Session Code: 3606
Data Quality Success at W. R. Grace & Co.

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SAP Data Quality Management provides jump start to cleansing existing and newly created Master Data

Implementation approach geared towards cleansing addresses for entire country or countries.

DQM / Data Services specialty skill – Consultancy partner selection is vital to your success

Out of the box Data Services DQM data transforms will need to be adjusted to your unique system environment.

Minimal Change Management
What are the sources of bad data problems?

- Employee Data Entry
- Purchased or Rented External Data
- Custom Self-Service
- IT Application Updates
- Data Migration Projects
How does poor data quality impact business process?

Problems experienced when data quality practices are not followed

- Difficult to determine the right recipients for marketing campaigns
- Inaccurate order information causes delayed or lost shipments and lower customer satisfaction
- Sales representatives are not able to identify relevant accounts
- Costs are high due to account duplications, while response rates are low
- Potential customers are annoyed by redundant mails, e-mails and phone calls
- Reporting uses wrong data and this leads to wrong conclusions/decisions
Gartner Magic Quadrant for Data Quality Tools

SAP ranked as a LEADER in the “Gartner Magic Quadrant for Data Quality Tools” for the 7th consecutive year.

Source: Gartner (August 2012)
SAP Information Management (EIM) ➔ SAP Data Services ➔ SAP Data Quality Management (SAP DQM) ➔ DQM for SAP

- SAP Data Services
  - SAP Information Steward
  - SAP Data Migration
  - SAP Master Data Governance
  - SAP NetWeaver Master Data Management
  - SAP Content Management Solutions
  - SAP Information Lifecycle Management Solutions
  - Etc.

- Data Quality
  - ETL
  - Profiling
  - Text Analytics
  - Etc.

- DQM for SAP
  - DQM SDK
  - Etc.

Utilizes SAP DQM's market-leading address cleansing, matching and de-duplication capabilities within SAP CRM, SAP ERP and SAP MDG environments.

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SAP Data Quality Management, version for SAP solutions, provides a prepackaged native integration of data quality best practices within the SAP Customer Relationship Management (SAP CRM), SAP Enterprise Resource Planning (SAP ERP) and SAP Master Data Governance (SAP MDG) environments.

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Data Quality Management, version for SAP Solutions (DQM for SAP)

Improve the quality of customer, partner, and supplier data from within SAP ERP, SAP CRM, and SAP MDG applications by utilizing SAP DQM’s address cleansing, matching and de-duplication capabilities.

**Verify**
- Real-time address data validation (address reference data available for 230+ countries)
- Batch address data cleansing (ensure ongoing data accuracy and completeness)

**Improve**
- Duplicate record detection (Potential duplicates are identified and tracked for best record resolution)
- Clearer, more efficient customer segmentation (with the ability to match on marketing attributes for SAP CRM)

**Enforce**
- Pre-built best practice data quality templates (tuned specifically for SAP ERP, SAP CRM, and SAP MDG apps)
- Detect pre-existing records during data loads (Prospect lists, trade show leads, webinars, etc.)

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GOAL: Achieving pristine data quality with SAP

INPUT

Bob oldstead
175 Rivington Ave suite 2
New Yourk, new york
10002

PARSE

First Name: Bob
Last Name: Oldstead
AddressL1: 175 Rivington Ave
AddressL2: Suite 2
City: New York
State: New York
Zip Code: 10002

STANDARDIZE

SAP

Robert E. Oldstead
New York, NY
10002
robo@tcabuilders.com
847 442-5555

CORRECT

First Name: Robert
MiddleName: E
Last Name: Oldstead
AddressL1: 175 Rivington Ave
AddressL2: Suite 2
City: New York
State: New York
Zip Code: 10002
Phone: (847) 442-5555
Email: robo@tcabuilders.com

MATCH

CONSOLIDATE

First Name: Robert
MiddleName: E
Last Name: Oldstead
AddressL1: 175 Rivington Ave
AddressL2: Suite 2
City: New York
State: New York
Zip Code: 10002
Phone: (847) 442-5555
Email: robo@tcabuilders.com

