

## **Comprehensive Review of Primavera P6: Enhancements in Construction Project Management**

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Planning, scheduling and Resource levelling plays an important role in any construction project maybe it is construction of building or construction of road. In absence of proper planning, scheduling and resource levelling construction industry does not get profit over the project. For this purpose, proper software's and techniques must be utilize. This paper is focussing on the advantages of Oracle Primavera P6 Software. The latest version of Primavera is P6-17. In any construction work huge amount of paperwork is needed, which makes the management very burdensome. By using Oracle's Primavera P6 Software paperwork can be reduce, resulting in reduction of burden. Primavera P6 give improvement in construction management. Primavera P6 is the time redeemable tool, with proper resource optimization.

**KEYWORDS:** Planning, Scheduling, Primavera.

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### **I. INTRODUCTION**

India is the Developing country, Economy of India is directly or indirectly related to the construction industry, so it is vital that there should be proper management in construction field with respect to cost & time. Information Technology plays an important role in the construction field, 15 years ago all work initiates on paper e.g. like designing the project structure.

Now-a-days many designing software are used like AutoCAD, Rivet, etc. Project Management is the skill through which we can get maximum profit at shorter duration of time. Knowledge and skill in Project Planning and Management is the key to success of every organization and individuals working at different capacity. Effective use of PPM tools strengthens the credibility, reliability and profitability of any organization.

Planning a Project includes the following: working out when, where and who is going to do the project. The crucial part of successful Project Management, however is the actions you take after the project plan is created. By using Primavera software, we can organize our project and identify potential problems. Primavera software is used for making project management easier, especially when we encounter difficulties. Planning the project means thinking about, and documenting.

### **II. LITERATURE REVIEW**

**P. Thangam (2016)** discuss that, before work was carried out was not done properly with lack of planning, scheduling and resource allocation. So that resources were wasted and their result in increasing time. After using primavera software in work, it gives improvement in quality of construction with stipulated cost and time. In this paper objectives of study includes, i) Preparation of detail activity plan and schedule based on construction sequence. ii) Working out the practical duration for each six lane road construction activities. iii) To make schedule and find the critical path using P6 planner's software.

**T. Subramani (2015)** tells about the Primavera P6 software and advantages of Primavera P6 software, he says that Primavera P6 is amazing software which is not only used by project planners but anyone involved in project, i.e. managers, engineers, schedulers can use Primavera P6 software, focusing on the comparison of construction estimation methods application in usefulness project. Primavera permits users to generate project templates, which can be kept and used for future project, also Primavera can also be used to group and view multiple project at the same time.

**Mladen Vukomanovic (2012)** instructs the advantages of Primavera software in construction industry of southeast Europe. Author says that advanced economics is using project management software (PMS) and is still practicing mainly by South Eastern Europe financial processes and material planning. Author says that IT is now routinely used in construction industry as a tool for reducing management drawbacks. Objective of this paper is to analyse the current usage of the Project management Software in construction industry of south east Europe and compare the result with comparable one's from the developed country.

**Miss A.A. Lakade** discuss about the factors which cause cost overrun, i.e. insufficient project creation, deprived planning for application and absence of project management during project implementation. Author says that ERP, Primavera set at the disposal of medium and large companies.

Advantages and disadvantages of ERP and Primavera are discussed in this paper. Companies are able to tie project event to supporting business process, such as material management, procurement and service request, to improve the relationships with customers and achieve the fastest time to market.

**Mohammed Zaki Haider (2016)** worked as an intern in NCC (National Construction Company). In this paper author tells that the main motivation of any project is to complete the project in planned schedule with proper utilization of resources. Oracle Primavera Gives many more advantages if it included in the construction management part. We can use more than one project in a single window, this is the main advantage of Primavera P6 software. One can do planning, scheduling, tracking and administration application in primavera. It also helps in the study of material, manpower and therefore it helps in improvement of construction management techniques. Construction work is a difficult work with many documents work, primavera make simpler the work. There are more than 800 activities in working site, which are divided on various breakdown structure using primavera p6 software.

**Andrew Tom (2013)** takes factory building (G+3) situated in cochin, Kerala. In this study author emphasis on the importance and purpose monitoring the construction work, perfect schedule for the factory construction process, layout for updating the calendar, earned cost study & tracking for the standard design factory construction work. The total contract value of project is 7 crores with the build-up area of 5472sq.m and expected time of completion is 21 months.

