IBM Global Business Services

Supply Chain Innovation Center Introduction

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Agenda

1	**IBM's Supply Chain Innovation Center**
2	**Solution Demonstration**

On March 2008, IBM launched the Supply Chain Innovation Center in Beijing to accelerate our clients' innovation transformation

SCIC capabilities offer our clients unique innovation capabilities

Consulting & research capabilities	Leveraging our deep Consulting and Research Capabilities – (co-located with IBM China Research Labs)
Solution development	Accelerating solution development by leveraging existing IBM Supply Chain solutions, methods and tools
Leveraging IBM's Supply Chain	Leveraging proven solutions from IBM's Integrated Supply Chain
Teaming with software group	Teaming with IBM Software Group to develop industry leading SCM frameworks
Training our clients	Training clients in leading supply chain practices & sharing current research on global supply chain industry trends

We showcase IBM solutions from our integrated SCM suite

1 Virtual Command Center

(SOA based SC visibility solution)

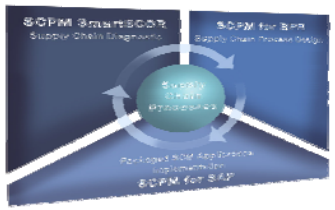
- Integration & synchronization of SC information – supply, demand & logistics
- Monitoring of activities and performance
- Visibility of SC status and KPIs
- Facilitates dynamic decision making

2 SC Optimization - SNOW & DIOS

- Supply Chain Network Optimization Workbench
- Dynamic Inventory Optimization Solution
- What-if scenario generation

3 Supply Chain Process Modeler

- SC process modeler and bench- marking tool
- Simulate SC Risk Events



4 Green SCM Solution Suite

- Helps understand current carbon footprint
- Models critical trade-offs in the supply chain

Supply Chain Visibility and Control: Virtual Command Center (VCC)

Graphical dial chart showing hub state and trend

Chart showing historical hub performance

Spectrum view showing all WW hubs enabling supply rebalancing decisions

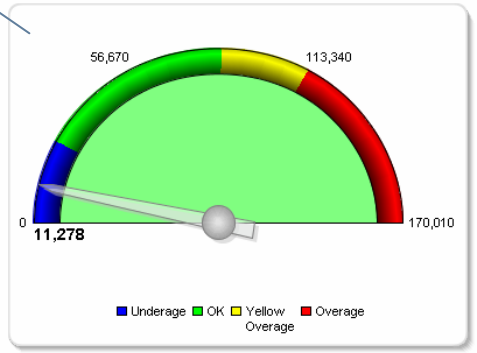
Table showing historical hub performance

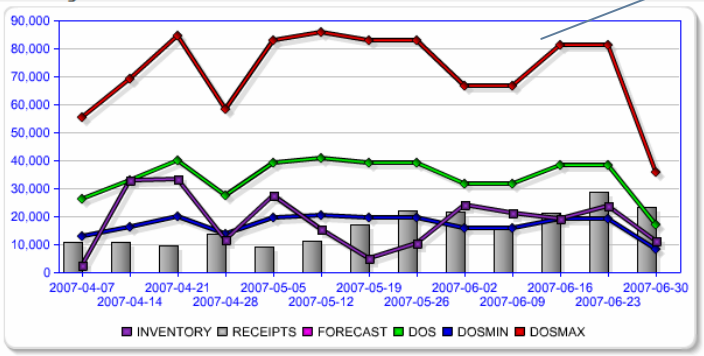
Back

Hub/PN Health (DOS)(Underage) Hub/PN Health (DOS)(YellowOverage) Hub/PN Health (DOS)(RedOverage)

Location	Supplier	Mfg PN	MfgPN Description	Brand	Commodity
India	Panasonic	FEV1586	FLYER	System	OTH-PUBS

Hub/PN Management Chart





Hub/PN Management Spectrum

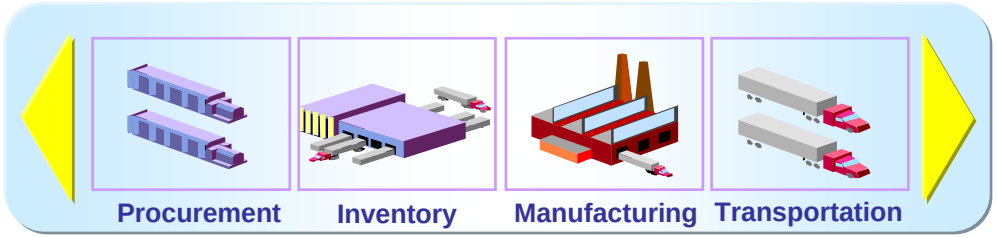
	Location	Supplier	Mfg PN	Brand	Commodity	Wkly Inv Delta	Receipts	Current Qtr Fcst	DOS (Min)	10DOS	DOS (Max)	Wkly WIP	Wkly Stock	Wkly Hub Inv	Wkly Supply	Daily WIP	Daily Stock	Daily Inv	Daily Supply	Alerts
	Hong Kong	Panasonic	FEV1586	System	OTH-PUBS	-	-	-	0	0	0	0	164	-	164	0	164	-	164	
→	India	Panasonic	FEV1586	System	OTH-PUBS	(42,693)	15,755	222,720	26,985	53,971	113,339	0	492	11,278	11770	276	1	7,523	7,800	↓
						-42,693	15,755	222,720	26,985	53,971	113,339	0	656	11,278	11,934	276	165	7,523	7,964	

