SAP MDM Data Manager: Masks

Applies to:

SAP Master Data Management (MDM) SP05. For more information, visit the [Master Data Management homepage](#).

Summary

This article describes how to save the search results into Masks format and its features in MDM Data Manager.

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Author Bio

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Table of Contents

Introduction

A mask is a snapshot of the set of records of a repository that is included in the mask.

By using MDM Masks, we can slice a single master MDM repository into an effectively unlimited number of custom virtual repositories which simplifies the maintenance of a single repository for multiple purposes. Each virtual repository may contain a different subset of records from the main master repository and appears as a private repository to the users.

Masks allows us to create multiple custom subset repositories from a single master repository without duplicating the underlying main repository records. So this will guarantees consistency and synchronization of the data across all the custom repositories.

By using the Masks, we can narrow down the records display with as many or few search parameters as desired.

Unlike SQL views, masks won't give any performance issues , so we can define the masks individually at product level rather than the query level .But for any MDM user, masks can be appear as a another dimension of the multidimensional search data .

The main usage of Masks are to edit an arbitrary subset of records as a group, and to publish custom "subset catalogs."

Masks is a MDM special table and available in MDM Console. Once we created a repository then by default Mask table will be created automatically. But Masks records can be created in Record Mode of MDM Data Manager.
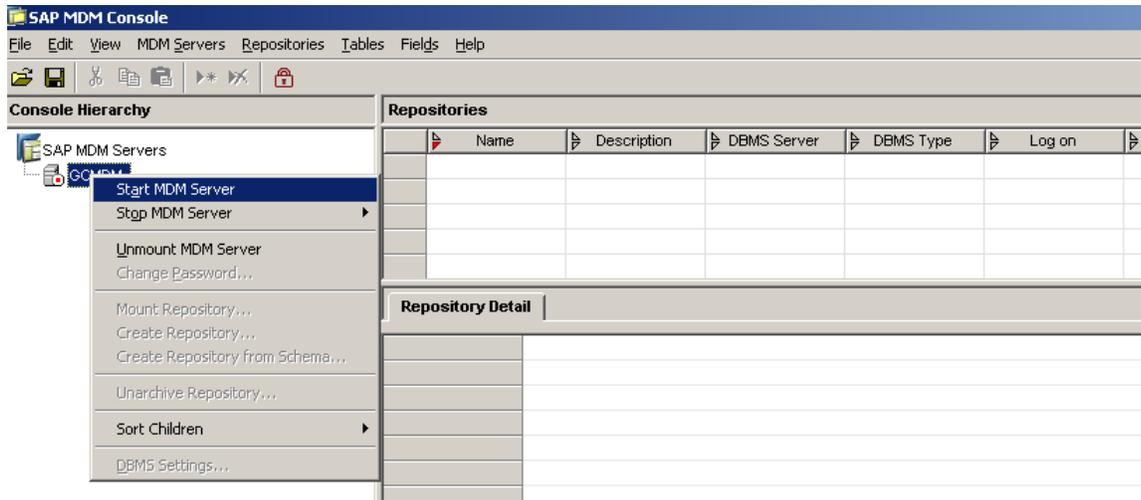
MDM Console Configuration:

