

# Construction Management Using Primavera

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**Abstract:** *Construction manager faces numbers of challenges, through which some are new to the construction industry and some are many years old. The construction problems like workforce consideration, safety, time constraints, and altering nature of work. For the successful completion of a project, planning and scheduling are two important factors. The demand of construction industry requires a precise planning, scheduling and management and resources. Due to the increase in workloads and shrinking re department found new technology which help management software is used as a tool for managing and organizing work which industries to grow in a rapid manner. There are so many computer software's are available in market now a days which is such as MSP, Primavera p6, etc...for doing project management. With the help of these software proper planning and controlling of project can be done. Primavera can easily compare between the planned progress of construction work and actual progress of construction project. Project management software Primavera P6, include collecting, recording, monitoring, controlling, and reporting information concerning project performance. Controlling and monitoring can be done, and the causes of delays can be found out.*

**Keywords:** primavera, construction management

## 1. Introduction

Project consumes several resources in its lifetime to achieve the desired goal. The resources have time dependent, direct, or indirect costs related to them. For large Construction projects with huge budget; it becomes very difficult for the project team to handle the tasks. So, it becomes very necessary to provide a tool in the hand of project team that helps keep a track of activities in the project. Primavera Project Planner P6, a product from Oracle is a very powerful tool present in the hands of project team. The software helps in planning, scheduling, and controlling of projects very efficiently. Contractors in India are reluctant to use project planning and scheduling techniques, which are being used world over and already proved as benchmark for in time completion of projects. The study includes with discussion/introduction on Primavera P6 a project planning and scheduling tool available. The quality of schedule generated from the software often lacks detail and the purpose of the software in adding value to the project is generally not met by the users in India. In addition to provide insight on various project tasks, their inter relationship, dependencies to predict total project duration during planning phase. The schedule should be comprehensive enough to let the user understand in detail the purpose of various activities in the schedule. In today's world construction industry is one of the most widely used and rapidly booming industry of our nation and across the world. Hence there is requirement of certain tools and techniques for the improvement of national economic upliftment, and their environment planning to manage with the level of improvement in town and urban areas and the time required to overcome this goal can be shortened. There is necessity for effective Project Management.

### Primavera

Primavera is used for making project management smooth. It is helpful in civil engineering for creating strategies, controlled the delay of project and determines the optimum use of resources. Primavera is used to complete the project within specified time and cost. It is the application of skills, tools, and techniques to project activities to fulfil the

demand of the owner. Primavera program is used to scheduling, controlling, and estimating all types of projects.

P6 EPPM is a completely online interface with the goal that venture group can get to the venture data at anyplace and whenever. P6 EPPM can give arranging, planning, cost and asset administration programming that empowers association to settle on educated choices and enhance their capacity to convey projects and tasks on time and on spending plan.

### Advantages of Primavera:

- It helps easily prepare and control project things to do.
- It optimizes management off resources.
- It offers clear field of vision of what is taking in the project.
- It allows quick and easy forecasting connected with WBS's, things to do or assignments
- You can monitor progress along with view past period efficiency for credit reporting purposes.
- Usage of Primavera P6 by simply companies worldwide allows greater communication between one another. Furthermore generating, management, and knowledge of schedule, costs information will become simpler.
- Assists you easily breakdown projects' along with activities' structure.
- The item allows simple collaboration between all assignment's users.

### Key Features of Primavera

- Resource Management
- Contract Management
- Scheduling
- Risk and Opportunity Management

### Objectives of Project Management

- The objectives of project management are:
- To complete the work within estimated budget and specified time
- To provide safe and satisfactory working conditions for all personal and workers.
- Evolving a reputation for high quality workmanship

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- Creating an organization that works as a team.

