Holistic Data Management: Best Practices to Manage the Impact of Data Changes

Dave Kelly | Dorman Products
James Thomas | G3G Consulting
What is Holistic Data Management?

Your ERP system is an engine with countless components working together. How do you make changes and keep everything ‘in tune’?
G3G – James Thomas, Logistics Consultant

G3G is an award-winning SAP Gold / Winshuttle Gold Partner specializing in implementation services and support

Global reach, US presence based in PA

Dedicated SAP support team covering 22 countries across 6 continents

Certified by SAP as a Partner Center of Expertise (PCoE)
A leading automotive aftermarket supplier located in PA

High-volume data maintenance

- Over 640,000 unique stock keeping units (sku’s)
- On pace to create 60,000 – 100,000 new sku’s in 2016
- Five plants, high level of complexity

500+ different Winshuttle scripts in all SAP disciplines (SD, MM, FI, LE, etc.)

Widespread & robust use – taking full advantage of WS functionality

SAP Go Live in October, 2014
Case Study: Holistic Data Management

Business Requirements:

• A subset of materials will change from ‘Kitted’ to ‘Manufactured’

• Change sales order to reflect non-kitted materials

• Material Data / BOMs / Routings require update

• Make this change quickly without impacting the business
Case Study: Holistic Data Maintenance

- **Transaction**
  - ‘Block’ Materials

- **Query**
  - Identify Open Order Lines

- **Direct**
  - Cancel Open Order Lines

- **Transaction**
  - Update Material Master Data

- **Transaction**
  - Add Order Lines back to Orders
Step 1: Transaction – ‘Block’ In-Scope Materials

First things first...
Use Transaction to ‘block’ materials to prevent ‘new’ requirements for materials in-scope
This ensures new lines will not be created with ‘old’ data
The result is a clean transition
Step 2: Query – Identify Affected Lines

Build a ‘Backlog’ file using Winshuttle’s *delivered* Open Orders template

Use ‘Operator: IN’ functionality to specify the materials in-scope

The resulting ‘Backlog’ of open orders is the data set that will be manipulated

Link a Query using the ‘Operator: IN’ functionality to lookup Schedule Dates
Step 2: Query – Identify Affected Lines

Build a ‘Backlog’ file using Winshuttle’s **delivered** Open Orders template as a starting point
Step 2: Query – Identify Affected Lines

Use ‘Operator: IN’ functionality to specify the materials in-scope
Step 2: Query – Identify Affected Lines

The resulting ‘Backlog’ of open orders is the data set that will be manipulated...

...but we’re missing Schedule Line Data...

<table>
<thead>
<tr>
<th>VBAK.YBELN Sales Document</th>
<th>VBAK.PSNR Sales Document Item</th>
<th>Order Line</th>
<th>VBAK.VKORG Sales Organization</th>
<th>VBAK.YTWF Distribution Channel</th>
<th>VBAK.SPART Division</th>
<th>VBAK.KUNNR Sold to Party</th>
<th>VBAK.ERDAT Date on Which Record Was Created</th>
<th>VBAK.MATNR Material Number</th>
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</table>
Step 2: Query – Identify Affected Lines

Link a Query using the ‘Operator: IN’ functionality to lookup Schedule Dates based on order-line.
Step 2: Query – Identify Affected Lines

Result: Scope of changes determined

<table>
<thead>
<tr>
<th>VBAK.VBELN</th>
<th>VBAK.POSNR</th>
<th>Order-Line</th>
<th>VBAK.KUNNR</th>
<th>VBAK.ERDAT</th>
<th>VBAK.MATNR</th>
<th>VBAK.PSTYV</th>
<th>VBAK.KWMENG</th>
<th>SAP SE</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Document</td>
<td>Sales Document Item</td>
<td>Sold-to party</td>
<td>Date on Which Record Was Created</td>
<td>Material Number</td>
<td>Sales document item category</td>
<td>Cumulative Order Quantity in Sales Units</td>
<td>Sales unit</td>
<td>SAP UERG Exec Down Janus Reas</td>
<td></td>
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<td>0101770510-001100</td>
<td>0001000056</td>
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<td>ZON1</td>
<td>1.000</td>
<td>EA</td>
<td>02/05/2016</td>
</tr>
</tbody>
</table>

Now that we know which lines need to reject, it is time to reject them!!
Step 3: Direct – Cancel the Existing Lines

Why Direct? Time-savings of BAPI in high-volume cases...