Here in order to work with the MDM Data Manager, first we need to start the MDM server and then connect the required repository to the DBMS system in MDM Console .
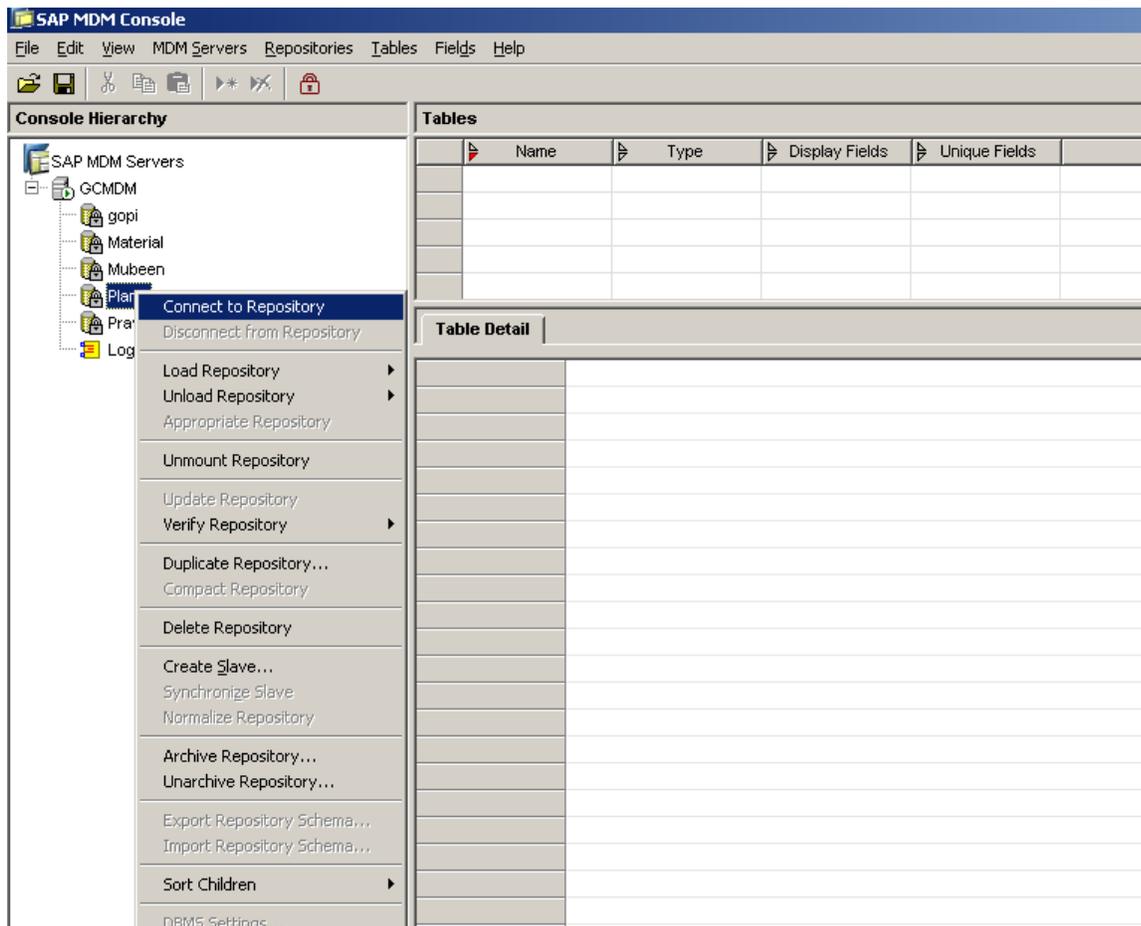
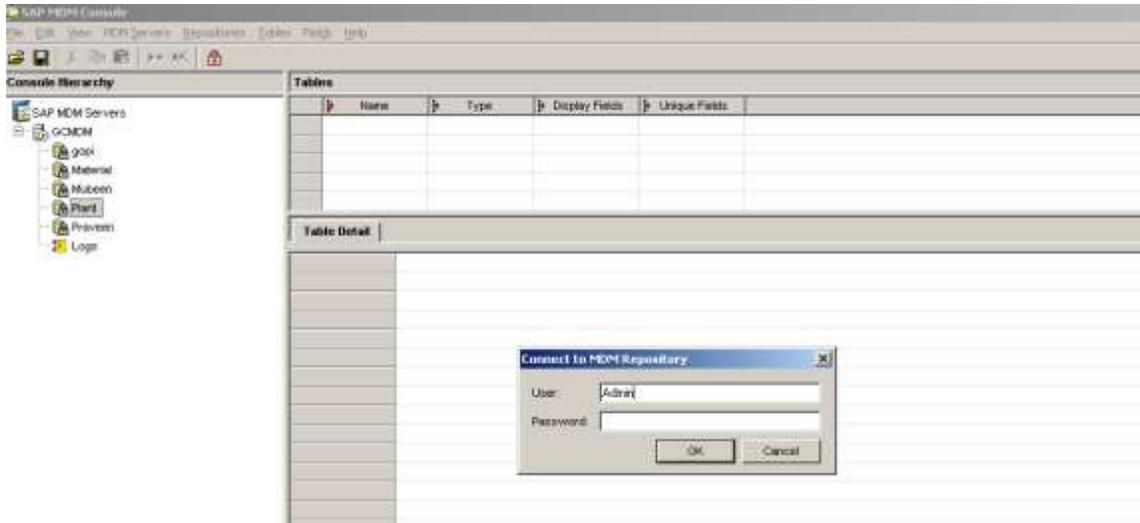Now logon to MDM Console and Mount the MDM Server.
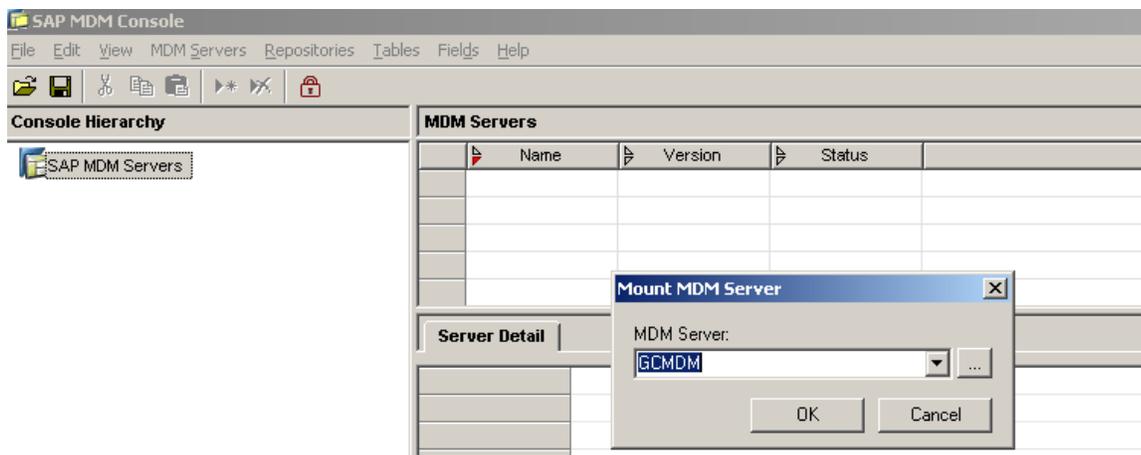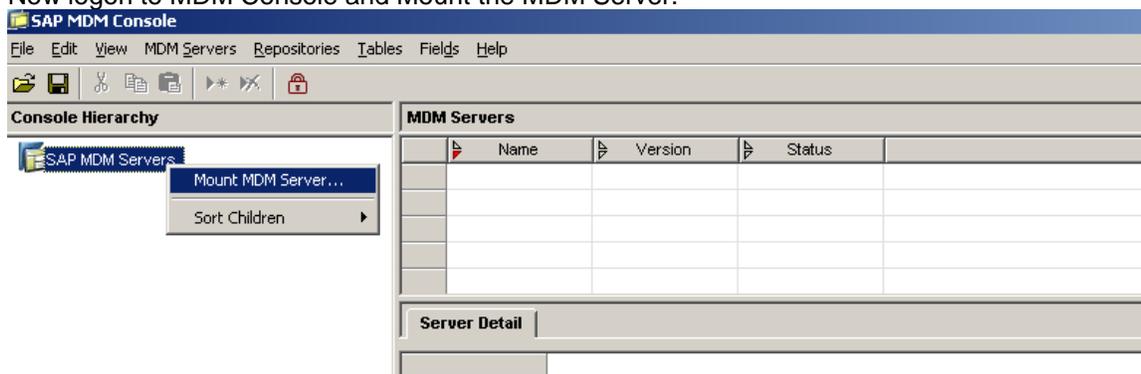
Once the mounting of server is done then start the MDM Server.