## 2. Literature Review

- 1) Y.Umesh (2015): Proper planning and scheduling is very essential in projects for sinking and scheming delays of the project. Extensive amounts of time, money, resources are wasted each year in a construction industry due to improper planning and scheduling. With globalization the construction projects have become infinite and complex. Planning of such projects requires huge amount of documentation work, which can be reduced with the help of project planning software. These studies are to plan, schedule, and track a residential project with help of primavera software, study the results generated, it is possible to propose which method is suitable for the chosen residential project.
- 2) B.S.K.Reddy (2015): they did resource optimization exercises on two on-going projects in Dubai, UAE. They individually levelled and then combined option with aggregated and then levelled clearly indicates reduction in demand of resources by 5.65% in later option, which could be best considered for economy. They concluded Resource levelling at project job site and forwarding demand leads a possible sharing of resources among projects.
- 3) E. Suresh Kumar (2015), Scheduling using Primavera Software is a development which involves estimation, sequencing the activities, resources allocation and timing. The construction scheduling is to complete the project in time and equal the resources with the allocated time. Scheduling using primavera Software gives good controlling.
- 4) Ismail Abdul Rahman: study identified time management together with their effectiveness level in large construction projects. From the construction organization that deals with huge projects data was collected. Relative Importance Index calculation was employed to assess the level of effectiveness which is helpful for time management techniques and software adopted in the construction project.
- 5) Satinder Chopra: concluded that the Activity ID and Activity Description both the most unused part can greatly enhance the quality of the schedule if used properly. It is the duty of the planning team to carefully decide the Activity ID structure in advance so, that schedule preparation flows smoothly without any conflicts. Further research on how other fields like Original duration, Remaining Duration, Tasks bars in the Gantt chart, Start and Finish dates can be presented to give maximum understanding to the user for efficient schedule development

## 3. Methodology

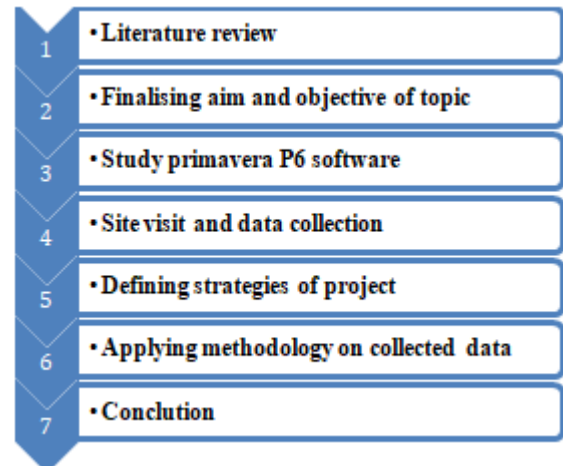


Figure 1: Methodology of work

Following methodology and analysis for steps involved in Primavera P6, Performing Planning and scheduling of the Project,

- Drawings collections from the company.
- Detailed about the quantities.
- Generation of OBS for the project.
- Generating EPS of the project.
- Creation of new project.
- Calendar generating for the project.
- Creation of WBS for the project.
- Creating and defining activities for the project.
- Defining Role and Resources for project.
- Assign Resources to the activities.
- Resource analysis and levelling of the project.
- For tracking purpose and application administration of the project, following methodologies are adapted.
- Generating new baseline for the project.
- Updating growth of the project.
- Tracking improvement of the project.
- Budgeting the project.

