



## Application AVATAR (Accounting Virtual Report) on PT Pelindo Terminal Petikemas

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**Abstract.** This research discusses the application of asset maintenance at PT Pelindo Terminal Petikemas. This research aims to determine the asset maintenance system at PT Pelindo Terminal Petikemas, as well as to create a web-based asset maintenance application program at PT Pelindo Terminal Petikemas. The theoretical framework of this research involves information system analysis, by examining the information needed by management, related functions, documents used, as well as document flowcharts. MySql is used as a database, with the PHP programming language. The research results show that the recording process at PT Pelindo Terminal Petikemas has been computerized but still uses Microsoft Excel. The weakness of this method is that it is difficult to look back at archived data for the previous year because you need to search for the file first and there is a risk of losing the file. Therefore, the application called AVATAR (Accounting Virtual Report) in this research is expected to help produce asset maintenance reports more effectively and efficiently, thus providing benefits for the company.

**Keywords:** AVATAR (Accounting Virtual Report ), Asset Maintenance, Web Based Application Program

### 1. INTRODUCTION

Pelindo Terminal Petikemas (TPKB) is an important part of PT Pelabuhan Indonesia (Pelindo), which focuses on managing container terminals or container terminals. This terminal consists of several key parts that make it operate efficiently. First, there is a terminal area which includes a dock where ships dock for the process of loading and unloading containers, as well as a container yard where containers are temporarily stored. Here, container cranes and other heavy equipment, such as reach stackers and forklifts, are used to move containers. In its activities, PT Pelindo Terminal Petikemas records asset maintenance manually using Microsoft Excel, which has the weakness that each year the Excel file used is different, which makes it difficult to find data from the previous year. Therefore, PT Pelindo Terminal Petikemas needs an asset maintenance application that can simplify the data archiving process and make data accessible in *real time*.

### 2. LITERATURE REVIEW

An Accounting Information System is a framework that involves hardware, software, procedures, and people who work together to collect, store, process, analyze, and present financial information in an organization. Assets are ownership of assets, assets, and wealth that support company activities and can be exchanged in the form of cash. Fixed assets or

assets are assets that will become one of the company's economic resources that will be used for the company's operational activities. For example, land as a place to carry out production, buildings that will be used as factories or offices, machines and also several equipment as tools for carrying out production, and so on. The PHP programming language is a technological tool that supports the development of web-based applications, while the MySQL database provides a structure for managing the data base.

### **3. RESEARCH METHODS**

This research uses a case study method to examine all asset maintenance activities and design an asset maintenance system at PT Pelindo Terminal Petikemas using the PHP programming language. This research uses the waterfall system development method. It is called a waterfall because the stages you go through must wait for the completion of the previous stage and run sequentially. A web-based accounting information system with the PHP programming language and MySQL database is used to record asset maintenance. The data collected includes quantitative data such as RKAP data, contracts, and qualitative data such as company profile, company location, and company structure. The data source consists of primary data obtained through interviews with employees related to asset maintenance and secondary data in the form of previous year asset maintenance Excel files as a reference in making applications. Data collection methods include interviews, documentation, and observation. The data obtained was analyzed quantitatively and qualitatively using relevant theories through the stages of system analysis, application program design, and program implementation to ensure the application can be used by interested parties in the area. PT Pelindo Container Terminal.

### **4. FINDINGS AND DISCUSSION**

PT Pelindo Terminal Petikemas is a company engaged in managing container terminals in Indonesia. Previously, to manage ports in Indonesia, 4 Pelindos were formed which were divided into different regions. Merger or integration of the four Pelindos into one Pelindo which was then named PT Pelabuhan Indonesia. Pelindo II acts as the holding company (parent company) and the 3 Pelindos (I, III, IV) act as sub-holdings. The formation of sub-holdings that manage business clusters is aimed at increasing Pelindo's service capacity and business efficiency. In 2012, based on an idea from the Ministry of BUMN, Pelindo I, II, III, and IV formed a consortium to establish PT Terminal Petikemas Indonesia (PT TPI) and began operating actively in 2014. However, along with the integration of

Pelindo which was carried out on October 1, 2021, PT TPI changed its name to PT Pelindo Terminal Petikemas based on the name change deed issued on October 11, 2021, which is currently one of Pelindo's integration sub-holdings. Pelindo Terminal Petikemas or Pelindo TPK is a terminal operator that provides container services with an integrated and standardized network system, under the auspices of the largest port operator in Indonesia, and has a strategic role in encouraging national economic growth and equality.