Once the MDM Server has been started then connect the 'required' repository. Here we are going to connect the '**Plant'** repository.

Here give the default user name (Admin) without the password.

Now once the **Plant** repository has been connected to the DBMS System, then we are going to load the repository in order to work with this repository in MDM Import Manager.
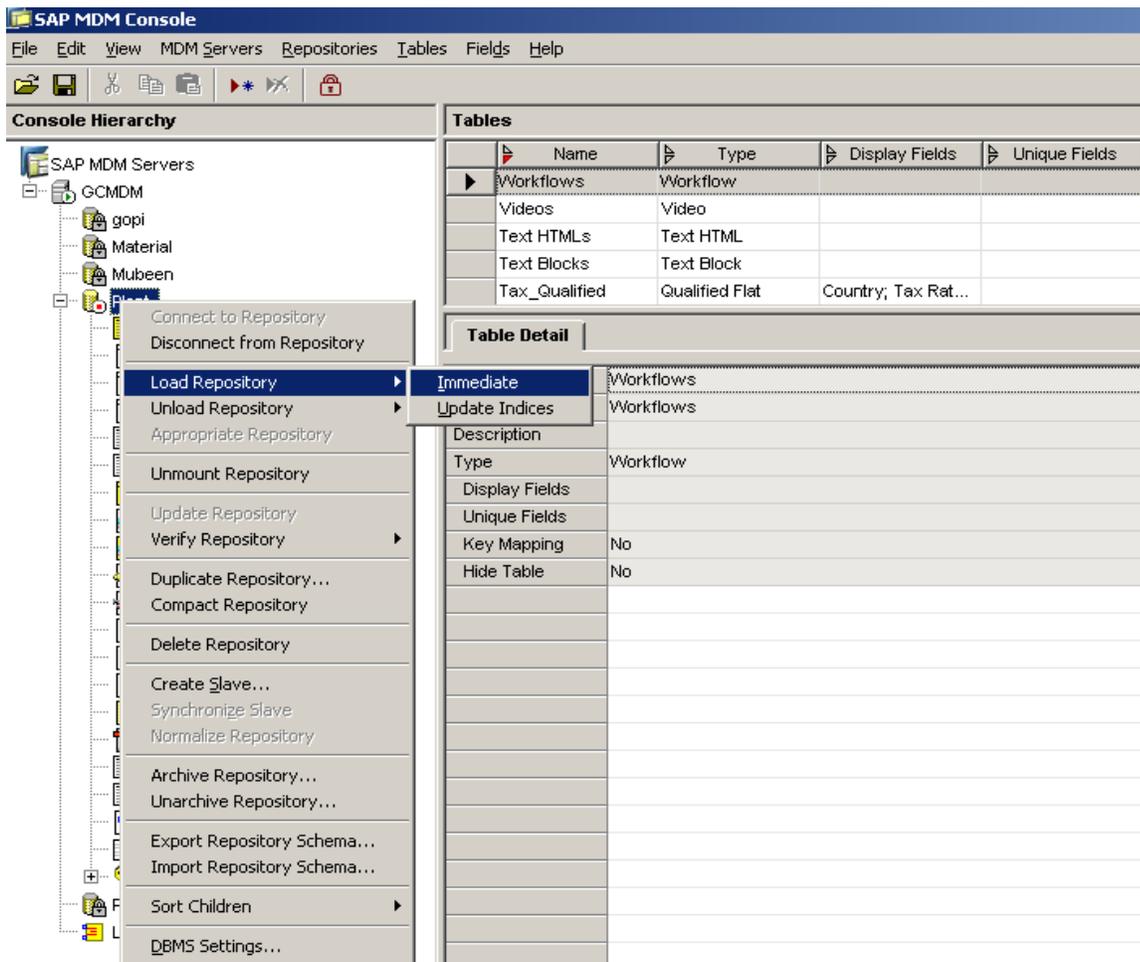
Once the plant repository has been loaded, go to Masks sub table and then double click on it in the repository. Then we can get one default field within that masks table that is a '**Name'** field. This field will have different masks which are created in the Data Manager.

