

# SCM Consulting Solutions

## Forecast Monitor 2011.1

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Released  
for  
customer

# Agenda

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1. **The challenge: Optimize your forecast**
2. The solution: SCM Consulting Solution forecast monitor
3. Details on forecast monitor

# The challenge: Optimize your forecast

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**During the forecasting process customers encounter the following problems:**

- The forecast accuracy is unknown and not recorded.
- The realisation in SAP NetWeaver® BI or SAP® R/3®-LIS is too costly and complex. That's why often external tools like Microsoft Excel are used.
- Without a recording of the forecast accuracy an evaluation of the forecast model is not possible.
- Employees have to check a high number of materials manually, since the forecast accuracy as indicator is missing. That's why they can't focus on A products or products that are difficult to forecast.

# Agenda

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1. The challenge: Optimize your forecast
- 2. The solution: SCM Consulting Solution forecast monitor**
3. Details on forecast monitor

# The solution: SCM Consulting Solution forecast monitor

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## Questions and Answers about Sap's forecast monitor

Which prerequisites must the customer fulfil?

- A SAP ERP system must be used for materials planning.

What are the advantages of the forecast monitor?

- The monitor enables a report of the key forecast error indicators directly within SAP ERP.
- Safety stock calculations can be performed.
- A simulation of forecasts is possible and further forecast analysis can be performed from the monitor.

Is the forecast monitor a modification?

- No, the forecast monitor is an add-on tool and no modification.

Is there any Customizing necessary to use the forecast monitor?

- No, there are no customer specific adjustments necessary.

How time-consuming is the adoption?

- The consulting solution is installed within one day and immediately available.

What's the whole amount of costs for the forecast monitor?

- Please send an inquiry to Marc Hoppe or Ferenc Gulyássy.

# Agenda

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1. The challenge: Optimize your forecast
2. The solution: SCM Consulting Solution forecast monitor
- 3. Details on forecast monitor**

# Details on forecast monitor

**Monitoring the forecast accuracy**

Material selection | Period selection | Forecast/Consumption | Errors | Save/Retrieve | Simulation

material selected

Material	P-103	to	
Material Type		to	
Material Group		to	
Product hierarchy		to	
X-plant matl status		to	
Procurement type		to	
Individual/coll.		to	
Special procurement		to	
Plant-sp.matl status		to	
MRP Controller		to	
MRP Type		to	
Purchasing Group		to	
DChain-spec. status		to	
Forecast model		to	
Individual Material Group		to	

Only with forecast view     Also without forecast view

Only materials with X for field:

also materials with deletion flag

plant selected

plant     Storage Loc.     SaleOrg     Global

Plant	1000	to	
Storage Location		to	
Sales Organization		to	

Number of combinat.

**Monitoring the forecast accuracy**

Material selection | Period selection | Forecast/Consumption | Errors | Save/Retrieve | Simulation

period for analysis

Current Date: 03.02.2009 to 04.10.2010

Aggregate over time

Week  
 month  
 Quarter  
 Year

Forecast Future (only relevant for detailresultview)

Startdate for additional foreca: 01.02.2010

# Details on forecast monitor

**Monitoring the forecast accuracy**

Material selection | Period selection | **Forecast/Consumption** | Errors | Save/Retrieve | Simulation

selection of consumption data

VBAP (sales order)    MVER (material consumption)    MSEG (document segment: material)

LIS-structur

selection of forecast

PROW (forec. value)    PGPL (sales & oper. planning)    PBED (indep. requirem.)

PBHI (indep. requirem. hist)    LIS-structur

Select by infostructure

Info structure	
Version	A00
Feature product	Not used
Feature plant	Not used
Storage location	Not used
Feature sales org.	Not used
Figure for forecast	Nicht verw
key figure corrected forecast	Nicht verw
Figure consumption	Nicht verw
Time characteristic	Nicht verw
Unit of measure	Nicht verw

Corrected forecast is additive    Corrected forecast contains forecast

More settings

Set missing values to zero

Total consumption    Corrected total consumption

Newest version    Selected version

Movement Type   to

Expost error material forecast

Several data sources can be selected

Several settings are possible



# Details on forecast monitor

**Monitoring the forecast accuracy**

Material selection | Period selection | Forecast/Consumption | **Errors** | Save/Retrieve | Simulation

error

- MAD (mean abs. error)
- MAPE (mean abs. procent. error)
- MPE (mean proc. error)
- MSE (Mean Square Error)
- RMSE (Root Mean Square Error)
- ET (Error Total)
- AET (Absolute Error Total)
- TS (Tracking Signal)

Options

- Calculate forecast error trend
- MAD  MAPE  MPE  MSE  RMSE  ET  AET  TS
- Show traffic light/sort
- MAD  MAPE  MPE  MSE  RMSE  ET  AET  TS
- Warning
- Show "OK"
- Show "Warning"
- Show "Error"
- Show "Zero values"

Several forecast errors can be calculated

Thresholds for warnings or errors can be set

# Details on forecast monitor

**Monitoring the forecast accuracy**

Material selection | Period selection | Forecast/Consumption | Errors | Save/Retrieve | Simulation

Default: simple simulation      Default: complex simulation      Default: delete settings

Number of combinations for simulat.

