

Re-engineered process reduces Inventory & Time-to-deliver custom accessorised vehicles

In 2002, one of the world's largest distributors, based in Saudi Arabia, used to receive vehicles centrally, at its Distribution Centre, and supply to dealers & its showrooms, across the country, after fitting accessories as per customer order. **In spite of a month's inventory of vehicles in stock, it took 3-5 days to deliver any order** because it took long to physically locate vehicles parked randomly in a sprawling open stock yard & get job orders processed individually, by mechanics in the workshop, for fitting accessories in **250 to 400 vehicles** each day – most of the vehicles received were against orders with customer specified accessorisation. Detailed industrial engineering study was conducted after doing process mapping & analysis of the current **process flow**



was re-engineered to



The process was improved with 3 major changes:

- Stock Yard was organised into X – Y grid locations, prominently marked on ground to park vehicles and **existing technology of barcode reading** used to capture, in computer, the identity of each vehicle as it entered Distribution Centre, was **enhanced for computer aided storage & retrieval of vehicles**. The proposal to invest in a GPSS system was, therefore, dropped.
- Accessories were fitted before Stocking the vehicles, with the **basket of accessories**, required as per customer order, **placed in the vehicle at the point of entry** to Distribution Centre.
- **Facilities were organised using Group Technology & Assembly Line concepts of manufacturing** and Standard Methods & Times for all activities of accessorisation were developed through Method Study & Work Measurement and used to schedule, monitor & control actual performance.

The company could now deliver orders on the same or next day with only half the vehicle inventory.

There was a bigger gain from the study – company's management realizing its **potential to raise the output by 50 to 80% with the same manpower**.