Application Lifecycle Management

Best-In-Class Business Process Monitoring using SAP Solution Manager

Solution Management
Application Lifecycle Management
Active Global Support
SAP AG
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1. Why Focus on Business Process Monitoring

2. Business Process Improvement

3. Business Process & Interface Monitoring

4. Outlook

5. Summary
Business Process Analysis & Monitoring
Today’s Challenges within IT Department

Find optimization potential within business processes
- Often search for the “needle in the haystack”
- Relying on input from business department

Find-out if Business Process Monitoring provides added value
- Functional Scope covered?
- Added value if other monitoring tools are in use?
- How to get started – where are the quick wins?
- Effort to get started?
Why Focus on Business Process Monitoring?
Application Oriented

Can you answer the following questions for your Order to Cash process?

- How many Sales Orders are open (not or only partially delivered)?
- How many Sales Orders cannot be processed any further, because they are incomplete, have a delivery, billing or credit block?
- How many outbound deliveries are open (goods issue posting not complete)?
- How many picking transfer orders are open (not confirmed) in your warehouse management system?
- How many outbound deliveries have GI posted but no invoice was created?
- How many invoices have been created but were not printed?
- How many sales invoices were not posted to FI?

If yes, how long does it take to retrieve this information per sales organization, plant or warehouse?
Why Focus on Business Process Monitoring?
Technical Oriented

Can you answer the following questions for your Order to Cash process?

- What is the average response time of transaction VA01 (e.g. last 20 minutes)?
- Did your background job for creating deliveries cancel or finish successfully?
- How many inbound IDocs of type DESADV exist which could not be posted to an application (error status 51)?
- How many qRFC queues of type R3A* are currently blocked and how many entries do they contain?
- Did you receive your flat files (with pricing data) from non-SAP systems this morning? Were they empty or not?
- Did any mapping or routing errors occur in SAP PI which are related to your sales process?
- How many inconsistent objects do you have between your CRM and ERP system?

If yes, how timely do you get this information and how much manual effort is needed?
1. Why Focus on Business Process Monitoring

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What do customers want to achieve?
Business Process Stabilization & Improvement

- Exception
- Improvement: Increased output in the future
- Stabilization: Faster reaction on exceptions to bring output back to expected level
Business Process Stabilization & Improvement
Focus & Value Areas for Company Success

**Customer Satisfaction**
- Overdue Sales Orders
- Sales Orders with delivery block
- Overdue outbound deliveries
- Number of returns

**Revenue Stream**
- Sales Orders without invoice
- Sales Orders with billing block
- Outb. Deliveries with GI & without invoice
- Invoices not transferred to FI
  - Number of credit memos

**Supply Chain & Planning Accuracy**
- Overdue Purchase Reqs & Order items
- Overdue STO items
- Open Planned Orders
- COGI errors
- Production / Process Orders overdue for TECO

**Stock Levels & Capital tie-up**
- Slow moving items
- Dead stock
- Vendor consignment withdrawals
- Materials with expired shelf life
- Inspection lots without usage decision

**Data Accuracy**
- Incomplete Sales Documents
- Application Log errors
- Update errors
- ABAP dumps

**Performance**
- Zero stock batch segments
- Overdue reservation items
- Production / Process / PM Orders TECO but without deletion flag
- Transaction response times
- Background job runtimes

**Integration & Automation**
- Interface errors
- Background job cancellations
- Batch Input errors
## What customers want to measure

- What tools support these measurements

<table>
<thead>
<tr>
<th>Strategic Targets</th>
<th>Operational Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Position</td>
<td>No outstanding Orders and Deliveries</td>
</tr>
<tr>
<td>Productivity</td>
<td>Fast Picking</td>
</tr>
<tr>
<td>Profitability</td>
<td>Fast Invoicing</td>
</tr>
<tr>
<td>Liquidity and Cash Flow</td>
<td>High Factory Output</td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td>In Time Delivery from Suppliers</td>
</tr>
<tr>
<td>Cost of Goods Manufactured</td>
<td>Low Warehouse Stock</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