Hub/PN Management Detail

[Previous Qtr] - [Current Qtr] - [Next Qtr

Week	Receipts	Forecast	Current Qtr Fcst	DOS (Min)	10DOS	DOS (Max)	Wkly Supply	Wkly WIP	Wkly Stock	Wkly Hub Inv	Plan Commit	Wkly Inv Delta	Daily WIP	Daily Stock	Daily Inv	Daily Supply	Alerts
2007-04-07	11,019	-	205,135	13,251	26,502	55,654	-	-	-	2,827	-	(23,675)	-	-	7,603	7,603	↓
2007-04-14	11,019	-	198,499	16,547	33,095	69,500	-	462	0	33,184	-	89	10	2	35,101	35,113	
2007-04-21	9,647	-	198,499	20,197	40,394	84,828	-	5	0	33,425	-	(6,969)	389	10	34,130	34,529	
2007-04-28	13,958	-	171,088	13,903	27,806	58,392	-	2,575	0	12,003	-	(15,803)	1,210	0	16,562	17,772	↓
2007-05-05	9,304	-	171,088	19,747	39,495	82,939	-	0	2,985	27,553	-	(11,942)	1,484	374	18,072	19,930	
2007-05-12	11,646	-	149,070	20,461	40,923	85,939	-	-	-	15,482	-	(25,441)	-	-	18,269	18,269	↓
2007-05-19	17,289	-	118,666	19,777	39,555	83,066	-	1,762	0	5,144	-	(34,411)	84	0	1,424	1,508	↓
2007-05-26	22,303	-	118,666	19,777	39,555	83,066	-	164	0	10,624	-	(28,931)	1,058	0	3,312	4,370	↓
2007-06-02	21,681	-	63,095	15,949	31,899	66,989	-	462	0	24,256	-	(7,643)	433	0	3,568	4,001	
2007-06-09	16,922	-	63,095	15,949	31,899	66,989	-	530	0	21,440	-	(10,459)	14	0	21,872	21,886	
2007-06-16	21,606	-	65,058	19,373	38,747	81,370	-	1	0	19,209	-	(19,538)	1,236	0	17,266	18,502	↓
2007-06-23	29,066	-	65,058	19,373	38,747	81,370	-	2,097	0	24,135	-	(14,612)	28	0	25,337	25,365	
2007-06-30	23,441	-	91	8,546	17,092	35,893	-	951	400	11,663	-	(5,429)	-	-	16,752	16,752	
2007-07-07	19,670	-	208,349	0	0	0	-	-	-	7,100	-	7,100	-	-	6,980	6,980	↑

Network Optimization: Supply Chain Network Optimization Workbench (SNOW)

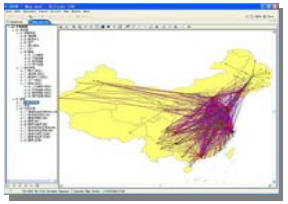


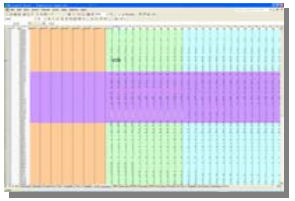
Scenarios Analysis

Capture supply chain dynamics

Evaluate optimization results

Import





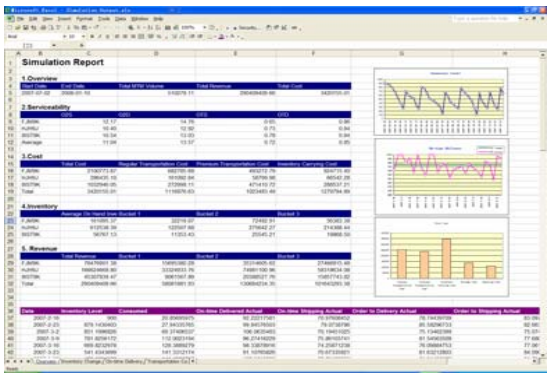
Import from opt. model

- Model infrastructure
- Product groups
- Network structure

Additional data

- Operational details
- Supply chain policies

Report



Inventory Optimization: Dynamic Inventory Optimization Solution (DIOS)