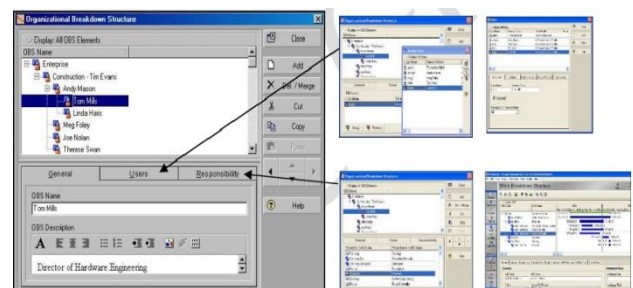


Figure 2: Organisational breakdown structure

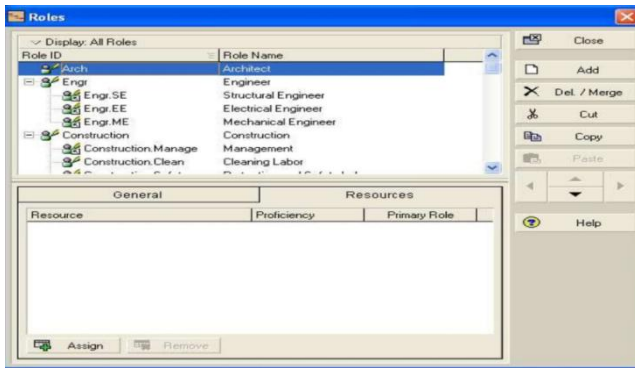


Figure 3: Roles

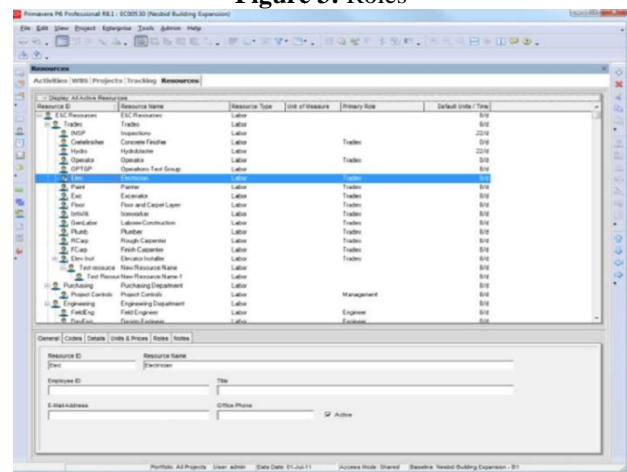


Figure 4: Resources

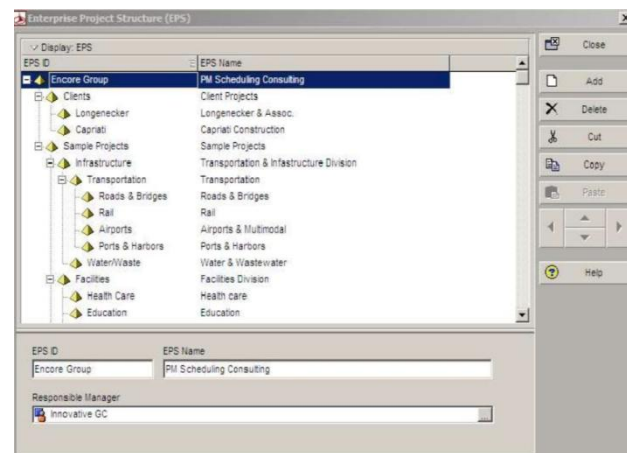


Figure 3: EPS

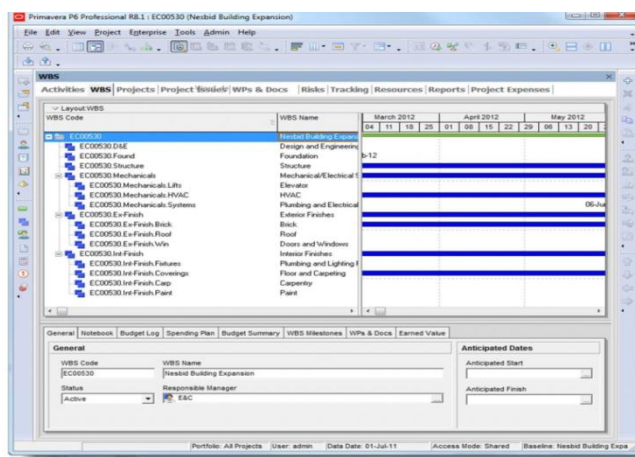


Figure 5: WBS

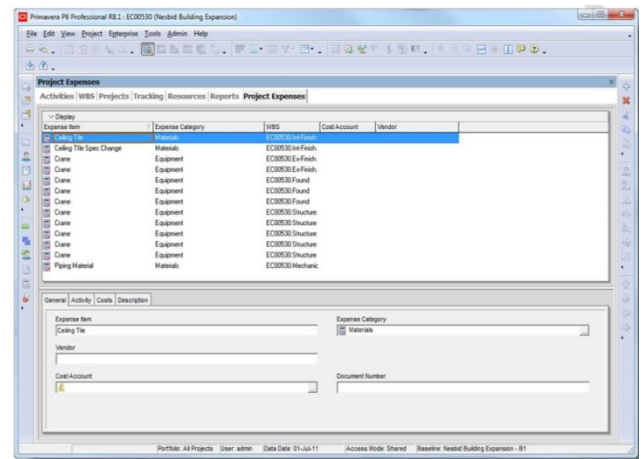


Figure 6: Project Expenses

4. Conclusion

Planning, monitoring and controlling, as well as the need and effectiveness of project management software like Primavera P6 in a construction project of this study was to understand the role of monitoring and control in the progress and timely completion of a construction project. This objective was achieved through revision of literatures and methodologies involved in monitoring and control. The study proved to be a guideline in understanding the progress of construction work and to identify the specific problems arising during the process. Results of this study show the drawbacks of the present project management system in running project. An efficient and cost-effective new project management plan is brought to conclusion

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