
ABSTRACT

Project Controlling uses the data of collection, recording and reporting information to bring Actual performance to planned performance. As larger the as more the complexity is in exchange information on timely basis gets reduce. As a result we see project don't achieve its mission within allotted time and cost. Increasing the productivity in terms of material and human resource is called project management. To achieve desire result we are using Primavera a product of oracle. Primavera planner is a powerful tool present for controlling, scheduling and monitoring of project very efficiently.

KEYWORDS: Planning of project, Scheduling and Monitoring of activities and Resource leveling.

INTRODUCTION

Construction plays very significant role in country's economy by providing huge employments to the people of the country. It's very important to achieve the set goals of the project. To do so, systematic approach for the project management becomes so imperative to ensure that project should attain all the expected goals. Goals like Project Budget, Materials and Manpower. Project demands many resources to achieve the goals. The resources are directly or indirectly dependent on time and cost. It is necessary to exchange the information on timely basis to keep a track on the project activities, hence larger the project more the complexity. Hence to have a track on all these activities easily and smoothly we are using a Software Primavera. Primavera is a powerful tool which helps the team member and the project manager to keep an eye on each activity on progress of the project easily. It provide daily report of resources, man-power, machines etc. are used during construction. It is the most trusted solution for project-Management because it's not only works on desktop machine but also on mobiles. So it becomes easy to keep an eye on progress of project easily.

MATERIALS AND METHODS

Project management needs the pre-planning of the resources, construction budget and staffing restriction. It manages most of the available resources like Equipment, Materials, Man-power and Money. The most important aspect of using primavera is not only automation of project management but also the security to the project. It provides passwords to each project so that only allowed person can make update and keep track on all the activities.

Planning

It is to make a blueprint of your project which is the first phase. It involves many entities and their relationship which may affect the project and its goals directly or indirectly. Before moving in the field we should have an idea about, what activities are needed and what task should be assigned to what person. Also the starting and completion date of the project to achieve the target on time with set goals.

Scheduling

We create time-schedule for achieving the set milestones of project is scheduling, second phase of project management. In scheduling we create a baseline of the project by considering available resources, budget and time

called Baseline of project. It allows us to compare the current progress to the ideal progress of the project. So, we can have an idea whether target is going to be achieved or not within the available time, resources and budget. Hence appropriate change can be made to the project scheduling. The construction work of large site is huge and it became so complex to handle a huge amount of resources and budgets manually. So, in order to make the task of management easier we can use software to handle a huge data from enormous activities. The steps involved of scheduling and monitoring in Primavera are following: We can handle any number of projects on it at one machine. We can also share the hierarchy of one project to another project so it became easily for the project manager and team member to proceed further in right direction without wasting time.

Figure 1:



Steps involving in primavera

Monitoring

On the construction site is not easily to visit each activity frequently so you may be updated with the progress of the work. Sometimes there are shortages of resources in many activities and hence the time delay due to improper resource leveling. In presence of Primavera you don't have to face this type of problems. It already provides you the alert of critical condition of each component on each activity. So that we could manage the resource on time without breaking the activity progress and finish it in the target time. And it became easily to update the scheduling and resources. Each time we don't have to come to the machine on which Primavera is installed and then made the updates to the project. We can update the project information through the mobile PAD option that makes the exchange of information easier for each team member. Also it establishes a clear accountability throughout the project team by managing the cash flow. Fig 1 is showing the flow of execution on the software. Primavera Enhance the progress within the given time by the available resources. Further monitoring can be seen in the result and discussion.

RESULTS AND DISCUSSION

Scheduling of project in Primavera is shown in Figure 1. The duration of the each activity and its Activity ID is allotted by the team. Duration of each activity is an estimation of the experience of project managers, contractors and literature reviews. The snapshots are given below are showing various activities of the construction site. In the figures the data of twelve floor building is given. Each activity has its activity Id, task name, remaining days, and resources related to the task and the last and most important is budget. In Figure 2, we can see the allotments of the ID, task name, duration in days and budgets are assigned respectively. After planning and scheduling we have to come on actual construction

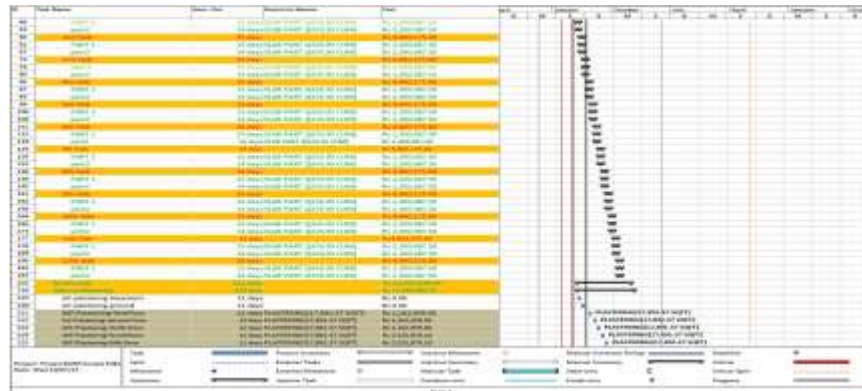
field. In figure 3, we have divided the slab casting work into two parts. There are twelve slabs and the casting is done on scheduling basis. On the other hand a Gantt chart is formed for the summary of each slab separately. Gantt chart signifies all the relationship of the entities and their state during progress of the project. Primavera has some specific symbols for denoting the activity status during the project. It shows the task progress, milestones achieved, inactive milestones, external milestone, progress report, active task, inactive task and everything that management demands for in a package. Figure 4, 5 are showing the external plastering, door fixing, shuttering and external painting respectively.

