



US008157173B2

(12) **United States Patent**
Melick et al.

(10) **Patent No.:** **US 8,157,173 B2**
(45) **Date of Patent:** ***Apr. 17, 2012**

(54) **METHOD FOR TAGGED BAR CODE DATA INTERCHANGE**

(75) Inventors: **Bruce D. Melick**, Cedar Rapids, IA (US); **David M. Snyder**, Cedar Rapids, IA (US); **Leslie D. Baych**, Cedar Rapids, IA (US)

(73) Assignee: **Roelesis Wireless LLC**, Dover, DE (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 623 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/833,588**

(22) Filed: **Aug. 3, 2007**

(65) **Prior Publication Data**

US 2008/0017714 A1 Jan. 24, 2008

Related U.S. Application Data

(63) Continuation of application No. 10/847,994, filed on May 18, 2004, now Pat. No. 7,267,279, which is a continuation of application No. 10/158,718, filed on May 30, 2002, now Pat. No. 6,764,009.

(60) Provisional application No. 60/294,375, filed on May 30, 2001.

(51) **Int. Cl.**

G06K 7/10	(2006.01)
G06K 7/08	(2006.01)
G06K 15/00	(2006.01)
G06K 19/00	(2006.01)
G06K 19/06	(2006.01)
G06Q 30/00	(2012.01)
G06Q 20/00	(2012.01)

(52) **U.S. Cl.** **235/462.01**; 235/451; 235/383; 235/487; 235/494; 705/26.1; 705/23

(58) **Field of Classification Search** 235/462.01, 235/451, 383, 487, 494; 705/10, 23, 26.1
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,175,693 A 11/1979 Nakanishi et al.
(Continued)

FOREIGN PATENT DOCUMENTS

JP 406089362 3/1994
(Continued)

OTHER PUBLICATIONS

"PSC Momentum Scanner and Handspring Visor," <http://www.psnet.com/momenvsr.htm>, pp. 1-2 [accessed on Dec. 27, 2000].

(Continued)

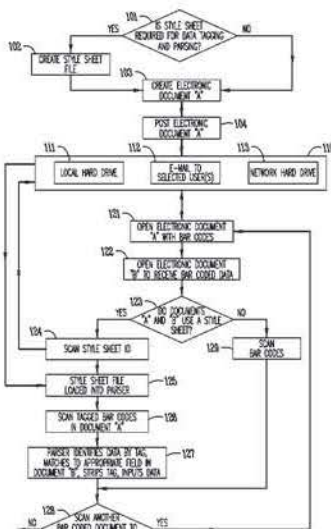
Primary Examiner — Daniel Walsh

(74) *Attorney, Agent, or Firm* — Perkins Coie LLP

(57) **ABSTRACT**

A method of tagged bar code data interchange includes creating electronic and/or printed documents with tagged bar coded information, capturing and decoding the tagged bar coded information, caching the tagged bar coded information, parsing the bar coded data tags, stripping the data tags, and inputting/storing the bar coded information. Business can be conducted on-line using e-mail transmissions of video displayed tagged bar coded information. Such tagged bar coded information can be stored and/or input into style sheets that are in common or company-specific formats. Further, companies can receive consumer information in a format that is easily accessible by any portion, affiliate, subsidiary, or related entity of the company, no matter what software system is running.

