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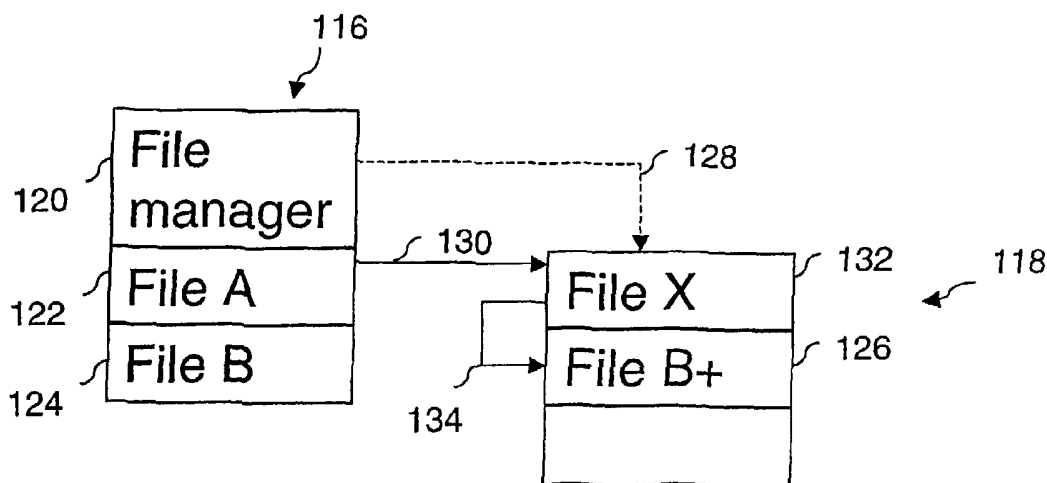
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: UPGRADING SOFTWARE HELD IN READ-ONLY STORAGE



(57) Abstract: A method and apparatus for upgrading software held in read-only storage are described comprising non-reprogrammable read-only memory (116) which stores a file manager program (120), program file A (122) and program file B (124) and a Flash[®] RAM (118) which stores file X (132). Under control of the file manager program (120), when an upgrade program file B+ (126) is acquired, for example via the Internet, it is stored within Flash[®] RAM (118) and file X (132) is updated. When the software executes, file A (122) calls file B+ (126) in preference to calling file B (124), in accordance with the contents of file X (132).

INTERNATIONAL SEARCH REPORT

International Application No

PC, IB 02/02980

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F9/445

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 727 215 A (RYNASKI RICHARD F ET AL) 10 March 1998 (1998-03-10) column 1, line 36 - line 65 column 2, line 56 - column 3, line 2 figures 2-5	1-13
X	GB 2 348 986 A (MITEL CORP) 18 October 2000 (2000-10-18) abstract page 1, line 22 - page 2, line 6 page 2, line 17 - page 4, line 3 ----- -/--	1-13

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X	<p>"DUAL INDIRECT RAM/ROM JUMP TABLES FOR FIRMWARE UPDATES"</p> <p>IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 31, no. 1, 1 June 1988 (1988-06-01), pages 294-298, XP000049715</p> <p>ISSN: 0018-8689</p> <p>the whole document</p> <p>-----</p>	1-13
X	<p>"MAINTAINABLE ROS CODE THROUGH THE COMBINATION OF ROM AND EEPROM"</p> <p>IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 32, no. 9A, 1 February 1990 (1990-02-01), pages 273-276, XP000083070</p> <p>ISSN: 0018-8689</p> <p>the whole document</p> <p>-----</p>	1-13

INTERNATIONAL SEARCH REPORT

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5727215	A	10-03-1998	NONE
GB 2348986	A	18-10-2000	NONE