

MDM Matrix Application for SAP Retail. (Part 1)



Applies to:

SAP Master Data Management SP06. For more information, visit the [Master Data Management homepage](#).

Summary

This document gives a step by step procedure to set up a Matrix Product Repository and activate the Matrix Applications. If you are already using the standard SAP ARTICLE repository received along with shipment then it would require fewer efforts. The example shown uses MDM 5.5 SP06 version.

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Author Bio



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Introduction:

MDM Matrix Applications is used to manage Article Master Data. This is very useful if your client system is "SAP for Retail".

Activating Matrix in your repository will enable you to create Master records and its Variants. These Variants to the Master records are created and linked to respective Master records automatically by MDM. Unique identifiers are also generated and are assigned to these variants automatically.

By enabling Matrix you have an additional facility of defining fields as Master or Variant field. Master Field's details can be edited on Master records and which are reflected to respective Variants. This is described in more details further in the document.

Setting up Web AS for MDM Matrix:

Ensure that your Web AS 6.40 (Java) is on SP12 or higher. For enabling Matrix Applications, you need to deploy following two EAR files on to your Web application server in given sequence.

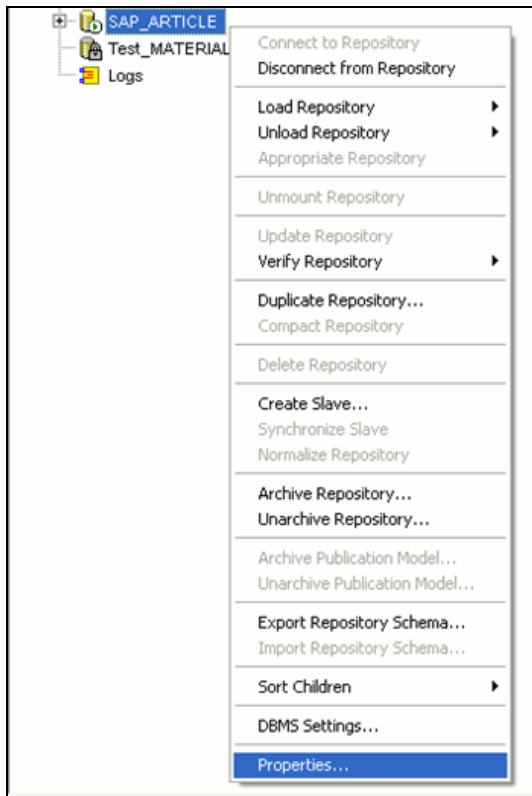
- 1] "MatrixServer_1.0.EAR" required for Matrix Server component.
- 2] "MatrixApp_1.0.EAR" required for Matrix Application component.

These files can be downloaded from following link: <https://service.sap.com/installNW70> → SAP Web AS. (on service market place).

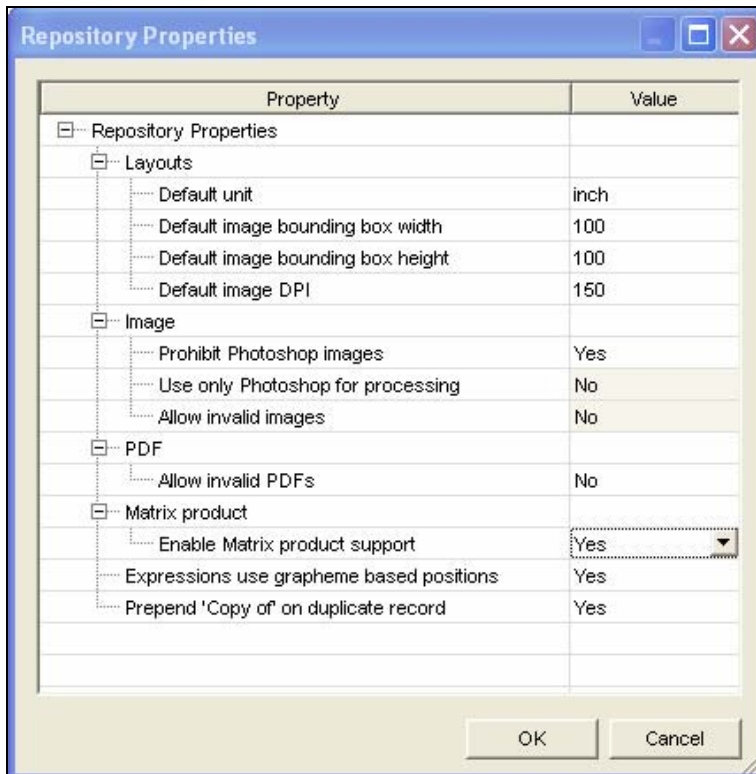
Setting up Matrix Product Repository:

Settings Required in Console:

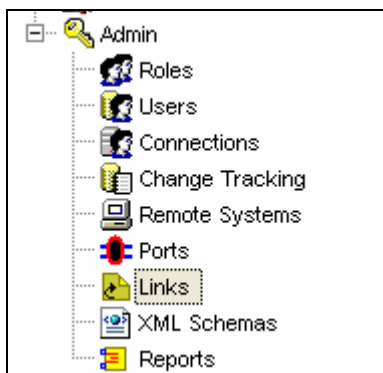
1] Connect and Load the repository. Right click on repository and click on properties.



In Repository properties set value “Enable Matrix Product Support “= Yes under “Matrix Product” option.



2] Under repository Admin section, go to “Links” and add following two URLs.



Shipped repository will have links “MatrixApp” of type Records and “MatrixApp_Attributes” of type Attributes already created. Add following URL in “MatrixApp” link:

http://<WebAS>:50000/webdynpro/dispatcher/local/MDMMatrixApp/MatrixApp?tableId=<t>&records=<r>&user=<u>&server=<s>&port=<p>&repository=<d>&lang=<l>&x=<x>&schemaLang=<schema_language>

- Here you need to replace <WebAs> with your web application server name and 50000 with the port number used by your Web AS. (For example: <http://b-portal:50000/webdynpro/.....>)
- And <schema_language> should be replaced with the language used to connect up the repository. If kept blank then MDM uses default language “English.[US]”

Links			
Name	Type	URL	
Google (attributes)	Attributes	http://www.goog...	
Google (records)	Records	http://www.goog...	
MatrixApp	Records	http://b-portal:...	
MatrixApp_Attributes	Attributes	http://b-portal:...	

Link Detail	
Name	MatrixApp
Type	Records
URL	http://b-portal:50000/webdynpro/dispatcher/local/MDMMatrixApp/MatrixApp?tableId=<t>&records=<r>&user=<u>&server=<s>&port=<p>&repository=<d>&la...

Add following URL in “MatrixApp_Attributes” link:

http://<WebAS>:50000/webdynpro/dispatcher/local/MDMMatrixApp/MatrixApp?tableId=<t>&categoryId=<c>&records=<a>&user=<u>&server=<s>&port=<p>&repository=<d>&lang=<l>&x=<x>&schemaLang=<schema_language>

Replace Web AS , Port Number and schema language.

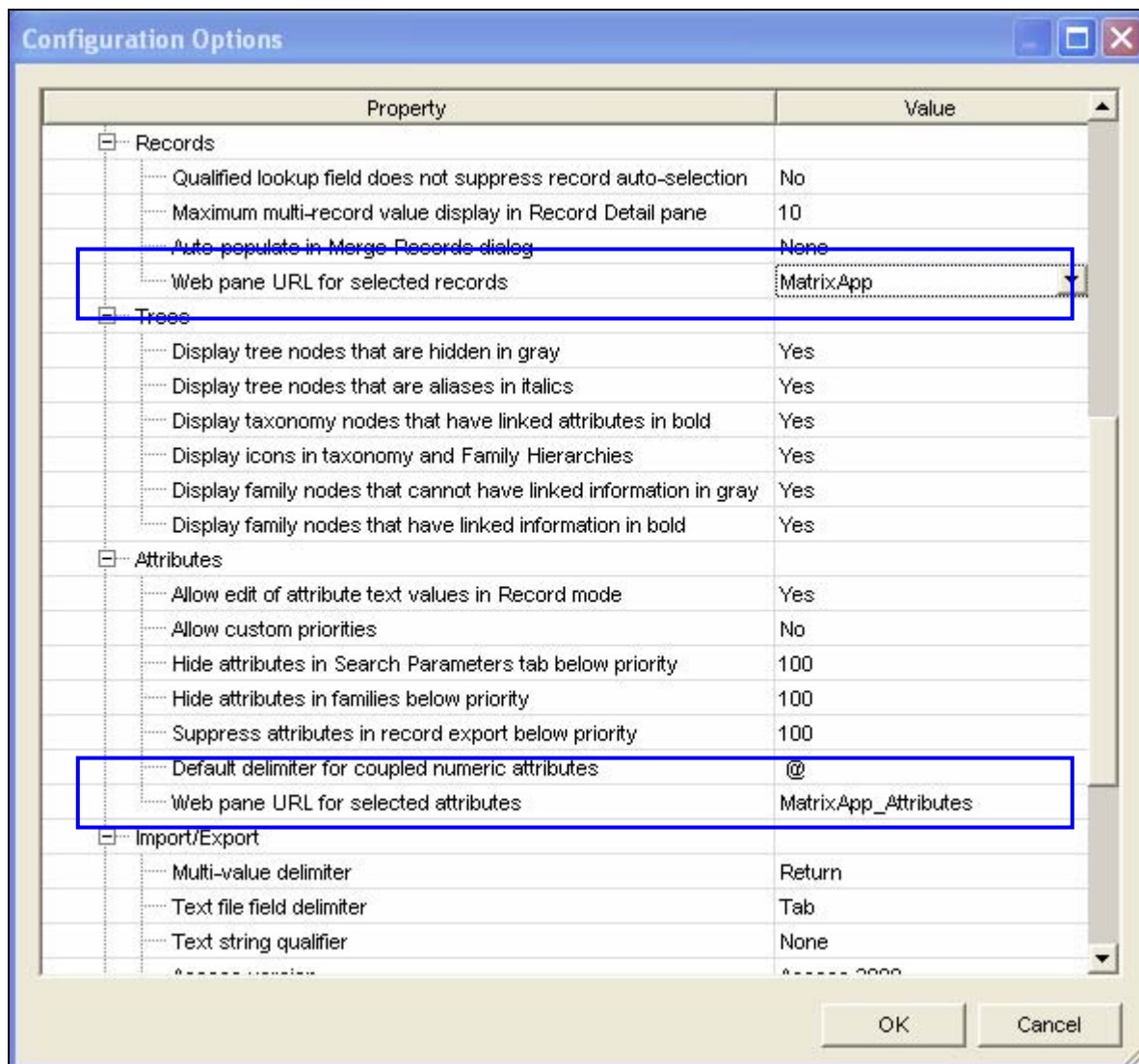
Links			
Name	Type	URL	
Google (attributes)	Attributes	http://www.goog...	
Google (records)	Records	http://www.goog...	
MatrixApp	Records	http://b-portal:...	
MatrixApp_Attributes	Attributes	http://b-portal:...	

