

# How to Configure MDM ABAP API – Part 1



## Applies to:

SAP MDM and SAP R/3 system. For more information, visit the [Master Data Management homepage](#).

## Summary

The article gives a step by step process to configure a connection between SAP MDM and ERP system. In the coming articles, we will see how to use different function modules for different scenarios.

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## Author Bio



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## Introduction

The MDM ABAP API provides an interface for accessing SAP MDM 5.5 using ABAP. Application Programming Interfaces (APIs) can be used to support different scenarios. Master data is maintained in MDM System. The MDM Server contains repositories that store the master data to be accessed by the ABAP system. The MDM ABAP API empowers ABAP-based applications to control MDM Servers using most of the functions available in the MDM Console and MDM Data Manager applications.

APIs can be used for:

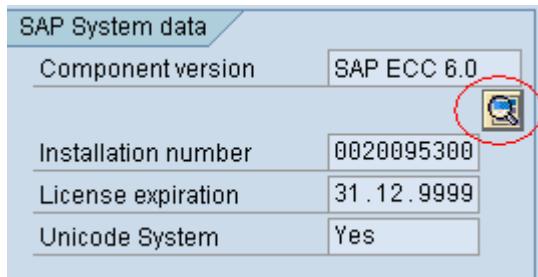
- Create a new object into MDM.
- Insert an object at a desired position in MDM.
- Append an object at end of a list of objects in MDM.
- Read an object from MDM.
- Change an existing object in MDM.
- Delete an existing object in MDM
- Find an existing object in MDM.

## Prerequisites

Component MDM Technology on your R/3 system. Its version should be in accordance with the version of your MDM server.

### Checking for Prerequisites

For accessing transaction MDMAPIC on your R3 system, you need to have software component “MDM TECHNOLOGY” installed on your R3 system. To check whether this component is installed on your R3 system or not, go to System -> Status, click on lens icon in “SAP system data” section.



This will show you all the components installed on your R3 system. Look for the component highlighted below.

Software Compon	Release	Level	Highest Support	Short Description of Software Compor
CPRXRPM	400	0001	SAPK - 40001 INCPR	SAP xRPM/cProjects/cFolders 4.00 (AE
MDM_TECH	555_700	0004	SAPK - 57004 INMDM	MDM_TECH 555 : Add-On Installation
SEM-BW	600	0003	SAPKGS6003	SEM-BW: Strategic Enterprise Manage
BP-ERP05	600V4	0000	-	Best Practices for All-in-One based on
BP-INSTASS	600V1	0000	-	Best Practices Installation Assistant b:

If this component is not in your R3 system, ask your tech. dept. to install it.

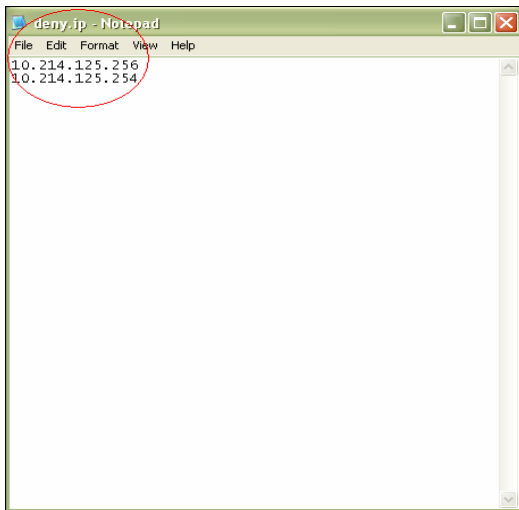
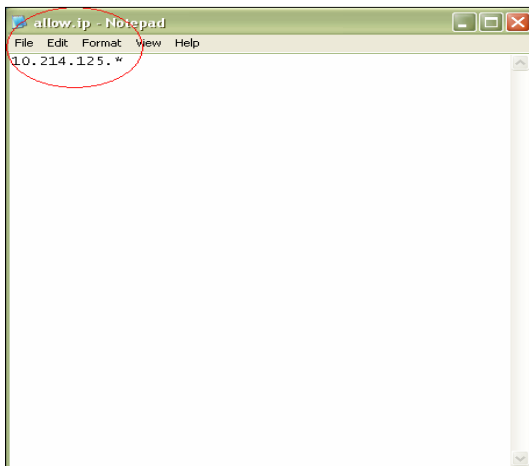
## Configuration of ABAP API