Creating a Mask

Here we are going to create different masks in the Mask table and then assigned to different set of records in the MDM Data Manager.

So in order to create the different masks records in MDM Data Manager, first we need to start the MDM Data Manager and select the Mask table at the top left corner of Data Manager.

Then we will come into the mask table in Data Manager. Here we need to create two different mask records (**Canada Plants**, **US Plants**). For this one, *right click on record pane -> Add -> give the 'Canada Plants ' in Name row of the property pane.* Similarly, create the '*US Plants*' record in the mask table.

Now we are going to assign different set of records to these masks (**Canada Plants**, **US Plants**).For this one, go to the products main table at the top left corner. Then we will get all the main table records in the record pane(below screen)

Once we get all the main table records, *select the Canada specific (Country = Canada) records in record pane -> right click on those records -> Add to masks -> Canada Plants.*

Then the Canada specific plants (1000, 2000, 3000, 5000, 6000, 7000, 8000) records will be included in to the mask '**Canada Plants'**. Similarly assign the US Specific(Country = US) records to the **'US Plants'** mask in the MDM Data Manager .

Now when we search the 'Canada Plants' and 'US Plants' specific records in Drill Down search, then we will get only those specific records.

Go to 'Masks' under Drill Down search parameters in Data Manager and select the **'Canada Plants'** mask. Then we will get the Canada Plant specific records in the record pane. Similar logic will apply to the US Plant specific records as well.

Mask Static Behavior

Basically Masks are static objects, i.e. when a new record is created and added to the repository then that record won't be included automatically in any masks in the Data Manager.

For Example here, we are going to create US Plant (9000) record in the Data Manager. Then this record will be available in the main table, but wont be available in the **'US Plants'** masks.

So first go to top left corner drop down list and select the Product Main table. Then context menu in the record pane and *'Add'* to create a new record US Plant =9000 and give corresponding entries.

Then the new record US Plant =9000 is created and added to the main table of plant repository.

Now we will check whether this record (US Plant = 9000) has been included in the **'US Plants'** mask or not. For this one, go to masks button in the drill down search parameters and select the 'US Plants' . Then we will get only the old 'US Plant = 4000' record and won't get the 'US Plant = 9000' in the **'US Plants'** masks .

So in order to solve this problem, we need to use the **'Modify Mask'** command in the context menu of the record pane of MDM Data Manager

Modifying Masks

We can modify any mask i.e., including (or) deleting the records from/to the masks either by using any of the below method:

- Add to Mask
- Modify Mask Command

Add to Mask

By using the *Context Menu in the record pane -> Add to Mask/Remove from Mask/Replace* in Mask, we can add/delete/replace any records from (or) to a specific mask in a MDM Data Manager.

Here in our example, now we are going to include the US Plant = 9000 record in to the **'US Plants'** mask.

For this one, go to the data manager and select the product main table in the top left corner drop down list. Then we will get all the main table records .Now go to the US Plant = 9000 and *context menu -> Add to Mask -> US Plants* (below screen)

Now we are going to check whether the US Plant = 9000 record is added to the **'US Plants'** masks or not in the Data Manager. So go to the search parameter and select the 'masks' drill down search. Then select the **'US Plants'** mask and observe in the record pane whether the newly created US Plant = 9000 record is added to the **'US Plants'** or not (below screen)

Similarly we can delete or replace any record from any specific mask by using *Remove from Mask* (or) *Replace in Mask* commands in the MDM Data Manager.

Modify Mask Command

We can also modify any mask in MDM Data Manager by using the '**Modify Mask Command'** in 'Records' tool bar button.

Now we are going to add our newly created US Plant = 9000 record to the **'US Plants'** masks once again in order to check this command. But as we know that we already added the US Plant = 9000 record into **'US Plants'** mask. So first delete this record from the 'US Plants' masks and then create again in the MDM Data Manager.