Direct allows us to cancel multiple lines with a single save (triggering user exit only once per order)

Direct processed more efficiently than Transaction because Direct updates the database directly – instead of going screen-by-screen

A single template is used to download the open orders and apply a reason for rejection to the orders
Step 3: Direct – Cancel the Existing Lines

Direct is SAP Transaction: `se37`

**BAPI_SALESORDER_CHANGE**

Think of using as BAPI as ‘completing’ an Excel formula
Step 3: Direct – Cancel the Existing Lines

BAPI_SALESORDER_CHANGE

<table>
<thead>
<tr>
<th>Sales Document</th>
<th>Sales Document Item</th>
<th>Reason for rejection</th>
<th>ID Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExportOthers-SALESDOCUMENT</td>
<td>ORDER_ITEM_INX-ITM_NUMBER</td>
<td>ORDER_ITEM_INX-REASON_REJ</td>
<td>H</td>
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<tr>
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<td>0100</td>
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<td>D</td>
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<td>D</td>
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<td>D</td>
</tr>
<tr>
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<td>99</td>
<td>D</td>
</tr>
</tbody>
</table>

input backlog vbep va02 apply reason for rejection
Recap: Steps 1 - 3

Transaction
‘Block’ Materials

Query
Identify Open Order Lines

Direct
Cancel Open Order Lines

Transaction
Update Material Master Data

Transaction
Add Order Lines back to Orders
Step 4: Transaction – Update Material Data

Linked Transaction Scripts

- MM03
- CS01
- CS07
- CA02
- C223
- CS02
- MM02

Previous Versions
01 MM03 Retrieve Material Group of BOM Components.TxR
02 CS01 Create BOM.TxR
03 CS07 Assign BOM to Plant.TxR
04 CA02 Routing Material Assignment .TxR
05 C223 Create Production Version.TxR
06 C223 Chk Consistency Prod Version.TxR
07 C223 Expire Production Version.TxR
08 CS02 Flag KTO BOM for Deletion.TxR
09 MM02 Change KTO to MTS.TxR
10 MM02 Update Accounting and Costing Data.TxR
Step 4: Transaction – Update Material Data

Result: Material Masters updated
Step 5: Transaction – Add Sales Order lines back to orders

Use ‘Backlog’ file from Step 1

Transaction script for VA02 adds ‘new’ lines back to existing orders

Requested Del Date taken from original order line

Non-kitted material is now on the sales order
Case Study: Holistic Data Management

Requirements met:

- **Transaction** – apply material blocks
- **Query** – extracted relevant lines & schedule dates
- **Direct** – canceled sales order lines
- **Transaction** – updated material master / boms / routings
- **Transaction** – added lines back to sales orders
## Case Study: Benefits

### Time Saved

<table>
<thead>
<tr>
<th></th>
<th>Hours</th>
<th>Days</th>
<th>Labor Rate</th>
<th>Total Cost</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Processes</td>
<td>60</td>
<td>5 days</td>
<td>$75</td>
<td>$4,500</td>
<td></td>
</tr>
<tr>
<td>Using Winshuttle</td>
<td>5</td>
<td>1 day</td>
<td>$75</td>
<td>$375</td>
<td><strong>$4,125 saved</strong></td>
</tr>
</tbody>
</table>

Baseline: 100 materials

### ‘Cleaner’ Process – Lower risk

- Less time with material blocks in place
- Time saved doing non-value added work
- Using Winshuttle helps avoid Data Entry errors

### Consistent Execution

- All required fields populated properly for every material, every time
What is Holistic Data Management?

Your ERP system is an engine with countless components working together.

How do you make changes and keep everything ‘in tune’?
Holistic Data Management

James Thomas, Logistics Consultant
(james.thomas@g3g.com)
Dave Kelly, SAP MDM Functional Analyst
(dkelly@dormanproducts.com)
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Standard Use at Dorman: Material Master Maintenance

The diagram shows a spreadsheet with columns for Material, Material ID, Material Name, Material Description, Material Group, Material Unit, Material Usage, and Material Record Type. The spreadsheet includes sections for Part Setup, Material Master, Bill of Material, ALT UOM, Pricing, and Valid From Date.

The Winshuttle TRANSACTION window shows a script for Material Master Update - UnLinked with options for Run Now, Run, and Stop.

The diagram also includes a logo for Dorman and G3G (New since 1918) and the Winshuttle User Group Conference logo for Las Vegas 2016.
Standard Use at Dorman: Material Master Maintenance

Individual scripts, linked

Individual recordings for each transaction in chain:

- MM02
- MM03
- CS01
- ZSD.Related_Mater
- BAPI_ALT_UOM
- VK11

Published to one Excel template