### Creating Trusted Relationship

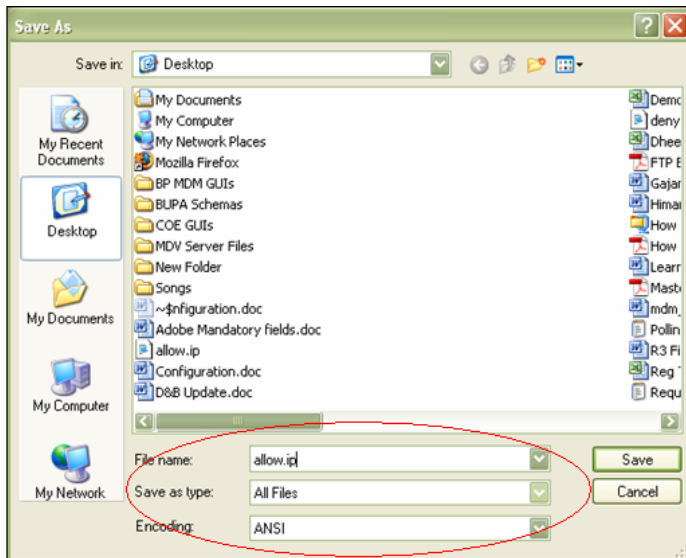
**Step 1:** To be able to connect an R/3 system to MDM, you need to configure a trusted relationship to MDM Server. In other words, the server needs to know which clients can be trusted. For this you need to create two files: allow.ip (contains the IP addresses of the trusted connection partners) and deny.ip (contains the IP addresses of the denied connection partners). Allow.ip contains the IP addresses of R3 servers from where you want to connect MDM. Deny.ip contains the IP addresses of R3 servers, which are denied the access to MDM. Like in our case all the R3 servers with IP address starting with 10.214.125. are allowed to access MDM and 10.214.125.256 & 10.214.125.254 are denied access to MDM.

#### To create .ip files

- Open a notepad.
- Enter the ip addresses required.



- Click on Save As.
- Choose Save As type - All Files.
- Type in the File name as allow.ip.
- Click on Ok.



On the similar lines, you can prepare, deny.ip file.

The *allow.ip* and *deny.ip* files must be located in the MDM Server directory. In other words they have to be stored in the folder in which the executable is located. Place these files on your MDM server at the location for trusted files (location where mds.ini is present on your MDM server).