### Difference between Demand and Reality

- SAP Business Warehouse
- SAP Business Objects

### Difference between Plan and Actual

- Business Process Monitoring with SAP Solution Manager
Control cycle on Strategic Level
Traditional Business KPIs & Business Warehouse

Operational Level

Input

Business Process(es) as blackbox

Output

Exceptions
Economic Crisis
Increasing Production Costs
Increasing Raw Material Costs
Lower Productivity
Decline in Prices

Check Strategic Business KPIs
Sales Revenue, Service Level, Profitability, Liquidity, Costs of Goods Sold

Act
Improve Business KPIs & overcome exceptions

Strategic Level

Business Management
Board or executive level, Controlling units, Business analyst

Business Warehouse

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Control cycle on Operational Level
Alerts & Business Process Monitoring

Operational Level

Input

Create Sales Order
Create Outbound Delivery
Post Goods Issue
Create/Print Billing Document
Create Accounting Document

Output

Check Alerts
Interface or job failure, performance, document backlog

Act
Resolve technical problems & stabilize or improve business process

Exceptions
Capacity bottleneck
Stock outage
Delayed delivery from supplier
Interface or background job errors
Errors in transactional data

Process Management
Business Process Owner, Business Process Expert

Overdue orders
Goods delivered not invoiced
Invoices not transferred to FI

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Control cycle within control cycle
Bringing Operational & Strategic Level together

Operational Level
- Input
  - Create Sales Order
  - Create Outbound Delivery
  - Post Goods Issue
  - Create/Print Billing Document
  - Create Accounting Document
- Act
- Check Alerts
- Business Process Monitoring
- Check Strategic Business KPIs

Strategic Level
- Act
- Business Management
  - Board or executive level, Controlling units, Business Analyst
- Process Management
  - Business Process Owner, Business Process Expert
- Business Warehouse

Create Outbound Delivery
Create Sales Order
Create/Print Billing Document
Create Accounting Document
Post Goods Issue
Check Strategic Business KPIs
Check Alerts
Business Process Monitoring
Process Management
Business Management
Act
Agenda

1. Why Focus on Business Process Monitoring
2. Business Process Improvement
3. Business Process & Interface Monitoring
4. Outlook
5. Summary
Business Process Monitoring

Best Practice and Own Practices

IT

- Business Process Implementation
  - Design
  - Configure/Customize
  - Composition
  - Develop
  - Industry specifics
  - Country specifics

- Business Process Stabilization
  - Minimize interface failures
  - Minimize errors or delays in background processing
  - Maximize technical performance
  - Avoid functional errors (e.g. ABAP dumps, update errors)

- Business Process Improvement
  - Clean up old & open business data
  - Provide sufficient end-user training
  - Close process design gaps
  - Adjust customizing and/or configuration

- Business Process Optimization & Innovation
  - Re-engineer business processes (BPE/BPR)
  - Process Innovation
  - Minimize costs (PPI)
  - Minimize process cycle times (PPI)
  - Maximize process efficiency

Business

- Design
- Configure/Customize
- Composition
- Develop
- Industry specifics
- Country specifics

“Initial plan & investment”

“Protect initial investment”

“Make most of initial investment & achieve optimum according to plan”

“Get better than what was initially planned & implemented”

ENABLE BEST PRACTICES

Business Process Monitoring with SAP Solution Manager

ENABLE OWN PRACTICES

SAP NetWeaver BPM Monitoring

SAP Process Performance Management By IDS Scheer

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Business Process Monitoring
Technical Configuration and Implementation

Problem occurs in the system landscape

What part of the core business process is affected?

