



US006963859B2

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

(10) **Patent No.:** **US 6,963,859 B2**  
(45) **Date of Patent:** **Nov. 8, 2005**

(54) **CONTENT RENDERING REPOSITORY** 3,790,700 A 2/1974 Callais et al.  
3,798,605 A 3/1974 Feistel  
(75) Inventors: **Mark J. Stefik**, Portola Valley, CA  
(US); **Peter L. Pirolli**, San Francisco,  
CA (US) 4,159,468 A 6/1979 Barnes et al.  
4,220,991 A 9/1980 Hamano et al.  
(Continued)

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**FOREIGN PATENT DOCUMENTS**

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 78 days.

EP 0 084 441 7/1983  
EP 0 180 460 5/1986  
EP 0 332 707 9/1989  
EP 0 651 554 5/1995  
EP 0 668 695 8/1995

(21) Appl. No.: **10/345,390**

(Continued)

(22) Filed: **Jan. 16, 2003**

**OTHER PUBLICATIONS**

(65) **Prior Publication Data**

US 2003/0225699 A1 Dec. 4, 2003

Weber, Robert. Digital Rights Management Technologies.  
Oct. 1995. Retrieved from IDS.\*

“National Semiconductor and EPR Partner for Information  
Metering/Data Security Cards” Mar. 4, 1994, Press Release  
from Electronic Publishing Resources, Inc.

**Related U.S. Application Data**

(Continued)

(63) Continuation of application No. 09/778,006, filed on Feb. 7,  
2001, now Pat. No. 6,714,921, which is a division of  
application No. 08/967,084, filed on Nov. 10, 1997, now Pat.  
No. 6,236,971, which is a continuation of application No.  
08/344,760, filed on Nov. 23, 1994, now abandoned.

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(51) **Int. Cl.**<sup>7</sup> ..... **G06F 17/60**

(52) **U.S. Cl.** ..... **705/51; 705/52; 705/53;**  
**705/54; 705/55; 705/56; 705/57; 705/58;**  
**705/59; 705/50; 380/201; 707/9; 707/104.1;**  
**713/182; 713/183; 713/184; 713/185; 713/186**

(57) **ABSTRACT**

A rendering system adapted for use in a system for managing  
use of content and operative to rendering content in accordance  
with usage rights associated with the content. The  
system includes a rendering device configured to render the  
content and a repository coupled to the rendering device and  
operative to enforce usage rights associated with the content  
and permit the rendering device to render the content in  
accordance with a manner of use specified by the usage  
rights.

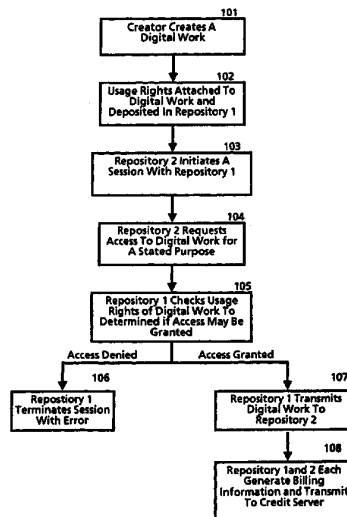
(58) **Field of Search** ..... **705/50–59; 380/201,**  
**380/30; 707/9, 104.1; 713/182–186, 156;**  
**235/449; 379/93**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,263,158 A 7/1966 Barga et al.  
3,609,697 A 9/1971 Blevins et al.