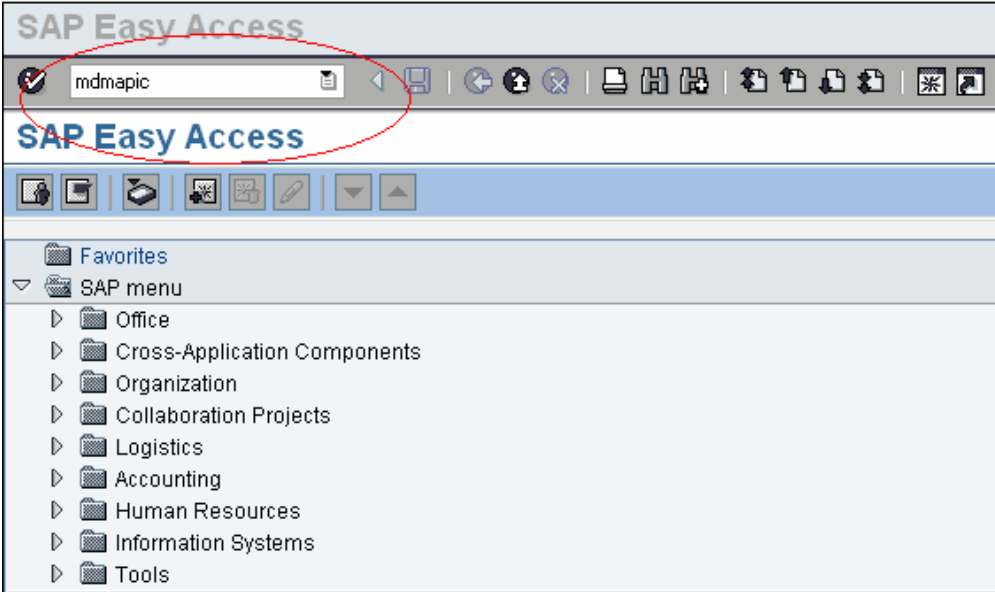
\\Program Files\SAP MDM 5.5\Server

Accelerators	File Folder	7/6/2007 11:30 AM
Archives	File Folder	6/25/2008 8:15 PM
BACKUP	File Folder	5/6/2008 2:39 PM
Distributions	File Folder	6/26/2008 4:31 PM
lang	File Folder	5/6/2008 2:36 PM
LangStrings	File Folder	5/6/2008 2:35 PM
Lexicons	File Folder	5/6/2008 2:35 PM
Logs	File Folder	6/25/2008 10:32 PM
PubXMLBuiltIns	File Folder	5/6/2008 2:35 PM
Reports	File Folder	6/26/2008 4:30 PM
deny.ip	0 KB IP File	2/29/2008 5:19 PM
mds_list.ini	1 KB Configuration Settings	6/10/2008 6:09 PM
allow.ip	1 KB IP File	6/23/2008 5:18 PM
KeyMappingSortIndexes.acf	1 KB ACL File	5/14/2008 10:46 AM
mds_ini0.bak	1 KB BAK File	7/3/2007 4:39 PM
mdm_ccms.ini	2 KB Configuration Settings	11/10/2006 4:06 PM

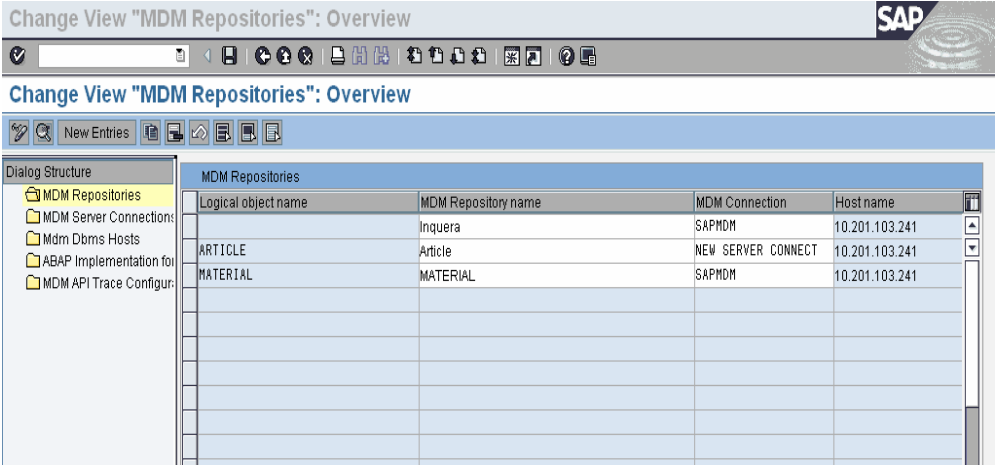
Before connecting to MDM, you must have the user (you are logging in R3 with) created in MDM for the repositories you want to connect through ABAP API.

### Configuring MDMAPIC

Step 2: Logon to R3 and go to transaction “MDMAPIC”.

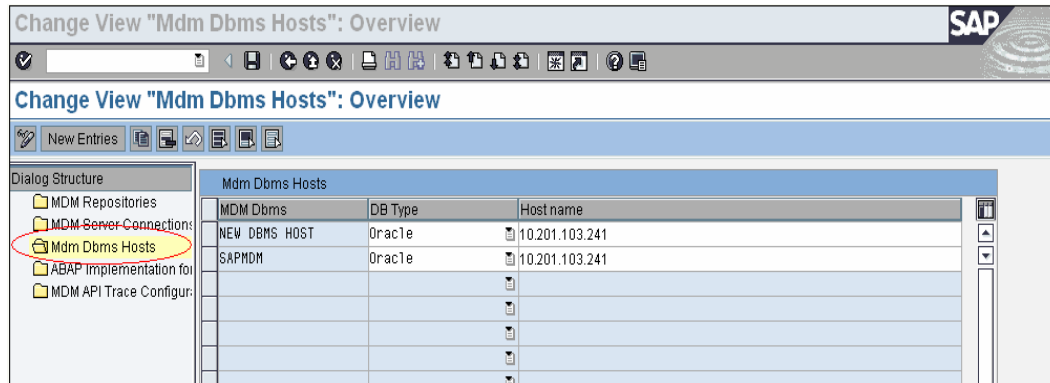


MDM Repositories screen will open up.

