

Paper 074-2013

How to Do a Successful MDM Project in SAP Using SAS® MDM

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ABSTRACT

Master Data Management (MDM) made me wonder how difficult it would be to embark on MDM projects at a large SAP organization. Typically, SAP organizations come with large numbers of people with opinions, large project plans, and large amounts of complexities and politics.

Don't go with the BIG BANG approach, but do a controlled evolution. Let me show you what *one* approach to the KNA1 (Customer Master) table and MARA (Material Data) table might be.

INTRODUCTION

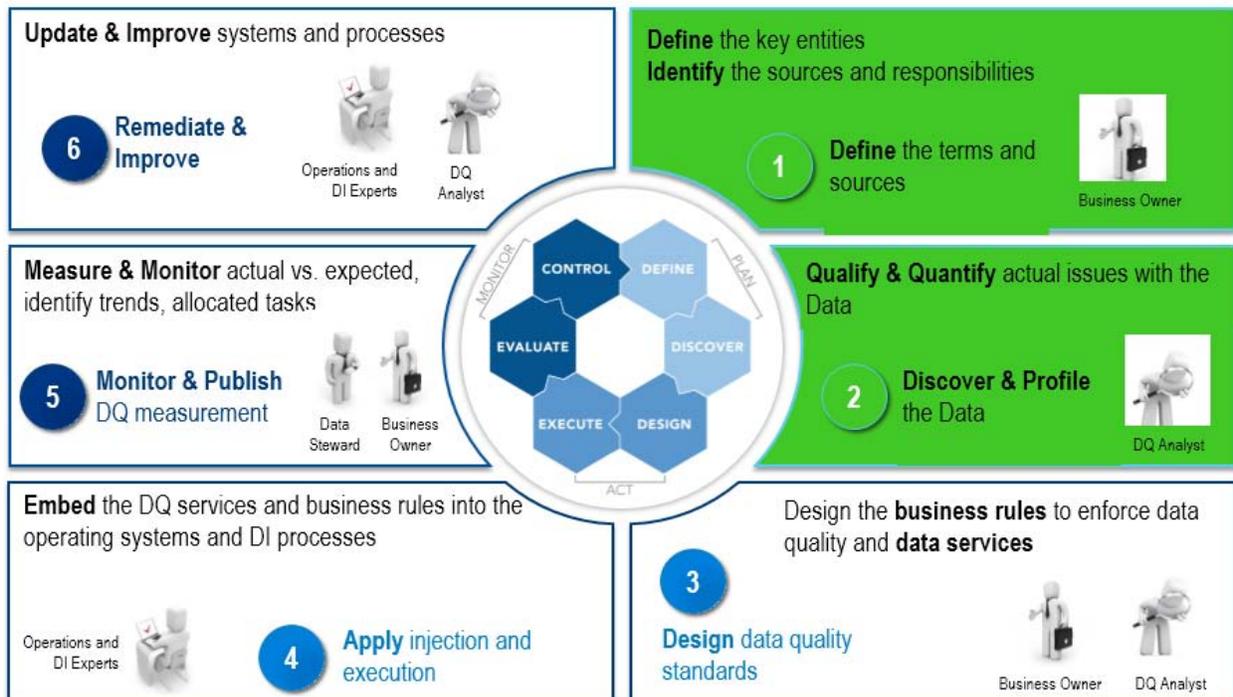
We are going to follow the SAS Master Data Management methodology that supports the entire data integration life cycle through an integrated phased approach.

These phases include data profiling, data quality, data integration, data enrichment, and data monitoring. The methodology can be implemented as an ongoing process to manage data as well as cleanse and improve data management throughout the enterprise. Additionally, this methodology fits into an overarching, three-stage business methodology approach—**Plan**, **Act**, and **Monitor**.