ENHANCE

First Name: Robert
MiddleName: E
Last Name: Oldstead
AddressL1: 175 Rivington Ave
AddressL2: Suite 2
City: New York
State: New York
Zip Code: 10002-2517
Longitude: 40.7325525
Latitude: -74.004970
Phone: (847) 442-5555
Email: robo@tcabuilders.com
DQM for SAP Product Roadmap
(items are subject to change)

- Real time address cleansing and enhancement for SAP CRM, ERP and MDG.
- Real time duplicate checking for SAP CRM, SAP ERP to prevent duplicate entries entering into the system.
- Provides error tolerant searching.
- Batch address cleansing and match capability within SAP.
- Supports external list management within SAP CRM.
- Sophisticated searching/look-up with MDG data models (available with SAP ERP 6 & Enhancement Package (EHP) 6).

Today
(Release based on SAP Data Services 4.1)

- Support for SAP Data Services 4.2 and new country support (India, Mexico, Russia).
- Support for SAP CRM DQA framework for integrated duplicate check.
- New Batch Address Cleansing Reviewer report.
- Support for new SAP NetWeaver 740 basis package.
- New Batch Match report with filter criteria.

Planned Innovations

- SAP Business Suite (SAP CRM / SAP ERP) Powered by HANA runs with native SAP Data Quality Management in HANA support.
- Name Firm Title cleansing within SAP CRM and SAP ERP.
- DQM for SAP on SAP SRM / SAP SCM.
- Provide pre-packaged data quality best practice for SAP applications to do product/material cleansing, duplicate material prevention and classification.

Future Direction

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This is the current state of planning and may be changed by SAP at any time.
- 2012 sales of $3.2 billion
- True specialty chemicals business
  - High value, high margin product portfolio
- Strong franchises in large, global markets
- Global leadership positions
  - Number 1 or 2 in over 75% of 2011 sales

**Catalysts Technologies**
- #1 in FCC catalysts
- #1 in resid hydroprocessing catalysts
- #1 in independent polyethylene catalysts
- #2 in independent polypropylene catalysts

**Materials Technologies**
- #1 in specialty silica gel
- #1 in can sealants

**Construction Products**
- #1 in cement additives
- #2 in concrete admixtures
- Operations in over 40 countries

**2012 Grace Sales**
- $3.2 billion
- Catalysts Technologies: 40.2%
- Materials Technologies: 32.5%
- Construction Products: 27.3%

**2012 Grace Sales by Region**
- North America: 31%
- Latin America: 21%
- Asia Pacific: 11%
- Europe, Middle East & Africa: 37%
Recent Investments
- Hydroprocessing catalyst capacity in the Middle East with Kuwait Catalyst Company
- Polypropylene catalyst capacity in Europe and U.S. for global supply
- Silica capacity in Brazil and Malaysia
- Specialty construction chemicals investments in Asia, Latin America, and the Middle East
- Specialty building materials acquisitions in China and Europe

Global Headquarters
Columbia, MD, USA

Global headquarters
Key offices
Regional headquarters
93 manufacturing sites
44 R&D/Tech Service sites

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Global Single ERP instance
First SAP installation was in 1997 (3.0C)
  Upgrade to 4.0B (1999)
  Upgrade to ECC5.0 (2007)
  Upgrade to ERP 6.0 (Oct. 2013)
Core modules in use: FICO, SD, MM, PP + PM in some locations
Business Warehouse and Enterprise Portal, GTS, used globally
  GTS (2008)
NEED FOR MDM @ GRACE

Open Security Access  Project Deadlines Compromise  No Data Validation
Lack of Training  Data Quality  Lack of Data Standards
Decentralized Data Entry  Easier to Create New Master Data than Finding Existing

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MDM Program Background

- MDM Program kick-off – Jan 2010
- Establish Global, Simple, Standard information, processes and technologies to ensure complete, accurate and perpetually reliable Master Data (Customer, Material, Vendor, Finance)

