

**PATENT APPLICATION**  
Attorney Docket No. 66371  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

#10/A

Applicant(s): Sharon PELEG )  
Application No.: 09/376,512 )  
Filed: August 18, 1999 )  
Title: DIFFERENCE EXTRACTION )  
BETWEEN TWO VERSIONS OF )  
DATA-TABLES CONTAINING )  
INTRA-REFERENCES )  
Group Art Unit: 2122 )

**CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on this date.

5/8/02  
Date *Kenneth H. Samples*  
Kenneth H. Samples  
Registration No. 25,747  
Attorney for Applicant(s)



Commissioner: John Q. Chavis )  
COPY OF PAPER ORIGINALLY FILED )

**RESPONSE TO OFFICE ACTION**

RECEIVED

MAY 23 2002

OFFICE OF PETITIONS

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Responsive to Office action mailed on October 2, 2001, a Petition to Revive Unintentionally Abandoned Application being submitted concurrently herewith, Applicant submits the following amendments and remarks to be entered into the above-identified patent application and respectfully requests to pass this application to allowance.

**IN THE CLAIMS:**

Please amend claims 1, 5, 8, 12, 14, 18, 21, and 25 as follow. A marked-up copy showing the changes in the claims is enclosed herewith.

1. A method for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:
  - (a) scanning the old program and for substantially each reference entry perform steps that include:
    - (i) replacing the reference of said entry by a distinct label mark, whereby a modified old program is generated;
  - (b) scanning the new program and for substantially each reference entry perform steps that include:
    - (i) replacing the reference of said entry by a distinct label mark, whereby a modified new program is generated;

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- a1 (c) generating said difference result utilizing directly or indirectly at least said modified old program and modified new program.

5. A method for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- a2
- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
  - (b) scanning the old program and for substantially each reference entry perform steps that include:
    - (i) replacing the reference of said entry by a distinct label mark, whereby the modified old program is generated;
  - (c) reconstituting the modified new program utilizing at least said compact difference result and said modified old program; said modified new program is differed from said new program at least in that substantially each reference entry in said new program is replaced in said modified new program by a distinct label mark;
  - (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.

8. A method for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- a3
- (a) generating a modified old program utilizing at least said old program;
  - (b) generating a modified new program utilizing at least said new program, said modified old program and modified new program have at least the following characteristics:
    - (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/insert modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
  - (c) generating said compact difference result utilizing at least said modified new program and modified old program.

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12. A method for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
- (b) generating a modified old program utilizing at least said old program;

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- (c) reconstituting a modified new program utilizing directly or indirectly at least said modified old program and said compact difference result; said modified old program and modified new program have at least the following characteristics:
    - (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/inset modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
  - (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.

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14. A system for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- as*
- (a) scanning the old program and for substantially each reference entry perform steps that include:
    - (i) replacing the reference of said entry by a distinct label mark, whereby a modified old program is generated;
  - (b) scanning the new program and for substantially each reference entry perform steps that include:
    - (i) replacing the reference of said entry by a distinct label mark, whereby a modified new program is generated;
  - (c) generating said difference result utilizing directly or indirectly at least said modified old program and modified new program.

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18. A system for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- at*
- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
  - (b) scanning the old program and for substantially each reference entry perform steps that include:
    - (i) replacing the reference of said entry by a distinct label mark, whereby the modified old program is generated;
  - (c) reconstituting the modified new program utilizing at least said compact difference result and said modified old program; said modified new program is differed from said new program at least in that substantially each reference entry in said new program is replaced in said modified new program by a distinct label mark;

- ala (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.

21. A system for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- (a) generating a modified old program utilizing at least said old program;
- (b) generating a modified new program utilizing at least said new program, said modified old program and modified new program have at least the following characteristics:
  - ad (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/insert modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
- (c) generating said compact difference result utilizing at least said modified new program and modified old program.

25. A system for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
- (b) generating a modified old program utilizing at least said old program;
- (c) reconstituting a modified new program utilizing directly or indirectly at least said modified old program and said compact difference result; said modified old program and modified new program have at least the following characteristics:
  - acg (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/inset modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
- (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.

**REMARKS:**

In Office action mailed on October 2, 2001, the examiner rejected claims 1-68 under 35 U.S.C. 102(b) as anticipated by Okuzumi et al. The examiner also rejected claims 1-68 under 35 U.S.C. 102(b) as anticipated by Kenji et al.

By this Amendment, Applicant clarified independent claims 1, 5, 8, 12, 14, 18, 21, and 25. In making this revisions, care has been taken to ensure that the claims remain supported by the specification and that no new matter has been added.