Each of these stages consists of two phases resulting in a six-stage process:

- Define
- Discover
- Design
- Execute
- Evaluate
- Control

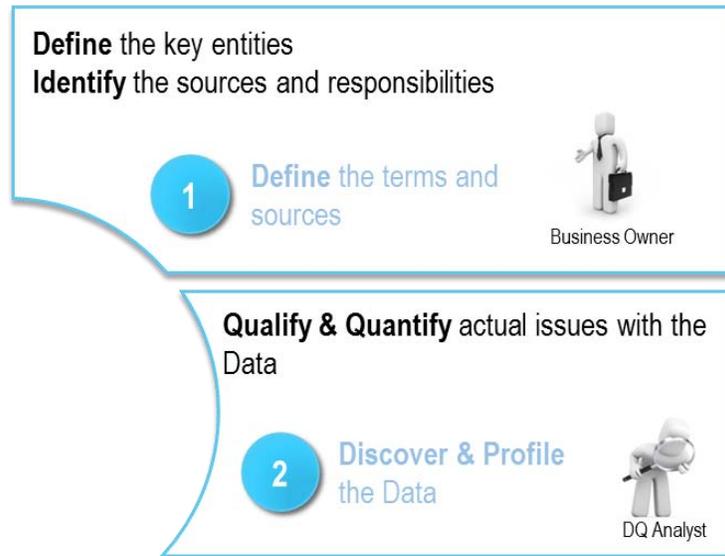
We will focus only on the first phase, PLAN, where we are going to define and discover data in SAP.



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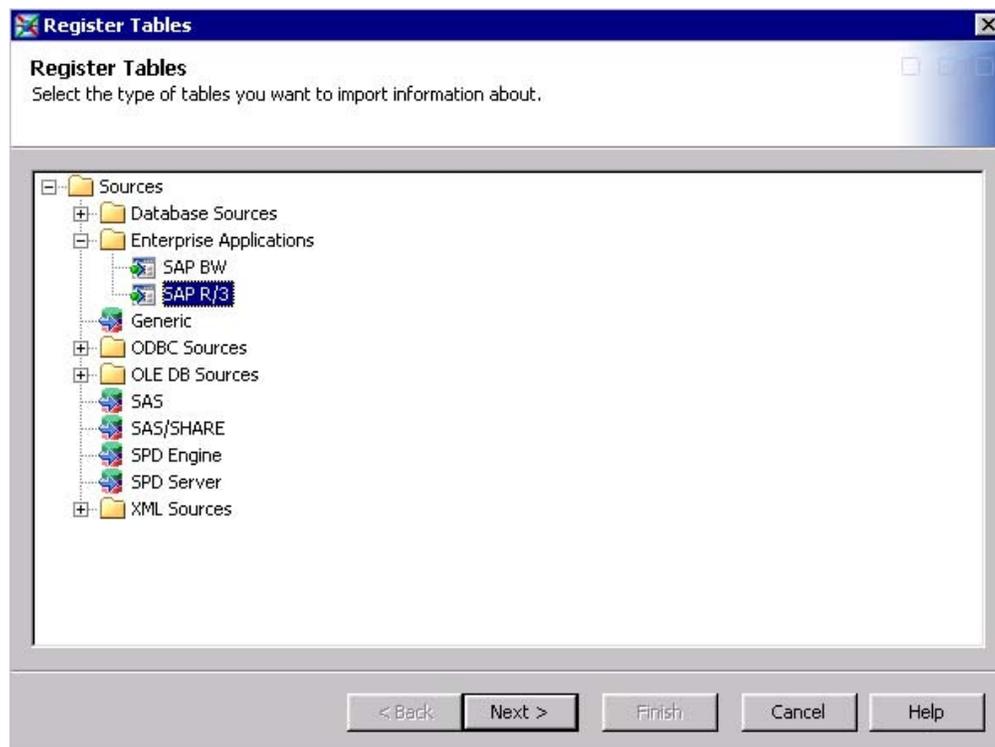
PLAN STAGE

The first stage of this methodology focuses solely on data discovery or assessment to accurately identify the consistency, accuracy, and validity of the source data. During this stage, data quality issues are identified and documented, and business rules are created to correct the data quality issues.



