

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 February 2002 (21.02.2002)

PCT

(10) International Publication Number
WO 02/15517 A3

(51) International Patent Classification⁷: H04L 12/413, G06F 13/38

(72) Inventors: **STONEKING, Rick**; P.O. Box 4581, Warren, NJ 07059 (US). **NEGLEY, Bruce**; 2647 E. Bighorn Avenue, Phoenix, AZ 85048 (US). **FILICETTI, Craig**; 3816 North Jokake Drive, Scottsdale, AZ 85251 (US).

(21) International Application Number: PCT/US01/25588

(22) International Filing Date: 16 August 2001 (16.08.2001)

(74) Agent: **PENNINGTON, Edward, A.**; Swidler Berlin Shereff Friedman LLP, Suite 300, 3000 K Street, N.W., Washington, DC 20007-5116 (US).

(25) Filing Language: English

(26) Publication Language: English

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(30) Priority Data:
09/639,123 16 August 2000 (16.08.2000) US

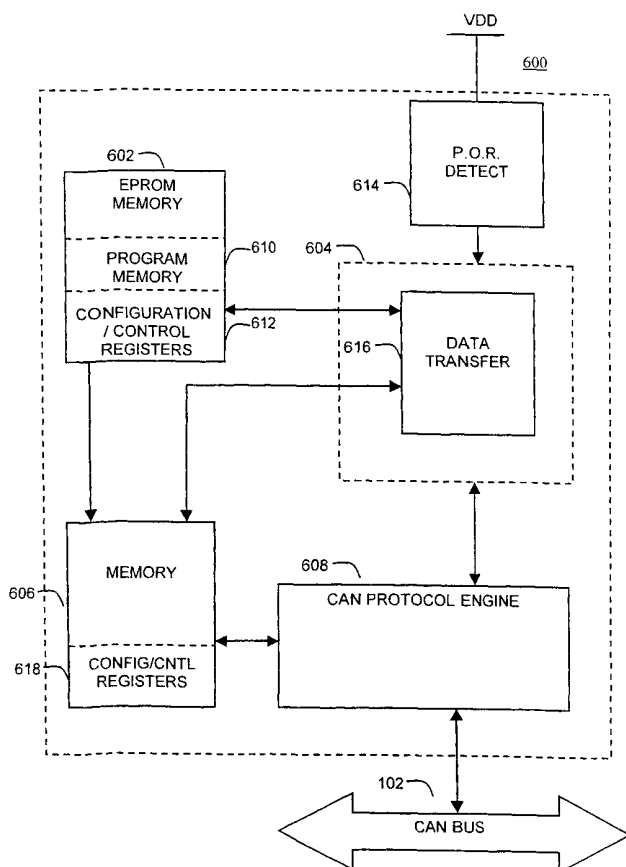
Published:
— with international search report

(71) Applicant: **MICROCHIP TECHNOLOGY INCORPORATED** [US/US]; 2355 W. Chandler Boulevard, Chandler, AZ 85224-6199 (US).

(88) Date of publication of the international search report:
16 May 2002

[Continued on next page]

(54) Title: REMOTE CONFIGURATION OF NETWORK NODE VIA CONTROLLER AREA NETWORK MESSAGES



(57) Abstract: A configurable device includes a non-volatile memory such as an electronically programmable read only memory (EPROM), a volatile memory, a protocol engine and a controller. The EPROM stores a default configuration for the device. The default configuration is transferred to the volatile memory and is stored as an alterable configuration upon application of power. The protocol engine exchanges messages with a message-based bus, such as a controller area network (CAN) bus. The controller communicates with the memory and the protocol engine to receive messages and act on the received messages based on the alterable configuration. The messages include configuration messages that cause the control logic to overwrite the alterable configuration based on a received configuration message.

WO 02/15517 A3



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/US 01/25588

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L12/413 G06F13/38

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 H04L 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, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 444 643 A (MUELLER KARLHEINZ ET AL) 22 August 1995 (1995-08-22) column 2, line 5 -column 8, line 41	1,2,11, 16
Y	---	3-10, 12-15, 17-21
X	EP 0 628 647 A (ZINSER TEXTILMASCHINEN GMBH) 14 December 1994 (1994-12-14) page 2, line 56 -page 5, line 53	1,2,11, 16
Y	---	3-10, 12-15, 17-21
	US 5 446 846 A (LENNARTSSON KENT) 29 August 1995 (1995-08-29) column 1, line 49 -column 4, line 60 column 11, line 44 -column 14, line 57 ---	
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* 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 but 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 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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

15 February 2002

Date of mailing of the international search report

27/02/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Kalabic, F

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/25588

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 01 31406 A (BARRENSCHEEN JENS ; SCHMIDT ACHIM (DE); INFINEON TECHNOLOGIES AG (D) 3 May 2001 (2001-05-03) the whole document ---	1-21
E	DE 100 06 970 A (INFINEON TECHNOLOGIES AG) 20 September 2001 (2001-09-20) the whole document ---	1-21
A	GNAHM K: "FREI PROGRAMMIERBARE STEUERUNG FÜR MOBILE ARBEITSMASCHINEN MIT CAN-BUS" 1998 , OLHYDRAULIK UND PNEUMATIK, KRAUSSKOPF VERLAG FÜR WIRTSCHAFT GMBH. MAINZ, DE, VOL. 42, NR. 9, PAGE(S) 580,582-583 XP000831873 ISSN: 0341-2660 the whole document ---	1-21
A	US 5 670 845 A (BRASSINGTON DAVID ET AL) 23 September 1997 (1997-09-23) the whole document ---	1-21
A	DE 196 15 190 A (FRITZ ELECTRONIC GMBH) 23 October 1997 (1997-10-23) the whole document -----	1-21

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/25588

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5444643	A	22-08-1995	DE 4229931 A1 GB 2270782 A , B	10-03-1994 23-03-1994
EP 0628647	A	14-12-1994	DE 4319485 A1 EP 0628647 A1 JP 7078020 A	05-01-1995 14-12-1994 20-03-1995
US 5446846	A	29-08-1995	SE 466726 B DE 69127369 D1 DE 69127369 T2 EP 0545994 A1 SE 9002703 A WO 9203881 A1	23-03-1992 25-09-1997 26-02-1998 16-06-1993 21-02-1992 05-03-1992
WO 0131406	A	03-05-2001	DE 19952034 A1 WO 0131406 A1	10-05-2001 03-05-2001
DE 10006970	A	20-09-2001	DE 10006970 A1	20-09-2001
US 5670845	A	23-09-1997	AU 3958393 A CA 2133847 A1 DE 69311328 D1 DE 69311328 T2 EP 0634983 A1 ES 2105247 T3 WO 9321035 A1 JP 7508693 T	18-11-1993 28-10-1993 10-07-1997 29-01-1998 25-01-1995 16-10-1997 28-10-1993 28-09-1995
DE 19615190	A	23-10-1997	DE 19615190 A1 WO 9739393 A1	23-10-1997 23-10-1997