(54) Title: MOVE LOT SIZE BALANCING SYSTEM AND METHOD

(57) Abstract: A method system for allowing a vehicle dealer and manufacturer to match dealer orders (222) and manufacturing plant shipments easily and equitably are disclosed. The method significantly decreases processing time, saving valuable time, money, and manpower resources. An automated linear expression calculation for determining and balancing (232) vehicle allocation allows for equitable balancing of manufacturing plant orders and efficient optimization. The linear expression calculation may be performed in an iterative series of steps. The linear expression calculation handles a plurality of attribute features (216), thereby accommodating a plurality of dealer requests and vehicle options. The linear expression calculation creates a matrix representing the plurality of attribute features (216), and with each iteration the values within the matrix are refined and optimized, with the resulting matrix representing an optimized and balanced allocation of manufacturing plant production orders among a plurality of manufacturing plants.

Published: with international search report

Date of publication of the international search report: 16 January 2003

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.
### INTERNATIONAL SEARCH REPORT

**A. CLASSIFICATION OF SUBJECT MATTER**

<table>
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<th>IPC</th>
<th>US CL</th>
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<tr>
<td>G05B 1/00; G06F 10/00; G06F 17/00</td>
<td>700/28, 95, 97, 705/7</td>
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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)

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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)

**East**

search terms: vehicle, manufacturing, options, dealer

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>A</td>
<td>US 6,141,598 A (NAM) 31 October 2000, col. 12, line 40 - col. 16 line 60.</td>
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- Special categories of cited documents:
  - **A**: document defining the general state of the art which is not considered to be of particular relevance
  - **E**: earlier document published on or after the international filing date
  - **L**: document which may throw doubt on priority claimed or which is cited to establish the publication date of another citation or other special reason (as specified)
  - **O**: document referring to an oral disclosure, use, exhibition or other means
  - **O'**: document published prior to the international filing date but later than the priority date claimed

- Further documents are listed in the continuation of Box C.

<table>
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<th>Date of the actual completion of the international search</th>
<th>Date of mailing of the international search report</th>
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<tr>
<td>24 JUNE 2002</td>
<td>06 AUG 2002</td>
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Form PCT/ISA/210 (second sheet, July 1992)