Key message: The technical configuration is dependent on the number of business processes in combination with the number of monitoring objects and respective key figures. The configuration and implementation is usually achieved within a couple of days or weeks as most Business Process Monitoring functionality comes pre-configured and out-of-the-box.
Business Process Monitoring
Information Flow – High-level Overview

People

Email

SMS

Service Desk Message

Solution Manager

BW (ad-hoc) Reporting

Continuous Online Alert Monitoring

Solution Landscape

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Business Process Monitoring
Integration with other SAP tools

System Monitoring

Reporting
Service Level Reporting
SAP BW

Job Management
SAP CPS by Redwood

Business Process Monitoring

CCMS

Job Documentation
Service Desk

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Business Process Monitoring
Functional Scope – High-level Overview

Application specific monitoring for
- SAP ERP (SD, MM, PP, LE, WM, PM/CS, QM, FI) & SAP EWM
- SAP CRM (Sales, Services, Customer Interaction Center)
- SAP APO (planning runs in DP, SNP, PP/DS, gATP/BOP)
- SAP SRM (Self-service Procurement, Sourcing Cockpit)

Background Job monitoring for
- Single background jobs or SAP BW Process Chains

Interface monitoring for
- IDoc, BDoc, tRFC, qRFC, bgRFC, Batch Input, flat files, SAP PI

Cross-Application monitoring for
- ABAP dumps, Update errors, number range fill-level, Application Log entries
- Performance monitoring for transactions and RFC processing

Industry specific monitor enhancements for
- SAP Apparel and Footwear, SAP for Automotive, SAP for Banking, SAP for Retail, SAP for Utilities

Data Consistency monitoring for
- SAP ERP, SAP CRM, SAP APO

Business Process Monitoring
Template Solution

The file *BPM Template Solution - ST-SER XXX.zip* and the corresponding documentation *Template Solution for BPMon - Detailed Description.ppt* can be downloaded from the SAP Service Marketplace [http://service.sap.com/bpm](http://service.sap.com/bpm) » Media Library » Technical Information

More information can be also found in the following [SDN Blog](http://service.sap.com/bpm)
Business Process: Order to Cash

Solution: TechEd AG - XX - SAP Solution Manager

- Backlog of CRM Orders in Status ‘Error in Distribution’
- qRFC Monitoring of critical queues
- Backlog of open ERP Sales Orders
- Backlog of open Outbound Deliveries
- Invoices not transferred to Accounting
- No. of Inbound SHPCON IDOCs in Error Status
Current status: Create Outbound Delivery

This view shows the current/most recently reported status of all (CCMS) monitors for the process step.

Outbound Deliveries (overdue)

Purpose
The first table below lists all open and confirmed alerts that were issued after the Business Process Monitoring function was activated.

The most recent check for new alerts on the managed system was 22.03.2010 15:48:45.

The first alert listed below was issued 22.03.2010 15:48:45; the last alert was issued 22.03.2010 15:48:45.

Alert List | Alert Configuration | Parameter Value Ranges

| Date       | Time       | Counter | Alert Message | Measured Value |
|------------|------------|---------|---------------|----------------|----------------|
| 22.03.2013 | 15:48:45   | 001     | Outbound Deliveries (overdue) | 1215 / 1215    |
SAP Business Process Monitoring - Operation
Detailed Analysis of open business documents

Outbound Deliveries (overdue)

Purpose
The first table below lists all open and confirmed alerts that were issued after the Business Process Monitoring function was activated.

The most recent check for new alerts on the managed system was: 22.03.2010 15:48:45.

