



(12) **United States Patent**
Bertram

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(54) **METHOD AND SYSTEM FOR REDUCING THE HORIZONTAL SPACE REQUIRED FOR DISPLAYING A COLUMN CONTAINING TEXT DATA**

5,668,961	A *	9/1997	Healy et al.	345/339
5,691,708	A *	11/1997	Batchelder et al.	340/825.44
5,937,417	A *	8/1999	Nielsen	345/711
5,956,433	A *	9/1999	Sasaki	382/275
6,073,129	A *	6/2000	Levine et al.	707/4
6,345,283	B1 *	2/2002	Anderson	707/205

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(Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 927 days.

FOREIGN PATENT DOCUMENTS

EP 0863499 A2 * 9/1998

(21) Appl. No.: **09/089,098**

(22) Filed: **Jun. 2, 1998**

OTHER PUBLICATIONS

(65) **Prior Publication Data**

The American Heritage Dictionary, Second College Edition, Houghton Mifflin Company, p. 1300.*

US 2001/0021936 A1 Sep. 13, 2001

(Continued)

(51) **Int. Cl.**
G06F 15/00 (2006.01)

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(74) *Attorney, Agent, or Firm*—Joscelyn G. Cockburn

(52) **U.S. Cl.** **715/534; 715/526**

(58) **Field of Classification Search** **707/526, 707/508, 509, 517, 519, 534, 540, 503; 715/526, 715/539, 534**

(57) **ABSTRACT**

See application file for complete search history.

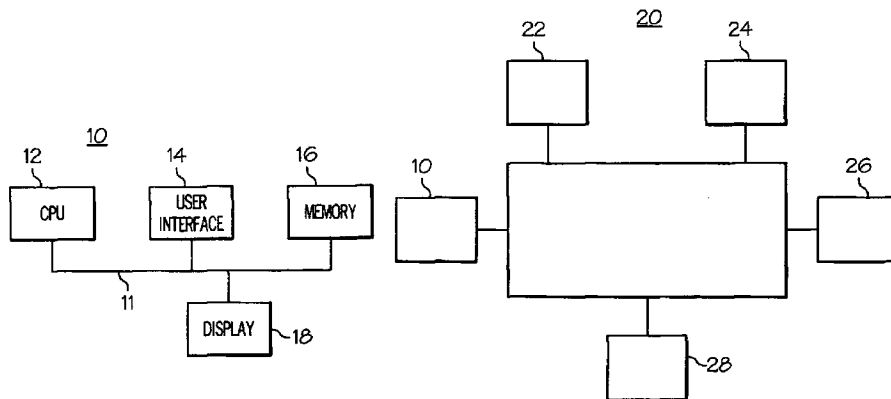
A method and system for reducing an amount of horizontal space required when displaying a plurality of columns on a display screen is disclosed. The at least one column of the plurality of columns has at least one entry containing text data. The method and system include obtaining the at least one entry from the at least one column, and abbreviating a width of the at least one entry, determining if there is another entry containing text data. The method and system further include repeating the steps of obtaining the at least one entry, abbreviating the at least one entry and determining if there is another entry until all of the at least one entries are abbreviated. The method and system further include displaying the at least one column having the at least one abbreviated entry.

(56) **References Cited**

U.S. PATENT DOCUMENTS

42 Claims, 6 Drawing Sheets

4,457,638	A	7/1984	Horn et al.	400/279
4,459,049	A *	7/1984	Howell et al.	400/17
4,484,826	A	11/1984	Horn et al.	400/279
4,486,857	A *	12/1984	Heckel	345/472.1
4,575,813	A	3/1986	Bartlett et al.	707/521
4,608,664	A	8/1986	Bartlett et al.	358/1.2
4,760,528	A *	7/1988	Levin	400/98
5,264,926	A	11/1993	Rylander	358/500
5,458,376	A *	10/1995	Biewald	283/115
5,557,787	A *	9/1996	Shin et al.	707/4
5,566,330	A	10/1996	Sheffield	707/4
5,583,660	A	12/1996	Rylander	358/456



