

How to Use Remote Keys for Remembering Remote System Specific Formats of Data



Applies to:

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

Summary

The article gives a step by step process to import and syndicate remote system specific data while keeping the remote system specific formats for storing the data.

Author: Dheeraj Kumar

Company: Wipro Technologies

Created on: 16 July 2008

Author Bio



He has been associated with Wipro Technologies and SAP MDM for more than a year.

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Introduction

In Consolidation Scenario, We take the data from various remote systems in to MDM and cleanse and enrich it using various operations in MDM. But In Harmonization scenario, We also syndicate the cleansed and enriched data back to various remote systems. Now, every remote system has its own format for storing its data. Suppose we are working on countries data. Each remote system will have its own format for storing country codes. Say for India, one remote system stores country code as "IN" and other remote system stores it as "IND". Since Name of the country is India only for both the systems, we will maintain only one record for india in MDM. But we need to keep track of the different formats and corresponding remote systems, so that we can syndicate the remote system specific data properly. Because if we syndicate country code as "IND" to the second remote system, it will not accept this code. MDM has provided us with "Remote system" and "Remote key" as marvellous tools to handle such situations.

1. Prerequisites

Key mapping property of the table, to which the data has to be imported, should be set to "Yes" in console.

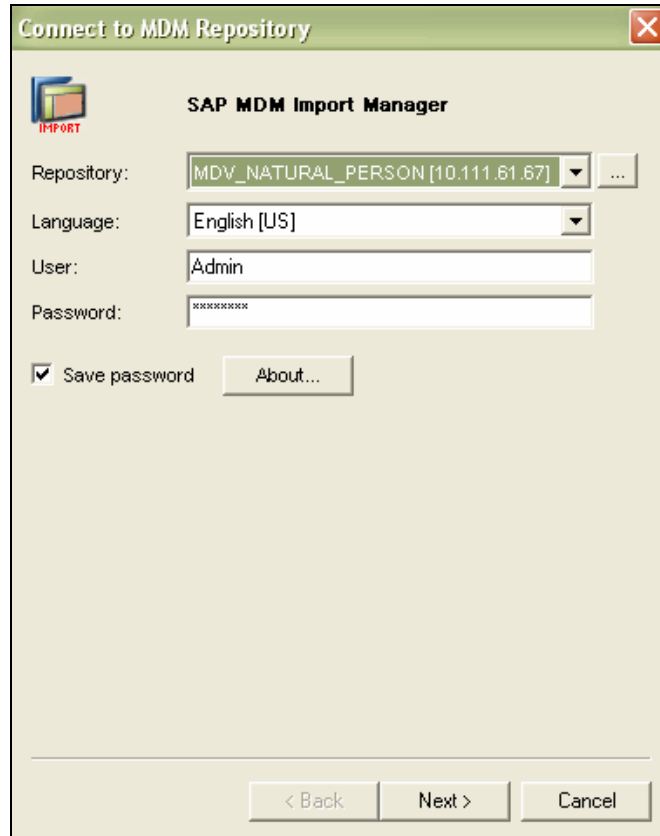
COUNTRIES	Flat	Name, Country Key
▶ Countries_Demo	Flat	Name
COUNTRY SPECIFIC VAT NUMBER	Qualified Flat	Country
COUNTRY	Flat	Country Name; Re...

Table Detail	
Name	Countries_Demo
Code	Countries_Demo
Description	Countries
Type	Flat
Display Fields	Name
Unique Fields	
Key Mapping	Yes
Hide Table	No

2. Importing the data in to MDM

We have a table “Countries_Demo” in our repository. Here we have taken Countries_Demo table as an example. In these section, we will import the countries data from three remote systems.

First of all, we will import the countries data from Remote system 1. Open the import manager , select your repository, give the login credentials for it and say “Next”.

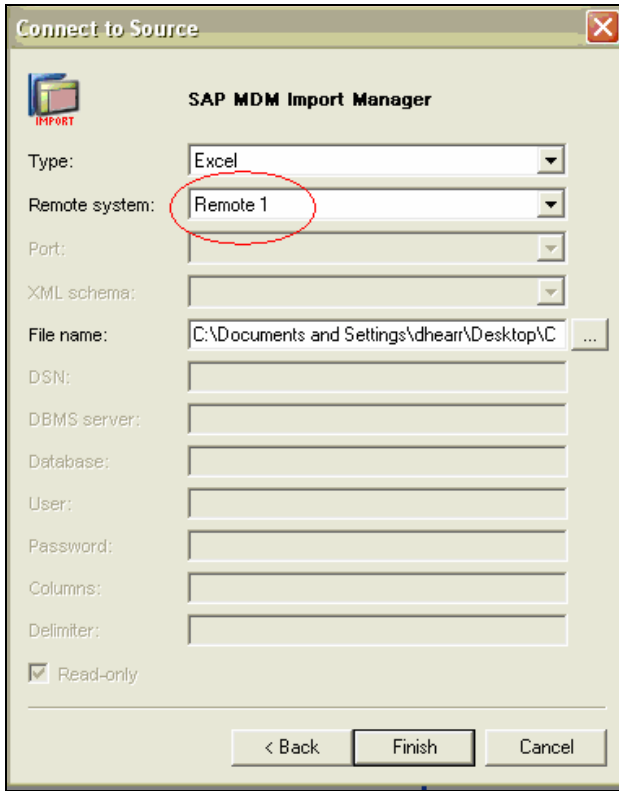


The screenshot shows the "SAP MDM Import Manager" dialog box. The title bar reads "Connect to MDM Repository". The main area contains the following fields and controls:

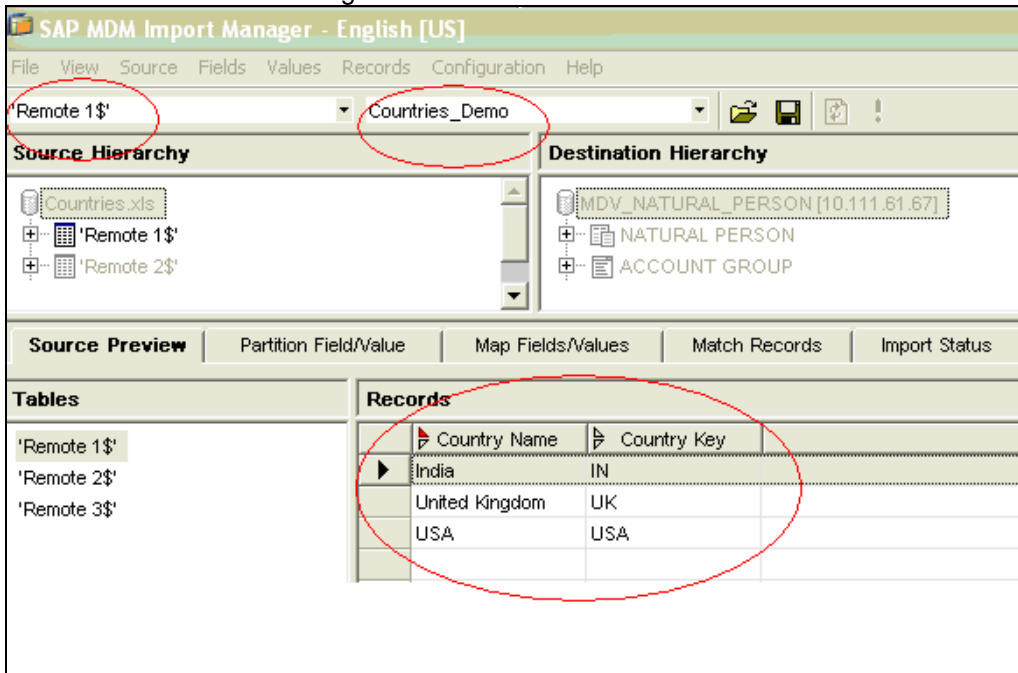
- Repository:** A dropdown menu showing "MDV_NATURAL_PERSON [10.111.61.67]" with a browse button "...".
- Language:** A dropdown menu showing "English [US]".
- User:** A text input field containing "Admin".
- Password:** A text input field with masked characters "*****".
- Save password:** A checked checkbox.
- About...:** A button.

At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel".

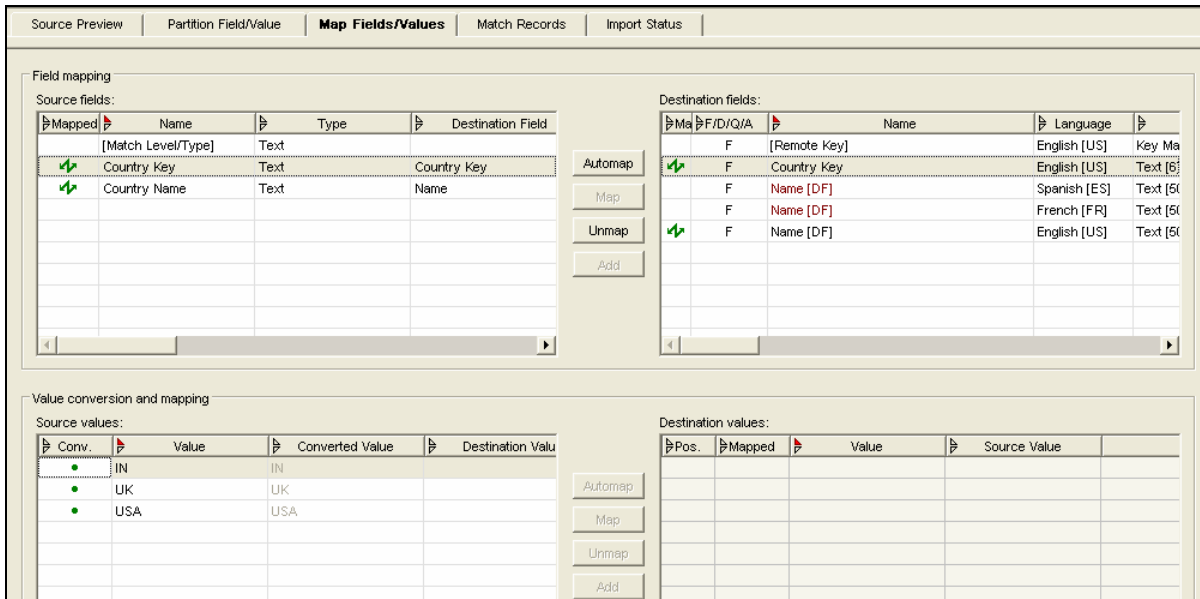
Select the file type from which you are importing the data and the corresponding Remote system. Browse your file for field “File Name” and say “Finish”.



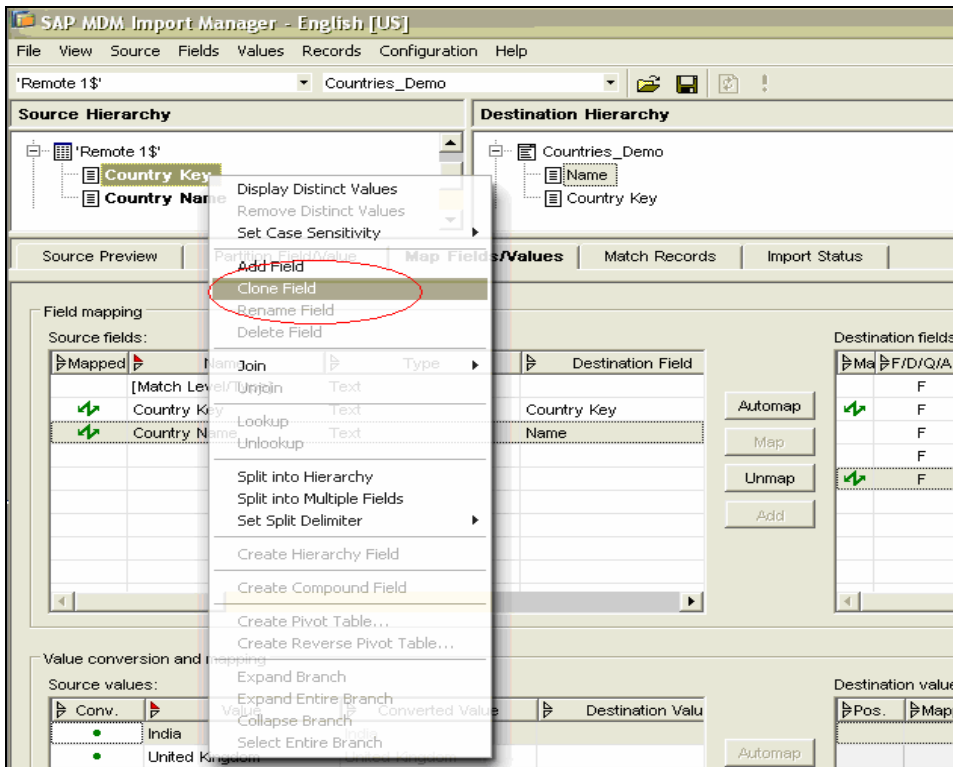
On the top of Import Manager Screen, Select your source file and destination table. In the following screen shot, in “Source Preview” tab, you can very well see that remote system 1 stores country key for India as IN, USA as USA and United Kingdom as UK.



