THE USE OF INFORMATION TECHNOLOGY IN PROJECT MANAGEMENT

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Summary – This article discusses existing IT solutions in project management, defined general requirements for project management information systems. Studied the essence of various types of project management information systems and their pluses and minuses are set.

Резюме – В данной статье рассмотрены существующие IT-решения при проектном управлении, определены общие требования к информационным системам управления проектами. Изучена суть различных видов информационных систем управления проектами и установлены их плюсы и минусы.

In the modern world it is impossible to imagine any activity without the use of modern technologies. Information technologies have penetrated in our lives very rapidly, and occupied all sphere of life.

Characteristics of information technologies in project management is of great importance in the project. The use of project management information systems allows to reduce the time and financial costs of project implementation. In Project Management, there are more than 16 IT-solutions:

- MS Project. The advantage is the ability to develop plans and distribute resources and It is also possible to track progress and analyze the work performed. Disadvantages is the constraint for working with the scheduling and overload tracking tool. There is no possibility to analyze the project end dates and complex interface.
- OpenPlan. The advantage - development of models of the project, analysis of work and risks, allows to develop a project management system in corporations. Disadvantages are the lack of email clients, chats, remote and cloud work.
- Cobra. The advantage is the analysis of the project budget. The disadvantage is the lack of full functional project management.
- AmoCRM. The advantage is control over the execution of tasks, task end reminder, mail integration, chat, cloud storage. Disadvantages are the limited number of jobs, there is no possibility of remote work online.
- Scrum. This information system was developed to manage IT projects, and a chat and notification board was implemented. Disadvantages are not implemented the possibility of restrictions on roles, Lack of integration with the mail client.
- Agile. This information system is also designed to manage IT projects, are present clear and understandable diagrams of the process of working on a project, convenient and clear menu. The disadvantage is narrowly focused software, chat and notification boards are not implemented.
- Project.Net. In this information system there are no restrictions in the volume of information for decision-making, the ability to work remotely is implemented. Disadvantages - no notification board, chat is not implemented, inconvenient navigation menu.
- Gantter. You can import MS Project files on this system, cloud use, Web-interface, the possibility of comments in the tasks. Disadvantages - the lack of an analytical module, the presence of inconvenient navigation.
- ProjectLibre. There are cloud services separately from the application, import from MS Project, convenient and simple navigation menu. Disadvantages - there is no analytical part and chat.
- 1С. In this program there are charts, chat, notifications, business tasks, roles, risk management, the possibility of revision for the enterprise. Disadvantages - high price for this product, no email client.
- Comindware Project. In this program, the automatic creation of a plan after setting up the project, project status tracking in real time, the ability to work using the phone. Disadvantages - integration with MS Outlook, lack of risk analysis, uncomfortable interface.
- Rovertask. It has Skype, WhatsApp modules built into it, the ability to work from the phone, urgency sorting. Disadvantages - no archive of documents, no email client.
- WelcomRisk. This project management information system can integrate with MS Project and LibreProject. Disadvantages - the functionality is designed only for risk analysis.
- Rillson Project. Universal solution, able to work with projects MS Project, it is possible to export to MS Excel. Disadvantages - no information board, no chat, uncomfortable interface.
- Teambridge. With this system, export to Excel is possible, there is a chat, tracking tasks, can work together with AmoCRM, roles, notifications, work with the phone. Disadvantages - limiting the scope of the project, the absence of an analytical unit, the absence of mail clients.
- WelcomHome. Project Portal Support, export schedule from Open Plan, Cobra, MS Project, forums, bulletin boards, document control, input of work progress. Disadvantages - there is no integration with the email client, there is no project analysis module.

The main information systems used in project management include MS Project, OpenPlan, ProjectLibre, Gantter and Spider Project [1].
In the course of the study, general requirements for project management information systems were identified:
Time management; Cost management; Link management; Communications management; Document flow; Management of risks; Resource management.

In project management information systems there must be a certain functionality that allows this system to adapt to work with projects in an organization: Automation of all processes; Common information space; Document flow; Optimization of all processes in the organization; Planning and forecasting decisions.

Project management software is currently being developed in the direction of remote work. It allows to reach more effective level of work of team [2].

Project management information systems are classified according to the following functionality:
1) Possibility of remote work: AmoCRM; Scrum; Agile; Project.Net; Gantter; ProjectLibre; 1C; Comindware Project; Rovertask. Project management information systems with the possibility of remote work have a rather large potential in development. Many teams are currently being formed around the world, and this functionality will greatly help to form a strong project team. The functionality of these software solutions can compete with integrated solutions in project management.
2) Export the project to other software solutions: WelcomRisk; Rillson Project; Teambridge; WelcomHome. Project management information systems with the ability to export a project allows you to extend the functionality of some solutions. These are mostly free solutions, but their capabilities are not inferior to commercial products with these capabilities. In integration with other software products, they are complex solutions.
3) Project Analysis: Cobra; MS Project; OpenPlan. Project management information systems with the ability to analyze a project allows you to identify errors at an early stage of the project. These project management information systems are commercial.
4) Project automation: Spider; Primavera; Advanta; TaskJuggler; Open Workbench; TeamLab; Asana; Elma. Project management information systems with the ability to automate a project greatly simplify the work of the team on the project. Most project management information systems are commercial. This functionality allows you to work on large streams of information and structure them in importance [1].

Having studied the characteristics of these project management information systems, you can choose a product suitable for a specific project in the present and the future. This will help to distribute financial investments more correctly and will help to expand the functionality if the project requires this. Software products are developing quite quickly, and this allows developers to add and modify modules for their products, that greatly expands their functionality.

REFERENCES
1. Информационная система управления проектами [Электронный ресурс]: Электронные данные. – Режим доступа: https://mahamba.com/ru/informacionnaya-sistema-upravleniya-proektami-isup - Дата доступа: 04.05.2019;