**84 Claims, 13 Drawing Sheets**



US 6,963,859 B2

U.S. PATENT DOCUMENTS

4,278,837	A	7/1981	Best	5,455,953	A	10/1995	Russell
4,323,921	A	4/1982	Guillou	5,457,746	A	10/1995	Dolphin
4,442,486	A	4/1984	Mayer	5,473,687	A	12/1995	Lipscomb et al.
4,529,870	A	7/1985	Chaum	5,473,692	A	12/1995	Davis
4,558,176	A	12/1985	Arnold et al.	5,499,298	A	3/1996	Narasimhalu et al.
4,593,376	A	6/1986	Volk	5,502,766	A	3/1996	Boebert et al.
4,614,861	A	9/1986	Pavlov et al.	5,504,814	A	4/1996	Miyahara
4,644,493	A	2/1987	Chandra et al.	5,504,818	A	4/1996	Okano
4,658,093	A	4/1987	Hellman	5,504,837	A	4/1996	Griffeth et al.
4,713,753	A	12/1987	Beobert et al.	5,509,070	A	4/1996	Schull
4,796,220	A	1/1989	Wolfe	5,530,235	A	6/1996	Stefik et al.
4,817,140	A	3/1989	Chandra et al.	5,532,920	A	7/1996	Hartrick et al.
4,827,508	A	5/1989	Shear	5,534,975	A	7/1996	Stefik et al.
4,868,376	A	9/1989	Lessin et al.	5,539,735	A	7/1996	Moskowitz
4,891,838	A	1/1990	Faber	5,563,946	A	10/1996	Cooper et al.
4,924,378	A	5/1990	Hershey et al.	5,568,552	A	10/1996	Davis
4,932,054	A	6/1990	Chou et al.	5,621,797	A	4/1997	Rosen
4,937,863	A	6/1990	Robert et al.	5,629,980	A	5/1997	Stefik et al.
4,949,187	A	8/1990	Cohen	5,633,932	A	5/1997	Davis et al.
4,953,209	A	8/1990	Ryder, Sr. et al.	5,634,012	A	5/1997	Stefik et al.
4,961,142	A	10/1990	Elliott et al.	5,638,443	A	6/1997	Stefik et al.
4,975,647	A	12/1990	Downer et al.	5,649,013	A	7/1997	Stuckey et al.
4,977,594	A	12/1990	Shear	5,655,077	A	8/1997	Jones et al.
4,999,806	A	3/1991	Chernow et al.	5,708,717	A	1/1998	Alasia
5,010,571	A	4/1991	Katznelson	5,734,823	A	3/1998	Saigh et al.
5,014,234	A	5/1991	Edwards, Jr.	5,734,891	A	3/1998	Saigh
5,023,907	A	6/1991	Johnson et al.	5,737,413	A	4/1998	Akiyama et al.
5,047,928	A	9/1991	Wiedemer	5,737,416	A	4/1998	Cooper et al.
5,050,213	A	9/1991	Shear	5,745,569	A	4/1998	Moskowitz et al.
5,052,040	A	9/1991	Preston et al.	5,748,783	A	5/1998	Rhoads
5,058,164	A	10/1991	Elmer et al.	5,757,907	A	5/1998	Cooper et al.
5,103,476	A	4/1992	Waite et al.	5,761,686	A	6/1998	Bloomberg
5,113,519	A	5/1992	Johnson et al.	5,765,152	A	6/1998	Erickson
5,136,643	A	8/1992	Fischer	5,768,426	A	6/1998	Rhoads
5,138,712	A	* 8/1992	Corbin ..... 713/200	5,825,892	A	10/1998	Braudaway et al.
5,146,499	A	9/1992	Geffrotin	5,892,900	A	4/1999	Ginter et al.
5,148,481	A	9/1992	Abraham et al.	5,910,987	A	6/1999	Ginter et al.
5,159,182	A	10/1992	Eisele	5,915,019	A	6/1999	Ginter et al.
5,183,404	A	2/1993	Aldous et al.	5,917,912	A	6/1999	Ginter et al.
5,191,193	A	3/1993	Le Roux	5,920,861	A	7/1999	Hall et al.
5,204,897	A	4/1993	Wyman	5,940,504	A	8/1999	Griswold
5,222,134	A	6/1993	Waite et al.	5,943,422	A	8/1999	Van Wie et al.
5,235,642	A	8/1993	Wobber et al.	5,949,876	A	9/1999	Ginter et al.
5,247,575	A	9/1993	Sprague et al.	5,982,891	A	11/1999	Ginter et al.
5,255,106	A	10/1993	Castro	5,999,949	A	12/1999	Crandall
5,260,999	A	* 11/1993	Wyman ..... 705/59	6,047,067	A	4/2000	Rosen
5,263,157	A	11/1993	Janis	6,112,181	A	8/2000	Shear et al.
5,263,158	A	11/1993	Janis	6,115,471	A	9/2000	Oki et al.
5,276,444	A	1/1994	McNair	6,138,119	A	10/2000	Hall et al.
5,276,735	A	1/1994	Boebert et al.	6,157,721	A	12/2000	Shear et al.
5,291,596	A	3/1994	Mita	6,185,683	B1	2/2001	Ginter et al.
5,295,266	A	* 3/1994	Hinsley et al. .... 718/101	6,226,618	B1	5/2001	Downs et al.
5,301,231	A	4/1994	Abraham et al.	6,233,684	B1	5/2001	Stefik et al.
5,311,591	A	5/1994	Fischer	6,237,786	B1	5/2001	Ginter et al.
5,319,705	A	6/1994	Halter et al.	6,240,185	B1	5/2001	Van Wie et al.
5,335,346	A	* 8/1994	Fabbio ..... 711/163	6,253,193	B1	6/2001	Ginter et al.
5,337,357	A	8/1994	Chou et al.	6,266,618	B1	7/2001	Ye et al.
5,339,091	A	8/1994	Yamazaki et al.	6,292,569	B1	9/2001	Shear et al.
5,339,392	A	* 8/1994	Risberg et al. .... 345/762	6,301,660	B1	10/2001	Benson
5,341,429	A	8/1994	Stringer et al.	6,327,652	B1	12/2001	England et al.
5,347,579	A	9/1994	Blandford	6,330,670	B1	12/2001	England et al.
5,381,526	A	1/1995	Ellson	6,345,256	B1	2/2002	Milsted et al.
5,394,469	A	2/1995	Nagel et al.	6,363,488	B1	3/2002	Ginter et al.
5,410,598	A	4/1995	Shear	6,389,402	B1	5/2002	Ginter et al.
5,412,717	A	5/1995	Fischer				
5,428,606	A	6/1995	Moskowitz				
5,432,849	A	7/1995	Johnson et al.	EP	0 725 376	8/1996	
5,438,508	A	8/1995	Wyman	GB	2 136 175	9/1984	
5,444,779	A	8/1995	Daniele	GB	2 236 604	4/1991	
5,453,601	A	9/1995	Rosen	JP	62-241061	10/1987	
				JP	64-068835	3/1989	