Forecast models for automatical forecast

Forecast Model 1	Constant model
Forecast Model 2	Constant with smoothing factor adjustment
Forecast Model 3	Seasonal model
Forecast Model 4	Weighted moving average
Forecast Model 5	Seasonal model
Forecast Model 6	
Forecast Model 7	
Forecast Model 8	
Forecast Model 9	
Forecast Model 10	

Simulation mode

Simulation       Rolling simulation       Execute forecast for futur

Number of periods

Historical periods (normal)	12	Periods for season normal	<input type="checkbox"/>
Historical periods (alternative)	24	Periods for season alternative	<input type="checkbox"/>
Historical periods (alternative)		Periods for season alternative	<input type="checkbox"/>
Number forecast periods			

Control data

Initialization	<input type="checkbox"/>	Track limit	<input type="checkbox"/>		
Model selection	<input type="checkbox"/>	ModelSelect.Proced.	<input type="checkbox"/>		
Alpha start	<input type="checkbox"/>	Alpha end	<input type="checkbox"/>	Increment alpha	<input type="checkbox"/>
Beta start	<input type="checkbox"/>	Beta end	<input type="checkbox"/>	increment beta	<input type="checkbox"/>

Simulations with various forecast models or other settings can be started for the determination of optimized forecast settings

# Details on forecast monitor

**Monitoring the forecast accuracy**

Plan Measures

Material	Material Description	Plant	Consp. qty	Forec. quan	CoFor. quan	Number corr.	UOM	MAD	% Error	UOM	MAPE	corr. MAPE	UOM	Prio	Trend	Trend	finished	MRP Type	Procurement	Pl. Deliv. Time	Forecast model	Perio
P-103	Pump PRECISION 103	1000	613,200	0	0	0	ST	14,528	14,528	ST	95,238	0,000	%	∞	6,30	↑		PD	X	2	D	M

Settings or results can be saved to material master and several other transactions

Forecast errors can be controlled in a list of materials

# Details on forecast monitor

Parameters of simulation can be saved

Interactive simulation possible

Forecast errors of different simulation results can be compared

**Consumption and Forecast for selected material**

Read parameters again Save parameters Jump to material master MD61 MD62 Simulation Simulation rolling forecast Automatical simulation

General data  
 Forecast Model: Constant model Period indicat.: Monthly  
 Fiscal variant:   
 RefMat:consum.:   
 Date to:   
 RefPlant consum:   
 Multiplier:

Hist. periods:   
 Fcst periods: 12 Periods/season: 12  
 Periods for init:   
 Fixed Periods:

Initialization:  Tracking limit: 1,000  set automatically  
 Model selection:   
 Selection procedure:   
 Optimizat. level:   
 Weighting group:   
 Alpha factor:   
 Beta (trend):   
 Gamma (Season):   
 Parameter optimizat.  
 Correction factors

number	Mode	MAD	% Error	MAPE	corr. MAPE	Safety Stk	Reorder P
000000	historical	14,528	14,528	95,238	0,000	48,789	0,000
000001	simulated	23,000	14,528	100,000	0,000	77,240	0,000

Material	Material Description	Plant	Period	Consmpt.qty	Forec.quan	Co
P-103	Pump PRECISION 103	1000	02.2009	23	0	
P-103	Pump PRECISION 103	1000	03.2009	26	0	
P-103	Pump PRECISION 103	1000	04.2009	32	0	
P-103	Pump PRECISION 103	1000	05.2009	38	0	
P-103	Pump PRECISION 103	1000	06.2009	45	0	
P-103	Pump PRECISION 103	1000	07.2009	48	0	
P-103	Pump PRECISION 103	1000	08.2009	44	0	
P-103	Pump PRECISION 103	1000	09.2009	40	0	
P-103	Pump PRECISION 103	1000	10.2009	32	0	
P-103	Pump PRECISION 103	1000	11.2009	27	0	
P-103	Pump PRECISION 103	1000	12.2009	22	0	
P-103	Pump PRECISION 103	1000	01.2010	20	0	
P-103	Pump PRECISION 103	1000	02.2010	23	0	
P-103	Pump PRECISION 103	1000	03.2010	26	0	
P-103	Pump PRECISION 103	1000	04.2010	32	0	
P-103	Pump PRECISION 103	1000	05.2010	38	0	
P-103	Pump PRECISION 103	1000	06.2010	45	0	
P-103	Pump PRECISION 103	1000	07.2010	48	0	
P-103	Pump PRECISION 103	1000	08.2010	0	0	
P-103	Pump PRECISION 103	1000	09.2010	1,200	0	

Forecast error chart (MAD and MAPE):

- MAD: Consumpt. (blue), Forecast corrected (green), Forecast (yellow), Forecast simulated (Ex-post) (magenta)
- MAPE: Consumpt. (blue), Forecast corrected (green), Forecast (yellow), Forecast simulated (Ex-post) (magenta)

Time series chart (20090 to 20101):

- Consumpt. (blue line with squares)
- Forecast corrected (green line with squares)
- Forecast (yellow line with squares)
- Forecast simulated (Future) (red line with squares)
- Forecast simulated (Ex-post) (magenta line with squares)

Grafical display of several time series

# Where can I get more information on SCM CS?

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Go to SAP service marketplace and search for note 1493943!

Or ask for more information:

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