Outbound Deliveries (overdue) (last collector run)

<table>
<thead>
<tr>
<th>Delivery</th>
<th>Ship Point</th>
<th>Delivertype</th>
<th>Delivery Date</th>
<th>PI/ GI date</th>
<th>Created by</th>
<th>Created on</th>
<th>TCode</th>
<th>Cvr.pick status</th>
<th>Total gds mrt stat</th>
<th>Overall VM status</th>
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<td>001</td>
<td>LF</td>
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<td>16.03.2010</td>
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<td>C</td>
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<td>A</td>
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<tr>
<td>90003017</td>
<td>001</td>
<td>LO</td>
<td>01.03.2010</td>
<td></td>
<td>CURRANS</td>
<td>08.02.2010</td>
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<td>C</td>
<td>A</td>
<td>B</td>
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<tr>
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<td>001</td>
<td>LO</td>
<td>01.03.2010</td>
<td></td>
<td>CURRANS</td>
<td>08.02.2010</td>
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<td>A</td>
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<td>26.02.2010</td>
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<td>26.02.2010</td>
<td>VL01N</td>
<td>C</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>
BI Trend Analysis: Outbound Deliveries older than 10 days without Invoice
New: Advanced Monitoring Filter on IDoc Details

- Filtering on IDoc contents possible
- IDoc alerting details are displayed in list display instead of calling standard monitoring transaction WE05 directly (as in previous versions of the data collector)
- Further technical improvements that stabilize and speed up IDoc data collection
New: Detailed Info Display – Root Cause Analysis

Display IDoc Details: Error View (Alerted IDocs)
New: Detailed Info Display – Error View

### Display IDoc Details: Error View (Alerted IDocs)

<table>
<thead>
<tr>
<th>IDoc no</th>
<th>Message Type</th>
<th>Status</th>
<th>Stat. Gr.</th>
<th>Status Age</th>
<th>Status Message Text</th>
<th>Msg No</th>
<th>Status ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>2045018</td>
<td>ORDRSP</td>
<td>02</td>
<td></td>
<td>000:17:33</td>
<td>Could not find code page for receiving system</td>
<td>265</td>
<td>E0</td>
</tr>
<tr>
<td>2045017</td>
<td>ORDRSP</td>
<td>02</td>
<td></td>
<td>000:17:56</td>
<td>Could not find code page for receiving system</td>
<td>265</td>
<td>E0</td>
</tr>
<tr>
<td>2045010</td>
<td>ORDRSP</td>
<td>02</td>
<td></td>
<td>000:18:18</td>
<td>Could not find code page for receiving system</td>
<td>265</td>
<td>E0</td>
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<tr>
<td>2037010</td>
<td>ORDRSP</td>
<td>02</td>
<td></td>
<td>020:19:40</td>
<td>Port 'QPTCLNT004' does not exist in the table of port descriptions</td>
<td>031</td>
<td>E0</td>
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<tr>
<td>2032060</td>
<td>ORDRSP</td>
<td>02</td>
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<td>125:24:52</td>
<td>Could not find code page for receiving system</td>
<td>265</td>
<td>E0</td>
</tr>
<tr>
<td>2032049</td>
<td>ORDRSP</td>
<td>02</td>
<td></td>
<td>125:15:34</td>
<td>Port 'QPTCLNT004' does not exist in the table of port descriptions</td>
<td>031</td>
<td>E0</td>
</tr>
</tbody>
</table>

**Generic part:**
- IDoc number
- Message Type
- (Current) Status of IDoc on database
- Traffic Light
- Age of current status

**Information on current status of IDoc:**
- Status Message Text
- Status Message Number
- Status Message ID
Alert Notification / Auto-Reaction is the automatic activity triggered by the creation of alerts.

Once an alert is created in the BPMon engine, the engine checks whether automatic alert post processing has to be executed:

- If “yes”, auto-reaction is executed
- If “no”, no further activities are triggered

Important:
The user in the BPM_LOCAL RFC destination (usually user SM_BPMO) must have sufficient authorization for executing the auto-reaction.
Sample Email (Standard Functionality)

Solution number.....SMJ/0020270862/0002950200_0020270862
Solution name.......STSER20101_BPM_91 Template Solution for Testing
Business Process....IF: Workflow-Monitoring
Step...............IF: Workflow-Monitoring
System.............EBU
Monitoring Object...Alter WF Monitor
Monitoring ID.......000002113520000