Once we created the same US Plant = 9000 record, then select this record in record pane and go to **'Records'** tool button at the top . Now select the **'Modify Mask'** command for including (or) deleting the records from(or)to the masks(below screen) .
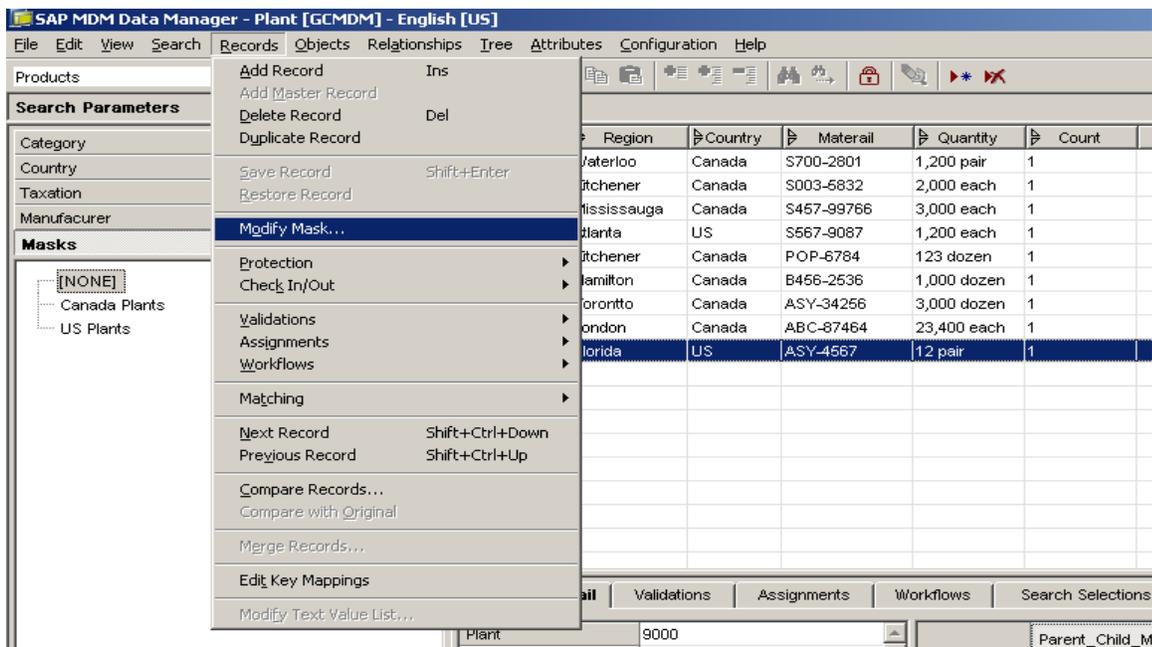
Then we will get 'Modify Mask Command' small window (below screen). Here if we want to add (or) delete (or) replace the records from a specific mask then select that particular radio button under the *Operation* and also select the desired *Source* of the record to add, remove, or replace to or from a mask.
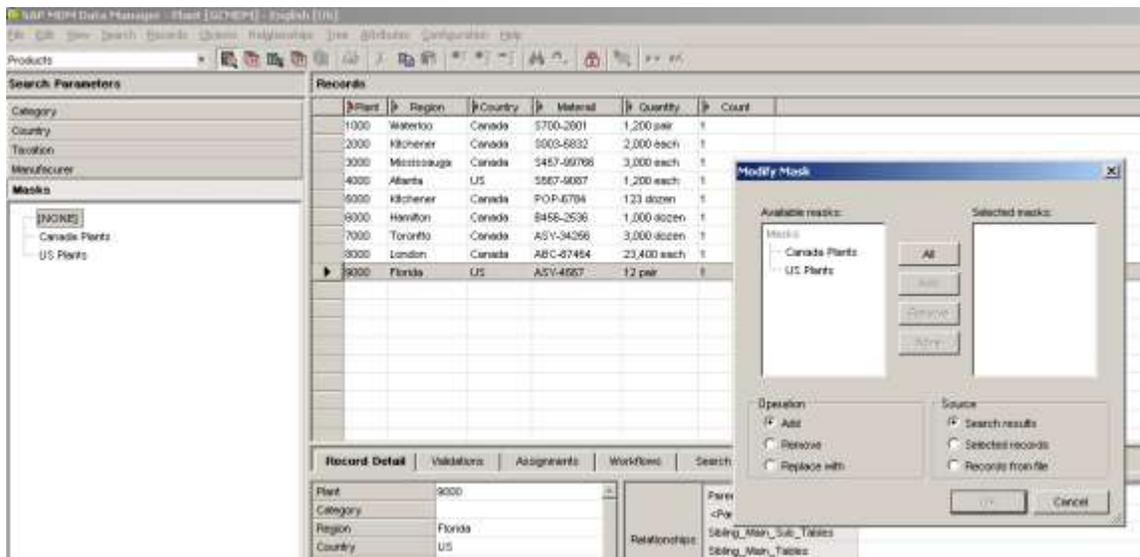