Link Detail	
Name	MatrixApp_Attributes
Type	Attributes
URL	http://b-portal:50000/webdynpro/dispatcher/local/MDMMatrixApp/MatrixApp?tableId=<t>&categoryId=<c>&records=<a>&user=<u>&server=<s>&port=<p>&r...

Settings Required in Data Manager:

In Data Manager – configuration options , set following values.

“MatrixApp” against *Web pane URL for selected records* and “MatrixApp_Attributes” against *Web pane URL* for selected attributes.



Setting Up a New Repository (Additional steps)

If you are not using shipped repository “Article”, then you need to set up your new repository as per following steps to enable Matrix Applications. This is in addition to the above steps mentioned.

1. Add at least one display field in the main table (like “Product Number” in shipped Article Repository). First display field will act as the record key. This should be a Text field.
2. Add one Boolean field (Product Status) in main table. Ensure that the field code of this field is “**Is_Active**”. Set the default value to True Value.
3. Add a look up taxonomy field in main table (for example Product Category in shipped repository). This should look up to a Taxonomy table (Product Categories). This taxonomy table should contain at least one display field, like “Name” field. Set the key mapping property of this table to Yes.
4. Add a flat look up table called Matrix Product Groups. Ensure that table code of this table is “**Matrix_Product_Groups**”. This table should have at least one display field. Set the key mapping of this table to Yes. Add a field in main table (like Matrix Product Group) which will be a flat look up field and will look up to this flat table “Matrix Product Groups”.

Defining Master , Variant and Normal fields:

Matrix functionality is now enabled in your repository. While creating fields, an additional field property “Matrix” is seen in field details screen of every field.

Field Detail	
Name	New Field
Code	New_Code
Description	
Type	Integer
Required	No
Writable Once	No
Matrix	Master
Multi-Lingual	Normal
Keyword	Master
Display Field	No
Unique Field	No
Sort Index	Normal
Calculated	No
Calculation	


You can assign one of these matrix properties to a field: Master, Variant or Normal.

Field property “Master”: If you define a field as Master Field then any changes to record details of this field in Master Product (called as Matrix Product) are copied to respective Variant product also. Variants records that have the same original value as that of matrix product are only changed.

Field property “Variant”: The fields which are variant creating values are defined as Variant fields. Variant fields must be multi valued -Text fields. Else MDM will not allow setting the Matrix property as Variant. The variant creating values are selected at Matrix product level. And hence the product variant can use value from the predefined list only.

Field property “Normal”: You can process these fields at Variant level only and are not editable at Matrix product level.