Applicant appreciates the time and consideration provided by Examiner in reviewing this application, however, respectfully traverses the rejection of the claims at least for the following reasons.

**Rejection under 35 U.S.C. 102(b)**

Anticipation under 35 U.S.C. 102 requires that each and every claimed feature be disclosed by a single prior art reference. Therefore, the prior art reference relied upon by the Examiner in rejecting claims 1-68 must disclose an article that is reasonably identical to and includes at least every material element of the claimed method. Applicant respectfully submits that Okuzumi et al. and Kenji et al. do not disclose, let alone suggest, each and every claimed feature of rejected claims 1-68 in the cited references.

Independent Claims 1, 5, 8, 12, 14, 18, 21 and 25 were amended to recite that the respective claims define executable programs. Support for this amendment is found, for example, on page 4, lines 16, 24, the exemplary program that is provided in page 2, line 2 (Office 97 package). The detailed description (with reference to Figs. 2A-2B of the present application) describes a machine-instruction like structure.

REJECTION OVER OKUZUMI ET AL. (JP404242829A)

Before turning to discuss the Examiner's rejection on the merits, Applicants believe that describing certain aspects of the present application would assist in understanding the distinguishing features of the present invention over Okuzumi. Since the Examiner's detailed reasoning refers to Claim 1, the following arguments focus on Claim 1, and will later apply to the other Claims, *mutatis mutandis*.

The present application is aimed to improve the results obtained by difference extraction utilities, already known in the art, applied to executable programs (in the case of amended Claim 1) and generate a better (compact) result. A typical (yet not exclusive) scenario is when clients have an old executable program (say Windows 97 version) and the manufacturer would like to distribute updates of the Windows 97 (new executable program) to be reflected in the clients version. Applying a standard diff utility (between the old and new programs) would result in large diff file, which pose undue overhead insofar as transmission rate and reliability of transmission and update (at client side) are concerned. Applying the technique of the present application would result in compact diff file that can be easily transmitted and readily reflected in the clients' version.

General diff extraction utilities (see page 2, lines 14 and 15) were originally designed for extracting differences between two versions of a source program (referred to also as 'program source' or as 'source'). Sources are the original text files that programmers write in some formal language known as 'programming language'. Such sources are purely symbolic in the sense that they do not mention actual physical location of other elements in the source nor their absolute sequential location. Rather, any of required references in a source are made through symbolic names which themselves are part of the source.

Such diff utilities and methods are known in the art and known to be sufficient for extracting differences of such source

files. A major problem arises when applying these methods to executable program files aiming to extract the difference at the byte-level, regarding the files as a list of data bytes rather than list of text lines. The problem arises from the fact that executable programs are generated from sources and in that process many references are inserted into these executable files. These references do not refer symbolically to other location of the program, as may be the case in source files, but they refer to addresses - sequential locations in the program file. When regenerating an executable file from a modified source file, not only the actual changes are being reflected in the executable file, also the majority if not all the inserted references are modified as well since their referred addresses have changed their location in the executable file as a result of the actual changes. This phenomenon leads to a significant increase in the amount of differences. This problem is discussed in the "Background of the Invention" section of the specification, Page 2, lines 11 to 18, and exemplified on Page 2, lines 18 to 30.

Consider, for example, an extreme example where a change in the first source of line may lead to actual change of some first executable file, in which few bytes were added but also all references must change since they refer to locations that now have been moved farther for the amount of bytes added at the beginning. To simply reflect all the changed references when computing a difference, one must include them all. In accordance with the present application such a need is reduced or eliminated, and what is required, is just to send the first few modified bytes while computing the modified references at the time of reflecting the update on another old copy. Thus, in accordance with typical embodiments of the present application, a pre-processing is applied to both old and new files (giving rise to modified old and modified new programs) and applying a diff extraction utility to the modified old and modified new programs. The modification is effected in such a way that references become 'invariant' (see page 5, lines 22 to 29), thereby reducing the diff result and rendering it compact.

Okuzumi et al. explicitly mention 'source', and even more, this prior art reference contains a step of sorting 'statements' (a common name for an element of a source program) according to their 'character strings', such as in 0011.

In contrast, the present invention, according to amended Claim 1, defines an executable program. Accordingly, obtaining a compact difference result in the manner defined in the claims of the present application is not suggested even remotely in Okuzumi, which is not surprising considering the fact that in source programs there is no need to generate a compact result since the difference result is a priori compact.

In extracting diff between 2 versions of executable files as defined in amended Claim 1, there is no source involved, and neither statements, nor any textual or other symbolic representation of the program even exist.

