications, conditioned on user presence, 2) <u>organize data to simplify locating data important for applications and users</u>, and 3) retrieve data in a format based on the context of user preferences or device characteristics." Hess, § 1, page 4.
[a] creating data within a user environment of a web-based computing platform via user interaction with the user environment by a user using an application, the data in the form of at least files and documents;	*Hess discloses creating data within a user-environment of a web-based computing platform (e.g., a space) via user interaction with a user environment by a user using an application:* "In this paper, we present a file system for ubiquitous computing applications that is context-aware. Context may be associated <u>to files</u> and directories and is used to limit the scope of available data to what is important for the current task, aggregate related material, and trigger data type conversions, therefore simplifying the tasks of application developers and users of the system." Hess, Abstract, page 1. "The underlying data is stored as <u>files, since most existing applications use files to store their data</u>." Hess, § 3.1, page 9. *Hess further discloses that the user environment resides in a web-based computing platform. See Hess, § 5, page 13 (disclosing the ability to access user environments using graphical browser); § 3.1, page 9 (showing XML coding for context directories).*
[b] dynamically associating metadata with the data, the data and metadata stored on a storage component of the web-based computing platform, the metadata includes information related to the user, the data, the application, and the user environment;	*Hess discloses dynamically associating metadata (e.g., storage mappings and context information) with the data, both the data and metadata being stored on a storage component of the web-based computing platform.* *For example, Hess discloses a mechanism of "implicit" attachment by which context information is created when a user creates a file within a particular context directory:* "Implicit attachment of context is handled in a slightly different manner. In this case, <u>when a file is created in one of the current context directories, the current context is used to generate the mount context tags</u>." Hess, § 4.3, page 12.

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	These mount context tags act as meta-data for the data:
	"We use mounts to store context information rather than directories on disk because context directories are not hierarchical and having the information in the mount points makes finding and aggregating files with a particular context easier and more efficient." Hess, § 4.3, page 12.
	"Each space maintains a single mount server, which stores the current storage namespace layout of the space file system and is essentially a database for searching for relevant material. The mount server contains both system and user storage mappings as described in Section 2.1. These mappings acts as meta-data for files on disk. We split the meta-data from the actual data so that the meta-data can be easily searched, but only a minimal amount of information needs to be transported as users move among spaces. The underlying data is stored as files, since most existing applications use files to store their data." Hess, § 3.1, pages 8-9.
	As shown above, the user-defined data and the metadata are stored in a storage component of the network-based system (e.g., the mount server and files, stored on disk).
	The metadata (e.g., context information) includes information related to the user (e.g., user preferences), the application (e.g., data format) and the user environment (e.g., physical surroundings, device characteristics, etc):
	"CFS categorizes context into *external context* and *internal context*. We define external context as any information that is gathered from the surroundings, outside the scope of the current device or application, which the system uses to organize data so that material important to the current task is aggregated in well-known locations, thereby allowing relevant files and directories to be easily discovered by applications and other users. We define internal context as any information that is determined from the current device or application, for example, device characteristics (i.e., graphic context) or user preferences such as data format. This form of context is used to change the type of a data source so that it is compatible with application needs." Hess, § 2, pages 4-5 (italics in original).

