

**ANALISIS PERENCANAAN WAKTU DAN BIAYA PROYEK  
KONTRUKSI MENGGUNAKAN *SOFTWARE PRIMAVERA PROJECT  
PLANNER P6***

Ahmad Ahya Maulidy<sup>1)</sup>. Alfian Rizal Pambudi<sup>1)</sup>. Henny Pratiwi Adi<sup>2)</sup>. Slamet Imam Wahyudi<sup>2)</sup>

**ABSTRAK**

Perencanaan dalam proyek merupakan hal penting dalam suatu proyek konstruksi. Perencanaan yang tepat dapat menghindari kerugian seperti, keterlambatan, pembengkakan biaya, dan perselisihan. Proyek Pembangunan Embung Sapen Kabupaten Grobogan masih pada tahap survey sehingga data yang didapat berupa Volume pekerjaan dan sebagian RAB. Perencanaan biaya dan waktu bertujuan untuk mengetahui durasi waktu dan biaya proyek dengan menggunakan *Software Primavera Project Planner P6* dan juga perhitungan metode percepatan (*crashing*).

Tahapan pada penelitian ini meliputi *Input Activity Relationship*, *Input WBS*, *Input* harga satuan upah dan pekerja, *Input* kebutuhan *Resources* pada setiap *activity*. Hasil yang didapatkan berupa lintasan kritis yang kemudian dilakukan percepatan (*Crasing*).

Berdasarkan hasil analisa diketahui biaya sebesar Rp. 23.996.742.659,00 dengan durasi waktu 365 hari kerja, kemudian dilakukan perhitungan metode percepatan (*crasing*) dengan penambahan jam kerja (lembur) 3 jam pada pekerjaan galian penahan tebing hilir, galian tanah hilir, pekerjaan pembesian tiang pancang, pembesian lantai abutment, pembesian plat dak lantai, dan pelapisan jalan aspal yang berada pada lintasan kritis didapatkan hasil durasi 358 hari kerja dengan penambahan biaya Rp. 89.203.366,00 menjadi Rp. 24.085.946.025,00. Dapat disimpulkan bahwa perencanaan menggunakan *Primavera Project Planner P6* dapat membantu merencanakan proyek konstruksi dengan seefisien mungkin.

**Kata kunci** : biaya, waktu, perencanaan, *crashing*, jadwal proyek

- 1) Mahasiswa Fakultas Teknik Jurusan Teknik Sipil Unissula
- 2) Dosen Fakultas Tteknik Jurusan Teknik Sipil Unissula

## **PLANNING ANALYSIS OF TIME AND COST OF CONTRACT PROJECTS USING PRIMAVERA PROJECT PLANNER P6**

Ahmad Ahya Maulidy<sup>1)</sup>. Alfian Rizal Pambudi<sup>1)</sup>. Henny Pratiwi Adi<sup>2)</sup>. Slamet Imam Wahyudi<sup>2)</sup>

### **ABSTRACT**

*Planning in a project is an important thing in a construction project. Proper planning can avoid losses such as delays, cost overruns, and disputes. The Grobogan Regency Embung Sapen Development Project is still at the survey stage so that the data obtained is in the form of work volume and part of the RAB. Cost and time planning aims to determine the duration and cost of the project using the Primavera Project Planner P6 Professional Software and also the calculation of the crashing method to obtain a more effective time duration, with the addition of working hours (overtime).*

*The stages carried out in this research include Input Activity Relationship, WBS Input, Wage and Worker Price Input, Input Required Resources in each activity. The results obtained are in the form of a critical path which is then accelerated (Crasing).*

*Based on the analysis, it is known that the cost is Rp. 23,996,742,659.00 with a duration of 365 working days, then the calculation of the acceleration method (crasing) is carried out with the addition of 3 hours of work (overtime) on the downstream cliff retaining work, downstream soil excavation, pile erection work, abutment floor construction, cleaning floor plate, and asphalt road coating that is on a critical path, the result is a duration of 358 working days with an additional cost of Rp. 89,203,366.00 to Rp. 24,085,946,025.00. It can be concluded that planning using Primavera Project Planner P6 can help plan construction projects as efficiently as possible.*

**Keywords:** *cost, time, planning, crashing, project schedule*

- 1) Students of the Faculty of Engineering, Department of Civil Engineering, Unissula*
- 2) Lecturer at the Faculty of Engineering, Department of Civil Engineering, Unissula*