FOREIGN PATENT DOCUMENTS

JP	H03-282733	* 12/1991	..... G06F/9/06
JP	04-369068	12/1992	
JP	05-268415	10/1993	
JP	06-175794	6/1994	
JP	06-215010	8/1994	
JP	07-084852	3/1995	
JP	07-200317	8/1995	
JP	07-244639	9/1995	
JP	0 715 241	6/1996	
WO	WO 92/20022	11/1992	
WO	WO 93/01550	1/1993	
WO	WO 94/01821	1/1994	
WO	WO 96/24092	8/1996	
WO	WO 97/48203	12/1997	
WO	WO 98/11690	3/1998	
WO	WO 98/42098	9/1998	
WO	WO 99/49615	9/1999	
WO	WO 01/63528	8/2001	

## OTHER PUBLICATIONS

Weber, R., "Digital Rights Management Technology" Oct. 1995.

Flasche, U. et al., "Decentralized Processing of Documents", pp. 119-131, 1986, *Comput. & Graphics*, vol. 10, No. 2.

Mori, R. et al., "Superdistribution: The Concept and the Architecture", pp. 1133-1146, 1990. *The Transactions of the IEICE*, Vol. E 73, No. 7, Tokyo, JP.

Weber, R., "Metering Technologies for Digital Intellectual Property", pp. 1-29, Oct. 1994, *A Report to the International Federation of Reproduction Rights Organizations*.

Clark, P.C. et al., "Bits: A Smartcard protected Operating System", pp. 66-70 and 94, Nov. 1994, *Communications of the ACM*, vol. 37, No. 11.

Ross, P.E., "Data Guard", pp. 101, Jun. 6, 1994, *Forbes*.

Saigh, W.K., "Knowledge is Sacred", 1992, *Video Pocket/Page Reader Systems, Ltd.*

Kahn, R.E., "Deposit, Registration and Recordation in an Electronic Copyright Management System", pp. 1-19, Aug. 1992, *Corporation for National Research Initiatives, Virginia*.

Hilts, P. et al., "Books While U Wait", pp. 48-50, Jan. 3, 1994, *Publishers Weekly*.

Strattner, A., "Cash Register on a Chip may Revolutionize Software Pricing and Distribution; Wave Systems Corp.", pp. 1-3, Apr. 1994, *Computer Shopper*, vol. 14, No. 4, ISSN 0886-0556.