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[c] tracking movement of the user from the user environment of the web-based computing platform to a second user environment of the web-based computing platform; and	*Hess discloses tracking movement of the user from the user environment of the web-based computing platform (e.g., space) to a second such user environment. This is accomplished, for example, when a user leaves a first space and moves into a second space:* "Active spaces (or simply *spaces*) are often designated for specific tasks . . . and therefore typically have a context associated with them." Hess, § 1, page 3 (italics in original). "The mount server maintains the current context of the space in which it is running." Hess, § 3.1, page 10. "When the user <u>leaves a space</u>, the user's directory mappings are automatically deleted from the space file system, which restricts access unless the user is physically present. The mount server removes the need for users to manually transfer files that they will need <u>when they move between spaces</u>." Hess, § 3.1, page 9. *The user moves from the first to a second context, for example, by moving to a new space. This movement is detected (tracked) by the system:* "Users are highly mobile in active spaces and should not be burdened with manually transferring files or data, be it configurations, preferences, or application data from one environment to another. The environment should assist in making personal storage <u>automatically available in the users' present location. Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space</u>. Therefore, the <u>physical location of the user triggers the automatic configuration of the user's environment</u>." Hess, § 1, page 4.
[d] dynamically updating the stored metadata with an association of the data, the application, and the second user environment wherein the user employs at least one of the application and the data from the second environment.	*Hess discloses dynamically updating the stored metadata with an association of the data, application and second user environment (e.g., the new space into which the user moves):* "Personal mount points may be carried with a user via a mobile handheld device or automatically retrieved from a home server and merged into the current environment to make personal storage available to applications and other users. Our current implementation employs the latter approach. <u>This allows users to move between spaces and</u>

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	be able to find their data in a consistent location within the directory hierarchy of the space. Therefore, the space file system namespace changes as users physically move in and out of the space." Hess, § 2.1, page 5.
	"The environment should assist in making personal storage automatically available in the users' present location. Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space. Therefore, the physical location of the user triggers the automatic configuration of the user's environment." Hess, § 1, page 4.
	Hess discloses that the user accesses the application and/or the data from the second user environment (e.g., new space):
	"Users can move between spaces and their environment (i.e., applications, state, data, etc.) can move with them." Hess, § 1, page 3.
	"Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space. Therefore, the physical location of the user triggers the automatic configuration of the user's environment." Hess, § 1, page 4.
	"[O]ur system is targeted at organizing data for applications in addition to users. Lastly, we incorporate the mobility of users, allowing them to merge their data into a new space." Hess, § 6, page 14.
Claim 10 (Dependent)	
10. The method of claim **9**, further comprising capturing context information of the user.	*Hess discloses capturing context information of the user:* "The mount server maintains the current context of the space in which it is running." Hess, § 3.1, page 10. "CFS categorizes context into *external context* and *internal context.* . . We define *internal context* as any information that is determined from the current device or application, for example, device characteristics (i.e., graphic context) or user preferences such as data format." Hess, § 2, pages 4-5.
Claim 11 (Dependent)	
11. The method of claim **9**,	*Hess discloses indexing content of the user environment (e.g.,*

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further comprising indexing content of the user environment such that a plurality of users can access the content from an associated plurality of user environments.	*space) such that a plurality of users can access the content from an associated plurality of user environments.* *For example, Hess discloses that the content of a user environment is indexed through the use of context information to create a virtual directory hierarchy that can be navigated and/or accessed by users who are located in different (remote) user environments (e.g., remote machines):* "Since each user may place their own data in a different location in their own private hierarchy, the task of finding data of another user can be difficult for automated process, during group collaborative task, or when a user must decide from a choice of application configurations. <u>CFS uses context to organize data so that related material are co-located using a virtual directory hierarchy</u>, where irrelevant information is pruned from view." Hess, § 2.2, page 6. "Recall that the data may be located in the personal repositories of individual users. Even though the data of a single user or <u>group of users may be dispersed among several remote machines, that data is aggregated and presented as a single source</u> with only pertinent information available. Name clashes are handled by <u>indexing</u> different files with the same name." Hess, § 2.2, page 7. "This context information can be used to determine which information is meaningful in a particular space. For example, a user may configure a presentation application based on a personal preferences or resources available in a space, such as number and type of displays. Different configurations may be available and the user should be able to choose among them when launching an application. Furthermore, different users may have their own personal configurations, and the correct configurations should be displayed depending on who is launching the application." Hess, § 1, page 3.
Claim 12 (Dependent)	
12. The method of claim **9**, <u>the least one of</u> the data and the application is associated automatically with the	*Hess discloses that the data and application are associated automatically with the second user environment (e.g., new space):* "Users can move between spaces and their environment

