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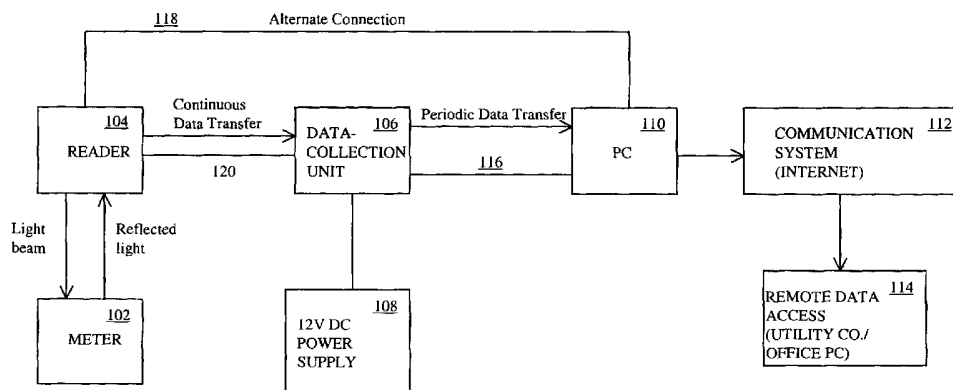
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A METHOD AND APPARATUS FOR READING AND CONTROLLING ELECTRIC POWER CONSUMPTION



(57) Abstract: An electro-optical, automatic reader (104) for enabling a consumer to view and manage power consumption through a browser (602). A sensor (210) attached to a bracket (202) is mounted to the outside cover (306) of a utility meter without modification of the meter (102) or removal of its housing. A data-collector (106) stores data obtained from the sensor (210) via a serial port which may also provide power for the sensor (210), thus avoiding use of a dedicated power supply. The data-collector (106) connects to a computer (110) which provides a centralized object through which to view and manage power consumption. The real-time and combined historic data can be used to forecast whether usage will fall above or below a predetermined usage level at the end of a given period of time. In response to a forecast exceeding the level, the computer (110) displays the appropriate graph in a red colored bar within a quantity vs. time chart. The computer (110) may control power consuming devices. A communication system (804) may be established to the system for remote management by the consumer or by the utility company (806) for its own billing and management purposes.



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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/20961

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>																										
IPC(7) : G01R 21/06																										
US CL : 702/57, 60, 61, 62, 64, 65, 188, 189; 73/1.41, 1.45; 324/103R, 110; 700/291, 297, 286; 705/63, 412																										
According to International Patent Classification (IPC) or to both national classification and IPC																										
<b>B. FIELDS SEARCHED</b>																										
Minimum documentation searched (classification system followed by classification symbols)																										
U.S. : 702/57, 60, 61, 62, 64, 65, 188, 189; 73/1.41, 1.45; 324/103R, 110; 700/291, 297, 286; 705/63, 412																										
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched																										
NONE																										
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																										
Please See Continuation Sheet																										
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>																										
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																								
X	US 5,214,587 A (GREEN) 25 May 1993 (25.05.1993), column 3, lines 36.	1-29 and 39-45																								
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Y		30-38																								
Y	US 4,390,876 A (BJORKLUND et al) 28 June 1983 (28.06.1983), column 3, lines 41-42.	30-38																								
A	US 4,783,623 A (EDWARDS et al) 08 November 1988 (08.11.1988), Figure 2.	1-55																								
A	US 5,699,276 A (ROOS) 16 December 1997 (16.12.1997), Figure 3.	1-55																								
A	US 4,803,632 A (FREW et al) 07 February 1989 (07.02.1989), Figure 1.	1-55																								
A	US 5,541,589 A (DELANEY) 30 July 1996 (30.07.1996), column 5, lines 44-54.	1-55																								
A	US 4,350,980 A (WARD) 21 September 1982 (21.09.1982), column 4, lines 6-13.	1-55																								
A,P	US 6,262,672 B1 (BROOKSBY et al) 17 July 2001 (17.07.2001), Figure 2.	1-55																								
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																										
<table border="0"> <tr> <td colspan="2">* Special categories of cited documents:</td> <td>"T"</td> <td>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</td> </tr> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"E"</td> <td>earlier application or patent published on or after the international filing date</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"L"</td> <td>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)</td> <td>"&amp;"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td></td> <td></td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			* Special categories of cited documents:		"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	"A"	document defining the general state of the art which is not considered to be of particular relevance	"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	"E"	earlier application or patent published on or after the international filing date	"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	"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)	"&"	document member of the same patent family	"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		
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# INTERNATIONAL SEARCH REPORT

PCT/US02/20961

## Continuation of B. FIELDS SEARCHED Item 3:

USPTO APS EAST

search terms: power, consumption, meter, optical, bracket, utility, indicia, sensor, and mount