Management activities during testing vehicles with upgrades

Radomir Janjić, Blaža Stojanović*, Milan Bukvić*, Snežana Mališić*

Tehnical Test Center of Belgrade, Serbia
*Faculty of Engineering University of Kragujevac, Serbia

Abstract
During the test vehicle with the upgrade ensures the quality and confidence in test results. Program and test plan is defined by the increasing number of complex activities which are mutually interdependent and timed to run in the desired direction with available resources within the planned budget. The paper deals with the importance of planning, security management functions activities and tasks and cooperation of all stakeholders in order to achieve organizational goals. Process management is hard to imagine without the use of information technology and software tools that have a very important role. Since the dedicated software tools are very expensive and need to be considered to choose the most suitable software tool that can meet the needs of the task of test vehicles with upgrade.

Key Words: *testing, management, software tool.*

1. Uvod

In order for an organization, that deals with the study of motor vehicles with the upgrade achieve organizational goals, it is necessary that its activities planned and organized to make the most of available resources and achieved the desired results. The organizational structure should be designed and tailored towards achieving the mission and goals of the organization.

On the management is commonly viewed as a continuous process of business activities. Today it is common to observe the management process through four basic and very important functions: [1]

- planning,
- organizing,
- management and
- control.

These management functions are interdependent and closely linked that lead to achieving the mission and goals of the organization.

An integral part of the plan are the activities and tasks that the organization intends to carry out in order to realize defined goals. Also, it is important to define and plan the necessary resources, their source and schedule as well as the manner in which they are engaged.

Given that one of the purposes of planning and establishing standards to be used in process control, an integral part of the plan should also be indicators that show whether the objectives have been achieved or not. It is desirable that quantitative indicators should be expressed because then their application simpler. [2]

In order to realize the set organizational targets individuals and groups to determine the competence to roles and positions in the execution of assigned tasks.

During the implementation of the action requires constantly taking measures and procedures to identify and establishment of those forms of work which in the circumstances provide effective execution of set tasks.

The direct management of groups and individuals in the implementation of activities and achievement of organizational goals. Include the resources and procedures that are necessary for planning, directing and controlling the execution of assigned tasks. Management must be flexible and organized so that timely provides the necessary information to the manager could not properly focus its activities on the most important areas.

Depending on the type of tests will provide an adequate selection of management methods and tools for planning, control, monitoring and test analysis. If it is possible that the activities during the tests standardize and accurately determine if we choose to weather the current monitor the progress of realization of tests for the purpose of easier and more reliable monitoring and prediction methods we will use charts and PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method) model. Analysis of the structure of network planning goes through three stages: preparation of a list of activities, creating network diagrams and numbering (arbitrarily or growing) network in diagrams.

2. Management activities in the process of testing using software tool MSoffice project

Before the start of the test vehicle with the upgrade it is necessary to analyze in detail the program and study plan in order to more efficiently manage all processes. In the planning of all activities on testing is necessary to ensure the cooperation of all the subjects of the test process. In order to better manage the examination is necessary to define goals and objectives and recognize the interdependence between activities, to estimate the time required for the execution of tests, shorten the critical paths and share tasks between resources.

Activities on assignment tests must be carried out according to a defined sequence between the activities there must be a corresponding interdependence.

During the process of testing the vehicle with the upgrade, to monitor the degree of realization of the set tasks with information on the status of approved resources. For a better monitoring of the degree of realization of examinations, it is useful to the same type of activities organized by stages. At the end of each stage it is necessary to define the key events that are of utmost importance for the tests.

As during the implementation of the task of test vehicles with the upgrade there is a change in the deadlines to be constantly updating the plan and the commitment of resources.

During the test vehicle with the upgrade using the following resources:

- work (people and equipment),
- material (supplies), and
- cost (financial assets).

Individual human resources are identified by name, job title and function. To test ovagog type it is necessary to consider hiring an organizational group in the function execution of the task. In this way, we consider the number of resources available which represents the working time for the activities that are assigned to it. The cost aspect is related to the amount of money that should be allocated for hiring the specified resource.

After listing the activities assigned to it resources enabling the monitoring of that resource in the execution of activities. Timetable join resources to perform the tasks, the optimal number of people who will implement the tasks and optimal engagement of each resource. If you hire new resources for the realization of the task tests must be defined in the way they affect the task of testing the vehicle with the upgrade.

During the realization of the task tests the vehicle with the upgrade phase begins monitoring task in order to compare the planned, whether the activities are carried out in a planned manner with a planned expenditure of time and financial resources and reduce potential discrepancies to a minimum. Monitoring involves documenting information about the task. Depending on the required level of detail we can decide on a follow-up follows:

- monitoring the schedule,
- monitoring according to the percentage of execution,
- monitoring of actual values and
- monitoring of individual values.

It is difficult to imagine a process control without the use of information technology. Since there are many software tools for the management imposes the need for finding winning software management tools.

Various software tools enable us to a relatively easy way, with a lot of advanced functions, efficiently and easily manage the activities, overviewing plan accurately optimize, manage flexibly, effectively and efficiently monitor the progress of directing testing vehicles with the upgrade.

The number of companies that are project-oriented in the world and in our country, has led to strong demand in the software industry for products that will provide management support. [3] In this paper are listed and analyzed software tools such as: Cooper project, HP Softwnre Division - HP Project and Portfolio Management Centerf, JIRA, Merlin - Merlin, Microsoft Project - Microsoft Project, Microsoft Office Project Server, Microsoft SharePoint Server, OnePoint Project - OnePoint Project, Open ERP Project Management, Primavera Project Planner, Project Open, SAP Portfolio and Project Management, Enterprise Work Plan.

Microsoft Project gives us an advantage over other software in its transparency, accessibility, clarity and precision while saving human labor.

To control using MS Project software tool have full effect, it is necessary to adapt the organization-wide management model and managerial and supporting staff in the organization knows the essence of the management software tools MS Project with respect strictly the procedures leading to the regulated system.

3. Conclusion

For successful implementation of the test vehicle with the upgrade basic prerequisite is to properly direct the activity, and that they are appropriately managed.

It is very important to properly select a suitable software tool, which will suit the needs of the task in order to thus allow for better planning.

Since the standard programming tools and costly training for their use MS Project provides solid support in the management during the test vehicle with upgrade.

Also software company each year develops software with advanced functions. MS Project is designed to provide us with a wide range of options for optimizing management in real time, preparation and follow-up action plan, organization of activities in phases and define their dependencies, assign resources, activities, monitor and control the status of activities in relation to the target state to undertake the rate adjustment plan, the exchange of information with microsoft Office applications as well as access assignments through the Internet no matter where resources are found.

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