Title: FIELD PROGRAMMABLE BRAKE CONTROL SYSTEM

Abstract: A brake control system (10) for a wheeled vehicle includes a field programmable gate array (12) configured to perform the algorithm of brake control subsystems in a typical brake control system for a wheeled vehicle. The brake control subsystems typically include anti-skid control, brake temperature monitoring, built-in tests, and, in the case of an aircraft, nose wheel steering. The system also includes wheel speed sensors (14), brake temperature monitors (16), brake valves and associated control circuits, and brake valve monitors (20) respecting brake valve current and voltage. The use of field programmable gate arrays to configure a brake control system avoids the obsolescence and shortened life of control systems previously dependent upon microprocessors and the like.
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

**International application No.**

PCT/US03/05901

---

**A.  CLASSIFICATION OF SUBJECT MATTER**

<table>
<thead>
<tr>
<th>IPC(7)</th>
<th>G06F 13/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>US CL</td>
<td>701/35</td>
</tr>
</tbody>
</table>

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)

- U.S. : 701/35, 29; 303/113.1, 121

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 practicable, search terms used)

---

**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>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>US 5,581,464 A (WOLL) 03 December 1996 (03.12.96) See entire document</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>US 5,465,079 A (BOUCHARD) 07 November 1995 (07.11.95) See entire document</td>
<td></td>
</tr>
</tbody>
</table>

---

- **See patent family annex.**
- **Further documents are listed in the continuation of Box C.**

- **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 application or patent published on or after the international filing date
  - **L** document which may throw doubts on priority claim(s) 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
  - **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 novel or 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
  - **A** document member of the same patent family

---

**Date of the actual completion of the international search**

09 October 2003 (09.10.2003)

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

03 DEC 2003

**Name and mailing address of the ISA/US**

- Mail Stop PCT, Attn: ISA/US
- Commissioner for Patents
- P.O. Box 1450
- Alexandria, Virginia 22313-1450
- Facsimile No. (703)305-3230

**Authorized officer**

- Matthew C. Graham

**Telephone No.** (703) 308-2570

---

Form PCT/ISA/210 (second sheet) (July 1998)