U.S. PATENT DOCUMENTS

6,356,920 B1 * 3/2002 Vandersluis 715/501.1
6,854,642 B1 * 2/2005 Metcalf et al. 235/375
2001/0013032 A1 * 8/2001 Kobayashi et al. 707/1
2005/0193337 A1 * 9/2005 Noguchi et al. 715/542

OTHER PUBLICATIONS

IBM Technical Disclosure Bulletin, Abbreviated Typing for Word Processing, Feb. 1979, p. 3796-3797.*
Mostert et al., Omni-font character recognition using templates and neural networks, IEEE, Sep. 1992, pp. 249-257.*

* cited by examiner

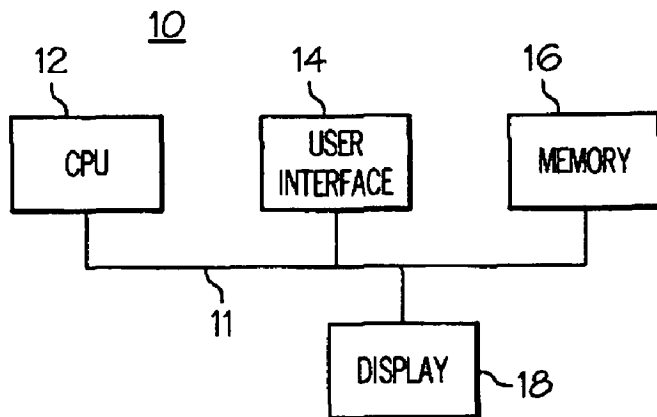


FIG. 1A

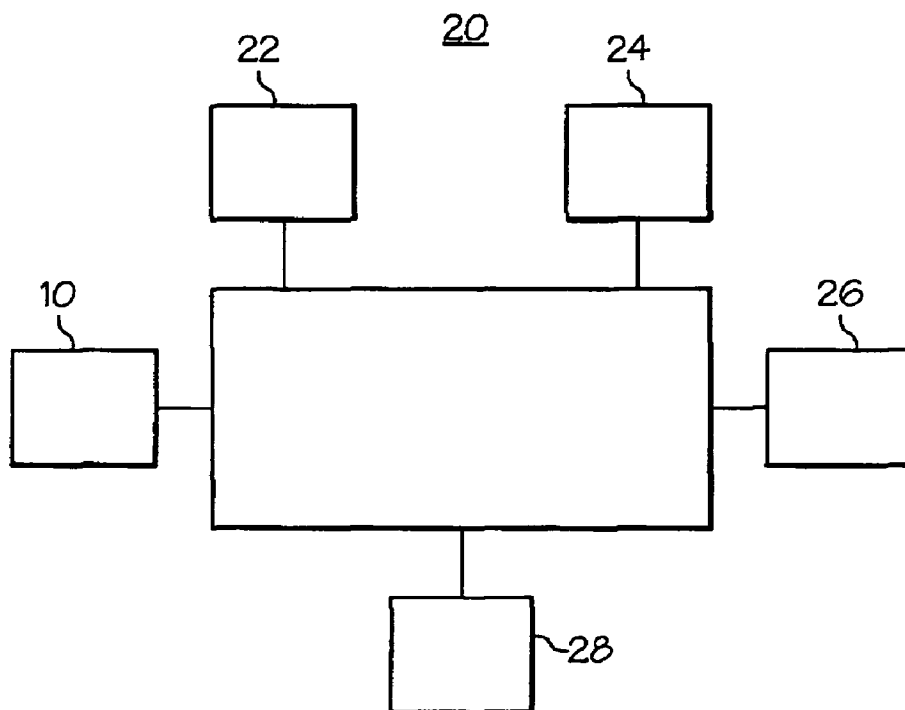


FIG. 1B

31	32	34	<u>30</u>	36	38
SYSTEM	BYTES RECEIVED	BYTES SENT	CPU UTILIZATION	DISK 1 WORKLOAD	
10	3	3	5	5	
22	5	5	3	3	
24	7	4	7	5	
26	8	3	8	6	
28	5	6	9	5	