30 Claims, 9 Drawing Sheets



U.S. PATENT DOCUMENTS

4,352,012	A	9/1982	Verderber et al.	6,394,356	B1	5/2002	Zagami	
4,481,412	A	11/1984	Fields	6,427,032	B1	7/2002	Irons et al.	
4,511,259	A	4/1985	Horiuchi	6,429,776	B1	8/2002	Alicot et al.	
4,731,525	A	3/1988	Hice	6,464,140	B1	10/2002	Weigel	
4,752,675	A	6/1988	Zetmeir	6,540,138	B2	4/2003	Hall et al.	
4,791,281	A	12/1988	Johnsen et al.	6,540,142	B1*	4/2003	Alleshouse	235/462.01
4,825,058	A*	4/1989	Poland	6,540,143	B1	4/2003	Matsumori	
4,877,948	A	10/1989	Krueger	6,568,596	B1*	5/2003	Shaw	235/462.01
4,902,883	A	2/1990	Poland	6,616,056	B2	9/2003	Cato	
5,025,397	A	6/1991	Suzuki	6,631,843	B2	10/2003	Schuessler	
5,113,445	A	5/1992	Wang	6,666,377	B1	12/2003	Harris	
5,159,180	A	10/1992	Feiler	6,668,293	B2	12/2003	Chen et al.	
5,159,635	A	10/1992	Wang	6,669,087	B2	12/2003	Wiklof et al.	
5,178,417	A	1/1993	Eshoo	6,674,924	B2*	1/2004	Wright et al.	382/306
5,227,893	A	7/1993	Ett	6,685,094	B2	2/2004	Cameron	
5,245,655	A	9/1993	Buhn et al.	6,707,581	B1	3/2004	Browning	
5,287,434	A	2/1994	Bain et al.	6,729,547	B1	5/2004	Charlier et al.	
5,315,093	A	5/1994	Stewart	6,749,120	B2	6/2004	Hung et al.	
5,331,137	A	7/1994	Swartz	6,758,391	B1	7/2004	Pickens, II	
5,363,214	A	11/1994	Johnson	6,764,009	B2*	7/2004	Melick et al.	235/462.01
5,369,571	A	11/1994	Metts	6,772,947	B2*	8/2004	Shaw	235/462.01
5,379,345	A	1/1995	Greenberg	6,772,950	B2	8/2004	He	
5,420,943	A	5/1995	Mak	6,793,127	B2*	9/2004	Alsafadi et al.	235/375
5,436,437	A	7/1995	Ho	6,799,717	B2	10/2004	Harris	
5,451,760	A	9/1995	Renvall	6,826,548	B2	11/2004	Hungerpillier et al.	
5,453,600	A	9/1995	Swartz	6,854,651	B2	2/2005	Smith et al.	
5,455,414	A	10/1995	Wang	6,865,284	B2	3/2005	Mahoney et al.	
5,468,945	A	11/1995	Huggett et al.	6,915,957	B2	7/2005	Kisliakov	
5,489,763	A	2/1996	Conrad et al.	6,948,068	B2	9/2005	Lawandy et al.	
5,490,217	A	2/1996	Wang et al.	7,070,103	B2	7/2006	Melick et al.	
5,506,697	A	4/1996	Li et al.	7,118,040	B2	10/2006	Melick et al.	
5,563,399	A	10/1996	Wang	7,240,841	B2*	7/2007	Kelley et al.	235/462.01
5,579,537	A	11/1996	Takahisa	7,257,202	B2	8/2007	Umemura et al.	
5,594,230	A	1/1997	Waite et al.	7,267,279	B2*	9/2007	Melick et al.	235/462.01
5,602,377	A	2/1997	Beller et al.	7,299,972	B2*	11/2007	Kelley et al.	235/375
5,644,408	A	7/1997	Li et al.	7,337,971	B2*	3/2008	Melick et al.	235/462.1
5,659,164	A	8/1997	Schmid et al.	7,350,708	B2*	4/2008	Melick et al.	235/462.01
5,665,953	A	9/1997	Mazzamuto et al.	7,419,097	B2*	9/2008	Lee et al.	235/462.11
5,682,030	A	10/1997	Kubon	7,469,833	B1*	12/2008	Kelley et al.	235/462.01