Another major characteristic disclosed by Okuzumi et al. is that it deals with a special problem of updating an old source program (Okuzumi 0001, 0002 & 0008 & purpose section) that is being modified differently for 2 different copies and one is required to reflect both changes. For example, (see Okuzumi 00003) there is a package program (source program) that has undergone version change (first modified source). The same package program has been independently customized for a client use (second modified source). The version change of the first modified source need to be reflected also in the customized copy (second modified source). Note that the second modified source is not derived from the first modified source.

In contrast, in accordance with the present application the new program is derived from the old program (see for example page 18, lines 10 to 16, where P<sub>1</sub> is the old program, P<sub>2</sub> is the new program "which was generated (or could have been generated) by the sequence of modifications as depicted in the imaginary memory table (80)). Said sequence of modifications (either real or imaginary), constitutes a transition sequence between P<sub>1</sub> and P<sub>2</sub>".



This is an example of how P2 is derived from P1. There is a need to perform a "compact" diff between P1 and P2 and to this end modified P1 and modified P2 are generated.

Thus, not only the present invention as defined in amended Claims 1 concern executable program as compared to source programs in Okuzumi (and accordingly the need to obtain compact diff result in Okuzumi is obviated), but also the invention cannot be applied to a new program that is not derived from an old program, as is the case with Okuzumi.

Moreover, Claim 1 defines "preparatory" actions in connection with the references in order to produce the modified program (see Claim 1, steps a(i) and b(i)). Only after this preparatory action the diff operation is performed. In Okuzumi et al., there is no suggestion to apply preparatory actions before applying the diff and, a fortiori, not preparatory actions that pertain to the references. References in accordance with the present application are defined in page 4, lines 2 to 4, and are exemplified, for example, on page 18, lines 10 to 12 and in associated Fig. 2A. Note the references 5, 8, 1, 1, 13 and 11 (designated 41' through 46') as distinguished from addresses (1 to 15). The processing of the references and the reference entries is not even remotely suggested in Okuzumi and a fortiori not as a preparatory step for the application of diff. Note that by Okuzumi, "order table" is a table reflecting a specific re-ordering of the source statements. The latter not only directs to source and not to executable program, but also may only correspond to addresses and not to references.

Accordingly, Applicant respectfully submits that independent claims 1, 5, 8, 12, 14, 18, 21, and 25 as amended by the present amendment, are novel and allowable over the cited Okuzumi et al.

Dependent claims:

Claims 2, 3, and 4.

Claims 2-4 are dependent directly or indirectly on

Claim 1, and therefore are also not anticipated by Okuzumi.

Claims 5-7, 8-10, 14-16, 18-20, 21-23, 39-41, 42-44, 48-50, 52-54, 55-57

Claim 5 defines update of the receiving side using compact diff result from claim 1 and concerns executable programs, applying processing steps to the references (steps b(i) and (c)), which are not even remotely suggested by Okuzumi et al. Moreover, unlike Okuzumi, claim 5 concerns old and new programs which are derived one from the other. Applicant therefore submits that for the above reasons (some discussed in more detail with reference to Claim 1 above), Claim 5 is not anticipated by Okuzumi.

Claims 6, 7 are dependent directly or indirectly on Claim 5, and therefore are also not anticipated by Okuzumi.

Claim 8 defines how to generate the compact difference result. It concerns executable programs, applying processing steps to the references steps b(i)), which characteristic is not even remotely suggested by Okuzumi et al. Moreover, unlike Okuzumi, claim 8 concerns old and new programs which are derived one from the other. Applicant therefore submits that Claim 8 is not anticipated by Okuzumi.

Claims 9, 10 are dependent directly or indirectly on Claim 8, and therefore are also not anticipated by Okuzumi.

Claim 14 is a system claim that is not anticipated by Okuzumi for the reasons elaborated with reference to Claim 1.

Claims 15, 16 are dependent directly or indirectly on Claim 14, and therefore are also not anticipated by Okuzumi.

Claim 18 is a system claim that is not anticipated by Okuzumi for the reasons elaborated with reference to Claim 5.

Claims 19, 20 are dependent directly or indirectly on Claim 18, and therefore are also not anticipated by Okuzumi.

Claim 21 is a system claim that is not anticipated

by Okuzumi for the reasons elaborated with reference to Claim 8.

Claims 22,23 are dependent directly or indirectly on Claim 21, and therefore are also not anticipated by Okuzumi.

Claims 35 to 68 are basically similar to claims 1 to 34, respectively, except for the fact that they recite data table instead of executable program. Data table is discussed on page 4, line 9 of the application and do not embrace source code as in Okuzumi. It is accordingly submitted that Claims 39-41, 42-44, 48-50, 52-54, 55-57 are not anticipated by Okuzumi for the reasons discussed in detail above with reference to Claims 1 to 3, 8-10, 14-16, 18-20, and 21-23.