Nächster Longtext Versuch
http://service.sap.com

Link to Alert Inbox:
http://uxcismj.wdf.sap.corp:50029/sap/bc/webdynpro/sap/wdc_wba_bmnon_alert_inbox?
sol=000000294820000&pro=0000002230&stp=0000002231&int=0000000000&mod=C&mid=000002113520000&aty=IMSWFMON05

Alert Rating/Date/Time/Message:
Yellow 20091222 155524 Runtime enviroment is not configured properly.
Yellow 20091222 155524 Verify, All : 3 workitems found in status error

Alerts for which the email was created (always inserted, regardless of configuration)

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SAP Service Desk messages are messages created within the Service Desk of SAP Solution Manager. These messages can be handled via the “Incident Management” work center.
Overview – Business Process Monitoring in the SAP Solution Manager (New Extensions)

Solution Manager

Solution Landscape

- ERP
- SCM
- BI
- CRM

Continuous Online Alert Monitoring

Reporting

Notifications

New / extended BPMon connectivity features to include monitoring of non-ABAP and non-SAP Products

Log File & Data File Monitoring

External Alert push: HTTP-Post or XML-file

External Database Access

External API call: RFC or Webservice

Partner / non-SAP / Legacy Software Products
BPMon Data Collectors for non-ABAP/non-SAP

New features for Business Process Monitoring to monitor non-ABAP/non-SAP systems

- Application Monitoring on Remote Databases
  - With generic monitoring object
  - With specific monitoring object (available for TriplePoint CSL)
- Application Monitoring using Web services
  - Push-mechanism
  - Pull-mechanism
- Application monitoring based on data extracted to SAP BW
  - Reusable framework for customer-specific implementations
### Data Collection via Remote Database Access

#### Data Collector
- ABAP coding (in ST-A/PI) using BPMon Infrastructure
- Collector runs on Solution Manager as "ABAP Bridge" between BPMon and non-ABAP system
- Uses remote DB connectivity via ADBC
- Supports counting (=measured value) and detail display

#### Requirements & Prerequisites
- Available for any SAP supported DBMS
- DBSL + DB Client installed on SAP Solution Manager
- Remote DB Connection maintained in SAP DBA Cockpit

#### Potential Concerns & Restrictions
- Secure Access to remote DB
  - Authorization checks via SAP ABAP Stack
  - Own DB Logon User with limited authorization, e.g. read access to specific schema / data only
- Performance
  - Balance between frequency of data collection and size of database table
Data Collection via external API calls

**Requirements & Prerequisites**
- External application
  - provides a remote-enabled function module or Web Service
  - or can call a Web Service or remote-enabled function module
- Solution Manager BPMon Framework needs to provide capabilities to attach Monitoring Object to external component but execute it in Solution Manager

**Potential Concerns & Restrictions**
- RFC enabled FM or Web Service needed
- Collector needed (low effort)
Data Collection based on data extracted to SAP BW

External Application

Data Collector
- ABAP coding (in ST-A/PI) using BPMon Infrastructure
- Collector runs on Solution Manager as “ABAP Bridge“ between BPMon and non-ABAP system
- Uses BW connectivity via RSDRI
- Supports counting (=measured value) and detail display

Requirements & Prerequisites
- BW activated and external application stores data in BW
- Remote RFC Connection to BW maintained
- Desired: SMD activated

Potential Concerns & Restrictions
- Secure Access to BW
  - Authorization checks via SAP ABAP Stack
- Performance
  - Balance between frequency of data collection and size of BW Info Cubes
New SAP BW based Business Process Analytics

- Benchmarking
- Age structure of document backlog
- Trend analysis
New: Business Process Analytics
Benchmarking