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second user environment.	(i.e., <u>applications</u>, state, <u>data</u>, etc.) <u>can move with them</u>." Hess, § 1, page 3. "Users are highly mobile in active spaces and should not be burdened with manually transferring files or data, be it configurations, preferences, or application data from one environment to another. The environment should assist in making personal storage <u>automatically available in the users' present location</u>. <u>Storage becomes implicitly linked to a user and can "follow" them around, becoming available whenever they enter a new space</u>." Hess, § 1, page 4. "The mount server <u>removes the need</u> for users <u>to manually transfer files</u> that they will need <u>when they move between spaces</u>." Hess, § 3.1, page 9.
Claim 13 (Dependent)	
13. The method of claim **9**, further comprising accessing the user environment and the second user environment using a browser.	*Hess discloses accessing the user environment and the second user environment (e.g., the context directories) using a browser:* "We have implemented a shell program to perform command line operations, as well as a <u>graphical interface to navigate the file system hierarchy and launch applications</u>. Figure 4 shows a screen shot of our <u>graphical file browser</u>. The <u>browser</u> is shown in the context directory */location:/2401/situation:/meeting*. The file system has aggregated all files that are associated to the same context and displays them together. <u>New context directories may be created</u> by creating a new folder, which internally calls the mkdir operation." Hess, § 5, page 13. *The browser for accessing user environments (e.g., context directories) is shown in Figure 4, reproduced below:*

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Hess, § 5, page 13, fig. 4. This figure is explained as follows:

"Figure 4: The graphical browser allows users to navigate and manipulate the virtual file hierarchy. Context can be associated to a file by simply copying it to a context directory." Hess, § 5, p. 13. |
| **Claim 16 (Dependent)** | |
| 16. The method of claim **9**, further comprising accessing the user environment via a portable wireless device. | *Hess discloses accessing the user environment via a portable wireless device (e.g., wireless handheld Windows CE device):*

"We allow users to carry their own personal mounts with them via a <u>handheld</u> (see Fig. 3). We have developed an application for <u>WindowsCE devices</u> that is used as the conduit for transporting mounts. When a user enters a space, the device obtains a handle to the space <u>via IR beacon</u>. This handle is the entry point to all services running in the space and is used for further communication with the infrastructure <u>via the 802.11 wireless network</u>." Hess, § 5, page 13.

See also Hess, § 3, page 8, figure 3 (showing mobile handheld device used to access the user environments). |
| **Claim 21 (Independent)** | |
| 21. A computer-readable medium for storing computer-executable instructions for a method of managing data, the method comprising: | *For purposes of this Request, limitations [a] through [d] of claim 21 are substantially similar to claim 9, except that claim 21 was written as a computer-readable medium (apparatus) claim. As such, in the interests of brevity, the full explanation provided in connection with claim 9 above will not be repeated here.*

As explained in connection with the preamble of claim 9, Hess |

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	discloses a method of managing data. See Hess, § 1, page 4.
[a] creating data related to user interaction of a user within a user workspace of a web-based computing platform using an application;	*As explained in connection with limitation [a] of claim 9, Hess discloses creating data related to user interaction of a user within a user workspace of a web-based computing platform using an application. See generally Hess, Abstract, page 1; § 3.1, page 9; § 5, page 13.*
[b] dynamically associating metadata with the data, the data and metadata stored on the web-based computing platform, the metadata includes information related to the user of the user workspace, to the data, to the application and to the user workspace;	*As explained in connection with limitation [b] of claim 9, Hess discloses dynamically associating metadata with the data, and storing it on the web-based computing platform, the metadata includes information related to the user of the user workspace, to the data, to the application and to the user workspace. See Hess, § 4.3, page 12; § 3.1, pages 8-9; § 2, pages 4-5.*
[c] tracking movement of the user from the user workspace to a second user workspace of the web-based computing platform;	*As explained in connection with limitation [c] of claim 9, Hess discloses tracking movement of the user from the first to the second workspace of the web-based computing platform. See Hess, § 1, pages 3-4; § 3.1, pages 9-10.*
[d] dynamically associating the data and the application with the second user workspace in the metadata such that the user employs the application and data from the second user workspace; and	*As explained in connection with limitation [d] of claim 9, Hess discloses dynamically associating the data and application with the second user workspace in the metadata such that the user employs the application and data from the second workspace. See Hess, § 1, pages 3-4; § 2.1, page 5; § 6, page 14.*
[e] indexing the data created in the user workspace such that a plurality of different users can access the data via the metadata from a corresponding plurality of different user workspaces.	*For the purposes of this Request, this limitation is substantially similar to dependent claim 11. As such, in the interests of brevity, the full explanation provided in connection with claim 11 need not be repeated here.* *As explained in connection with claim 11, supra, Hess discloses indexing the data created in the user workspace such that a plurality of users can access the data via the metadata from a*