Claims 11,13,17,24,26,28,31,34,38,45, 47,51,58,60,65 and 68.

It is also submitted that Claims 11,13,17,24,26,28,31, 34,38,45,47,51,58,60,65 and 68, are all dependent claims that recite storage medium, and not anticipated by Okuzumi for the reasons discussed in detail with reference to their corresponding independent claims.

Claims 12, 25, 35, 46, 59.

Wherein Claim 12 defines how to effect the update at the receiving side using a generated compact diff result. It concerns executable programs, applying processing steps to the references (steps b(1)), which are not even remotely suggested in Okuzumi. Moreover, unlike Okuzumi, claim 8 concerns old and new programs, which are derived one from the other. Applicant therefore submits that for reasons discussed in more detail with reference to Claim 8 and 1 above, Claim 12 is not anticipated by Okuzumi et al.

Claim 25 is similar to Claim 12 but is directed to a system and is not anticipated by Okuzumi et al. for the reasons elaborated with reference to Claim 12.

Claims 35,46 and 59 correspond to Clams 1, 12 and 25 except for the recitation of data table. Accordingly,

Applicant submits that for the reasons elaborated in connection with Claims 1, 12 and 25, the above claims are not anticipated by Okuzumi.

Claims 27, 61 and 62.

These dependent claims recite a storage medium and are not anticipated by Okuzumi for the reasons discussed in detail with reference to their corresponding independent Claims 1, 35 and 42.

Claims 29, 32, 36, 63 and 66.

These dependent claims are not anticipated by Okuzumi, for the reasons elaborated in connection with Claim 2 above and their respective independent claims.

Claims 30, 33, 37, 64 and 67.

These dependent Claims are directed to the Internet and are not anticipated by Okuzumi et al. for the reasons discussed in detail with reference to their corresponding independent claims.

It is therefore submitted that all claims pending in the present application are novel and allowable over Okuzumi et al.

REJECTION OVER KENJI ET AL. (JP 05091550A)

In section 3, the Examiner rejected Claims 1 to 68 under 35 U.S.C. 102(b) as anticipated by Kenji et al. An English translation of Kenji (except for the "purpose" and "constitution" sections) was provided.

Before turning to discuss the rejection on the merits, a brief overview of Kenji et al. is provided for a better understanding of the distinguishing features between the present application and the teachings of Kenji. Kenji motivation and explicit wording is to minimize the time it takes to update a program already loaded in RAM using minimal time (Technical field of the invention - 0001). According to Kenji, some data processing devices have their program already loaded in RAM and the problem solved by Kenji et al. is to reduce the update of such devices from sending the whole

program to be loaded to just sending the differences (see operation Kenji 0006) with the addition that handles modules that expand their original size. In other words, there is an empty space a priori left between modules in the RAM and accordingly, if the "updated" (new) module is larger in size than the module that currently resides in the RAM (old module), the new module can fit the memory without affecting other modules (Kenji 0009). According to Kenji et al., the comparison is done "by address unit" (Kenji 0007), which means a simple scan on both memory images is applied, and matching addresses are each compared for finding the difference. Using such practice, even if 'references' would not exist at all in the program, insertion or deletion of even 1 single byte at the beginning of the program would cause the whole "program in the memory" to look different since the rest of the contents would shift and thus not match corresponding "addresses". Kenji et al. solve it by using "empty memory between modules" that in fact "absorbs" such shifts. So, if in the previous example, after 10 bytes there is an extra space of 1 byte, the amount of changes will not increase over 10 bytes (Delete is even simpler, since it does not require such absorption zones, it in fact creates them). Such a solution suggests some degree of compactness but based on an assumption of "empty" memory areas. It of course does not treat the issue of references at all.

Bearing this in mind, the distinguishing features between the claimed invention and Kenji et al. are as follow.

The present invention solves a different problem in a different manner. Thus, Kenji et al. deal with updating program in RAM, which is not the objective of the present application. The present invention aims at obtaining compact diff by applying a pre-processing step before applying the diff operation (see for exmple Claim 1, steps (a) and (b) that precede step (c)).

In Kenji et al., the "compactness" is based on the a

*priori* available space between the modules leaving space between modules (in Kenji accommodation of updated modules is complete the present invention.

In the present application, the pre-processing is applied *inter alia* to the references. Kenji et al. do not mention even remotely references but only addresses. The distinction between address and reference is clear. Thus, for example, in Fig. 2A of the present application the references 5, 8, 1, 1, 13 and 11 (designated 41' to 46') are shown as distinguished from addresses 1 to 15. The processing of the references and the reference entries as claimed by the present application (in order to obtain compact diff), is not even remotely suggested in Kenji.

