(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 19 July 2007 (19.07.2007)

(51) International Patent Classification: H04B 7/00 (2006.01)

(21) International Application Number:

PCT/US2007/000677

- (22) International Filing Date: 11 January 2007 (11.01.2007)
- (25) Filing Language: **English**
- (26) Publication Language: English
- (30) Priority Data:

60/758,167 11 January 2006 (11.01.2006) US

- (71) Applicant (for all designated States except US): FISHER-ROSEMOUNT SYSTEMS, INC. [US/US]; 12301 Research Boulevard - Law Department, Research Park Plaza, Building III, Austin, Texas 78759-2369 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DOBROWSKI, Patrick, M. [US/US]; c/o Fisher-Rosemount Systems, Inc., 12301 Research Boulevard - Law Department, Research Park Plaza, Building III, Austin, Texas 78759-2369 (US). LOVEGREN, Eric, R. [US/US]; c/o Fisher-Rosemount Systems, Inc., 12301 Research Boulevard - Law Department, Research Park Plaza, Building III, Austin, Texas 78759-2369 (US). ORTH, Kelly, M. [US/US]; c/o Fisher-Rosemount Systems, Inc., 12301 Research

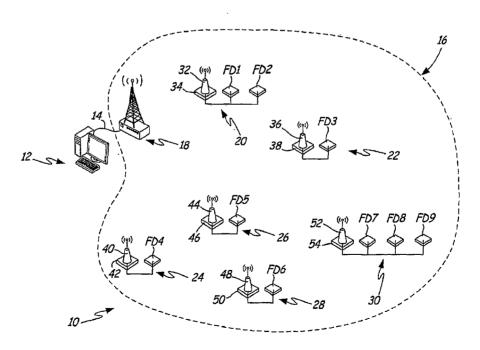
(10) International Publication Number WO 2007/082010 A3

Boulevard - Law Department, Research Park Plaza, Building III, Austin, Texas 78759-2369 (US). STOTZ, Kyle, L. [US/US]; c/o Fisher-Rosemount Systems, Inc., 12301 Research Boulevard - Law Department, Research Park Plaza, Building III, Austin, Texas 78759-2369 (US). KARSCHNIA. Robert [US/US]: c/o Fisher-Rosemount Systems, Inc., 12301 Research Boulevard - Law Department, Research Park Plaza, Building III, Austin, Texas 78759-2369 (US).

- (74) Agents: FAIRBAIRN, David, R. et al.; KINNEY & LANGE, P.A., Kinney & Lange Building, 312 South Third Street, Minneapolis, Minnesota 55415-1002 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: CONTROL OF FIELD DEVICE ON LOW POWER WIRELESS NETWORKS



(57) Abstract: A control system uses a wireless network to provide communication between a host computer and field devices. The host and the field devices communicate with one another using control messages and response messages based upon a known control system protocol. The control and response messages are embedded as a payload within a wireless message that is transmitted over the wireless network. When the wireless message is received at its ultimate destination, the control or response message is separated from the wireless message and is delivered to the intended recipient (either a field device or the host computer).

WO 2007/082010 A3



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 6 December 2007

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/US07/00677

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H04B 7/00 (2007.01) USPC - 455/515			
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(8) - H04H 1/00; H04M 1/663, 1/725; H04Q 7/22, 7/20, 7/00; H04B 7/00, 15/00; G01R 31/08; G06F 11/00; G08C 15/00; H04J 1/16; H04L 1/00, 12/26, 3/24, 12/28, 12/56 (2007.01) USPC - 455/515			
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)			
PatBase			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category* Citation	ry* Citation of document, with indication, where appropriate, of the relevant passages		
X US 6,731,94	US 6,731,946 B1 (STANWOOD et al) 4 May 2004 (04.05.2004) entire document		
A US 6,775,27	US 6,775,276 B1 (BESER) 10 August 2004 (10.08.2004) entire document		1-17
Further documents	are listed in the continuation of Box C.		
Special categories of cited documents: "T" document defining the general state of the art which is not considered to be of particular relevance		"T" later document published after the interr date and not in conflict with the applic the principle or theory underlying the i	ation but cited to understand
"E" earlier application or patent but published on or after the international filing date		"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive	
"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)		i document of particular relevance, the	claimed invention cannot be
"O" document referring to an oral disclosure, use, exhibition or other means		considered to involve an inventive s combined with one or more other such d being ohvious to a person skilled in the	ocuments, such combination
"P" document published prior to the international filing date but later than the priority date claimed			
Date of the actual completion of the international search D		Date of mailing of the international search	•
20 August 2007		18 OCT 2007	
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents		Authorized officer: Blaine R. Copenheaver	
P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774	