* Tasks, problems and real South African project



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* Methods (not sorted so far - was already presented in OM Introduction show)

* Theory of Constraints

- * Critical Chain (DBR)
- * Ishikawa Fishbone Diagram (Total Quality Management)
- * Pareto Analysis , ABC, EOQ, Six Sigma and Ishikawa
- * OLAP (On-Line Analytic Processing)
- * Kepner Tregoe methodology
- * MaxMax and MaxMin (Hurwitz)
- * SWOT, BOSTON and Gartner Magic matrices
- * ERP Statistics and Reporting
- * Little's law
- * Yield Management
- * Forward Exchange Contracts
- * Balanced Scorecard
- * Production algorithms (MRP, MRP-II, JIT, APS)
- * Warehouse Management advanced methods –see slide 20
- * And many, many more.....

Methods marked by red colour were used BS and OM - slide from Balanced Scorecard show (will be presented again in BS context)



* Simplified diagram of ERP usage



*Wholesale-paper-warehouse management-ERP



Basic business specification

- * 100 000 Tones per Year
- * Carbonless papers
- * Cast coated papers and Board
- * Coated papers

Products

- * House brands
- * Office papers
- * 5000 locations in HQ and 40 000 M2 warehousing space
- * 50000 customers
- * 90 vehicles
- * FEC trading (Forward Exchange Contracts)
- * Hundreds of employees
- * Heterogeneous IT system with every day synchronization of data in HQ and subsidiaries
- * High volume-low margin type of business

Basic requirement

- *One database only (MS SQL) for HQ and 3 subsidiaries *Modern IT technology ensuring :
 - * Fast access to data providing on-line information any time
 - * Easy upgrades
 - * Mobile technologies (BAR code readers, Scan guns,..)
 - * Quick response to business partner requirements
 - * Multidimensional analytic tool->reporting to support decision making process
 - * Efficient warehousing (inbound and outbound operations)
 - * On-line reporting (warehouse status, accounting, cost control,.....)







Communications limits (band width, stable connection...)



Efficient warehousing -(only a few examples)

* Receipt bins (area where lorries are unloaded)

- *Put-away to bins (racks) based on zones definition
- *Capacities of the bins (racks) (weight, size)
- *Cross docking (from inbound are directly to outbound area)
- * Transfer between location (HQ and subsidiaries)
- * Picking slips (from rack to shipment area)
- *Shipments area (bins, cages)
- * Transport planning
- *Credit limits and overdue payment check
- *Invoices, Credit memos,....
- *Claim management

*Warehousing



*Warehousing





*Project management

*Budget <->Quote and contract

*Planning of resources and task control

*Planning tools - see following slides

*Reporting (time-capacity usage, costs,...)

*Change management

*Project Risks

*Consignment stock

* CPM, PERT, CCPM - will be mentioned later

* Consignment stock (benefits)



* Forward Exchange Contract (home study only)

A special type of foreign currency transaction. Forward contracts are agreements between two parties to exchange two designated currencies at a specific time in the future. These contracts always take place on a date after the date that the spot contract settles, and are used to protect the buyer from fluctuations in currency prices.

FEC Selection - Order POE0000017 - FEC13										
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Contract No.		urrency ode	Date	Exchange Rate	Spot Rate		Amount	Amount (LCY)	Used Amount	Amount to Invoice
FEC01	US	D	22.7.2014	10,678	10,000	2	1 000,00	10 678,00	1 000,00	0,00
FEC03	US	D	31.7.2014	10,700	10,000		400,00	4 280,00	400,00	0,00

*Staff training

*Study materials
*Key users - roles, processes
*Training :planning
*Examination
*Change management

*Project Management I.

*Budget (financial and resource capacities)
*Data transfers (old sysetm- >new system)
*Setup of the ERP system (MS Dynamics NAV)
*Tests
*Evaluation od customized solution
*Change management
*Sharp start

*Closing project -evaluation

Steps in the model based problems solving process



* Source : Nyhuis, Wiendahl, Fundamentals of Production Logistics na Warehouse management

*Implementation

*Data transfer

*Setup of the system

* Role Tailored Clients- profiles, Approvals

* Tests

- * Evaluation
- *Change management

*Sharp start (Namibia and SA)

*Closing project

*Next stages