It is therefore submitted that Claim 1 is not anticipated by Kenji et al.

**Claims 2, 3, and 4:**

Claims 2-4 are dependent directly or indirectly on Claim 1, and therefore are also not anticipated by Kenji et al.

**Claims 5-7, 8-10, 14-16, 18-20, 21-23, 39-41, 42-44, 48-50, 52-54, 55-57:**

The detailed distinctions between Kenji and the invention as claimed in Claim 1 also apply to claims 5-7, 8-10, 14-16, 18-20, 21-23, 39-41, 42-44, 48-50, 52-54, 55-57 *mutatis mutandis*. It is therefore submitted that claims 5-7, 8-10, 14-16, 18-20, 21-23, 39-41, 42-44, 48-50, 52-54, 55-57 are not anticipated by Kenji et al.

**Claims 11, 13, 17, 24, 26, 28, 31, 34, 38, 45, 47, 51, 58, 60, 65 and 68.**

The detailed distinctions between Kenji and the invention with reference to Claim 1 also apply to claims 11, 13, 17, 24, 26, 28, 31, 34, 38, 45, 47, 51, 58, 60, 65 and 68 *mutatis mutandis*. It is therefore submitted that claims 11,

13, 17, 24, 26, 28, 31, 34, 38, 45, 47, 51, 58, 60, 65 and 68 are not anticipated by Kenji et al.

**Claims 12, 25, 35, 46, 59.**

The detailed distinctions between Kenji and the invention as claimed in Claim 1, also apply to claims 12, 25, 35, 46, 59 *mutatis mutandis*. Note that the nature of these claims is discussed in more detail with reference to Okuzumi above. It is therefore submitted that claims 12, 25, 35, 46, 59 are not anticipated by Kenji et al.

**Claims 27, 61 and 62.**

These dependent claims recite a storage medium and are not anticipated by Kenji for the reasons discussed in detail with reference to their corresponding independent Claims 1, 35 and 42.

**Claims 29, 32, 36, 63 and 66.**

These dependent claims are not anticipated by Kenji et al. for the reasons elaborated in connection with Claim 2 above and their respective independent claims.

**Claims 30, 33, 37, 64 and 67.**

These dependent claims are directed to the Internet and are not anticipated by Kenji et al. for the reasons discussed in detail with reference to their corresponding independent claims.

**Claims 27, 61 and 62.**

These dependent claims recite a storage medium and are not anticipated by Kenji et al. for the reasons discussed in detail with reference to their corresponding independent Claims 1, 35 and 42.

**Claims 29, 32, 36, 63 and 66.**

These dependent claims are not anticipated by Kenji et al. for the reasons elaborated in connection with Claim 2 above and their respective independent claims.

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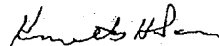
Claims 30, 33, 37, 64 and 67.

These dependent claims recite the Internet and are not anticipated by Kenji et al. for the reasons discussed in detail with reference to their corresponding independent claims.

Therefore, Applicant respectfully submits that the pending claims as amended by this Amendment are allowable over the cited prior art and the application is in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135. This sheet is filed in triplicate.

Respectfully submitted,



Kenneth H. Samples  
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Date: May 8, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADEBY AMENDMENT

1. A method for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- (a) scanning the old program and for substantially each reference entry perform steps that include:
  - (i) replacing the reference of said entry by a distinct label mark, whereby a modified old program is generated;
- (b) scanning the new program and for substantially each reference entry perform steps that include:
  - (i) replacing the reference of said entry by a distinct label mark, whereby a modified new program is generated;
- (c) generating said difference result utilizing directly or indirectly at least said modified old program and modified new program.

5. A method for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
- (b) scanning the old program and for substantially each reference entry perform steps that include:
  - (i) replacing the reference of said entry by a distinct label mark, whereby the modified old program is generated;
- (c) reconstituting the modified new program utilizing at least said compact difference result and said modified old program; said modified new program is differed from said new program at least in that substantially each reference entry in said new program is replaced in said modified new program by a distinct label mark;

- (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.

8. A method for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- (a) generating a modified old program utilizing at least said old program;
- (b) generating a modified new program utilizing at least said new program, said modified old program and modified new program have at least the following characteristics:
  - (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/insert modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
- (c) generating said compact difference result utilizing at least said modified new program and modified old program.

12. A method for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the method comprising the steps of:

- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
- (b) generating a modified old program utilizing at least said old program;
- (c) reconstituting a modified new program utilizing directly or indirectly at least said modified old program and said compact difference result; said modified old program and modified new program have at least the following characteristics:
  - (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/inset modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
- (d) reconstituting said new program utilizing directly or indirectly at least said

compact difference result and said modified new program.