O'Conner, M., "New Distribution Option for Electronic Publishers; iOpener Data Encryption and Metering System for CD-ROM use; Column", pp. 1-6, Mar. 1994, *CD-ROM Professional*, vol. 7, No. 2, ISSN: 1409-0833.

Willett, S., "Metered PCs: Is Your System Watching You? Wave System beta tests new technology", pp. 84, May 2, 1994, *InfoWorld*.

Linn, R., "Copyright and Information Services in the Context of the National Research and Education Network", pp. 9-20, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Perrit, Jr., H., "Permission Headers and Contract Law", pp. 27-48, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Upthegrove, L., "Intellectual Property Header Descriptors: A Dynamic Approach", pp. 63-66, Jan. 1994, *IMA Intellectual Property Proceedings*, vol. 1, Issue 1.

Sirbu, M., "Internet Billing Service Design and prototype Implementation", pp. 67-80, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Simmell, S. et al., "Metering and Licensing of Resources: Kala's General Purpose Approach", pp. 81-110, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Kahn, R., "Deposit Registration and Recordation in an Electronic Copyright Management System", pp. 111-120, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Tygar, J. et al., "Dyad: A System for Using Physically Secure Coprocessors", pp. 121-152, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Griswold, G., "A Method for Protecting Copyright on Networks", pp. 169-178, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1 Issue 1.

Nelson, T., "A Publishing and Royalty Model for Networked Documents", pp. 257-259, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.

Robinson, E., "Redefining Mobile Computing", pp. 238-240, 247-248 and 252, Jul. 1993, *PC Computing*.

Abadi, M. et al., "Authentication and Delegation with Smart-cards", pp. 1-24, 1990, *Research Report DEC Systems Research Center*.

Mark Stefik, "Letting Loose the Light: Igniting Commerce in Electronic Publication", pp. 219-253, 1996, *Internet Dreams: Archetypes, Myths, and Metaphors*, IDSN 0-262-19373-6.

Mark Stefik, "Letting Loose the Light: Igniting Commerce in Electronic Publication", pp. 2-35, Feb. 8, 1995, *Internet Dreams: Archetypes, Myths and Metaphors*.

Henry H. Perritt, Jr., "Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment", Apr. 2-3, 1993, *Knowbots, Permissions Headers & Contract Law*.