Figure 2:



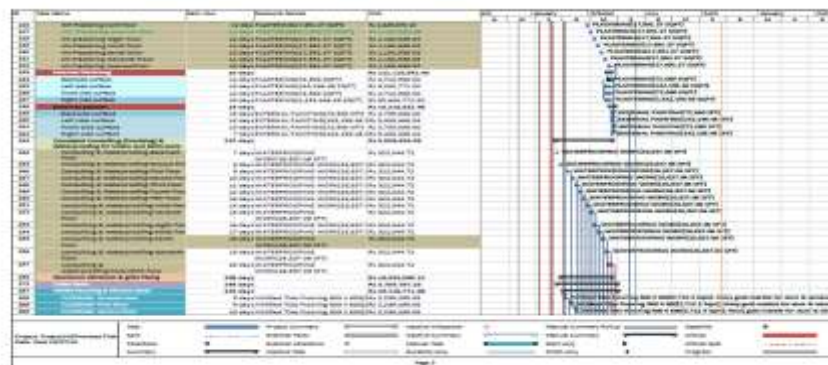
Scheduling report of each activity with duration and budget

Figure 3:

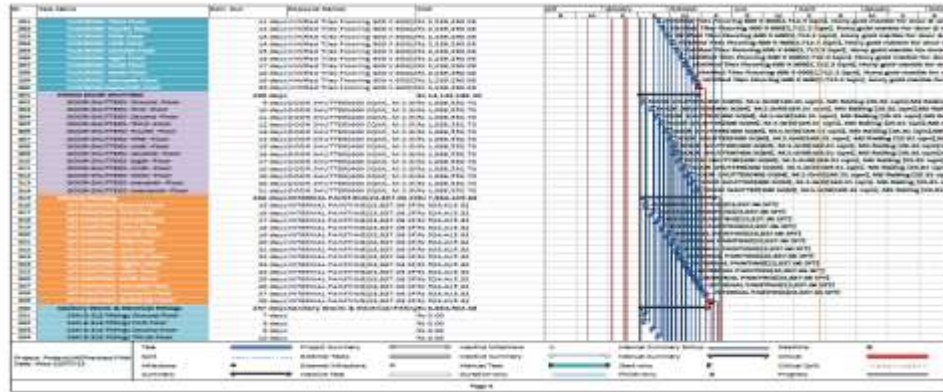


Scheduling of slabs, brick work and internal plastering with duration and cost

Figure 4:

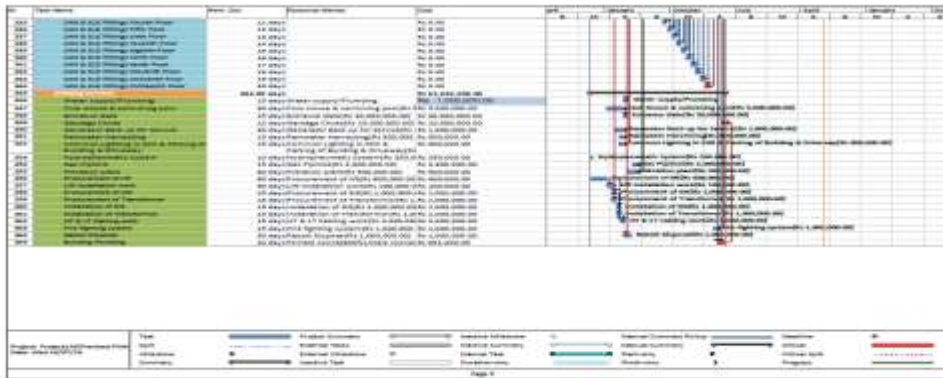


Scheduling of external painting and its duration with budget



Progress report on Door Fixing, Shuttering and Internal painting with Gantt chart

Figure 6:



Progress report on building Services and respected Gantt chart

Figure 6 is showing us the progress of building services. In that you can see the generator backup has red indication that is a critical state of that entity. Building services like water supply pumping, garbage chute, gas pipeline, common light in parking and driveways, club house and swimming pools, generator for the backup of building services etc. Primavera is like having personal assistant for everyone related to the project without any overheads.

CONCLUSION

The main objective of this paper is to show how easily primavera can handle huge and vast construction data. The conventional project management is tedious, inefficient and inaccurate. Also after increasing the complexity on project site the exchange of the information gets reduced as result many problems are faced by manager and project team. It could result as failure of project because of lack of track on activities, resources and allotted time to particular activity. The solution for the better management is Primavera which provide track on each activity off the field and on the field. It records of all the entities and their relationship. Keeping track on activities becomes easy because each activity has its Activity ID. It increases the transparency between team member and client. In short, it actually enhances the better practices to the best practices for project management.

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