14. A system for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- (a) scanning the old program and for substantially each reference entry perform steps that include:
  - (i) replacing the reference of said entry by a distinct label mark, whereby a modified old program is generated;
- (b) scanning the new program and for substantially each reference entry perform steps that include:
  - (i) replacing the reference of said entry by a distinct label mark, whereby a modified new program is generated;
- (c) generating said difference result utilizing directly or indirectly at least said modified old program and modified new program.

18. A system for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
- (b) scanning the old program and for substantially each reference entry perform steps that include:
  - (i) replacing the reference of said entry by a distinct label mark, whereby the modified old program is generated;
- (c) reconstituting the modified new program utilizing at least said compact difference result and said modified old program; said modified new program is differed from said new program at least in that substantially each reference entry in said new program is replaced in said modified new program by a distinct label mark;
- (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.

21. A system for generating a compact difference result between an old executable program and a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- (a) generating a modified old program utilizing at least said old program;
- (b) generating a modified new program utilizing at least said new program, said modified old program and modified new program have at least the following characteristics:
  - (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/insert modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
- (c) generating said compact difference result utilizing at least said modified new program and modified old program.

25. A system for performing an update in an old executable program so as to generate a new executable program; each program including reference entries that contain reference that refer to other entries in the program; the system comprising a processing device capable of:

- (a) receiving data that includes a compact difference result; said compact difference result was generated utilizing a modified old program and a modified new program;
- (b) generating a modified old program utilizing at least said old program;
- (c) reconstituting a modified new program utilizing directly or indirectly at least said modified old program and said compact difference result; said modified old program and modified new program have at least the following characteristics:
  - (i) substantially each reference in an entry in said old program that is different than corresponding entry in said new program due to delete/inset modifications that form part of the transition between said old program and new program are reflected as invariant references in the corresponding entries in said modified old and modified new programs;
- (d) reconstituting said new program utilizing directly or indirectly at least said compact difference result and said modified new program.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
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Paper 11

FITCH EVEN TABIN AND FLANNERY  
120 SOUTH LA SALLE STREET  
SUITE 1600  
CHICAGO, IL 60603-3406

COPY MAILED

AUG 13 2002

In re Application of :  
Sharon Peleg :  
Application No. 09/376,512 :  
Filed: August 18, 1999 :  
Attorney Docket Number: 66371 :

OFFICE OF PETITIONS  
DECISION ON PETITION

This is a decision on the petition under 37 CFR §1.137(b), filed May 21, 2002 to revive the above-identified application.

This above-identified application became abandoned for failure to file a response to a non-final Office Action which was mailed on October 2, 2001. The non-final Office Action set a three (3) month shortened statutory period for reply. No extensions of time were obtained under the provisions of 37 CFR §1.136(a). Accordingly, this application became abandoned on January 3, 2002. A Notice of Abandonment was mailed on April 10, 2002.

The requirements for a grantable petition under 37 CFR §1.137(b) have been met. This petition is hereby **Granted**.

The Office acknowledges receipt of the amendment.

This application is being forwarded to Technology Center 2100 for further processing.

Telephone inquiries concerning this matter should be directed to Petitions Attorney Charlema R. Grant at (703) 306-0251.

Charlema R. Grant  
Petitions Attorney  
Office of Petitions  
Office of the Deputy Commissioner  
for Patent Examination Policy

RedBend0000164

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/3/76,512	PELEG, SHARON	
	Examiner	Art Unit	
	John Q. Chavis	2124	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to papers filed 5-2-02.
2.  The allowed claim(s) is/are 1-68.
3.  The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_
5.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a)  The translation of the foreign language provisional application has been received.
6.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8.  CORRECTED DRAWINGS must be submitted.
  - (a)  Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No. Z.
  - (b)  Including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c)  Including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.
9.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ 6 <input type="checkbox"/> Examiner's Amendment/Comment 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9 <input type="checkbox"/> Other
---	---

**Reason for Allowance**

1. The following is an examiner's statement of reasons for allowance: the applicant's amendment and arguments have overcome the previous rejection in view of Okuzumi and Kenji. The closest prior art reference of record currently is the newly cited patent to Miller (5,832,520), which teaches a method and system of generating a difference result between an old program (which may be an executable program, see the abstract and col. 5 lines 17-25). Miller's system also scans the old program and creates a modified old program, col. 3 lines 1-10 and col. 6 lines 34-44. The modified old file is generated prior to generating the difference file, see the cited portions above. However, Miller does not teach or suggest generating a modified new file and using the modified new file and the modified old file to generate a difference result.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The reference for which no translation has been provided, EP 0472812, has still not been considered.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Q. Chavis whose telephone number is 703-305-9665. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 703-308-4789. The fax phone numbers for the

Application/Control Number: 09/376,512

Page 3

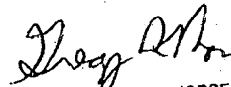
Art Unit: 2124

organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3900.