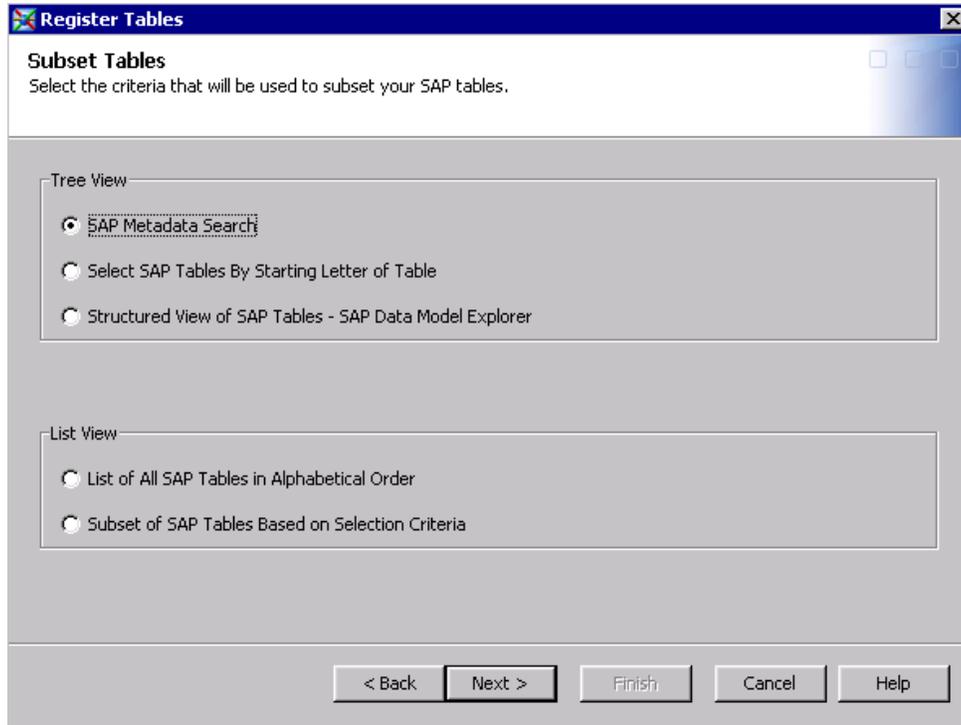
We are going to use the SAS® Data Surveyor for SAP to do this.

SAS Data Surveyor for SAP uses SAS Data Integration Studio to expose data from both SAP ECC systems and SAP BW systems. SAS Data Surveyor for SAP enables you to explore metadata from your entire SAP suite without the need for specialized SAP knowledge. No custom (ABAP) coding is needed to get to SAP applications data. Instead, all relevant extraction information is stored as metadata that is easily managed and maintained, and routines can be reused by other developers and engineers.