\* cited by examiner

Figure 1

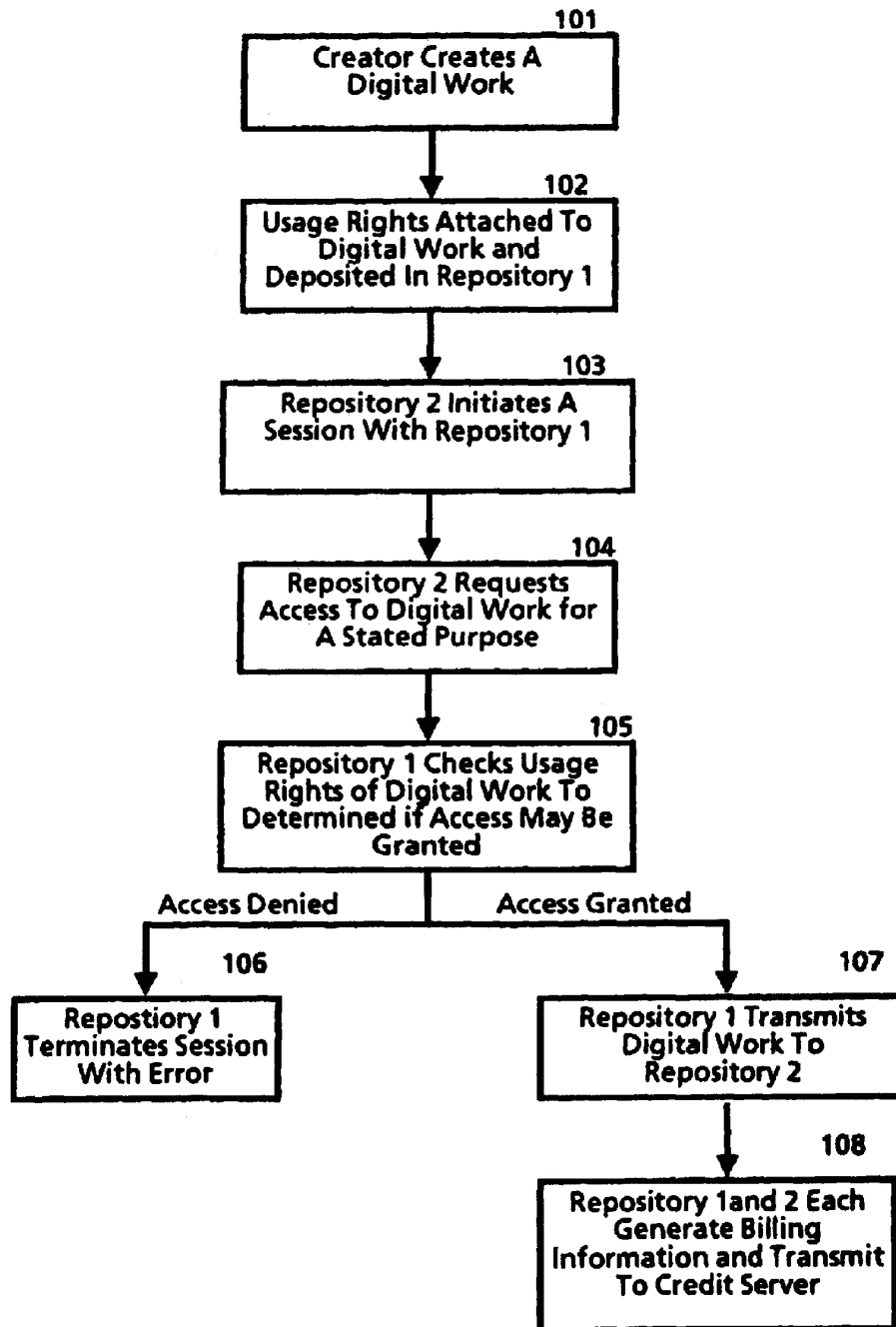


Figure 2

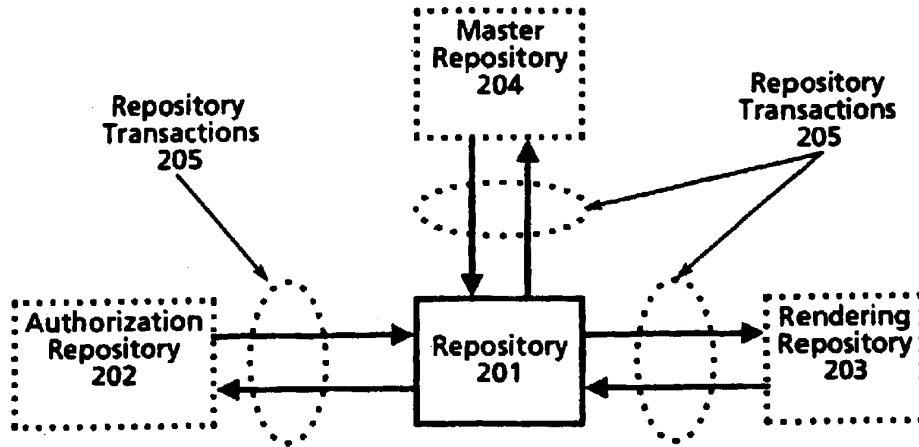
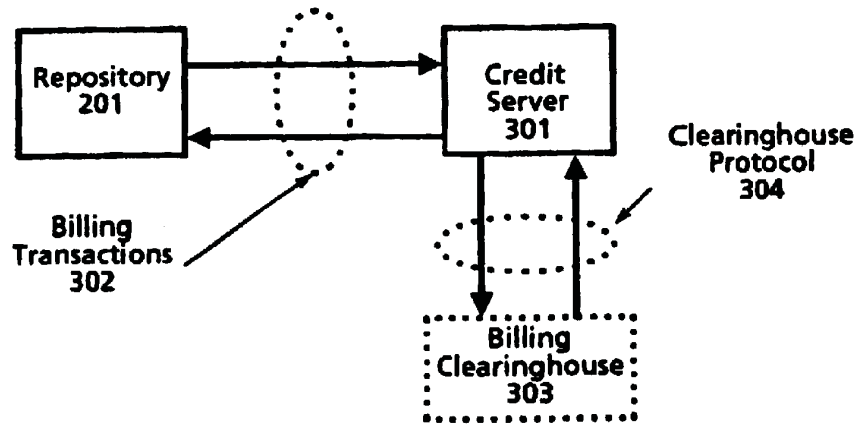


Figure 3



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