

3D Capacity Expansion

Client: Leading FMCG Manufacturer

Platforms

- ▶ Factory CAD
- ▶ Solid Edge
- ▶ Vis Mock Up
- ▶ Windows XP With NVIDIA Graphics Card

The Problem

The client is a multi-business conglomerate, has diversified presence in Cigarettes, Hotels, Specialty Papers, Packaging, Paperboards, Agricultural Business, FMCG & IT.

The client wanted to optimize its existing production plant for future expansion plans & was looking at a solution that would provide the following;

- ▶ Analyze and plan capacity and provide project cost estimation
- ▶ Quick & accurate revamp the project while maximizing utilization
- ▶ Process planning integrated with product development to manage change

Major Challenges that the client was facing were;

- ▶ Virtual deployment of plant to optimize the existing set up
- ▶ Simulate the entire production process

The Solution

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

- ▶ Capacity planning includes plant design, simulation of machine operations keeping in mind all their constraints.
- ▶ Development of entire 3D plant layout using Factory CAD; equipments like Furnace & Machines were designed using Solid Edge.
- ▶ The components in the layout were designed as per scale and hence provide information on the actual space occupied at any point of the work cell along with the collisions.

3D Capacity Expansion

ROI

- ▶ Build factories right the first time
- ▶ Improve communication with proper visualization in 3D
- ▶ Reduce costly changes during commissioning
- ▶ Reduce time from facility design to production

Salient Features

- ▶ Space computations & analysis
- ▶ Process visualization with various constraints of collision
- ▶ Flexibility on deployment of additional component
- ▶ Virtual walkthrough of the entire plant along with running machines