In the field mapping tab, map country key and country Name to corresponding destination fields.



From the source hierarchy, Right click on Country Key and make a clone field for it.



Map this new field (Country Key <Clone>) to remote key in destination field.

Source Preview | Partition Field/Value | **Map Fields/Values** | Match Records | Import Status

Field mapping

Source fields:

Mapped	Name	Type	Destination Field
	[Match Level/Type]	Text	
✓	Country Key	Text	Country Key
✓	Country Key <Clone>	Text	[Remote Key]
✓	Country Name	Text	Name

Destination fields:

Mapped	F/D/Q/A	Name	Language	Type
✓	F	[Remote Key]	English [US]	Key
✓	F	Country Key	English [US]	Text
	F	Name [DF]	Spanish [ES]	Text
	F	Name [DF]	French [FR]	Text
✓	F	Name [DF]	English [US]	Text

Value conversion and mapping

Source values:

Conv.	Value	Converted Value	Destination Value
•	IN	IN	
•	UK	UK	
•	USA	USA	

Destination values:

Pos.	Mapped	Value	Source Value

In the "Match Records" tab, choose the matching field as "Country name" as we do not want any duplicate names for countries. For first time import, select the Import action as "Create".

Source Preview | Partition Field/Value | Map Fields/Values | **Match Records** | Import Status

Value matching

Mapped destination fields:

Country Key

Matching fields:

Name <English [US]> [DF] [Key] [All]

Default import actions

Active	Match Level	Match Type	Default Import Action
3 of 3	None	None	Create
0 of 0	Single	Exact	Skip
0 of 0	Single	Partial	Skip
0 of 0	Single	Conflict	Skip
0 of 0	Multiple	Exact	Skip
0 of 0	Multiple	Partial	Skip
0 of 0	Multiple	Conflict	Skip
0 of 0	Filtered	Source	Skip
0 of 0	Filtered	Destination	Skip

Record matching

Source records:

Record No.	Active	Import Action	Match Level	Match Type	Exact	Country Name	Country Key
1	•	Create	None	None	0	United Kingdom	UK
2	•	Create	None	None	0	USA	USA
3	•	Create	None	None	0	India	IN

Go to Import status tab and say import.

The screenshot shows the SAP MDM Import Manager interface. At the top, there is a menu bar (File, View, Source, Fields, Values, Records, Configuration, Help) and a toolbar with a red circle around the 'Connect to source' icon. Below the menu, the source is set to 'Remote 1\$' and the destination to 'Countries_Demo'. The interface is split into two panes: 'Source Hierarchy' and 'Destination Hierarchy'. The source hierarchy shows 'Country Key' and 'Country Key <Clone>'. The destination hierarchy shows 'Name' and 'Country Key'. Below these panes are tabs for 'Source Preview', 'Partition Field/Value', 'Map Fields/Values', 'Match Records', and 'Import Status'. The main area displays 'Action items: Ready to import' and several summary tables.

Table Mapping	Source	Destination	Fields Mapped
	'Remote 1\$'	Countries_Demo	3 of 2

