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AUTOMATION OF TESTING PROCESSES

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Annotation : describes the process of automation , test automation tasks , the task of modernizing the stand, install the test

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The modern market demands production increasing productivity at minimum cost - this is possible with an integrated approach to factory automation and modernization jobsites.

Increased automation company leads to increased stability of the process, reduce the human factor, to improve the transparency of the production, which ultimately has a positive effect on the quality of the finished product and leads to lower its cost. Automated manufacturing process makes flexible, allowing the company to change and adapt to the market, and this is true in times of economic instability.

Automation is the highest stage in the development of technology, which is characterized by the implementation of production management and other socially necessary processes without the direct participation of the person. [1]

Automation of testing processes carried out in order to reduce labor costs and timing of the tests, as well as get more accurate test results. Achieving these aims is provided mainly by automating data collection, storage and processing of test results; automation of test equipment and test facilities; computer applications. [2]

Automation of testing processes in practice realized by creating Automated Test Systems (ASI), that is test systems in which automated control tests. ASI can be represented as a combination of functional subsystems.

Functional subsystem ASI is the part of a system assigned to perform specific functions during the test (e.g., subsystem test planning, data processing subsystem, etc.).

Moreover the ASI may consist of subsystem like:

• preparation and certification of testing;

• operational management of facilities and test facilities ;

• data collection;

• data processing and analysis of the test results ;

• registration and documentation of test results ;

• accounting of use test tools and expenditure of material resources.

Necessity to automate laboratory setup or stand for test may occur at different life cycles of their existence. The most correct option provides automation solution at an early

stage - when the stand or installation do not exist in the metal yet, but there are only some ideas embodied (or partially embodied) on paper . But there is more common option when installing the stand or already exist and work , and they perform their functions properly , and quite well made "iron" Position staffed long mentally (and often physically) outdated means of measurement and control , using primitive tools management of the plant.

Receiving result of such installations associated with a large range of work and a huge laboriousness. The task of automation such stands often lies not only in the replacement of obsolete equipment management and control on modern one, but also to replace the control algorithms and information gathering , the subsequent processing of the information received and the formation on the basis of the information control solutions

All these modern technologies have universal implementation mechanism consists in the fact that the main think tank , which receives all the information collected from the stand , there is its processing, the control signals are generated , the computer is to be included in the stand.

Accordingly task automation stand divided into a number of standard procedures:

1. Obtaining information from the computer stand on the parameter of interest;

2. Perform an action on the information received any payment characteristics;

3. Formation of control in the form of a signal and its transmission to the stand;

4. Converting signal control in a specific physical action to enable or disable some element, switch to another mode, etc. [3]

The efficiency of using automation to production processes and testing should be calculated individually as needed to take into account the profitability of applying automation to each process , will effectively apply automation in a particular case .

The yield of automation in production is achieved with the proviso that the robots will produce robot without human intervention in the creation and adjusting manufacturing processes and testing. Up to this point the application and implementation of automation in production dictated by market if there is competitor who produce and sell the same products with the required quality , cheaper and faster, and automation of production issues , «Where ? Where? How?» to apply automation will continue to exist .

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