The study includes monitoring and controlling of project by means of primavera software.

Techniques followed by author are:

- i. Earned value supervision,
- ii. Cost performance baseline,
- iii. Work performance supervision.

**Muhammad Sajad (2016)** focusing on how to select appropriate software for project management purpose. In this paper author predicts which of the among software tools are best for the project management purpose. Author also discuss the web based project management tools in this paper.

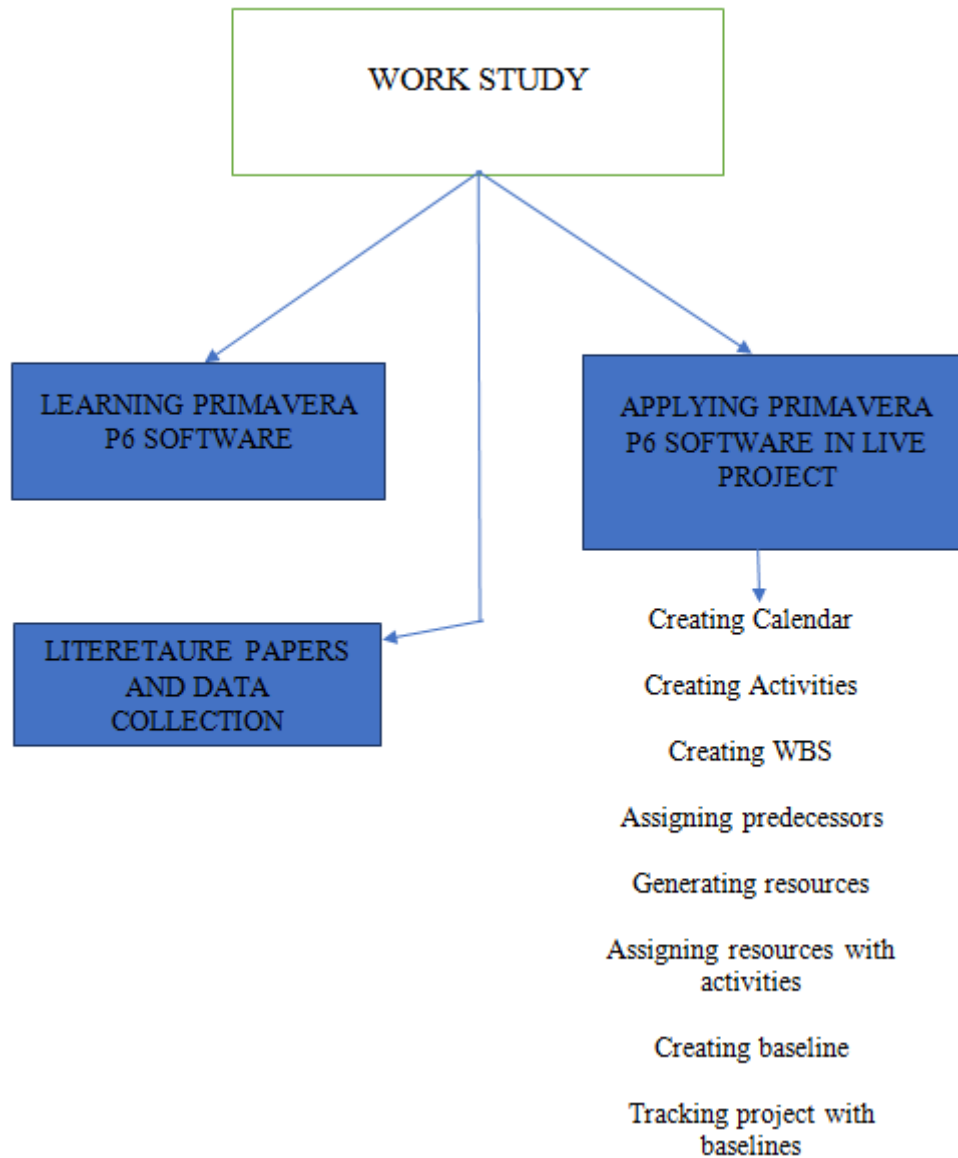
For this purpose author uses following software's:

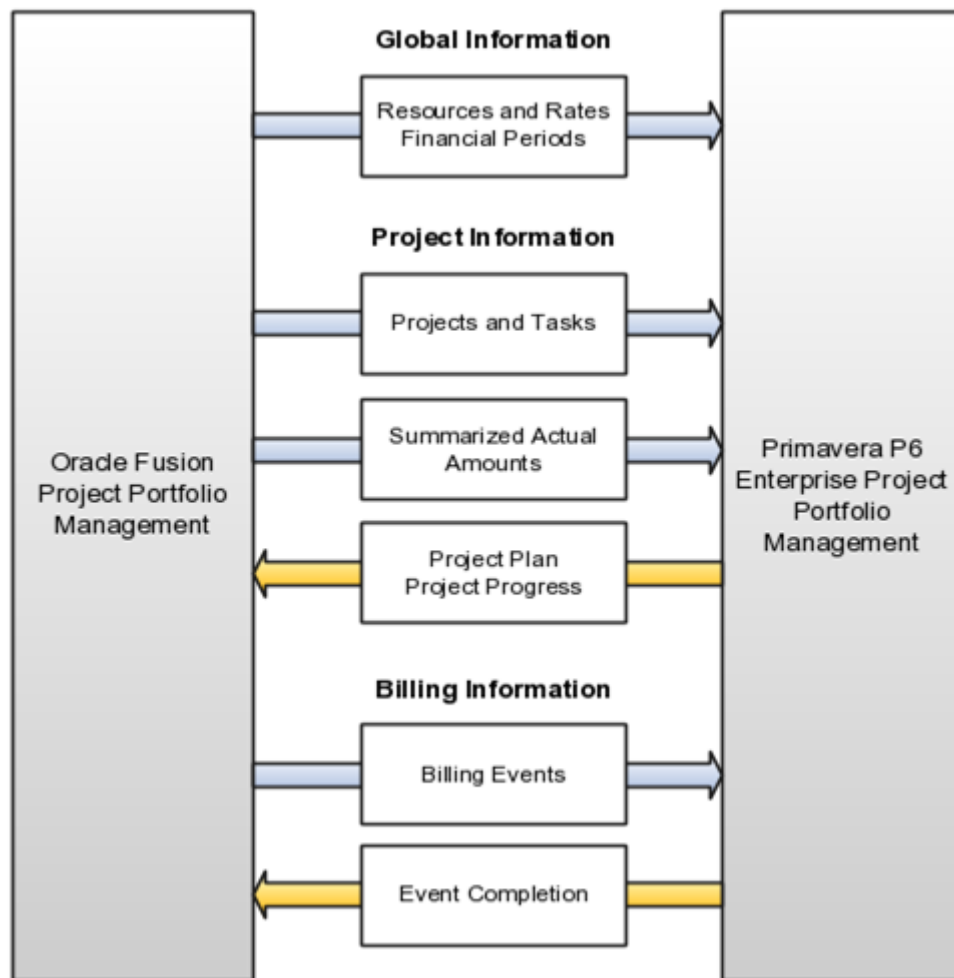
- i. Primavera
- ii. MS Project
- iii. Gantt Project
- iv. Redmine
- v. Basecamp
- vi. Dot project
- vii. Assembla.

Author compare each software regarding software's features.

**B.S.K REDDY (2015)** says that resource plays important role in any construction project. The performance of any construction project directly depends upon resource management. For the purpose of resource optimization and levelling author choose primavera p6 software in ongoing construction project in Dubai at UAE. The main objective of this paper is to minimize under allocation of resources. After using primavera software author concluded that there is 5.65% resource reduction.

**Unmesh. Y. Polekar (2015)** says that in each year big amount money wastage due to improper resource management. This improper management of resources also causes increase in time duration. Using Primavera software, we can organize our project and recognize potential problems. Primavera software is used for making project management easier, especially when we encounter difficulties Planning the project means thinking about, and documentation.





Source: Oracle Primavera Reference Book

### III. CONCLUSION

Planning and scheduling helps in forecasting the project. The cost of any individual is known early along with its usage by using Primavera. Thus, decision can be made properly in managerial work. In multiple projects under the same organization, there is a chance of overallocation of resources; Primavera reduces this with proper resource optimization. Overallocation of resources can be seen in the resource usage spreadsheet at the bottom of the project window. Scheduling real-time projects can be done using Primavera software.

In Primavera software, resources are divided properly into three categories, i.e. i) labour, ii) machinery, iii) materials. We can create our own unit of measures in it. Hence, Primavera is the best tool for construction project management purposes.

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