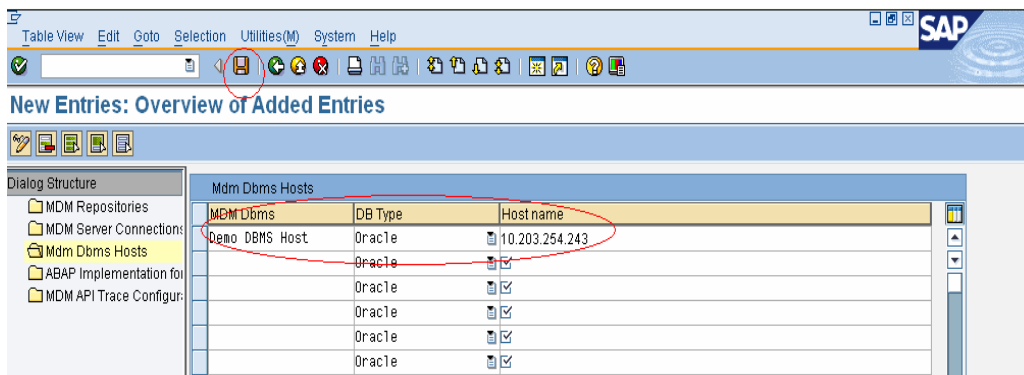


## Configuring DBMS Host

**Step 3:** Double Click on MDM DBMS HOSTS. Screen for maintaining the DBMS Host will come up.

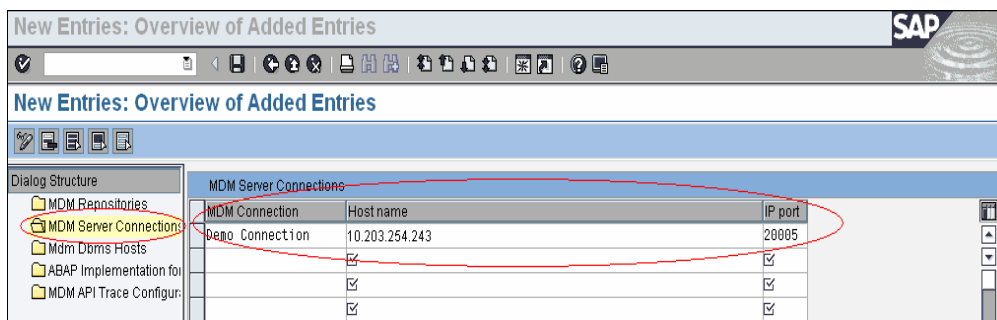


Go “New Entries” and create a new entry for your DBMS Host. Enter any logical Name for your MDM DBMS host, Database type and IP address of host or Host Name. Click on “Save”.



## Configuring Server Connections

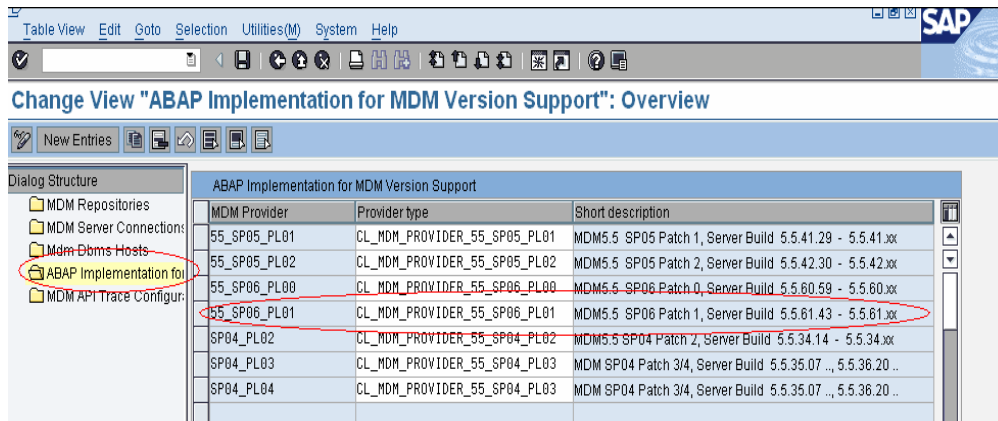
**Step 4:** Then double click on “Server connections”. Go to “New Entries. Enter a logical name for your MDM Connection, IP address or name of DBMS host and port of DBMS (which is 20005, by default). Click on “Save”