### **Problem Analysis**

Based on research and data collected, several weaknesses were identified in the asset maintenance recording system at PT Pelindo Terminal Petikemas. The recording process is still done manually using Microsoft Excel, making it difficult to find data from previous years, because it is not combined into one file and there is a possibility that the data will be lost. Asset maintenance reports are also felt to be less effective because the data cannot be accessed in real-time.

### **Solution to problem**

After analyzing the problem, it is developed application AVATAR (Accounting Virtual Report). Companies need asset maintenance reports that can be monitored in *real time* and can also archive data from previous years. Recommended documents include RKAP and Asset Maintenance Report. The implementation of these documents and reports is expected to increase the effectiveness and accuracy of the company's accounting system.

#### **a. Application Interface Design**

##### **1) Login Form**

*The login form is the initial page that appears when the application program is run. The following is a display of the login form in Figure 1.1.*



**Figure 1.** Login Display

2) **Dashboards**

Serves to *provide* information about the company and the benefits of the application. The dashboard display can be seen in Figure 1.2.

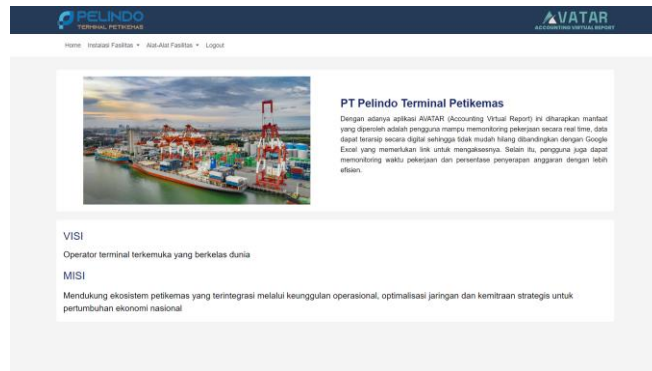


Figure 2. Dashboard

3) **Asset Maintenance Work Report Page**

On this page, you can see information regarding the contract value, physical realization and payment realization. In addition, it also displays maintenance details, including job description, implementation date, and status. You can also see information regarding the budget and budget realization, as well as the status of funds availability. This page can be used to monitor project performance and manage budgets. The report can be seen in Figure 1.3