5,684,288	A	11/1997	Renvall	7,798,417	B2*	9/2010	Snyder et al.	235/494
5,760,382	A	6/1998	Li et al.	7,942,328	B2*	5/2011	Snyder et al.	235/462.01
5,781,914	A	7/1998	Stork et al.	2001/0003178	A1	6/2001	Chen et al.	
5,804,803	A*	9/1998	Cragun et al.	2001/0006189	A1	7/2001	Ruby	
5,805,152	A	9/1998	Furusawa	2001/0011233	A1	8/2001	Narayanaswami	
5,812,664	A*	9/1998	Bernobich et al.	2001/0030234	A1	10/2001	Wiklof	
5,825,009	A	10/1998	Schmid et al.	2001/0034222	A1	10/2001	Roustaei et al.	
5,841,116	A	11/1998	Lewis	2001/0037297	A1*	11/2001	McNair	705/40
5,848,202	A	12/1998	D'Eri et al.	2001/0042791	A1	11/2001	Postlewaite	
5,848,292	A	12/1998	Nathan	2001/0045461	A1	11/2001	Schuessler	
5,848,426	A	12/1998	Wang et al.	2001/0054082	A1	12/2001	Rudolph et al.	
5,872,589	A	2/1999	Morales	2002/0023027	A1*	2/2002	Simonds	705/26
5,933,829	A	8/1999	Durst et al.	2002/0059241	A1*	5/2002	Van Ryzin	707/10
5,939,699	A	8/1999	Perttunen et al.	2002/0063903	A1	5/2002	Claviez-Homberg	
5,974,202	A	10/1999	Wang et al.	2002/0074399	A1	6/2002	Hall et al.	
5,979,762	A	11/1999	Bianco	2002/0097426	A1	7/2002	Gusmano et al.	
6,002,491	A	12/1999	Li et al.	2002/0105424	A1	8/2002	Alicot et al.	
6,015,088	A	1/2000	Parker et al.	2002/0105529	A1*	8/2002	Bowser et al.	345/629
6,015,167	A	1/2000	Savino et al.	2002/0165931	A1	11/2002	Greer et al.	
6,024,284	A	2/2000	Schmid et al.	2002/0181804	A1*	12/2002	Simpson et al.	382/305
6,024,289	A	2/2000	Ackley	2002/0195495	A1	12/2002	Melick et al.	
6,031,621	A	2/2000	Binder	2003/0009350	A1*	1/2003	Melick et al.	705/1
6,036,094	A	3/2000	Goldman et al.	2003/0019935	A1	1/2003	Giannulli	
6,039,252	A	3/2000	Maltsev	2003/0019939	A1	1/2003	Sellen	
6,041,374	A	3/2000	Postman et al.	2003/0042312	A1	3/2003	Cato	
6,056,195	A	5/2000	Spain	2003/0042313	A1	3/2003	Kahn et al.	
6,082,620	A	7/2000	Bone, Jr.	2003/0089764	A1*	5/2003	Meadow et al.	235/375
6,095,418	A	8/2000	Swartz et al.	2003/0127517	A1	7/2003	Convellaere et al.	
6,102,289	A	8/2000	Gabrielson	2003/0141368	A1	7/2003	Pascual et al.	
6,108,656	A*	8/2000	Durst et al.	2003/0169456	A1*	9/2003	Suzaki	358/3.28
6,138,906	A	10/2000	Demayo	2003/0179908	A1	9/2003	Mahoney et al.	
6,149,059	A	11/2000	Ackley	2003/0182242	A1	9/2003	Scott et al.	
6,189,009	B1	2/2001	Stratigos et al.	2003/0197062	A1*	10/2003	Shaw	235/385
6,230,143	B1	5/2001	Simons et al.	2003/0226885	A1	12/2003	Harris	
6,260,762	B1	7/2001	Lohmann	2003/0229678	A1	12/2003	Wen et al.	
6,289,323	B1*	9/2001	Gordon et al.	2003/0230630	A1	12/2003	Whipple et al.	
6,299,063	B1	10/2001	Freeman	2003/0236680	A1	12/2003	Holonbek	
				2004/0010604	A1	1/2004	Tanaka et al.	