DIOS Main Analysis Window

Stock Analysis (AIM Example)

Class	No. of batch days	Cumulative usage values	No. of SNRs	AIM results: No. of batchs	AIM results: Batch value	AIM results: Safety value	AIM results: Stock value	Actual values: No. of batchs	Actual values: Batch value	Actual values: Safety value	Actual values: Stock value	Potential Savings
1	20	69986	215	2667	5630	3390	7447	0	0	1776	6441	-945
2	20	28885	487	5796	2554	695	2367	0	0	1203	4447	1859
3	40	9584	632	3439	1922	432	1671	0	0	449	2488	723
4	80	2365	578	1408	1121	101	794	0	0	150	1647	764
5	160	409	387	421	518	21	337	0	0	31	763	347
6	160	62	367	482	200	5	127	0	0	14	466	316
NU		0	721	0	0	0	0	0	0	467	527	527
Sums		111291	3387	14213	11945	4646	12742	0	0	4090	16779	3592

Values are in Thousand EUR / Overage Performance is 20.00%

DIOS Main Goals:

- Fast and Accurate Inventory Optimization
- Easy Identification of Overage + Underage
- Create Inventory Action Lists for Planners

DIOS Main Features:

- Calculate Optimal Forecasts
- Calculate Optimal Order Quantities
- Calculate Optimal Safety Stocks

DIOS Special Features (plug-ins):

- Replenishment Order Generation
- Budget Optimization
- Optimization of Stock / No-Stock Decision

DIOS Main Project Types:

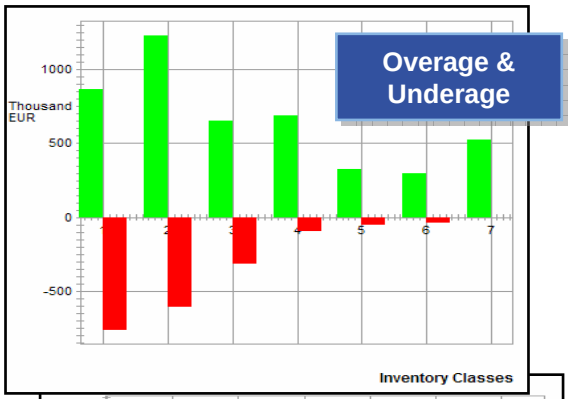
- Stand alone Inventory Assessment
- Non-integrated ERP Planning Component
- Integrated ERP Planning Component
- Integrated Replenishment System

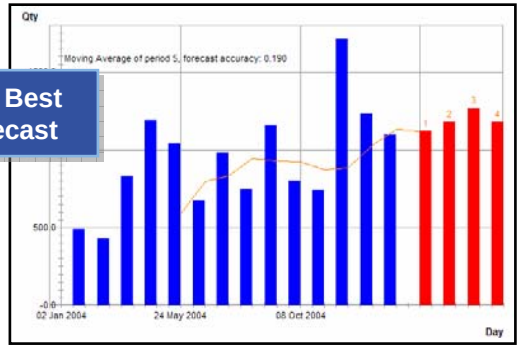
DIOS Key Differentiators:

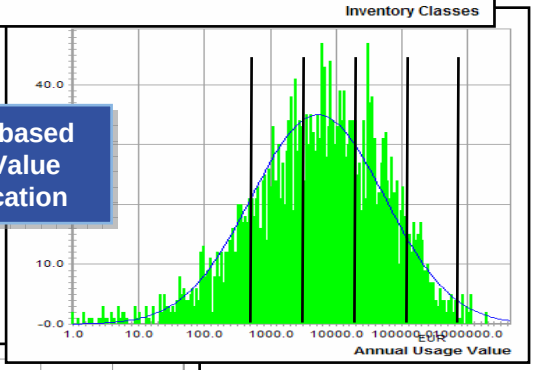
- Best of Breed Classifications (e.g. K Curve)
- Adaptive and Numerical Safety Stocks
- Forecast Engine with Variable Time Buckets

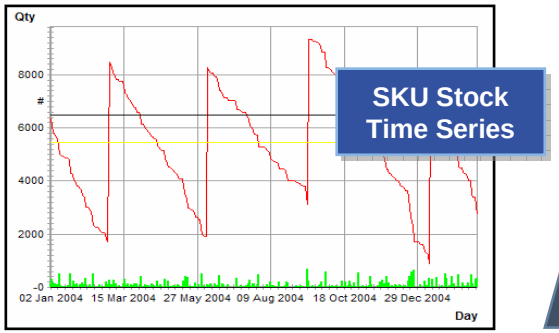
DIOS Main Customer References:

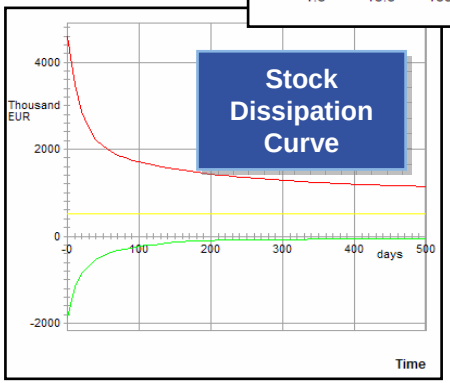
- Wärtsilä (Spare Parts, 8 warehouses)
- Max Bahr (Retail, 80 warehouses)
- Degussa (Chemical CPG, 5 warehouses)
- Mann & Hummel (Automotive Aftermarket)
- Automotive (Spare Parts, pilot going on)

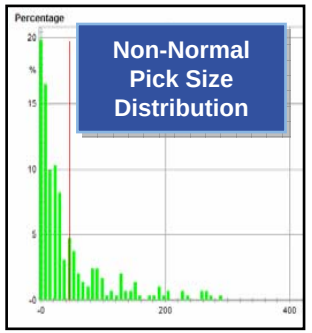












Process Redesign and Simulation: Supply Chain Process Modeler (SCPM)

Awards by the Supply-Chain Council:
- *2008 Award for Supply Chain Academic Excellence*
- *2008 Global Award for Supply Chain Excellence*

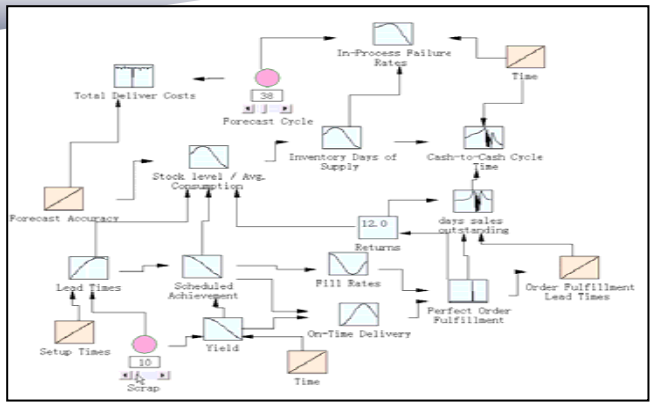
Business Process Repository	Enhanced Process Modeling Capability	Process Simulation
• Business Process Framework • Leading Practices • Packaged Applications Blueprints • Benchmark Data	• Modeling Wizard • Multi-User Support • Data Dictionary • Documentation Support	• Comparative analysis assess cost and revenue • Allocate resources utilized by processes • Estimate duration of process running

Supply Chain Process Design

Map Supply Chain Process

Diagnose Supply Chain Process

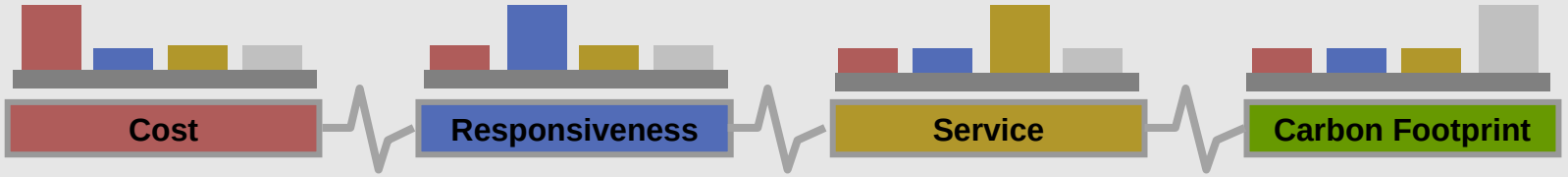
Accumulate and Manage Process Knowledge



The Supply Chain Carbon Trade-Off Modeler

At each point in the supply chain, trade-offs must be evaluated. The Supply Chain Carbon Trade-Off Model is a comprehensive model that evaluates the trade-offs between cost, responsiveness, service, and carbon footprint

Prioritization and Trade-off Models



A strong focus on any one area may compromise the performance of another.

Levers

Process Options	Energy options	Transportation Options	Supply options	Packaging options	Inventory policy options
• Order fulfillment • Manufacturing • Shipment • Quality control • Organizational mgmt • Demand/supply planning	• Oil • Diesel • Hybrid • Ethanol • Natural gas • Other	• Modes • Shipment frequency • Load consolidation • Vehicle routing	• Substitutable component choices • Sourcing choices • Location choices • Supplier consolidation	• Size options • Recycling options • Corrugated box • Styrofoam • Plastic • Paper work / manuals	• Safety stocks • Lot sizes • Planning frequency • Replenishment programs (e.g. JIT, VMI)

Agenda

1	IBM's Supply Chain Innovation Center
2	**Solution Demonstration** - **Virtual Command Center** - **Supply Chain Process Modeler**