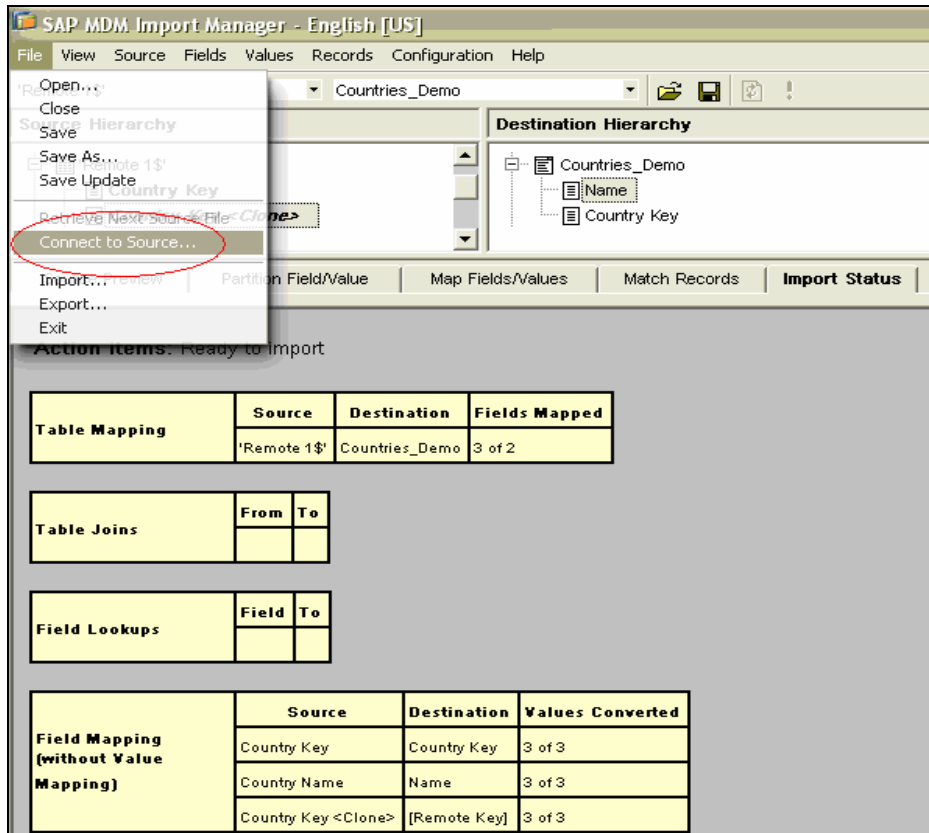
Table Joins	From	To

Field Lookups	Field	To

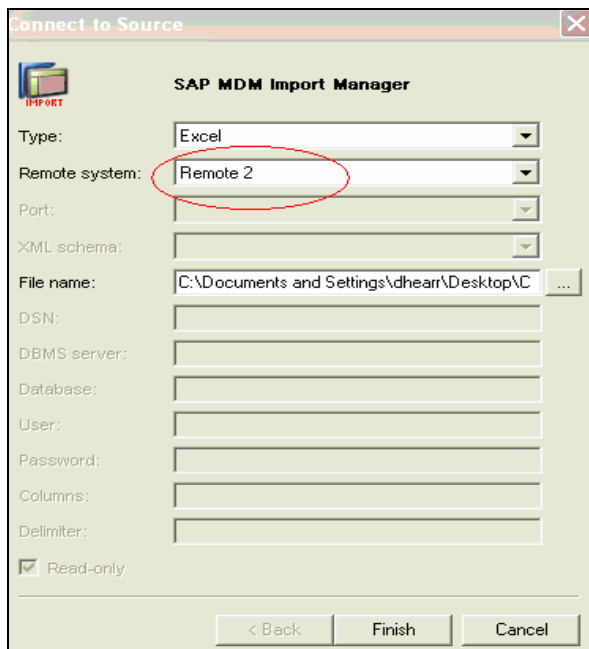
Field Mapping (without Value Mapping)	Source	Destination	Values Converted
	Country Key	Country Key	3 of 3
	Country Name	Name	3 of 3
	Country Key <Clone>	[Remote Key]	3 of 3

An 'MDM Import Manager' dialog box is open in the foreground, displaying an information icon and the text 'Finished importing records' with an 'OK' button.

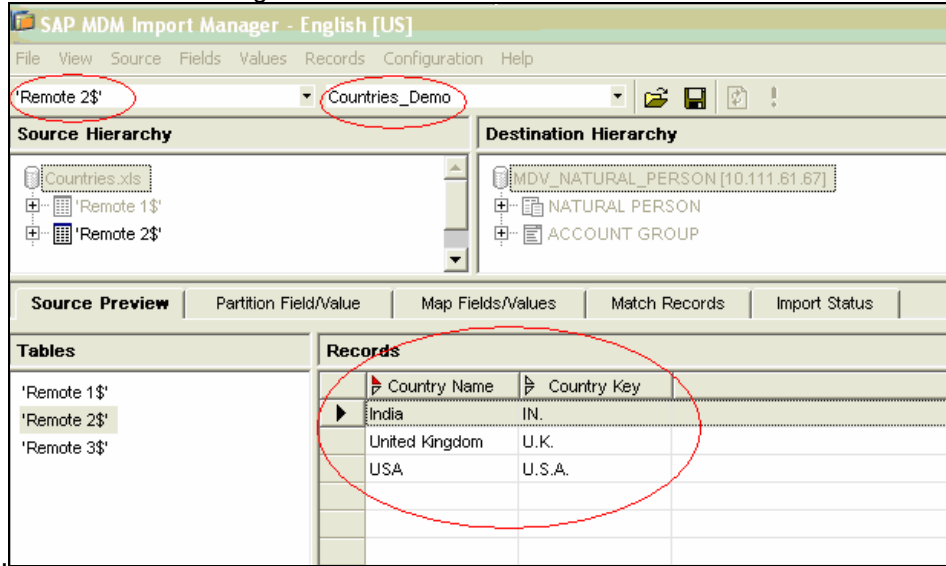
Now let us import the countries data for Remote system 2. Go to File -> Connect to source.



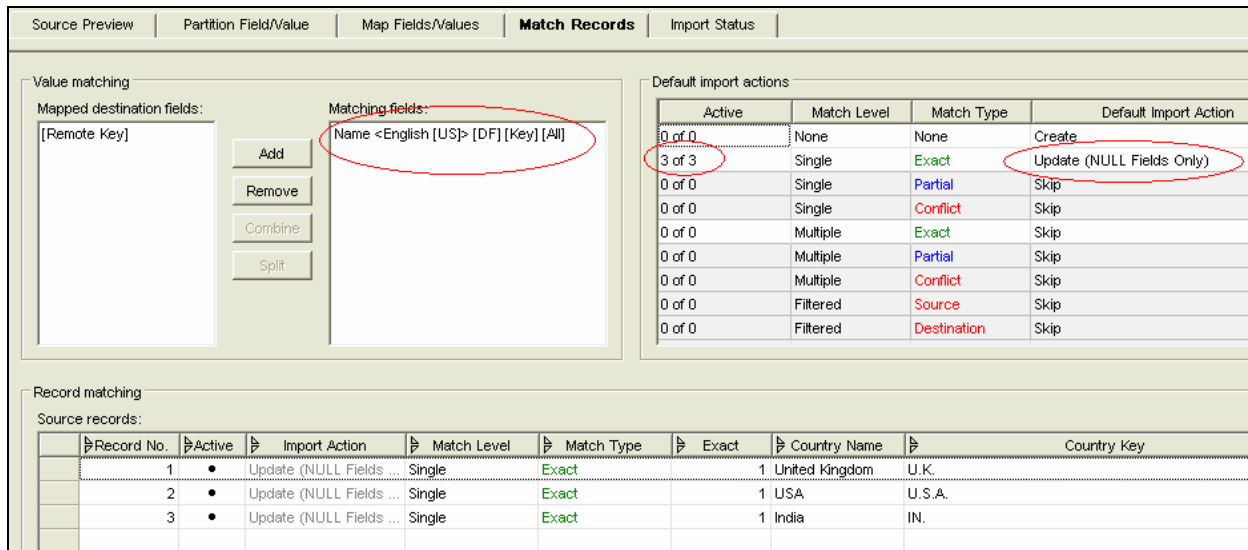
Again choose the file type to be imported, remote system as Remote system 2 and browse the file.



In the “Source Preview” tab, you can see that Remote system 2 stores country key for India as IN., USA as U.S.A and United Kingdom as U.K.