## Configuring MDM Version Support

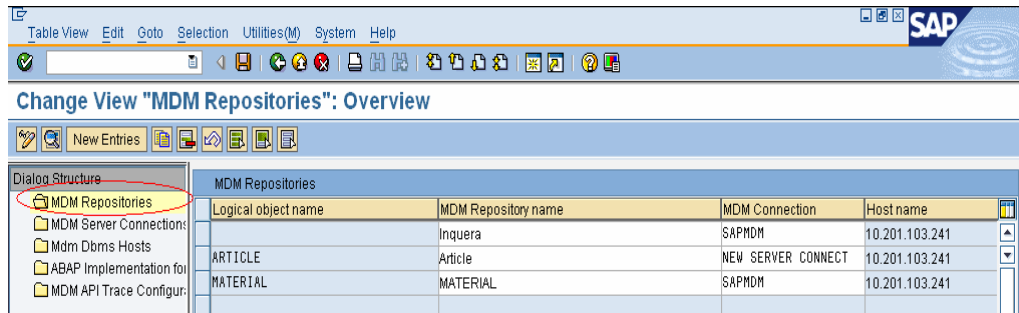
**Step 5:** Then double click on “ABAP Implementation for MDM Version Support”. Go to “New Entries”. Enter a logical name for the provider; choose a provider type from list given. In this list, different entries of providers are maintained for supporting different versions of MDM. For example, if you have MDM server with version SP06 with patch 01 then the entry highlighted in following screen shot, should be used for the connection. You must choose the provider type in accordance with the version of MDM server used. If not, when you try to connect MDM, error code for “CRC check failed” will be returned by the server and you will not be able to connect to MDM database.



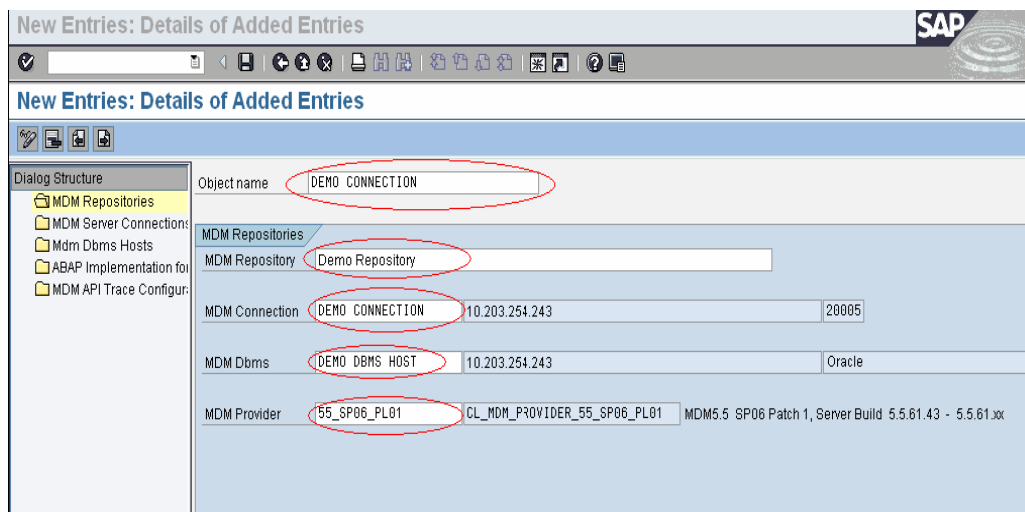
If you do not have any entry matching with version of your MDM server in the list of Provider Type, you need to consult your basis people for applying the necessary patch on R3 system.

## Configuring MDM Repository Object

**Step 6:** Then double click on “MDM Repositories” and click on “New Entries”.



Enter a logical name for object to be used for connection, Name of the repository, MDM connection Name, MDM DBMS name and MDM Provider. These names are same what you have maintained in last three steps. Click on “Save”.



Now your connection is ready for use. This connection object will be used for connecting to MDM in various scenarios.

## Summary

Here we have maintained a repository object, which will be used to connect to MDM server by passing it as a parameter in function modules (in R/3) used to perform various operations on MDM repositories. The various function modules use this repository object for different purposes like: Creating a record, Read a record, update a record, deleting a record and many more functions. We will see the functionalities of all these function modules and how they work, in the coming articles. This configuration is the very first part of connecting to MDM. Main functionality of ABAP APIs remains within the function modules provided by SAP.

## Related Content

[http://help.sap.com/saphelp\\_mdm550/helpdata/en/44/93aa6831381053e10000000a422035/frameset.htm](http://help.sap.com/saphelp_mdm550/helpdata/en/44/93aa6831381053e10000000a422035/frameset.htm)

<https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/00dd47bd-f2f1-2910-5eab-e9ca52465ae4>

<https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/media/uuid/00c49ffb-e5e5-2910-73ba-c85af1da5b0a>

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

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