### Purchase Orders - N° of Purchase Order Items overdue - Selected Timeframe: 19.08.2009 - 26.08.2009

<table>
<thead>
<tr>
<th>Plant (Item)</th>
<th>N° of Purchase Order Items overdue</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP1</td>
<td>080,000</td>
</tr>
<tr>
<td>PLANT EEO1</td>
<td>575,000</td>
</tr>
<tr>
<td>PWA1</td>
<td>509,000</td>
</tr>
<tr>
<td>ABCS</td>
<td>217,000</td>
</tr>
<tr>
<td>PLANT EEO2</td>
<td>150,000</td>
</tr>
<tr>
<td>0CC01</td>
<td>17,000</td>
</tr>
<tr>
<td>Shriram_BWM</td>
<td>32,000</td>
</tr>
<tr>
<td>Satish Umaras Plant</td>
<td>28,000</td>
</tr>
<tr>
<td>BM01</td>
<td>24,000</td>
</tr>
<tr>
<td>PLANT EEU1</td>
<td>23,000</td>
</tr>
<tr>
<td>ROS3</td>
<td>23,000</td>
</tr>
<tr>
<td>AUI</td>
<td>14,000</td>
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<tr>
<td>ACYS</td>
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<tr>
<td>ADDS</td>
<td>10,000</td>
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<tr>
<td>ALI2</td>
<td>9,000</td>
</tr>
<tr>
<td>PLANT EEU2</td>
<td>9,000</td>
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<tr>
<td>AKKS</td>
<td>9,000</td>
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**Benchmarking (Top 10) / 20.08.2009**

- SAP1
- PLANT EEO1
- PWA1
- ABCS
- PLANT EEO2
- 0CC01
- Shriram_BWM
- Satish Umaras Plant
- EM1
- PLANT EEU1
New: Business Process Analytics

Age Structure
Agenda

1. Why Focus on Business Process Monitoring
2. Business Process Improvement
3. Business Process & Interface Monitoring
4. Outlook
5. Summary
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BPO Dashboards can provide an overview of a specific business topic such as a business process or a business area

- Visual display of analytical key figures
- All information needed by the end user at a glance on a single screen
BPO Dashboards in SAP Solution Manager 7.1

Roles involved

- **Dashboard administrator**
- **End users on business side**
  - Business process experts: responsible for a business process
  - Business key users: e.g. plant managers or store managers
- **End users on IT side**
  - Application support experts: e.g. CIOs
Where to find the BPO Dashboards in SAP Solution Manager

➤ Navigate to the Business Process Operations Workcenter

- **Manage BPO Dashboards**: this is the point of entry for the Dashboard administrator
- **Display My BPO Dashboards**: this is the point of entry for the Dashboard end user
**BPO Dashboards in SAP Solution Manager 7.1**

**Overview**

**Landscape**
- Dashboard setup application to setup and maintain
  - Connector instances
  - Analytical key figure instances
  - Panels
  - Dashboards

**Roles**
- There are 2 main roles involved
  - Dashboard administrator who sets up the dashboards
  - Dashboard end user who requests & displays the Dashboards

**Dashboard:** Role-based display of a set of panels

**Panel:** Graphical display of one or more analytical key figures

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Display of BPO Dashboard
Example 1

- **Trend chart:** shows a daily trend for **Outbound deliveries created** within the last month per shipping point.
- **Bar chart:** shows the actual number of **Overdue outbound deliveries** per shipping point.
- **Pie chart:** shows the actual **Deliveries with overdue invoices** per shipping point.
- **Trend chart:** shows a daily trend for **Overdue outbound deliveries** per shipping point.

In the drop down list you find all dashboards that you are authorized for. Chose the one that you want to display.