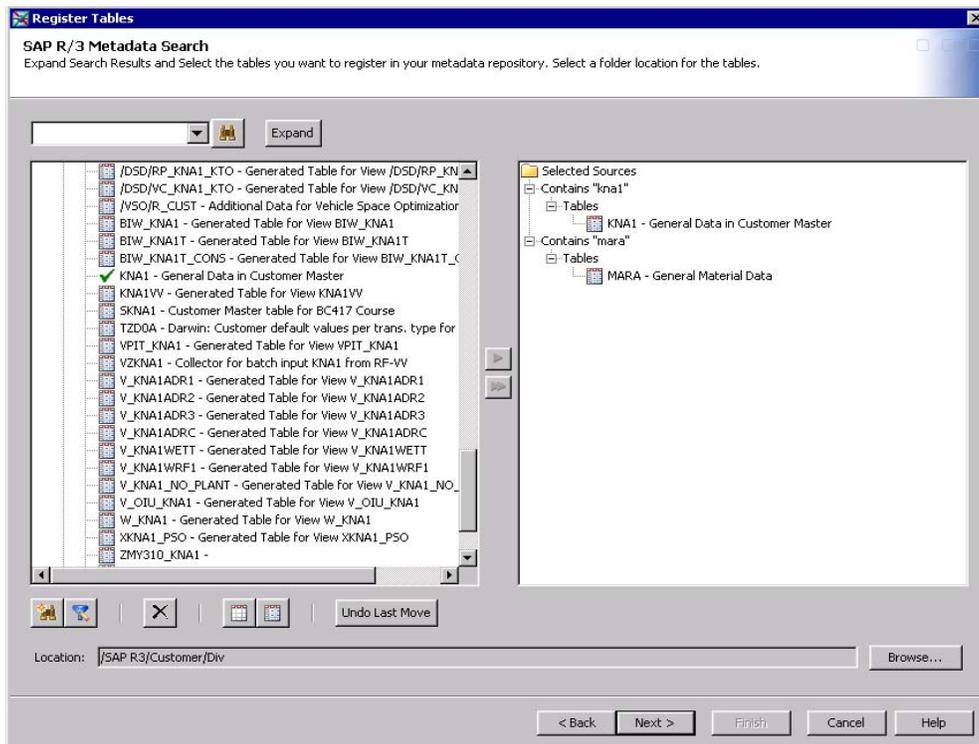


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By using Metadata Search, we can search, browse, and identify complex data structures. Using SAP applications' own metadata, such as column names and descriptive texts, we can easily identify the required data, and we can create the data sources we need to populate the data to the Data Management Platform.



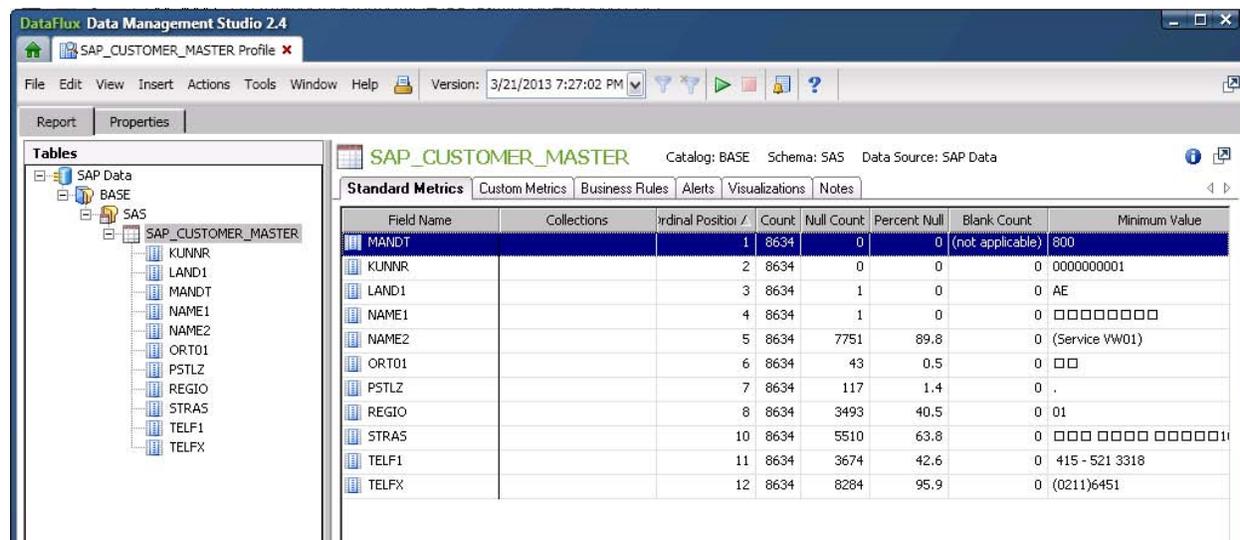
Simply search for KNA1 & MARA.



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After we have found the relevant data we are ready for data profiling the actual data.

- Data profiling and auditing: Data profiling alerts you to data that does not match the characteristics defined in the metadata that was compiled during data exploration. But, more importantly, data profiling can also tell you if the data meets the business rules and definitions that were established in the Define phase. In addition, data profiling can help you determine the relationships across your data sources—where you have similar data, where data is in conflict, where data is duplicated, and where data might be dormant.
- For example, a profiling analysis might indicate the following:
 - 80% of prospects and customers are males.
 - 40% of the records are missing street addresses.
 - Your databases contain no income data.



