

Process Optimization & Material Flow Analysis

Client: Leading Auto Manufacturer

Platforms

- ▶ Factory CAD
- ▶ Factory Flow
- ▶ Windows XP

The Problem

The client is a manufacturer of a range of reliable, fuel-efficient vehicles of contemporary technology. It is involved in the design, manufacture and marketing of commercial vehicles, motorcycles, components as well as providing engineering solutions.

The client was setting up a new production plant & was looking at a solution that would provide the following:

- ▶ Analyze the process flow to estimate the material handling equipment requirement
- ▶ To visualize the material flow density at different locations of the plant
- ▶ To carry out the "what-if" analysis for various material handling equipment alternatives & its routings

Major Challenges that the client was facing were;

- ▶ Design plant to improve material flow at minimum cost
- ▶ Estimate the material handling equipment requirement
- ▶ Compare alternative layouts
- ▶ Evaluate cost, time and travel distance

The Solution

To overcome the above problems, Axcend worked with the customer to understand the complete requirement & based on the study provided a complete solution

- ▶ Product & Material Flow structure was constructed in Factory Flow
- ▶ Flow calculation & analysis carried out
- ▶ Estimated the number of material handling equipment required for each process
- ▶ Carried out Congestion Analysis

Process Optimization & Material Flow Analysis

ROI

- ▶ Optimize material handling equipment cost, travel time & distances
- ▶ Reduce non-value added components before commissioning
- ▶ Optimize floor space, storage requirements and utilization

Salient Features

- ▶ Space computations & analysis
- ▶ Material flow visualization with congestion analysis
- ▶ Layout alternatives evaluation