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Display of BPO Dashboard
Example 2

- **Static rating table**: shows a rating for the Overdue outbound deliveries per shipping point

- **Dynamic rating table**: shows a rating for the Outbound deliveries created per shipping point

- **Bar chart**: shows the Top 5 shipping points with the most Overdue outbound deliveries

- **Stacked column chart**: shows the Outbound deliveries created per day and per shipping point
The following scenarios are supported by the BPO Dashboards

- **Display of the current status**
  - **Scenario 1: Backlog for Top N**
    - Example: current number of overdue outbound deliveries for the Top 5 shipping points with the most overdue outbound deliveries.
  - **Scenario 2.1: Backlog with rating for certain organizational units** (e.g. plant, shipping point, sales organization)
    - Example: current number of overdue outbound deliveries for certain shipping points with a rating for each shipping point.
  - **Scenario 2.2: Backlog for certain organizational units**
    - Example: current number of overdue outbound deliveries for certain shipping points
  - **Scenario 3.1: Throughput with rating for certain organizational units**
    - Example: rating for the number of outbound deliveries created per day and per shipping point within the last calendar month.
  - **Scenario 3.2: Throughput for certain organizational units**
    - Example: number of outbound deliveries created per day and per shipping point within the last calendar month
The following scenarios are supported by the BPO Dashboards

- **Display of a trend analysis**

- **Scenario 4: Trend of backlog for certain organizational units**
  - Example: daily trend for the number of overdue outbound deliveries for certain shipping points within the last month

- **Scenario 5: Trend of throughput for certain organizational units**
  - Example: daily trend for the number of outbound deliveries created for certain shipping points within the last month.
Scenario 1: Backlog for Top N

Example: You want to see the current number of overdue outbound deliveries for the Top 5 shipping points with the most overdue outbound deliveries.

Settings for the AKFI
- Set Top N filter on shipping point: N = 5
- Characteristic for drilldown = shipping point
- Set a relative filter on a time characteristic (e.g. last week): CALWEEK I EQ -1

Settings for the panel
- Chart type: Bar chart
- Label for value axis: No. of overdue outbound deliveries
Scenario 2.1: Backlog with Rating for certain Organizational Units

Example: You want to see the current number of overdue outbound deliveries for certain shipping points with a rating for each shipping point.

Settings for the AKFI
- Set a relative filter on a time characteristic (e.g. last week): CALWEEK EQ -1
- Define filter elements for the characteristic shipping point
- Select shipping point as characteristic for drilldown
- Maintain the rating thresholds for each shipping point

Settings for the panel
- Chart type: static rating table

Example: You want to see the current number of overdue outbound deliveries for certain shipping points with a rating for each shipping point.
Scenario 2.2: Backlog for certain Organizational Units

Example: You want to see the current number of deliveries with overdue invoices for certain shipping points.

Settings for the AKFI

- Set a relative filter on a time characteristic (e.g. last month): CALMONTH I EQ -1
- Define filter elements for the characteristic shipping point
- Select shipping point as characteristic for category

Settings for the panel

- Chart type: pie chart
Scenario 3.1: Throughput with Rating for certain Organizational Units

Example: You want to see a rating for the number of outbound deliveries created per day and shipping point within the last calendar month.

Settings for the AKFI

- Set a relative filter on a time characteristic (e.g. last month): CALMONTH I EQ -1
- Define filter elements for the characteristic shipping point
- Select shipping point as characteristic for drilldown
- Select CALDAY as characteristic for category

Settings for the panel

- Chart type: dynamic rating table

Example:

You want to see a rating for the number of outbound deliveries created per day and shipping point within the last calendar month.
Scenario 3.2: Throughput for certain Organizational Units

Example: You want to see the number of outbound deliveries created per day and per shipping point within the last calendar month.

Settings for the AKFI

- Set a relative filter on a time characteristic (e.g. last month): CALMONTH EQ -1
- Define filter elements for the characteristic shipping point
- Select CALDAY as characteristic for category
- Select shipping point as characteristic for drilldown

Settings for the panel

- Chart type: stacked column chart
- Label for category axis: Calendar days
- Label for value axis: No. of outbound deliveries created
Scenario 4: Trend of Backlog for certain Organizational Units

Example: You want to see a daily trend for the number of overdue outbound deliveries for certain shipping points within the last month.