The screenshot shows the DataFlux Data Management Studio 2.4 interface. The main window displays a data profiling report for the table 'SAP_CUSTOMER_MASTER'. The report is organized into tabs: Standard Metrics, Custom Metrics, Business Rules, Alerts, Visualizations, and Notes. The 'Standard Metrics' tab is active, showing a table with the following columns: Field Name, Collections, Ordinal Position, Count, Null Count, Percent Null, Blank Count, and Minimum Value. The data is as follows:

Field Name	Collections	Ordinal Position	Count	Null Count	Percent Null	Blank Count	Minimum Value
MANDT		1	8634	0	0	(not applicable)	800
KUNNR		2	8634	0	0	0	0000000001
LAND1		3	8634	1	0	0	AE
NAME1		4	8634	1	0	0	□□□□□□□□
NAME2		5	8634	7751	89.8	0	(Service VW01)
ORT01		6	8634	43	0.5	0	□□
PSTLZ		7	8634	117	1.4	0	.
REGIO		8	8634	3493	40.5	0	01
STRAS		10	8634	5510	63.8	0	□□□ □□□□ □□□□□□□□
TELF1		11	8634	3674	42.6	0	415 - 521 3318
TELFX		12	8634	8284	95.9	0	(0211)6451

After completing the first phase of the data management methodology, you will be able map your strategy, identify sources, understand the underlying formats and structures, as well as assess the relationships and uses of data. Now you face another challenge—taking all of these different structures, formats, data sources, and data feeds, and creating an environment that accommodates the needs of your business.

DATA GOVERNANCE: SHARING INFORMATION

We will use the SAS Business Data Network (BDN) to store all this information and create collaboration among key users.

The Business Data Network enables users to define a repository of business terms and their associated attributes and relationships. The business term includes key information including the following:

- name, description
- source systems
- owner (IT and business)
- related processes (data quality services, data workflows, and applications)

Let's define a customer. One definition might be "A person or organization that holds policies with a financial group."

We will also add some requirements for the data:

- checks for an individual customer or person
- customer must have a customer ID: numeric

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- first line of address and post code needs to be populated
- customer DOB is mandatory.
- first name and surname is mandatory.
- gender is either M or F

This phase seems simple enough, but it can be deceptively difficult. Billing might define “customer” as anyone that receives an invoice, while customer support might only want to know who the end user is. These decisions will form the basis of business rules and data definitions that will guide later phases.

The screenshot displays the SAS Business Data Network interface for a term named 'Customer'. The interface includes a title bar 'Term Business Data Network', a toolbar with icons for 'View', 'Edit', 'Monitor', and 'Relationships', and a tabbed menu with 'Identification', 'Hierarchy', 'Associated Items', 'Notes and Contacts', and 'History'. The 'Description' section states: 'A person or organisation that holds policies with a Financial Group'. The 'Requirements' section lists five bullet points: 'Checks for an individual customer or person.', 'Customer must have a Customer ID: Numeric', '1st Line of Address and Post Code needs to be populated', 'Customer DOB is mandatory.', and 'First Name and Surname is mandatory.'. The 'Attributes' section shows 'Related applications:' and two 'Locations:' entries: 'France' and 'Great Britain'.

Having this information stored in a central place enables IT and business to have a common understanding of the same data. It enables business users to agree on a common vocabulary and collaborate in the creation of an entity that can then be exported to the MDM solution.

We can start our journey toward creating Master Data.

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RECOMMENDED READING

- SAS® Data Surveyor for SAP
http://www.sas.com/technologies/dw/etl/surveyor_sap/
- SAS® Data Governance
<http://www.sas.com/software/data-management/data-governance/governance.html>
- SAS® Master Data Management
<http://www.sas.com/software/data-management/master-data-mgmt/index.html>

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