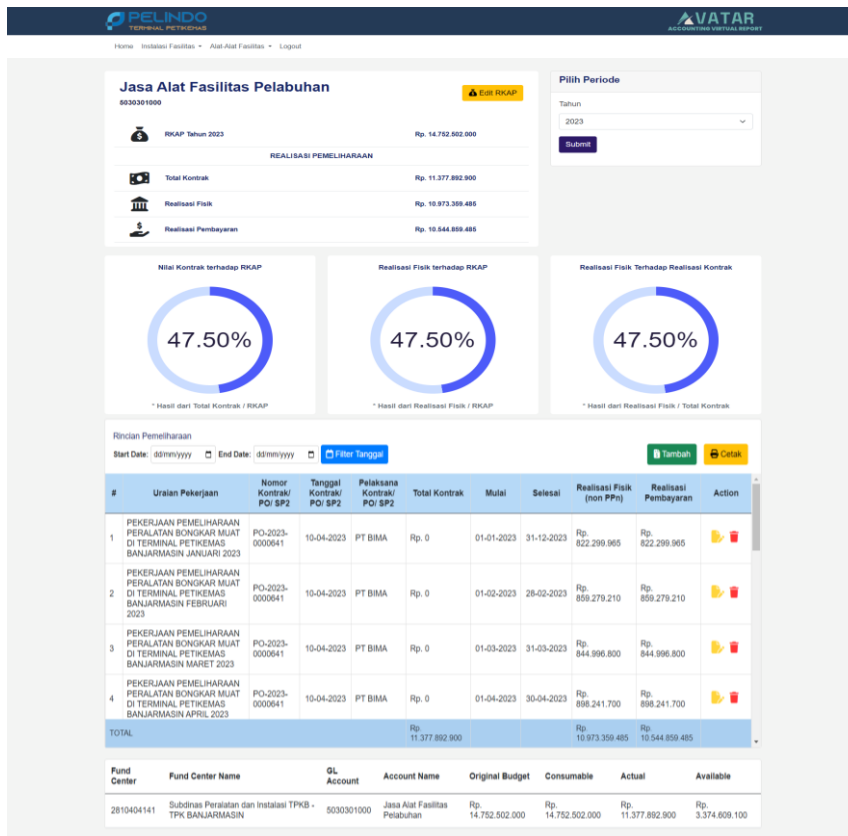


Figure 3. Asset Maintenance Work Report Page

#### 4) Print Page

Used to produce printable output. The display can be seen in Figure 1.8.

The screenshot displays a web application interface for printing a report. The main content is a table titled 'Rincian Pekerjaan Pemeliharaan' (Maintenance Work Details) for PT Pelindo Terminal Petikemas. The table has columns for 'No', 'Kategori Pekerjaan', 'Nomor Kontrol PMS', 'Tanggal Kontrol PMS', 'Pribahasa Kontrol PMS', 'Total Kuantitas', 'Materi', 'Status', 'Revised PMS (Rp)', and 'Status Pekerjaan'. The table contains two rows of data for 'PEKERJAAN OPERASI DAN PEMELIHARAAN INSTALASI DI WILAYAH TERMINAL PETIKEMAS BANIARMASSIN periode Mei'. A print control panel on the right side of the page includes options for 'Destination' (Save as PDF), 'Pages' (All), 'Layout' (Landscape), and 'More settings'. There are 'Save' and 'Cancel' buttons at the bottom of the print panel.

No	Kategori Pekerjaan	Nomor Kontrol PMS	Tanggal Kontrol PMS	Pribahasa Kontrol PMS	Total Kuantitas	Materi	Status	Revised PMS (Rp)	Status Pekerjaan
1	PEKERJAAN OPERASI DAN PEMELIHARAAN INSTALASI DI WILAYAH TERMINAL PETIKEMAS BANIARMASSIN periode Mei	PO-2023-000008	06-04-2023	PT LEGI	Rp. 45.362.050	Rp. 45.362.050	11-02-2023	Rp. 45.362.050	Rp. 45.362.050
2	PEKERJAAN OPERASI DAN PEMELIHARAAN INSTALASI DI WILAYAH TERMINAL PETIKEMAS BANIARMASSIN periode Februari	PO-2023-000008	06-04-2023	PT LEGI	Rp. 45.362.050	Rp. 45.362.050	10-04-2023	Rp. 45.362.050	Rp. 45.362.050

Figure 4. Print Page

## 5. CONCLUSIONS AND RECOMMENDATIONS

Based on the research results, the author concludes that the information system for recording the recapitulation of maintenance work assets at PT Pelindo Terminal Petikemas currently still uses a semi-manual method with Microsoft Excel. Based on user experience, this method has several disadvantages, including: every year the Excel file must be updated, which increases the risk of file loss if it is stored for years. To overcome this, the author designed a web-based application to manage asset maintenance reports more efficiently. This application is capable of monitoring maintenance work in real time, reducing the risk of data loss and the data can be stored safely for years. The author suggests that PT Pelindo Terminal Petikemas use this application as a means to make it easier to create and archive asset maintenance reports.

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