In our example, we are going to add the US Plant = 9000 record into the **'US Plants'** mask, so select the 'US Plants' from the available masks and select the *add* radio button under *Operation* and *Selected* records under *Source* .
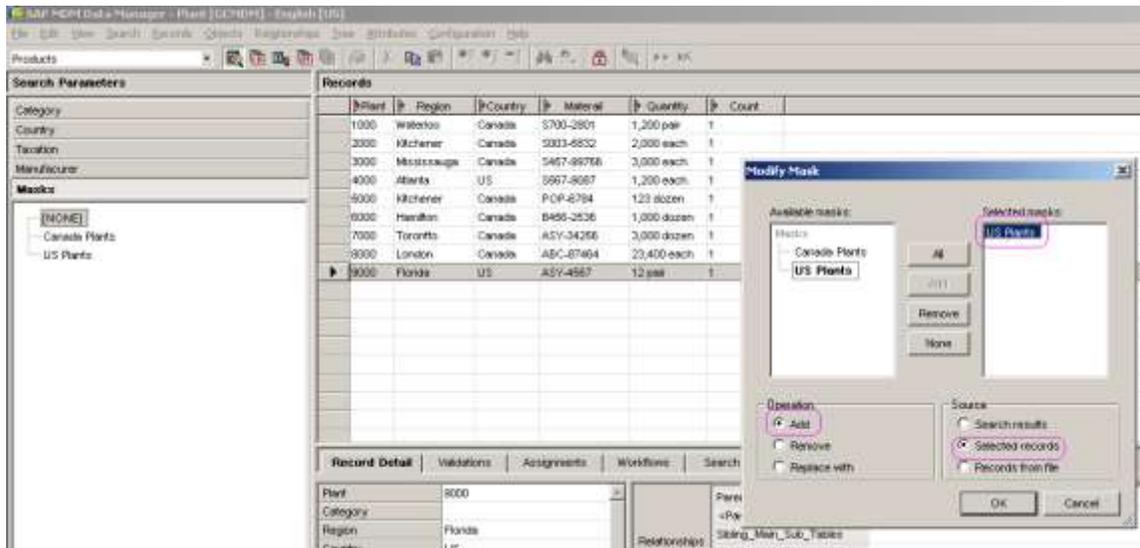
Now we are going to check whether the US Plant = 9000 record is added to the **'US Plants'** masks (or) not in the Data Manager. So go to the search parameter at left side and select the masks drill down. Now select the **'US Plants'** mask and observe in the record pane whether the newly created US Plant = 9000 record is added to the **'US Plants'** (or) not .
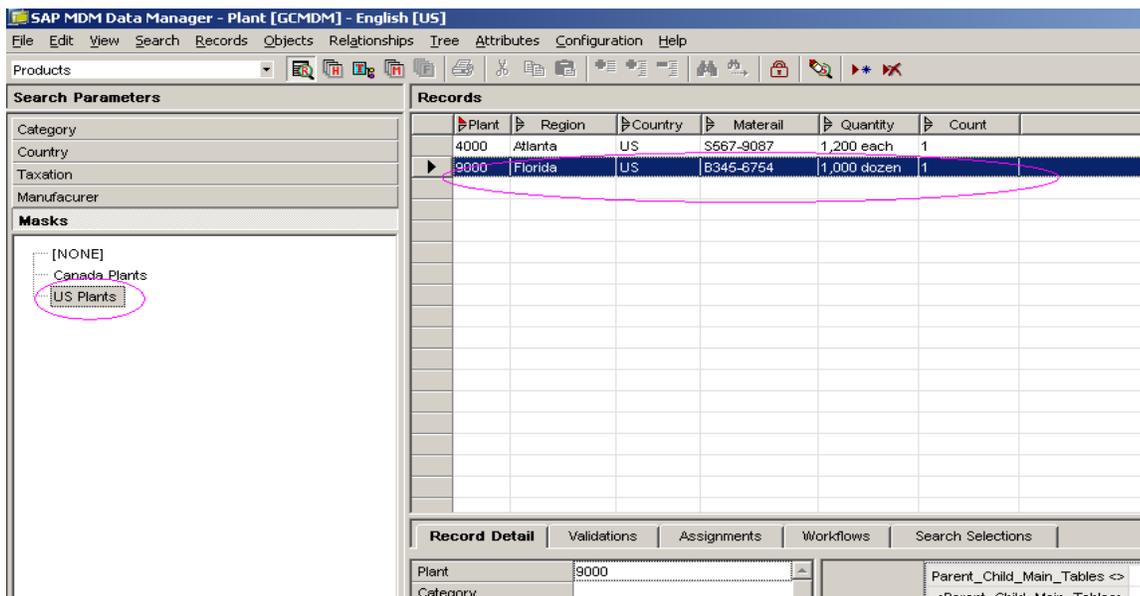
In the same way, we can replace (or) delete any record from a specific mask by using the 'Modify Mask Command' in the MDM Data Manager.

