Title: METHOD AND SYSTEM FOR MAPPING XML TO N-DIMENSIONAL DATA STRUCTURE

Abstract: A tilting tree, spinning cones process is employed to map n-dimensional array data originally in markup language, to an n-dimension table suitable for use by COBOL application programs. Mapping is performed without scanning the result array for an empty slot. This allows the result array slots to be pre-loaded with state data. During mapping, the hierarchical nature of the markup language n-dimensional data is represented in two-dimensions using an inverted tree structure having cones for each array level. The tree is tilted to bring a member of a given level into contact with one of the axes of the tree graph, followed by spinning appropriate cones to bring a certain member of that level into contact with the same axis. This results in the ability to use a one-dimensional mapping array. The dimension offset on the mapping axis can then be used as an index value into the mapped array output for storage or retrieval of element data.
before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

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.

(88) Date of publication of the international search report:
21 October 2004
**INTERNATIONAL SEARCH REPORT**

**International Application No:**

PCT/GB2004/000243

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### A. CLASSIFICATION OF SUBJECT MATTER

**IPC:** 7 Go6f17/30

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### B. FIELDS SEARCHED

**Minimum documentation searched (classification system followed by classification symbols):**

IPC 7 Go6f

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**Documentary searched other than minimum documentation to the extent that such documents are included in the fields searched:**

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

EPO-Internal, INSPEC, IBM-TDB, WPI Data

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### C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>Y</td>
<td>SNEED H M: &quot;Wrapping legacy COBOL programs behind an XML-interface&quot; IEEE, 2 October 2001 (2001-10-02), pages 189-197, XP010563203 page 194, column 2, line 20 - page 196, column 1, line 13 figures 4-7</td>
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<td>A</td>
<td>EP 1 231 547 A (HITACHI LTD) 14 August 2002 (2002-08-14) abstract column 6, line 29 - column 14, line 55 figures 4-12</td>
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**Date of the actual completion of the international search:**

5 August 2004

**Date of mailing of the international search report:**

19/08/2004

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**Name and mailing address of the ISA**

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HJ Rijswijk
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Abbing, R
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