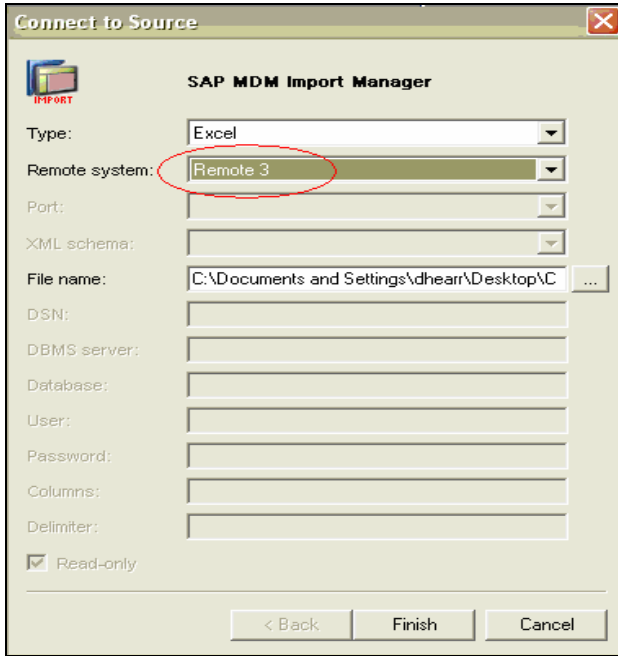


Do the field mapping in the same way as for Remote system 1 (Clone of country key as well) and choose the matching field as Country Name. This time import manager shows you that all the three records already exist. So you select the import action as “Update Null field only” as you do not want to change the existing record in MDM.

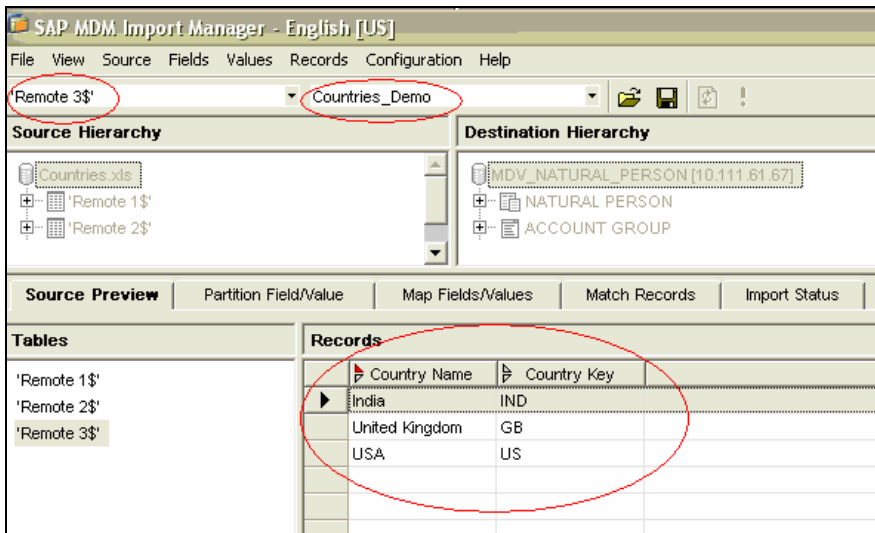


Go to Import Status tab and say import to add a new remote key for the new remote system to the existing record.

In the same way, connect to Remote System 3, browse the source file, map the fields, select match field as country name, select the import action as Update null fields only and import the data.

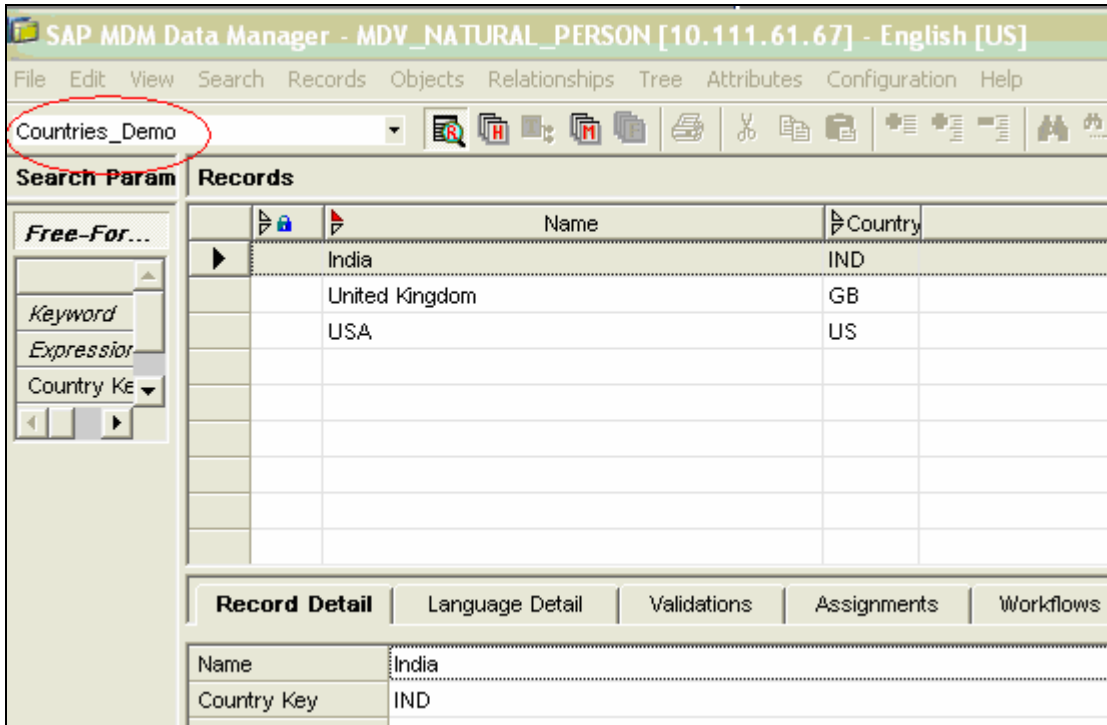


In the source preview below, you can see that remote system 3 stores country key for India as IND, USA as US and United Kingdom as GB.