In a nutshell, even though masks are static objects, we can easily add (or) delete (or) replace record/records from (or) to a specific mask in the Data Manager without disturbing the existing data.

Restricting Masks at Role Level

For example, there is a business scenario, where some users are authorized to see some specific masks only in the MDM Data Manager. So here we need to restrict those particular masks at the role level by using the ***Record Constraints*** in the *Tables and Fields* tab of MDM Console. But the prerequisite for this one is 'all users' should be assigned to that particular role where we are going to restrict some masks in the console.

Record Constraints allow us to create virtual subset repositories per role. These subsets are dynamic based on the selections of masks and/or look up values. Only main table records which fall within the constrained records will be visible per role.

Here in order to work with this *restricting mask at role level*, we created two roles like **'Canada Role'** and **'US Role'**. These roles are assigned to different user ('Canada Role' is assigned to 'Admin2' user and 'US Role' is assigned to 'Admin' user) in a MDM Console.

For our example, now we are going to restrict the **'Canada Plants'** mask to the **'Canada Role'** in the MDM Console. So go to MDM *Console -> 'Roles' Table under Admin folder -> Select the 'Canada Role'*.

Once we select the 'Canada Role', go to the 'Tables and Roles' tab and select the masks radio button.
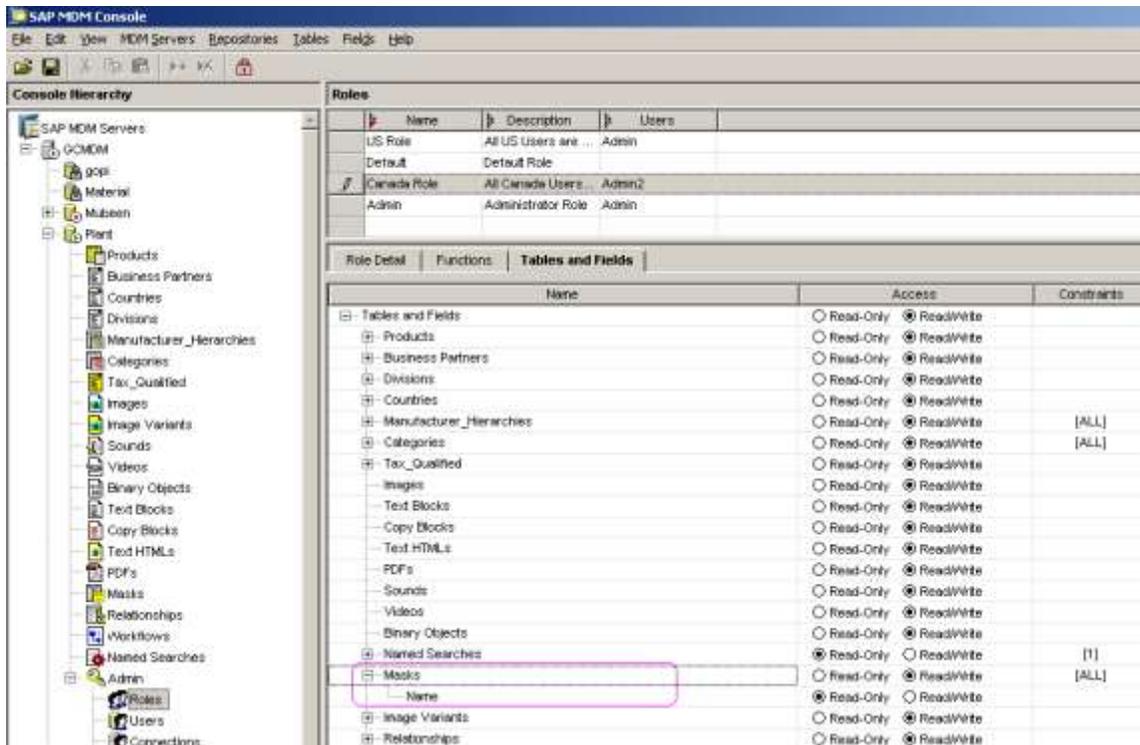
Now go to the **constraints** column and select the **'Canada Plants'** mask. And then load that particular repository in MDM Console.
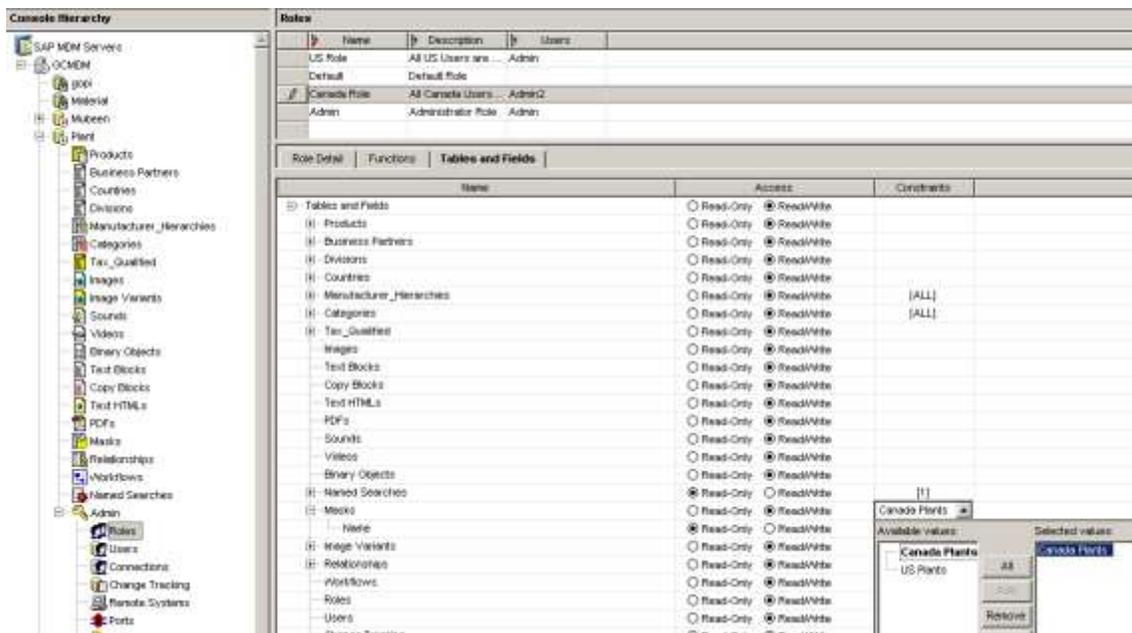
Now we are going to check whether the User(**Admin2**) of the **'Canada Role'** can see only the **'Canada Plants'** mask (or) some other masks as well in MDM Data Manager . For this one, Logon to the MDM Data Manager with the **Admin2** user only. Because 'Canada Role' has been assigned to Admin2 user in Console .