Following example illustrates the difference amongst the three field properties:

Shirts	Variants	Masters	Normal
	Colour	Matrix Product Group	EAN / GTIN
	Size	Description	
	Pattern	Base Unit	
	Fabric		

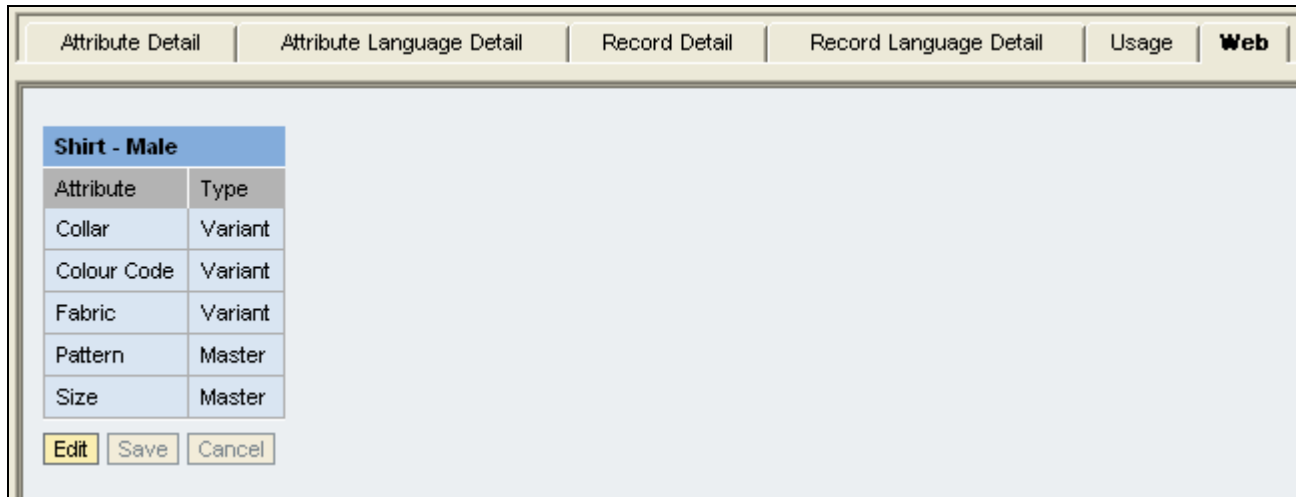
Data Manager: Record Mode

An additional web tab is seen in MDM Data manager client (in record mode) on implementing Matrix functionality. Product Variants are created using this tab.

Record Detail	Language Detail	Validations	Assignments	Workflows	Search Selections	Web																																																						
<p> <input type="button" value="Check Out"/> <input type="button" value="Check In"/> <input type="button" value="Roll Back"/> <input type="button" value="Delete Selected Records"/> <input type="button" value="Deactivate Master"/> </p>																																																												
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<p> <input type="button" value="Edit"/> <input type="button" value="Select All"/> <input type="button" value="Deselect All"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </p>																																																												
<p>Product Matrix - SHIRT - F10</p> <table border="1"> <thead> <tr> <th></th> <th>Extra Large</th> <th>Large</th> <th>Medium</th> <th>Small</th> <th>NULL</th> </tr> </thead> <tbody> <tr> <td>Black</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Red</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Blue</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>NULL Green</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Grey</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Pink</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>White</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>NULL</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>								Extra Large	Large	Medium	Small	NULL	Black	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Red	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Blue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL Green	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pink	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	White	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Data Manager: Taxonomy Mode

An additional web tab is also seen in MDM Data manager Taxonomy mode where you can define the attributes as Master, Variant or Ordinary. By defining Attributes as "Variant" attribute you can tackle with more complex requirements of your Retail product.



The screenshot displays the MDM Data Manager Taxonomy Mode interface. At the top, there is a navigation bar with tabs: "Attribute Detail", "Attribute Language Detail", "Record Detail", "Record Language Detail", "Usage", and "Web". The "Web" tab is currently selected. Below the navigation bar, the main content area shows a table for "Shirt - Male". The table has two columns: "Attribute" and "Type". The rows are as follows:

Attribute	Type
Collar	Variant
Colour Code	Variant
Fabric	Variant
Pattern	Master
Size	Master

Below the table, there are three buttons: "Edit", "Save", and "Cancel".

Related Content

For more information, visit the [Master Data Management homepage](#).

IT Scenario Configuration guide. <https://websmp209.sap-ag.de/nw04installation>.

IT Scenario process guide. <https://websmp209.sap-ag.de/nw04installation>.

<https://service.sap.com/installNW70>

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