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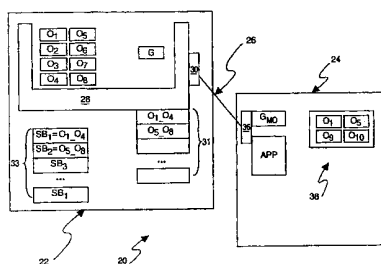
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR INCREMENTAL DOWNLOAD FROM SERVER TO CLIENT



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(57) Abstract: A method and system for transferring objects between computers, especially a server and a device in a Java environment, is provided. A server connected to the device interrogates the device to determine whether the device has the available resources to accept a download, and to determine if any of objects included in the download are already resident on the device. Using a gateway object on the device, and a gateway managed-object on the server, the server passes an archive of the necessary objects, not presently available on the device, to the gateway via the gateway managed-object. The gateway then instructs a persistent storage repository on the device to commit the archive to persistent storage. A flag is set at the start of the archive-committing process, such that if the device loses power during the archive-committing process, upon re-initialization of the device, the device can determine that the archive-committing process failed and will instruct the persistent storage to free-up storage area used during the archive-committing process. The transferal of objects can then be recommenced once the server and device reestablish communication. The present invention can provide an effective means to ensure a stable recovery of the device upon re-initialization, should the file transfer and/or archive-commit process fail due to a power failure to the device. Further, the invention can increase efficient use of device resources by not loading redundant components on the device and can reduce bandwidth requirements and/or download times as redundant information is not transferred.

INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G06F9/46 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, INSPEC, IBM-TDB, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SLACK S.: "PUBLISHED WORKS: EXTENDING YOUR DESKTOP WITH PILOT" THE WINDWARD GROUP - NEWS AND VIEWS, September 1996 (1996-09) - October 1996 (1996-10), pages 1-19, XP002158528 page 1, line 43 - line 13	1,4,8,9, 12,15-17
Y		2,3,7, 13,14, 18,19
A	page 3, line 20 - last line page 6, line 1 -page 7, line 7 page 10, last line -page 11, line 11 page 12, line 11 - line 16 page 14, line 16 - line 22 --- -/--	5,6,20

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Patent family members are listed in annex.

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Date of the actual completion of the international search

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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.
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