Jqc  
August 23, 2002



GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100



<b>Notice of References Cited</b>	Application/Control No. 09/376,512	Applicant(s)/Patent Under Reexamination PELEG, SHARON	
	Examiner John Q. Chavis	Art Unit 2124	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
✗	A	US-5,832,520	11-1998	Miller, William A.	707/203
✗	B	US-5,815,704	09-1998	Shimotsuji et al.	382/190
✗	C	US-6,367,075	04-2002	Kruger et al.	717/169
✗	D	US-5,752,039	05-1998	Tanimura, Morimasa	707/203
✗	E	US-5,359,730	10-1994	Marron, Assaf	709/100
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Horwitz, Identifying the Semantic and Textual Differences Between Two Versions of a Program, ACM, p. 234-245.
	V	
	W	
	X	

\* A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a))  
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



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NOTICE OF ALLOWANCE AND FEE(S) DUE

22242 7590 08/27/2002  
FITCH EVEN TABIN AND FLANNERY  
120 SOUTH LA SALLE STREET  
SUITE 1600  
CHICAGO, IL 60603-3406

EXAMINER

CHAVIS, JOHN Q

ART UNIT CLASS-SUBCLASS

2124

717-170000

DATE MAILED: 08/27/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/376,512	08/18/1999	SHARON PELEG	66371	6622

TITLE OF INVENTION: DIFFERENCE EXTRACTION BETWEEN TWO VERSIONS OF DATA-TABLES CONTAINING INTRA-REFERENCES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$640	\$0	\$640	11/27/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
  - Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail Box ISSUE FEE**  
**Commissioner for Patents**  
**Washington, D.C. 20231**  
**Fax (703)746-4000**

**INSTRUCTIONS:** This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

**CURRENT CORRESPONDENCE ADDRESS (Note: Tag by mark-up with any corrections or use Block 1)**

22242 7590 08/27/2002  
**FITCH EVEN TABIN AND FLANNERY**  
**120 SOUTH LA SALLE STREET**  
**SUITE 1600**  
**CHICAGO, IL 60603-3406**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**  
 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/376,512	08/18/1999	SHARON PELEG	66371	6622

**TITLE OF INVENTION: DIFFERENCE EXTRACTION BETWEEN TWO VERSIONS OF DATA-TABLES CONTAINING INTRA-REFERENCES**

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$640	\$0	\$640	11/27/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHAVIS, JOHN Q	2124	717-170000

**1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).**

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev. 03-02 or more recent) attached. Use of a Customer Number is required.

**2. For printing on the patent front page, list: (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.**

**3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)**

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent)  individual  corporation or other private group entity  government

4a. The following fee(s) are enclosed:

- Issue Fee
- Publication Fee
- Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s):

- A check in the amount of the fee(s) is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature) \_\_\_\_\_ (Date) \_\_\_\_\_

**NOTE:** The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent, or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMIT THIS FORM WITH FEE(S)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/376,512	08/18/1999	SHARON PELEG	66371	6622
22242	7590	08/27/2002	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406 UNITED STATES			CHAVIS, JOHN Q	
			ART UNIT	PAPER NUMBER
			2174	

DATE MAILED: 08/27/2002

**Determination of Patent Term Extension under 35 U.S.C. 154 (b)**  
(application filed after June 7, 1995 but prior to May 29, 2000)

The patent term extension is 0 days. Any patent to issue from the above identified application will include an indication of the 0 day extension on the front page.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (<http://pair.uspto.gov>)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/376,512	08/18/1999	SHARON PELBG	66371	6622
22242	7390	08/27/2002	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406 UNITED STATES			CHAVIS, JOHN Q.	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 08/27/2002

Notice of Possible Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there may be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking, 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: <http://www.uspto.gov/main/howtofees.htm>.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of any fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



3

#13  
DM  
01/28/03

PATENT APPLICATION  
Attorney Docket No. 66371

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants:	Sharon PELEG	)
Appln. No.	09/376,512	)
Filed:	August 18, 1999	)
Title:	DIFFERENCE EXTRACTION BETWEEN TWO VERSIONS OF DATA TABLES CONTAINING INTRA-REFERENCES	)
Group		)
Art Unit:	2124	)
Examiner:	John Q. CHAVIS	)

**CERTIFICATE OF MAILING**

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box ISSUE FEE, Commissioner for Patents, Washington, D.C. 20231, on this date.