2004/0039634	A1	2/2004	Cook	
2004/0059462	A1	3/2004	Norris et al.	
2004/0073495	A1	4/2004	Calaway et al.	
2004/0074965	A1*	4/2004	Raney et al.	235/385
2004/0083233	A1*	4/2004	Willoughby	707/104.1
2004/0094632	A1*	5/2004	Alleshouse	235/494
2004/0099741	A1	5/2004	Dorai et al.	
2004/0117255	A1	6/2004	Nemirofsky et al.	
2004/0117638	A1	6/2004	Monroe	
2004/0120016	A1	6/2004	Burke	
2004/0120547	A1	6/2004	Mampe et al.	
2004/0176978	A1	9/2004	Simon et al.	
2004/0177003	A1	9/2004	Liao et al.	
2004/0206820	A1*	10/2004	Melick et al.	235/462.01
2005/0015310	A1	1/2005	Frantz et al.	
2005/0029354	A1	2/2005	Frantz et al.	
2005/0029358	A1	2/2005	Mankins	
2005/0044179	A1	2/2005	Hunter	
2005/0061887	A1	3/2005	Garrison et al.	
2005/0082370	A1	4/2005	Frantz et al.	
2005/0098632	A1	5/2005	Turvy et al.	
2005/0150944	A1*	7/2005	Melick et al.	235/375
2005/0173524	A1*	8/2005	Schrader	235/384
2005/0173538	A1	8/2005	Tsukuda	
2005/0224571	A1*	10/2005	Kelley et al.	235/375
2005/0224572	A1*	10/2005	Kelley et al.	235/375
2005/0274807	A1*	12/2005	Barrus et al.	235/462.25
2006/0108422	A1	5/2006	Melick et al.	
2006/0124724	A1*	6/2006	Kotovitch et al.	235/379
2006/0138227	A1*	6/2006	Alleshouse	235/432
2007/0012779	A1	1/2007	Melick et al.	

