

# CASE STUDY: Streamlining CAD Model Simplification at HD Hyundai Mipo with CADfix PPS

## CADfix PPS

The CADfix PPS Plant and Process Simplification solution simplifies large complex CAD assemblies, reduces file size, and enables the seamless integration of equipment models into the plant layout, ultimately saving time and cost and helping companies get to commissioning faster.



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HD Hyundai Mipo was founded in 1975 as a repair and conversion shipyard, transformed into the Shipbuilding Project in the late 1990s, and currently holds the number one global market share in the small and medium-sized shipbuilding industry. With a total area of 1.8 million square meters, the company is equipped with three 400,000-ton dry docks and one 350,000-ton dry dock, 3.28km of quay, more than 20 large cranes, and various advanced automation facilities. HMD leads the eco-friendly smart ship market through continuous development of new technologies, contributing to the national and local economic growth, exploring new values in the marine industry, and pioneering the future of humanity.

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## Overview

HD Hyundai Mipo, a prominent player in the maritime industry, encountered challenges when integrating large MCAD equipment models supplied by various vendors into their marine design system. Equipment designs often arrive as massive STEP files, leading to inefficient import processes and delays. To mitigate these issues, HD Hyundai Mipo adopted CADfix PPS, the equipment model simplification solution from International TechneGroup, Inc.

## Challenges

- **Importing STEP Files Efficiently:** HD Hyundai Mipo faced difficulties in efficiently importing large STEP files provided by equipment suppliers into their marine design system, resulting in import failures and project delays.
- **Manual Remodeling:** Due to import challenges, HD Hyundai Mipo frequently resorted to manual remodeling based on 2D drawings, prolonging turnaround times and increasing the risk of errors.
- **Cost Implications:** The manual remodeling process incurred additional costs, estimated to be at least \$30,000 annually, impacting project budgets and timelines.

## Solution

HD Hyundai Mipo implemented CADfix PPS to simplify large STEP files and facilitate effective integration into their marine design system. CADfix PPS enabled HD Hyundai Mipo to optimize incoming STEP files and reduce file sizes while preserving critical design elements, thereby enhancing efficiency and reducing costs.

## Results

By utilizing CADfix PPS and eliminating the need for remodeling, HD Hyundai Mipo achieved significant cost savings of at least \$30,000 annually. The implementation of CADfix PPS enhanced design workflow and efficiency, with simplified models and smaller STEP files that reduce import times and minimize the risk of errors.

The simplified STEP files seamlessly integrated into HD Hyundai Mipo's design system, enabling smoother collaboration with equipment suppliers and accelerating project timelines. Moving forward, HD Hyundai Mipo remains committed to refining its CAD workflow to further enhance productivity and innovation.

*"CADfix PPS is the best simplification tool for utilizing large STEP files within a shipbuilding CAD system. By purchasing CADfix PPS, we were able to bypass remodeling tasks within the shipbuilding CAD system based on 2D drawings, leading to significant reductions in associated time and costs."* Jaesun Lee, Engineer, HD Hyundai Mipo