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	corresponding plurality of different user workspaces. See Hess, § 2.2, page 6; § 2.2, page 7.
Claim 23 (Independent)	
23. A computer-implemented system that facilitates management of data, comprising:	*For purposes of this Request, the preamble of claim 23 is substantially identical to the preamble of claim 1. As such, in the interests of brevity, the full explanation provided in connection with the preamble of claim 1 will not be repeated here.* *As explained in connection with the preamble of claim 1, Hess discloses a computer-implemented system that facilitates management of data. See Hess, § 1, page 4.*
[a1] a computer-implemented context component of a web-based server for defining a first user workspace of the web-based server,	*Hess discloses generating a plurality of user environments in a web-based system. These user environments take the form of, for example, "spaces":* "Recent activity in ubiquitous computing research is attempting to merge the virtual and physical worlds by incorporating an array of software, hardware, and physical entities into next generation computing environments [Wei93, MIT, Hew, Mic]. These environments consist of intelligent rooms or spaces, containing appliances (whiteboard, video projectors, etc), powerful stationary computers, and mobile wireless handheld devices. The large collection of devices, resources, and peripherals must be coordinated and access to them must be made simple. Users should be able to easily interact with these devices and it should be easy for developers to construct applications utilizing any of the available resources. We term these environments *active spaces*." Hess, § 1, page 3 (italics in original). "Users are highly mobile in active spaces and should not be burdened with manually transferring files or data, be it configurations, preferences, or application data from one environment to another." Hess, § 1, page 4. *Hess further discloses that the user environment resides in a web-based system. See Hess, § 5, page 13 (disclosing the ability to access user environments using a graphical browser); § 3.1, page 9 (showing XML coding for context directories).*
[a2] assigning one or more applications to the first user	*Hess discloses that the context component assigns one or more applications to the first user workspace (e.g., space):*

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workspace,	"Each space maintains a single mount server, which stores the current storage namespace layout of the space file system and is essentially a database for searching for relevant material. The mount server contains both system and user storage mappings as described in Section 2.1. ... The underlying data is stored as files, since most existing applications use files to store their data." Hess, § 3.1, pages 8-9 "Users can move between spaces and their environment (i.e., applications, state, data, etc.) can move with them." Hess, § 1, page 3. "CFS uses context to alleviate many of the tasks that are traditionally performed manually or require additional programming effort. More specifically, context is used to 1) automatically make personal storage available to applications, conditioned on user presence, 2) organize data to simplify locating data important for applications and users, and 3) retrieve data in a format based on the context of user preferences or device characteristics." Hess, § 1, page 4.
[a3] capturing context data associated with user interaction of a user while in the first user workspace, and for	*Hess discloses that the context component captures context data associated with user interaction of a user while in the first user workspace (e.g., user creating or modifying files in a space):* "Context allows a system to adapt to the current surroundings in order to facilitate the use of the computational environment. In this paper, we present a file system for ubiquitous computing applications that is context-aware. Context may be associated to files and directories and is used to limit the scope of available data to what is important for the current task, aggregate related material, and trigger data type conversions, therefore simplifying the tasks of application developers and users of the system." Hess, page 1, Abstract. "The system allows context to be attached (detached) to (from) files and directories by generating context-aware mount points, where mount points are owned by users and contain context tags. Once a context is associated to a file, the data is visible in the directory representing the context, as shown in Fig. 2." Hess, § 2.2, page 6. "CFS categorizes context into *external context* and *internal context*. We define external context as any

