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A CONTROL SYSTEM FOR DEPICTING INFORMATION FROM COMPUTER ON AN --ETC(U)  
AUG 77 J ZIERKE, R MARCHWICKI, M DYDYSKI

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A CONTROL SYSTEM FOR DEPICTING INFORMATION FROM  
COMPUTER ON AN ELECTROLUMINOPHORIC PLATE

by

J. Zierke, R. Marchwicki, M. Dydynski



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Inventors: Jerzy Zierke, Roman Marchwicki, Maciej Dydynski

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A control system for depicting information from computer

on an electroluminophoric plate

(Układ sterujący do zobrazowania informacji z maszyny cyfrowej  
na płytce elektroluminoforowej)

The object of this invention is a control system for depicting information from computer on an electroluminophoric plate. The application of electroluminophoric plates for depicting information from a computer is not yet known.

The aim of this invention is to enable depicting information from computer in real time systems onto electroluminophoric plates through the development of a control system which would accept information from a computer and transfer it onto electroluminophoric plate.

This aim has been achieved through the development of a control system to depict information from computers

onto an electroluminophoric plate attached to the computer in place of a perforator. The control system according to this invention is composed of an intermediate block, control block, and commutation block of feeding (charging) the luminophoric plate. The control block contains a matching (adjusting) block and the register of rows and columns, which is connected with decoder of rows and with the decoder of columns. The decoders and regulation block of excitation time are connected in series with the commutation system of charging the electroluminophoric plate.

The location of elements on <sup>the</sup> electroluminophoric plate is determined (defined) by the number of <sup>the</sup> row and the number of the column at which the element is placed on the plate. The programmer encodes this value in such a way that the number of the row is entered in binary into four lowest-valued positions of the accumulator, and the number of the column - into <sup>the</sup> four next positions of the accumulator.

The eight-bit information about the location of <sup>the</sup> element on the plate is taken out of the computer by means of the order (command) "perforate the segment of information". Through the system of matching potentials this information is entered into the register of rows and register of columns, and then becomes decoded by means of the decoder of rows and columns.

The simultaneous choice of the row and column provides coincidence of potentials necessary to excite the element to luminesce. The picture is drawn element after element.

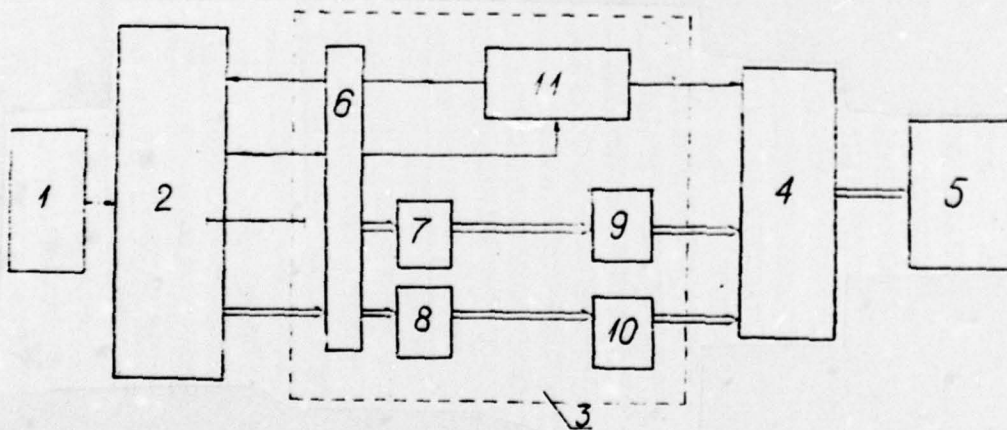
The time of residence at each element is determined by the regulation system of excitation time. The information should be regenerated by <sup>a</sup>program from the computer at an appropriate frequency, since the plate has no internal memory.

As the diagram shows, the control system according to this invention is composed of an intermediate block 2, control block 3, and the commutation block 4 for charging the electroluminophoric plate 5. The control block 3 contains a block for matching (adjusting) potentials 6 attached to the register of rows 7 and register of columns 8, which are connected appropriately with decoder of rows 9 and decoder of columns 10. The block of matching potentials 6 is connected by feedback with the system of excitation time 11. The decoders of rows and columns 9 and 10 and the regulation block of excitation time 11 are connected in series with the commutation block 4 for charging the electroluminophoric plate.

The system according to this invention permits to connect the electroluminophoric plate with a computer, and provides full possibilities of programmed drawing of the picture. This system can be connected to any computer which is equipped with a perforator. The attachment of the system according to this invention to a computer 1 is simple, and reduces to inserting the system in place of the cable connection perforator.

Patent claims

A control system for depicting information from a computer on an electroluminophoric plate specific in that it consists of an intermediate block (2), control block (3), and commutation block (4) for charging an electroluminophoric plate (5); the steering (control) block (3) has a block for matching potentials (6) attached to the register of rows (7) and register of columns (8), which are suitably connected to a decoder of rows (9) and decoder of columns (10) and they are in series with commutation system (4), whereas the system for matching potentials (6) has the feedback connection with the regulation block of excitation time(11).



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