FIG. 2
(PRIOR ART)

71	72	74	<u>70</u>	76	78	80
SYSTEM	BYTES	BYTES	CPU U	DISK	DISK	
10	3	3	5	5	5	
22	5	5	3	3	5	
24	7	4	7	5	6	
26	8	3	8	6	5	
28	5	6	9	5	4	

FIG. 4
(PRIOR ART)

210	220	230	<u>200</u>	240	250	260
SYSTEM	BytsR	BytsS	CPU Ut	Dsk1W	Dsk2W	
10	3	3	5	5	5	
22	5	5	3	3	5	
24	7	4	7	5	6	
26	8	3	8	6	5	
28	5	6	9	5	4	

FIG. 8

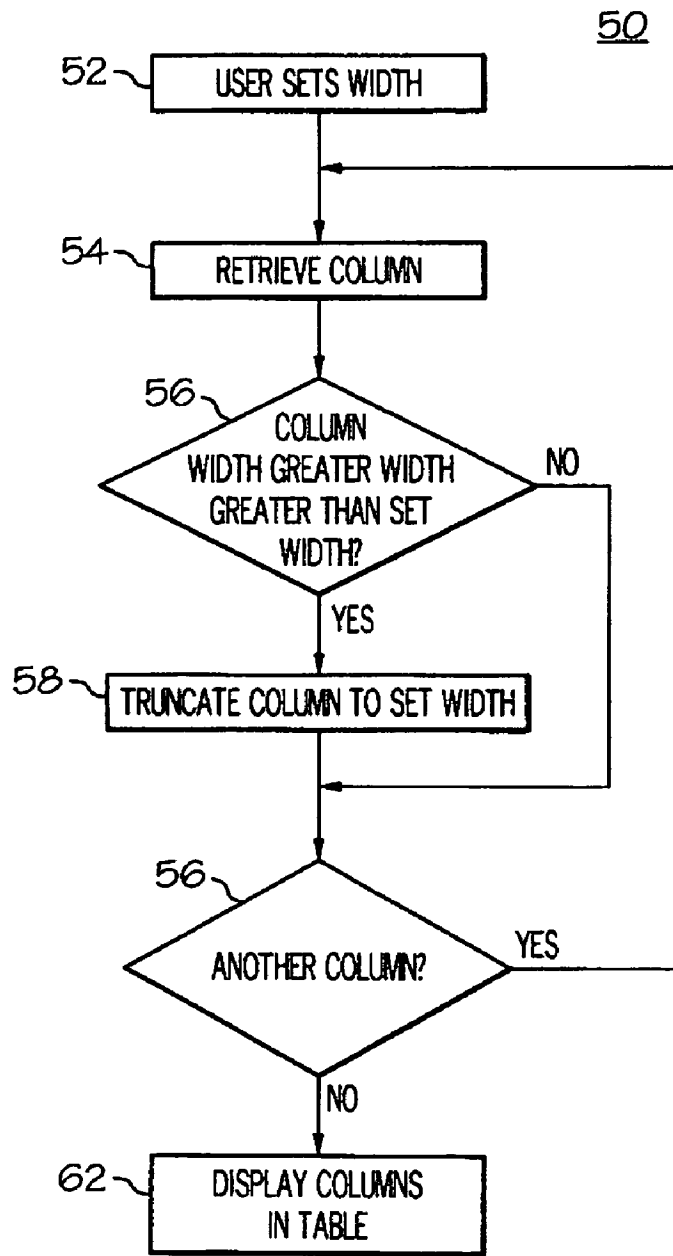


FIG. 3
(PRIOR ART)

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