Business drivers

- Standardization of processes and information
- Cleansing of active data and removal of inactive/non-value added data, enabling legal and audit compliance
- Data – Complete, accurate, consistent, reliable, active
- Simplified data analysis
GRACE GLOBAL MDM CHALLENGES

- Only manual methods exist to conduct validation against established MDM data standards.
- Lack of standardized processes to continuously monitor Grace’s Master Data Health.
- Lack of ability to actively enforce data discipline at multiple touch points.
- Duplicate records leads to lack of visibility into accurate historical data.
The Master Data Management (MDM) – Customer Master (CM) Team’s goals for 2012 include the following key initiatives:

- Standardization of master data field usage
- Implementation of data quality tools to validate SAP data against Grace’s Data Dictionary
- Define, identify and remediate duplicate CM records

- SAP Data Services & SAP Data Quality Management enables these goals!
GRACE’s DQM / DS PILOT PROJECT

Scope – US based customers

Deliverables

- Cleanse existing customers addresses
- Parse, standardize, correct data
- Enhance via USPS Postal Directory
- Identify duplicate customers
- Duplicate Prevention / Cleansing @ Point of Entry
- Continuous Monitoring via Data Service
- Exception Reporting
GRACE’s DQM / DS PILOT PROJECT

Project Resources - External
- Project Manager – Part Time
- DQM Consultant - FTE
- Data Service Consultant - FTE

Project Resources - Internal
- IT Basis – Part Time
- IT Server/Ops – Part Time
- IT Project Lead – FTE
- IT Functional Resources – 2 FTE
- ABAP/Developer – Part Time
- MDM Business SME

Project Duration – 20 weeks
DQM / DS INSTALLATION

- SAP Data Services 4.0 Support Pack 2 (Window Server)
- **SAP Data Quality Management 4.0** - Package installation on ECC 5.0; DQM add on to Data Services
- USPS Address Directory
- Two-Tiered Landscape
  - Test Data Services Server -> SAP DEV & QA
  - Production Data Services Server -> SAP PRD
QUARTERLY ADJUSTMENT PROCESS

- Step 1 – Create address index
  - Enhanced to capture only customer master addresses
- Step 1a – Display data from address index
  - Added to display data
- Step 2 – Send address index data to Data services and receive updated data
- Step 2a – Validate data changes
  - Data validation step added to capture before and after snapshot
- Step 3 – Write updated address to Database
- Step 3a – Display address errors
  - Additional columns added to make report more readable

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BATCH MATCH and DUPLICATE IDENTIFICATION

- Step 1 – Match Code Index and Batch Match
- Step 2 – Display Batch Match Report (Duplicates)
  - Enhanced to make report more readable
  - Only for Customers
Go live Oct 6th
US Based Customers = 111,990
Total Addresses Cleansed = 78,408 (70%)
Total Addresses with Errors = 33,582
  Address is valid through street name. House number is missing (43%)
  Invalid suite, unit, or apartment number (29%)
  Unable to identify the street and house number (9%)
  Street name not found in postal directory (14%)
Possible Manual Corrections
  Blank or different State = 74
  PO Box in Street filed = 447
  Incorrect Supplemental House No. = 159
  Different PO Box = 18
Duplicate Customers
  11,611 Customer records have at least 1 duplicate (14,443 duplicate CM records)
Form/Outputs
43 Outputs analyzed
30 Outputs changed

Interfaces
22 Interfaces analyzed
4 Interfaces changed

Conflicting previous customization resulted in installation delay

Manual Corrections before cleansing
PO Box addresses

Technology Limitation
Is not suitable for Grace’s implementation approach - Customization Performed
- Executive Support / Business SMEs
- *SAP Data Quality Management* is 60 – 70% ready out of box
- Project scope to include identifying, modifying and testing of interfaces and outputs to new data schema.
- DQM/Data Services niche skill
- Implement US based Vendors
- Rollout other countries for Customers and Vendors in phased manner
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THANK YOU FOR PARTICIPATING

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