11/27/02  
Date

*Kenneth H. Samples*  
Kenneth H. Samples  
Reg. 25,747  
Attorney for Applicant

**COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE**

Box ISSUE FEE  
Commissioner of Patents and Trademarks  
ATTENTION: Assistant Commissioner for  
Patents  
Washington, D.C. 20231

Sir:

The Examiner's Statement of Reasons for Allowance is generally based on Miller's patent US No. 5,832,520.

Applicants agree that Miller does not disclose or suggest generating a modified new file and using the modified new file or modified old file to generate a difference result. Applicants, however, do not agree with the Examiner's contention that Miller creates modified old programs in the sense of the invention.

In support of his contention, the Examiner refers to Column 3, lines 1-10 and Column 6, lines 34-44. In Miller, the teachings of Column 3, lines 1-10 are simply that in addition to an old file, an index or hash table is created (see e.g., lines 2-5), so as to facilitate searching for character strings from the new file. Thus, according to Miller, auxiliary data is created in addition to the old file and in contrast to the invention, (in accordance with the aspect defined in claim 1) where the modified old file is generated and is used later for generating the compact difference result.

Attorney Docket No. 66371

Note, that the index or hashing table in Miller, are not always created (see Column 3, lines 7-10). In contrast, in accordance with the invention, the generation of modified old programs or modified old data table (depending on the aspects of the invention), is an obligatory step for the generation of the compact difference result.

These observations are also reinforced by referring to the other reference provided by the Examiner (Column 6, lines 34-44), where it readily arises that Miller refers to the generation of auxiliary index data structure, which is only optional (see, for example, Column 6, lines 40-44).

Note also that the purpose of Miller's index is generally known per se, i.e., to decrease the search time for the text strings in the old file (see Column 6, line 40). This is not the case for the modified old program, for example, defined in claim 1, which serves for generating the compact difference result.

As mentioned above, Miller does not disclose the generation of modified old file, and a fortiori, not in the manner recited, for example, in step (a)(I), i.e., "replacing the reference of said entry by distinct label mark."

The Examiner further indicated that no translation was provided of EP 0472812, and therefore it has not been considered.

The EP 0472812 (English translation of claims attached) does not include generating and modifying the old program as recited in step (a)(I) and further, does not disclose generating a modified new program, as recited in steps (b)(I) and obviously, does not include generating a difference result using the modified old program and modified new program, as recited in step (c).

It also does not disclose the steps recited in independent claim 8, 12, 14, 18, 21 and 25.

Applicants respectfully request these Comments be entered of record in the present application.

Respectfully requested,

FITCH, EVEN, TABIN & FLANNERY

By: 

Kenneth H. Samples  
Registration No. 25,747

Date: 11/27/02

FITCH, EVEN, TABIN & FLANNERY  
120 South LaSalle Street  
Suite 1600  
Chicago, Illinois 60603-3406  
Telephone: (312) 577-7000

*Supplemental*  
**Notice of Allowability**

Application No.	Applicant(s)	
09/376,512	PELEG, SHARON	
Examiner	Art Unit	
John Q. Chavis	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to papers filed 12-2-02.
2.  The allowed claim(s) is/are 1-68.
3.  The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
5.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a)  The translation of the foreign language provisional application has been received.
6.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8.  CORRECTED DRAWINGS must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No. \_\_\_\_\_.
  - (b)  Including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____               | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                  |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other  |



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*Reason for Allowance*

1. The following is an examiner's statement of reasons for allowance: the reasons for allowance are the same as presented in the previous action. The applicant indicates that Miller does not generate a modified old program; however, with the creation of Miller's Text String Index and utilization of the index for subsequent searching of the old program, the feature suffices as a "modified old program" (again see col. 6 lines 34-66). Therefore, as indicated in the previous action, Miller is still considered to generate a modified old program. However, Miller does not teach or suggest generating a modified new file and using the modified new file along with the modified old file to generate a difference result. The applicant further supplied an English translation of the claims of EP 0472812. Therefore, the claims are the only portion of the reference considered. The present claims are allowable over the claims of '812 for at least the same reasons they are allowable over Miller.

**Comments**

2. The corrected or substitute drawings were received on 12-2-02. These drawings are also considered informal; since, lines are unevenly dark and well defined and copy marks exists on the drawings provided.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Q. Chavis whose telephone number is 703-305-9665. The examiner can normally be reached on 8:30 am-5:00 pm Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3900.



Jqc  
February 10, 2003

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