

ABSTRACT

PT XYZ is an aluminium producer in Indonesia with a production target of 30,416 tonnes of aluminium billets. However, as of October 2024, its actual production had only reached 18,695 tonnes, leaving a significant gap of 11,721 tonnes. One of the factors contributing to this problem is production reporting information. The identified issues include data entry errors, delayed reporting, lack of system integration, and difficulties in accessing and retrieving production data.

As a strategic solution, this final project designs a Production Management Information System (SIM) using the Rapid Application Development (RAD) method through four development iterations. There are four design phases in the RAD method, namely requirement planning, user design, construction, and implementation. System verification is carried out using black box testing, while validation is carried out using User Acceptance Test (UAT).

The implementation results show that the developed production management information system covers five user roles, namely VP, manager, staff, operator, and admin, with key features including operation scheduling, production report recording, analysis, and production result evaluation. This system successfully integrates the production data flow comprehensively, accelerates reporting, and improves information accuracy. Theoretically, this final project reinforces the effectiveness of the RAD method and the importance of applying software quality standards based on ISO/IEC 25010:2023. Practically, the system provides faster reporting, transparency of information across structural levels, ease of access via various devices, reduced operator workload, and has proven capable of meeting user needs based on UAT evaluation results with an acceptance rate exceeding 93%.

Keywords –Aluminium Billet Production, Management Information System, RAD