Settings for the AKFI

- Set a relative filter on a time characteristic (e.g. last month): CALMONTH EQ -1
- Select CALDAY as characteristic for category
- Select shipping point as characteristic for drilldown
- Define filter elements for the characteristic shipping point

Settings for the panel

- Chart type: trend chart
- Label for category axis: Calendar days
- Label for value axis: No overdue outbound del. per shipping point

Example: You want to see a daily trend for the number of overdue outbound deliveries for certain shipping points within the last month.
Scenario 5: Trend of Throughput for certain Organizational Units

Example: You want to see a daily trend for the number of outbound deliveries created for certain shipping points within the last month.

Settings for the AKFI

- set a relative filter on a time characteristic (e.g. last month): CALMONTH EQ -1
- select CALDAY as characteristic for category
- select shipping point as characteristic for drilldown
- define filter elements for the characteristic shipping point

Settings for the panel

- Chart type: trend chart
- Label for category axis: Calendar Day
- Label for value axis: No. outbound deliveries created per shipping point

Analytical Keyfigure Details

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<tr>
<th>Analytical Keyfigure Instance Name</th>
<th>Scenario 5 Outbound deliveries created</th>
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Filter Characteristic

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Select Options

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</tbody>
</table>
1. Why Focus on Business Process Monitoring
2. Business Process Improvement
3. Business Process & Interface Monitoring
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5. Summary
Key message: The organizational change management is dependent on the organizational complexity and the scope of Business Process Monitoring roll-out. It can take up to several weeks or even months.
Business Process Monitoring
Methodology

Model business processes in SAP Solution Manager
- Business Process Monitoring requires that business processes are modeled within the Solution Directory. This can be achieved via
  - Modeling from scratch
  - Copying a process from an existing SAP Solution Manager project or from the Business Process Repository
  - Importing a template solution (see next slide)

Configure Business Process Monitoring in SAP Solution Manager
- Select processes and process steps you want to configure
- Select monitoring objects and respective key figures (alert types) per selected process step
- Define threshold values and select options like organizational units or document types per key figure

Remark: Processes and their respective monitoring objects and key figures are already pre-defined if you import a template solution (see next slide)

Activate monitoring in your SAP Solution Manager
Business Process Analysis & Monitoring
From Analysis to Monitoring & Improvement

Business Process Analysis performed on SAP R/3, SAP ERP, SAP CRM or SAP SRM backend system

Business Process Analytics

Business Process Monitoring

Business Process Stabilization & Improvement

Clean-up of old & open business data
- Improved planning result accuracy
- Improved performance of transactions, reports or processes
- Higher reporting quality
- Higher end-user efficiency

Detect & correct gaps in process implementation
- Configuration issues
- Missing “closing steps” of open documents

Business Process Benchmarking
- Benchmarking across organizational units
- Visibility & Transparency

Business Process Standardization
- Business process template adherence
- Missing end-user training

Early detection of business process exceptions
- Overdue business documents not processed fast enough
- Interface errors & inconsistencies
- Issues within background processing
- Performance issues

Automization of manual tasks
- Real-time alert monitoring of interfaces & background jobs
Further Information – Links

- Business Process Monitoring on SAP Service Marketplace
  - [https://service.sap.com/bpm](https://service.sap.com/bpm)

- Business Process Monitoring on SDN
  - [https://www.sdn.sap.com/irj/sdn/nw-processmonitoring](https://www.sdn.sap.com/irj/sdn/nw-processmonitoring)

- Job Scheduling Management on SAP Service Marketplace
  - [https://service.sap.com/jsm](https://service.sap.com/jsm)

- SAP Central Process Scheduling by Redwood on SDN

- White Paper about Exception Handling and Business Process & Interface Monitoring
  - Link to [Business Process Monitoring](https://service.sap.com/bpm)
Further Information – SDN Blogs & Wiki

- Functional Scope of Business Process Monitoring in SAP Solution Manager

- FAQ about Business Process Monitoring

- Typical Use Cases for Business Process Monitoring

- Business Process Monitoring - Template configuration available for download
Thank You!

Questions?