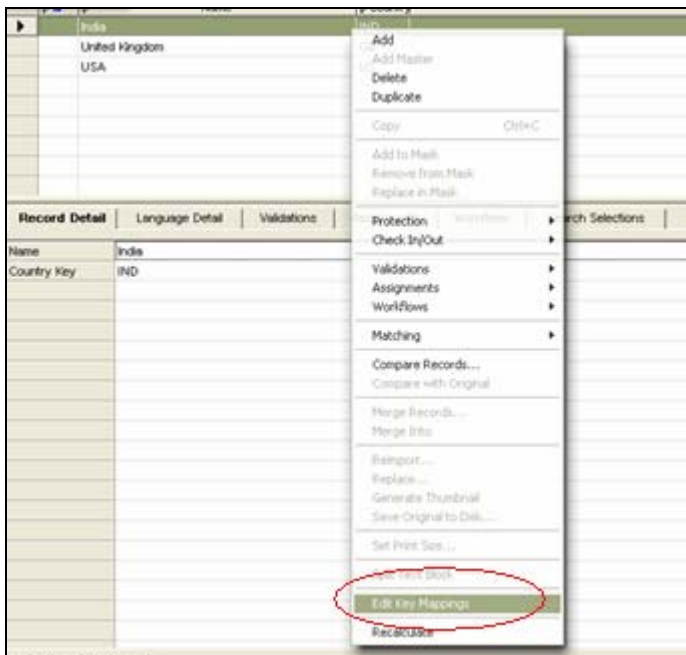


3. Checking data in Data Manager

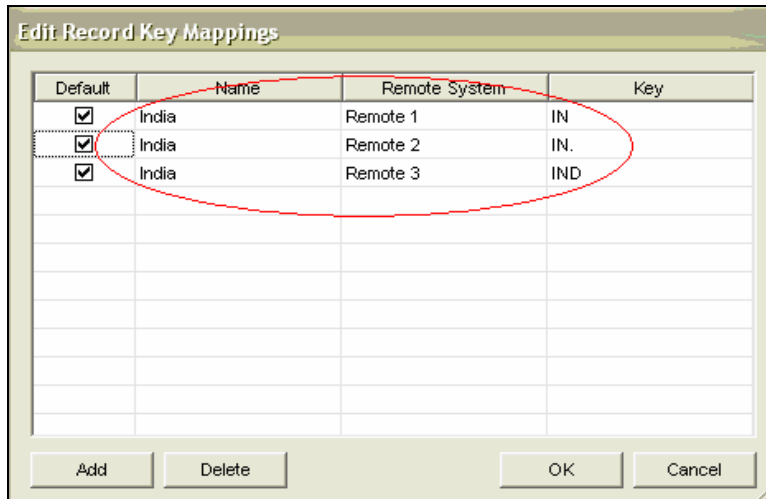
After importing the data for all the three remote systems, go to data manager and select the Countries_Demo table as your current table. Here you will see all the three records.



Right click on any record and choose "Edit key mapping".

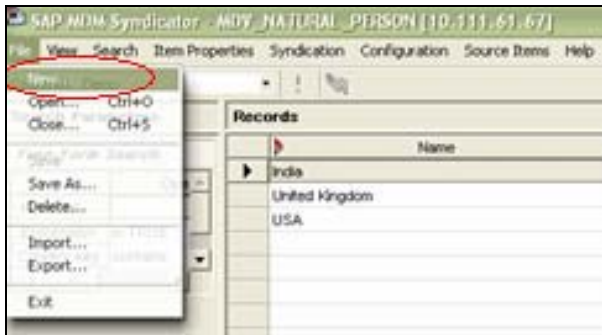


System will show you all the key mappings for this record for respective remote systems. This means that India has its Key as "IN" in Remote system 1, "IN." in Remote System 2 and "IND" in Remote System 3.

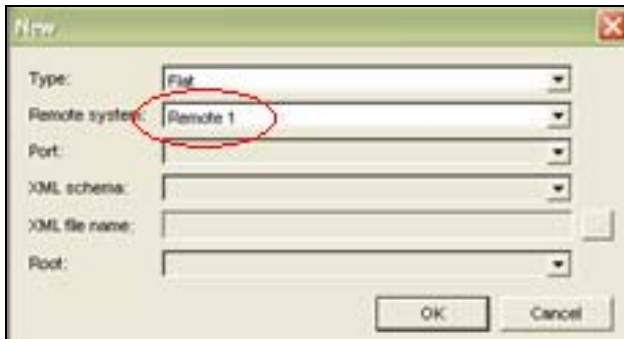


4. Syndicating the remote system specific data

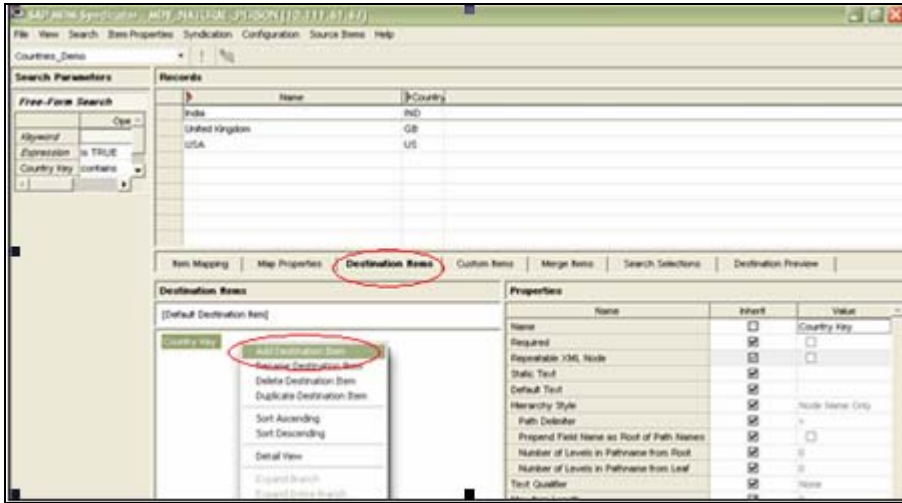
Now, we will syndicate these records back to the respective remote systems. Go to Syndicator. Go to File -> New.



