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INFORMATION-CONTROL DEVICE OF THE FOLDING MACHINES USING PROGRAMMABLE LOGIC CONTROLLERS

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**Research methodology.** Experimental by the development and research of a physical model of the information-control device (ICD), the usage of simulations of its work on the computer in the editor FBD (Functional Block Diagram) program, using LOGO! Soft Somfort, mathematical modeling.

**Results.** The laboratory sample ICD of the folding machines (FM) is based on PLC LOGO! TD company SIEMENS. The device forms the packs of signature in which the content has been given, counts the number and the total amount of signature and measures the speed of the folding machines. The results of all measurement have been highlighted on the text box LOGO! TD. Automatic grouping of the signature a FM has been carried out by the repulsion of the last signature in the pack or with the help of slowdown.

**Novelty.** ICD is proposed for counting and controlling the productivity of FM using the new progressive hardware platform, which provides the continued functioning of the national printing machines in the management of digital control system and in the final version to be ready for work with the data CIP4 / JDF. Practical electrical circuit forced electromagnet controller has been carried out to form the forming packs of signatures and the analytical performance depending on the quick work of the electromagnet reaction on a magnitude of applied voltage.

**The practical significance.** The implementation of the developed ICD FM in production permit to reduce working staff, culture and to increase the accuracy of accounting, reduce the cost of printing production and increase the technical level and competitiveness of national printing equipment. The results of the investigation have been used in educational process which help to develop the scientific and technical support for regional cluster «Paper and Printing».