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	information that is gathered from the surroundings, outside the scope of the current device or application, which the system uses to organize data so that material important to the current task is aggregated in well-known locations, thereby allowing relevant files and directories to be easily discovered by applications and other users. We define internal context as any information that is determined from the current device or application, for example, device characteristics (i.e., graphic context) or user preferences such as data format. This form of context is used to change the type of a data source so that it is compatible with application needs." Hess, § 2, pages 4-5 (italics in original).
[a4] dynamically storing the context data as metadata on a storage component of the web-based server, which metadata is dynamically associated with data created in the first user workspace; and	*Hess discloses that the context component (e.g., mount server) dynamically stores the context information in metadata (e.g. the user storage mappings and file system namespace) associated with the user-defined data (e.g. the user file(s)):* "We use mounts to store context information rather than directories on disk because context directories are not hierarchical and having the information in the mount points makes finding and aggregating files with a particular context easier and more efficient." Hess, § 4.3, page 12. "Each space maintains a single mount server, which stores the current storage namespace layout of the space file system and is essentially a database for searching for relevant material. The mount server contains both system and user storage mappings as described in Section 2.1. These mappings acts as meta-data for files on disk. We split the meta-data from the actual data so that the meta-data can be easily searched, but only a minimal amount of information needs to be transported as users move among spaces. The underlying data is stored as files, since most existing applications use files to store their data." Hess, § 3.1, pages 8-9. *As shown above, the user-defined data and the metadata are both stored in a storage component of the network-based system (e.g., the mount server and files, stored on disk).*
[b1] a computer-implemented tracking	*Hess discloses a computer implemented tracking component of the web-based server for tracking change information associated*

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component of the web-based server for tracking change information associated with a change in access of the user from the first user workspace to a second user workspace, and dynamically storing the change information on the storage component as part of the metadata,	*with a change in access of the user from the first user workspace to a second user workspace. This is accomplished in Hess, for example, when the user leaves a first space and moves into a second space:* "When the user <u>leaves a space</u>, the user's directory mappings are automatically deleted from the space file system, which restricts access unless the user is physically present. The mount server removes the need for users to manually transfer files that they will need <u>when they move between spaces</u>." Hess, § 3.1, page 9. "Users can move between spaces and their environment (i.e., <u>applications</u>, state, <u>data</u>, etc.) can move with them." Hess, § 1, page 3. *Hess further discloses that the change information is dynamically (e.g., automatically) stored as part of the metadata (e.g. the storage mappings and file system namespace for the user's file(s)):* "Personal mount points may be carried with a user via a mobile handheld device or automatically retrieved from a home server and merged into the current environment to make personal storage available to applications and other users. Our current implementation employs the latter approach. <u>This allows users to move between spaces and be able to find their data in a consistent location within the directory hierarchy of the space. Therefore, the space file system namespace changes as users physically move in and out of the space.</u>" Hess, § 2.1, page 5. "Users are highly mobile in active spaces and should not be burdened with manually transferring files or data, be it configurations, preferences, or application data from one environment to another. The environment should assist in making personal storage <u>automatically available in the users' present location. Storage becomes implicitly linked to a user and can 'follow' them around, becoming available whenever they enter a new space.</u> Therefore, the <u>physical location of the user triggers the automatic configuration of the user's environment.</u>" Hess, § 1, page 4.
[b2] wherein the user accesses the data from the	*Hess discloses that the user accesses the data from the second user workspace:*