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(71) Applicant: ORACLE CORPORATION [US/US]; 500 Oracle Parkway, Redwood Shores, CA 94065 (US).

(72) Inventor: SEDLAR, Eric; 841 Timlott Lane, Palo Alto, CA 94036 (US).

(74) Agents: HICKMAN, Brian, D. et al.; Hickmann Palermo Truong & Becker, 1600 Willow Street, San Jose, CA 95125-5106 (US).

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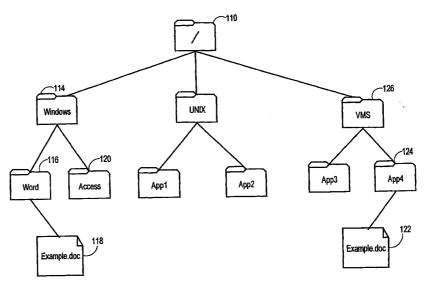
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(54) Title: HIERARCHICAL INDEXING FOR ACCESSING HIERARCHICALLY ORGANIZED INFORMATION IN A RELATIONAL SYSTEM



(57) Abstract: A method and mechanism are provided for creating, maintaining, and using a hierarchical index to efficiently access information in a relational system based on pathnames, thus emulating a hierarchically organized system. Each item that has any children in the emulated hierarchical system has an index entry in the index. The index entries in the index are linked together in a way that reflects the hierarchical relationship between the items associated with the index entries. Pathname resolution is performed by following direct links between the index entries associated with the items in a pathname, according to the sequence of the filenames within the pathname. By using an index whose index entries are linked in this manner, the process of accessing the items based on their pathnames is significantly accelerated, and the number of disk accesses performed during that process is significantly reduced.



VO 00/49533 A3

INTERNATIONAL SEARCH REPORT

Into ional Application No
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A. CLASSI IPC 7	G06F17/30		
According to	o International Patent Classification (IPC) or to both national class	sification and IPC	
	SEARCHED	Silver and it o	
Minimum do	ocumentation searched (classification system followed by classifi ${\tt G06F}$	cation symbols)	Relevant to claim No. 1,9 2-8, 10-23 1-23 1-23 1-23
Documental	tion searched other than minimum documentation to the extent th	at such documents are included in the fields so	earched
Electronic d	ata base consulted during the international search (name of data	a base and, where practical, search terms used	()
EPO-In	ternal, IBM-TDB, INSPEC, WPI Data,	PAJ	
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the	relevant passages	Relevant to claim No.
х	US 5 467 471 A (BADER DAVID A) 14 November 1995 (1995-11-14)		1,9
A	column 2, line 33 -column 3, li	ne 17	
	column 5, line 14-40; figure 2		
A	US 5 530 849 A (HANUSHEVSKY AND 25 June 1996 (1996-06-25) column 4, line 20-36 column 7, line 21-54	OREW ET AL)	1-23
Furt	ther documents are listed in the continuation of box C.	χ Patent family members are listed	in annex.
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"A" docume consic "E" earlier filing of the citatio "O" docume other "P" docume	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but han the priority date claimed	 "T" later document published after the inte or priority date and not in conflict with cited to understand the principle or the invention "X" document of particular relevance; the cannot be considered novel or cannot involve an inventive step when the document of particular relevance; the cannot be considered to involve an indocument is combined with one or ments, such combination being obvious in the art. "&" document member of the same patent 	the application but early underlying the claimed invention to be considered to be comment is taken alone claimed invention eventive step when the ore other such docuus to a person skilled
Date of the	actual completion of the international search	Date of mailing of the international se	arch report
1	7 January 2001	24/01/2001	
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Correia Martins,	F

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INTERNATIONAL SEARCH REPORT

Information on patent family members

Inti^{rnat} Ional Application No PCT/US 00/03967

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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