2007/0075861	A1*	4/2007	Cook et al.	340/572.1
2007/0119954	A1*	5/2007	Barenburg et al.	235/494
2007/0138289	A1*	6/2007	Melick et al.	235/462.41
2007/0145138	A1*	6/2007	Snyder et al.	235/462.01
2007/0248275	A1*	10/2007	Tabesh et al.	382/248
2008/0017714	A1*	1/2008	Melick et al.	235/462.07
2008/0017722	A1*	1/2008	Snyder et al.	235/494
2008/0035390	A1*	2/2008	Wurz	177/25.15
2008/0141117	A1*	6/2008	King et al.	715/238
2009/0094082	A1*	4/2009	Willoughby	705/7
2009/0103803	A1*	4/2009	Kumar et al.	382/166
2011/0130129	A1*	6/2011	Snyder et al.	455/414.1

FOREIGN PATENT DOCUMENTS

JP 2003157093 5/2003

OTHER PUBLICATIONS

Marsh, D., "Temporal Rate Conversion," <http://www.microsoft.com/hwdev/TVBROADCAST/TempRate1.htm>, pp. 1-20 [accessed on Dec. 27, 2000].
 "Choosing a Bar Code," <http://www.elfring.com/barcode.htm>. 4 pgs. [accessed on Dec. 23, 1999].
 Product Profile: Hand Held Bar Code Scanner; Scan Plus 1800 by Intermec Technologies Corporation, 1998, pp. 1-2.
 Motorola, Symbol Technologies, Connect Things and Airlec Form New Company to Drive the Growth of E-Commerce Through One-Scan Access to the Internet by Symbol, Jun. 15, 2000, pp. 1-4.
 WelchAllyn Scanteam 3400 Series User's Guide, 1998 27 pages.