Once we are in product main table in Data Manager, go to the search parameter at left side and select the masks drill down. Then select the **'Canada Plants'** mask and observe the records in the record pane. The record pane will hav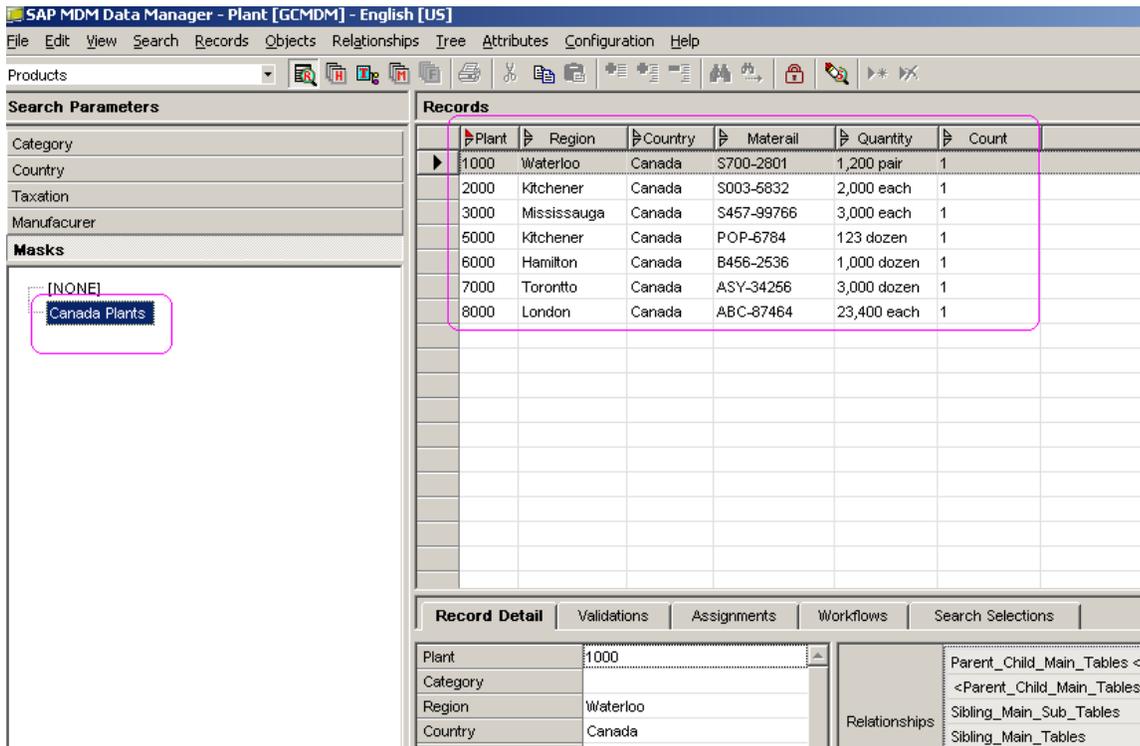e only the 'Canada Plants' specific records only . i.e, Admin2 user can only see (or) modify the Canada Plants related records.

In the same way, we can restrict the '**US Plants'** mask to the **'US Role'** in the MDM Console. Then the user(Admin) of the 'US Role' can only able to see (or) modify the US Plant related records only in the MDM Data Manager.

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