

Abstract

Wave forecasting system (WFS) is a system for calculating ocean wave forecasting that will occur in the future. In its function, WFS is indispensable for activities in the maritime world as well as for the daily operational needs of offshore platforms, the process of building offshore platforms, for the purpose of navigating large ships or tankers, and also activities in the area port. In this Final Project, a WFS website is designed that can provide wave forecasting information for the next 7 days. Wave forecasting information provided includes wave height (significant wave height), wave period (peak wave period), long wave (swell), and wind (wind). Calculation of wave forecasting is obtained based on numerical calculations using the SWAN (Simulating Wave Nearshore) model. WFS is made specifically for wave forecasting systems in Indonesia, which has a complex simulation geometry in the presence of islands. By using the PHP programming language on the localhost server, the WFS web system has been able to run and function according to design and can display wave forecasting well. The results of the accuracy testing of wave predictions have been validated and can be said to be accurate for wave predictions for the next 7 days.