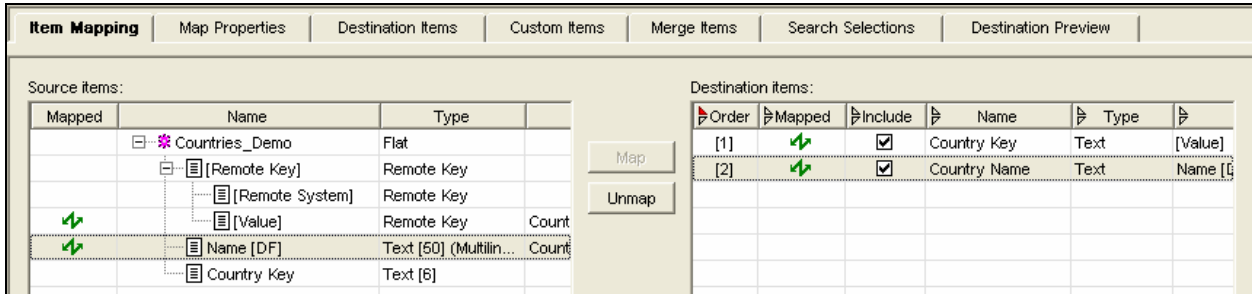
A pop up window for choosing your destination settings will open up. Choose the file type, remote system as Remote system 1 and say Ok.



Here, we have chosen the file type as flat. First of all we will create a syndication map for remote system 1. Select your current table as Countries_Demo. Go to Destination Items tab. Create two destination items (Right click in the pane and say "Add destination item") Country Name and Country Key.



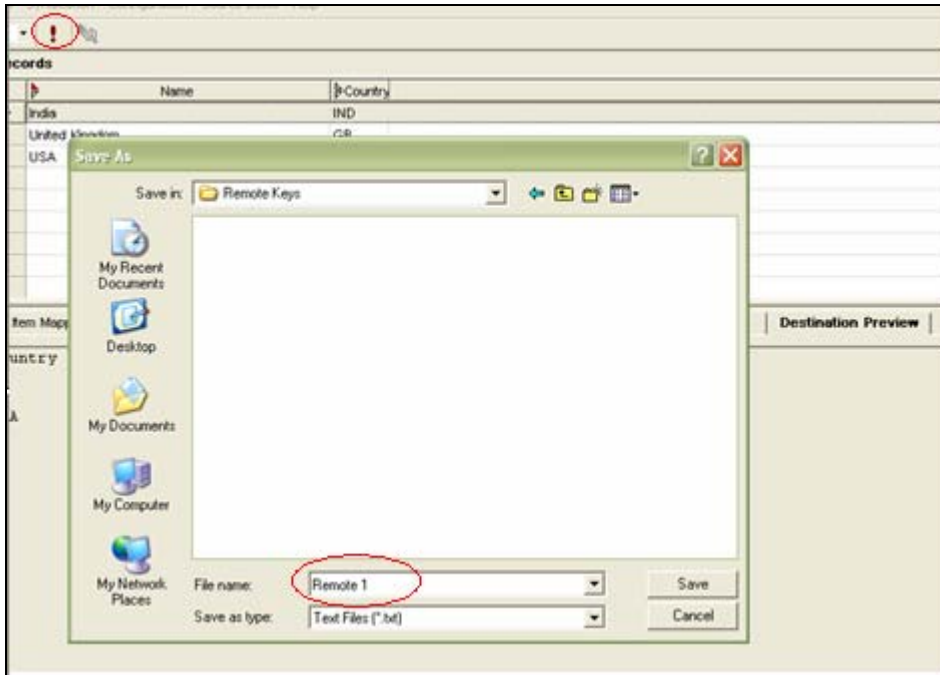
Now go to Item Mapping tab and map the field “Remote key value” to “Country Key” and “Name” to “Country name” on destination side.



Check in the destination preview tab. It will show you the country name and country key for the remote system 1. It is exactly same as you imported for remote system 1.



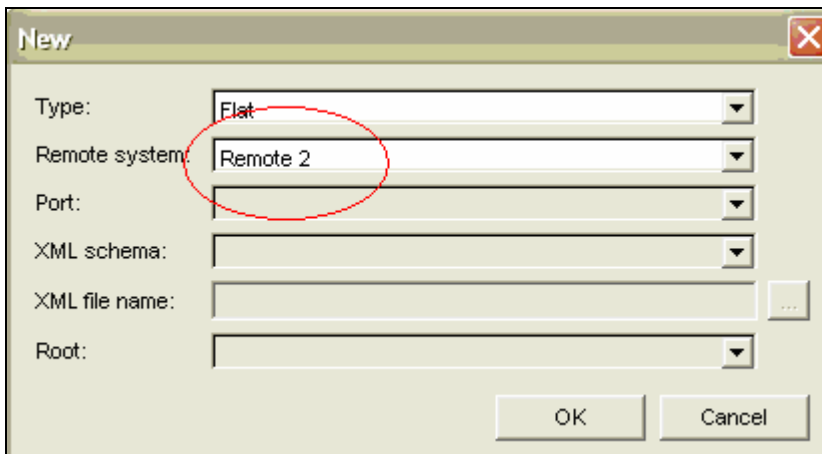
Syndicate the file and save it as Remote system 1. You can directly syndicate the file to a port from where it will directly go to your remote system 1.



Say Ok when syndication has been completed.



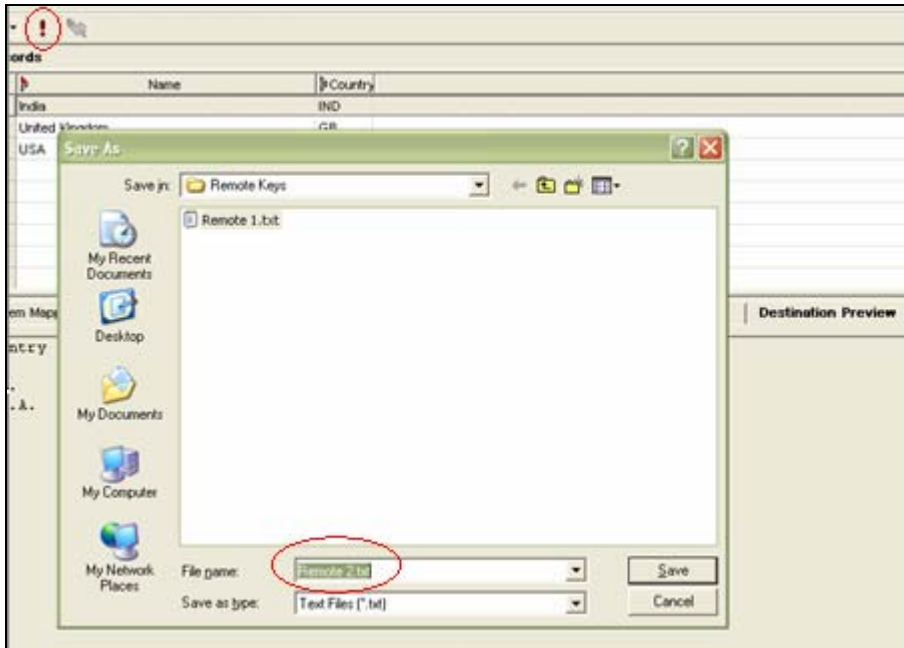
Similarly, create a map for remote system 2 by selecting the remote system 2 from File -> New.