* cited by examiner

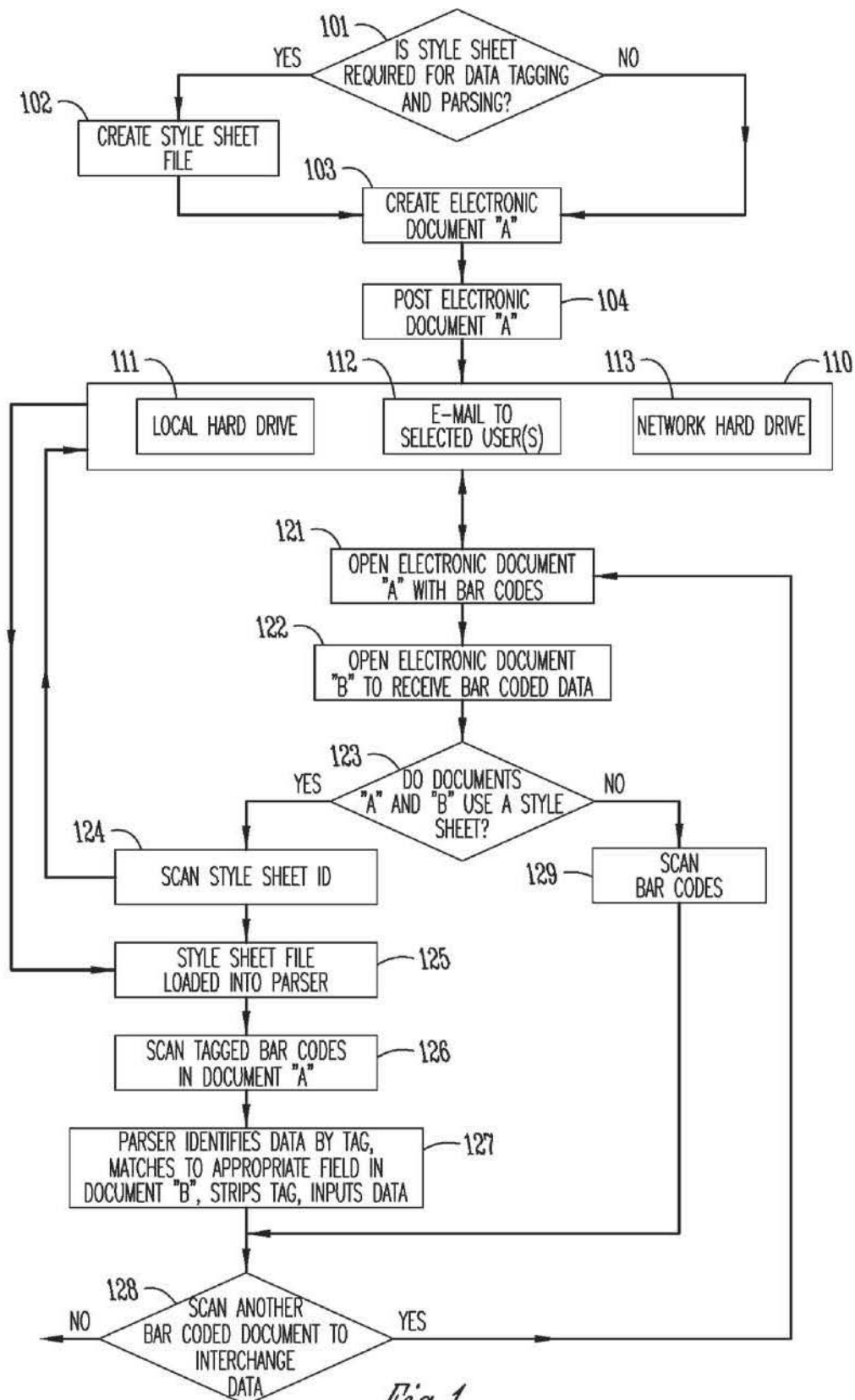


Fig. 1

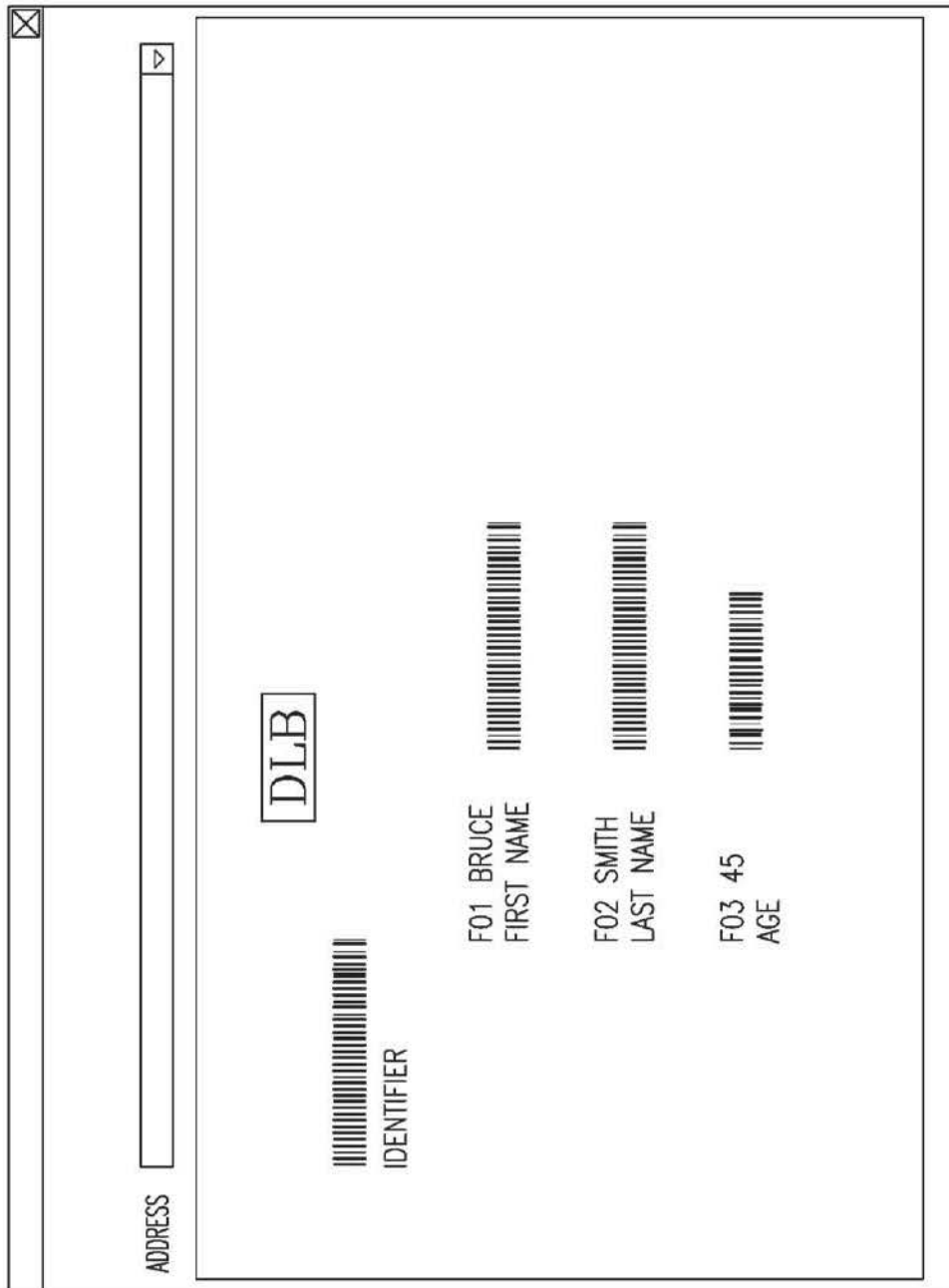


Fig. 2

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.