

Utilization of Microsoft Project in Construction projects

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Abstract -Project management is excellent project management controlling, monitoring and analysis tool. In the life cycle of construction projects, especially related to many units of the large-scale construction project, there are often a lot of charts and data needed to be summarized, analysed and processed. Therefore, to realize the efficient allocation of resources, we need to make plan and get constantly real-time feedback in the implementation process of the project to adjust, balance and control the plan. All of these processes and actions to be conducted can be managed using Microsoft project management software very efficiently.

Key Words: project management, construction projects, planning, scheduling

1. INTRODUCTION

Project management in case of the construction industry can be defined as planning of all the events needed to be conducted, execution of the activities in order to fulfill the goals set by planning and controlling & monitoring of all the activities ongoing in the project for the completion in the stipulated time and cost.

2. What aid MS Project Software Provides?

As we are living in an era of fast food which means all the things are occurring at very fast and we don't have much time to work on planning, scheduling and monitoring separately. This should be done in simultaneous manner which can be easily achieved with the help of Project Management Software. Project management software enables us to Plan, Monitor and control the activities, resources and time available to finish the project with the completion of goals.

The Construction Project Executor can be classified into mainly two classes:

A. Project Management Officials- Project Management consultancies, Project Manager, owner of the land

B. Construction Officials: Contractors

2.1 Advantages of MS Project to the Construction Officials:

2.1.1 To Project Management Officials:

A) To Finalize the Project Phases or to finalize the Milestone schedule i.e. Start and Finish of the project so that owner gets an idea about how long will it take to finish the project and the utilization of the project would start.

B) The Primary budget for the various project phases can be analyzed according to resource allocation available in MS Project which can give a financial viability analysis.

C) E.g. A Construction Project has 5 Nos. of G+10 buildings and the tentative cost for the buildings is 20 Crores then all the projects simultaneously can be started at various timelines and would not affect the resource allocation with the help of project cash flow.

D) Project Management Consultants are supposed to provide solutions to the Client anytime. They need to give an updated tracked schedule of the project to check and monitor if planning is being implemented accordingly or not.

2.1.2 To Contractors/ Construction Officials:

A) MS Project enables contractors to maintain detailed schedule of his construction activities and assign resources accordingly. A contractor can do the resource allotment up to quantity of sand, number of cement bags, steel quantity in Ton, aggregate quantity in brass, number of labours, carpenter, fitter etc. Reconciliation reports can also be generated with the help of the above data.

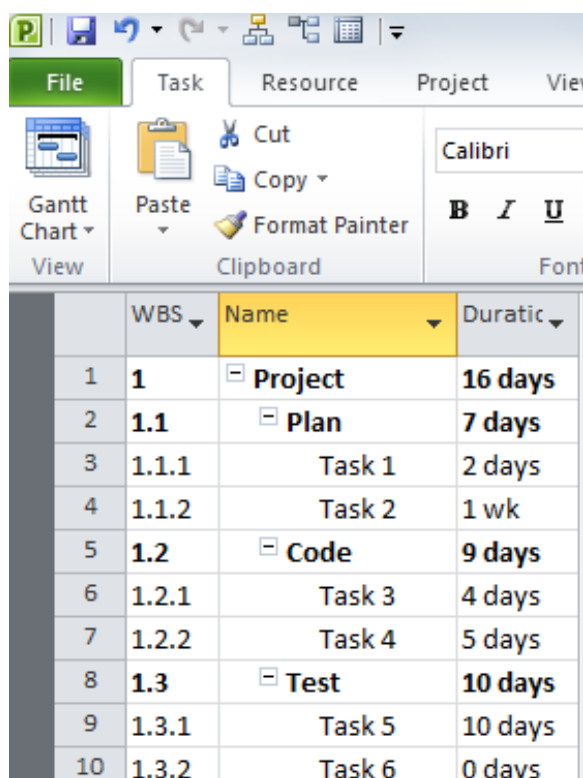
B) A contractor can monitor a schedule and report on daily basis for the construction activities. This helps in maintaining cash flow details.

2.2 Tools in MS Project Software:

Following are the important tools used in MS Project for construction projects

2.2.1 Planning:

The meaning of task planning is to construct the development plan of the project. The important task of this stage is to fix the scope of project. It should also make clear that which goals are being set to be achieved. This Stage also includes scheduling and making the budget depending on the cost of resources and how its allocation can be done. One great thing included in Microsoft Project is that Work Breakdown Structure is used to task planning. This helps in dividing big tasks into small tasks so the tasks are made achievable by cutting them down into smaller portions.



	WBS	Name	Duration
1	1	Project	16 days
2	1.1	Plan	7 days
3	1.1.1	Task 1	2 days
4	1.1.2	Task 2	1 wk
5	1.2	Code	9 days
6	1.2.1	Task 3	4 days
7	1.2.2	Task 4	5 days
8	1.3	Test	10 days
9	1.3.1	Task 5	10 days
10	1.3.2	Task 6	0 days

Figure 2.1

2.2.2 Resource Allocation:

Resource allocation is the process of assigning and managing the available resource which includes construction materials, labours, softwares, Equipments, vehicles, testing labs etc. in case of Construction Industry to the required task and achieving the goals set in planning stage.

2.2.3 Grantt Chart:

A grantt chart is a bar chart that shows a project schedules based on various timelines defined earlier in project information. Grantt chart helps to illustrate completion of project, project milestones, critical path.

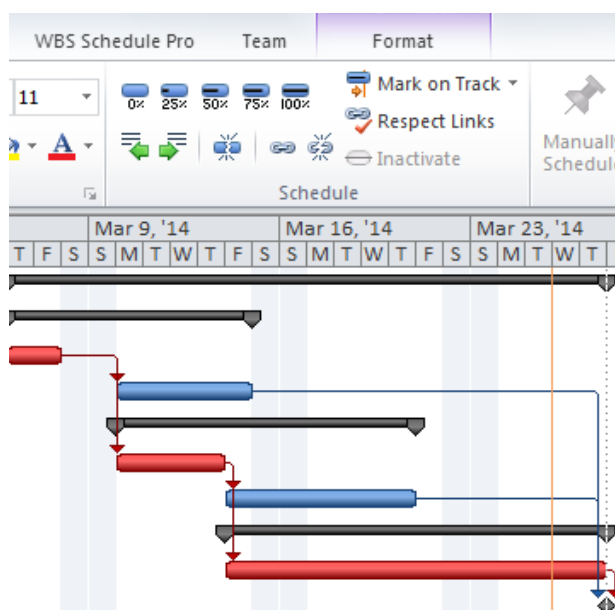


Figure 2.2

3. CONCLUSIONS

Project management includes various terms that needs to be used on regular basis which can be easily used in Microsoft Project. Record keeping on daily basis is simple in MS Project. MS Project is an accurate and saves time in planning, resource allocation and cash flow analysis. Use of the project management software can do comprehensive management for construction management project.

ACKNOWLEDGEMENT

Here acknowledge that the above data displayed is true and factual.

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