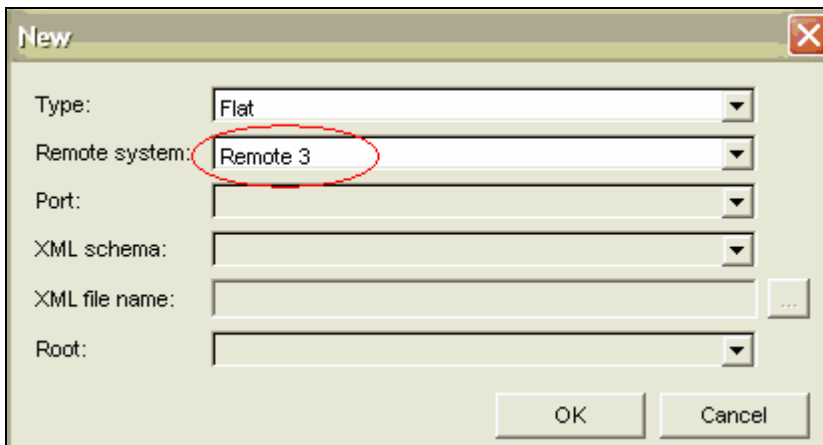
Check the destination preview. It will show you the country name and country key for the remote system 2. It is exactly same as you imported for remote system 2.

Item Mapping	Map Properties	Destination Items	Custom Items	Merge Items	Search Selections	Destination Preview
Country Key		Country Name				
IN.		India				
U.K.		United Kingdom				
U.S.A.		USA				

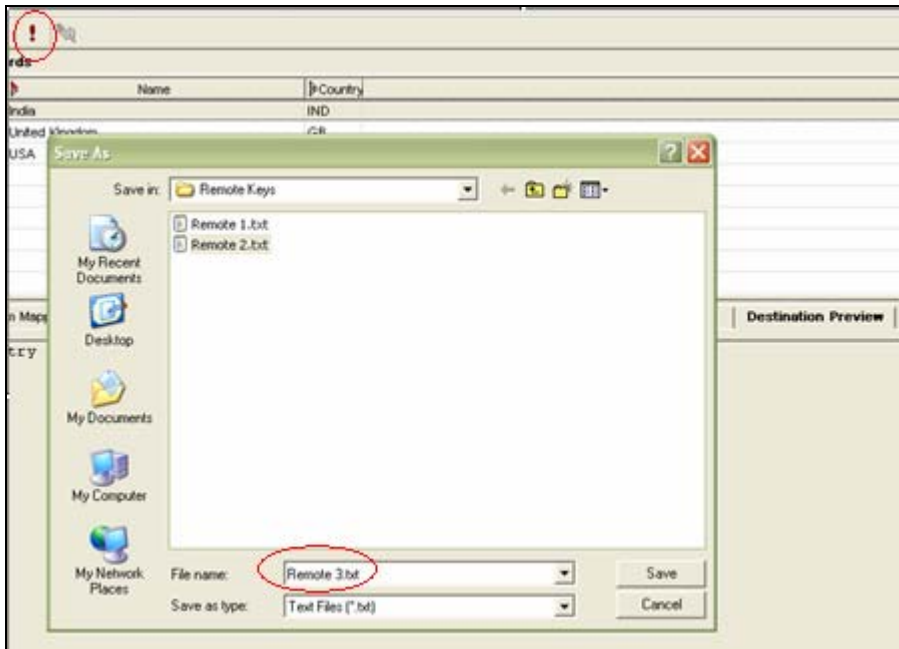
Save this file as remote system 2 or directly syndicate it to port.



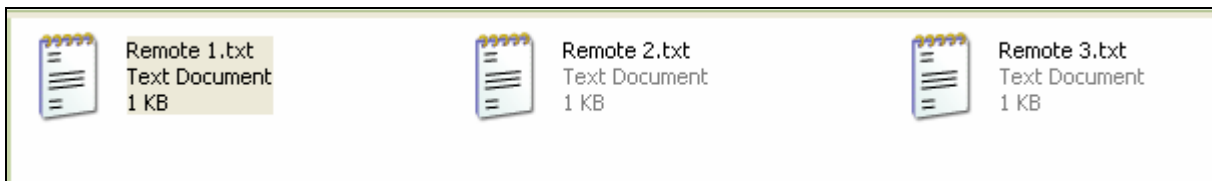
Similarly do the mapping and syndication for remote system 3, check the destination preview and syndicate the file.



Item Mapping	Map Properties	Destination Items	Custom Items	Merge Items	Search Selections	Destination Preview
Country Key		Country Name				
IND		India				
GB		United Kingdom				
US		USA				



Now you have got three files on your desktop.



The contents of file remote system 1 will be:



The contents of file remote system 2 will be:



The contents of file remote system 3 will be:



Now when these files will go to their respective remote systems, country key will be stored in each remote system as per its format.

5. Summary

Here we developed a way for MDM to remember remote system specific formats. Even though there are different remote systems and different formats to store data in them, MDM can very well remember that after various operations on data in MDM, while syndicating cleansed data back to remote systems, which format should be sent to which remote system, so that remote systems do not have any problems in storing that data. Suppose, If we would have sent country key as U.K. for United Kingdom to remote system 1 (having country key field length as 3 only), it would have thrown the error or truncated the country key to get fitted in that field. In that case our data would have been corrupted. So, Remote keys have played an important role in avoiding this type of data loss.

Related Content

<https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/30990c46-f1fa-2910-08a2-a536f22e2c70>

<https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/9030396d-0e84-2910-d8ac-f92388f80768>

http://help.sap.com/saphelp_mdmgds55/helpdata/EN/43/12036df94c3e92e10000000a1553f6/frameset.htm
[Remote Systems and MDM]

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