

Training – Attribute Groups Module

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Attribute Groups within clearMDM play a core part of the Merging rules so this document is dedicated to this subject alone. The intention is to go through setting up Attribute Groups and how to validate them.

Table of Contents

Training – Attribute Groups Module	1
Attribute Groups Introduction	2
Analysis.....	2
Settings	6
Validation.....	11
New Features	12
Updating Source Records	12
Invalid Record Field Values	12
Sub Groups.....	12

Attribute Groups Introduction

By definition an attribute is ‘a piece of information which determines the properties of a field or tag in a database or a string of characters in a display.’ This is exactly what the Attribute Groups within clearMDM are there for; to determine the values to be used to populate fields within Master Records.

ClearMDM provides the means to be able to populate fields on Master Records during the Merge and Synchronisation job processes. In order to do this though, the rules to determine the Attribute Groups required need to be considered.

This document will assist with the thought process to determine the Attribute Groups, how to set them up within clearMDM and then how to validate.

Note: The assumption is that all other clearMDM settings are in place.

Analysis

Before even looking in clearMDM at the Attribute Group settings, the rules for populating the record fields need to be discussed. Typically, a spreadsheet is used to do this initially so that the thought process can begin and the facts gathered.

Firstly, analysis of the records in question needs to happen. The easiest way would be to list in a spreadsheet all the fields that the record has, and then cross off any that are not used or not a necessity.

With the field list, a priority could be added to each as to whether, if this wasn't populated in the Master Record, would it matter? By giving those fields a low priority, the attention can be placed on the High and Medium priority fields.

Below is a basic example of where to start:

Target Object – Account

Fields	Field Type	Priority	Notes
Title	Dropdown	High	
First Name	Text	High	
Middle Name	Text	Low	Not a necessity.
Last Name	Text	High	
Email	Text	High	
Email Opt Out	Checkbox	High	

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Mobile	Text	High	
Phone	Text	High	
Office Phone	Text	Low	Not a necessity and rarely used.
Street	Text	High	
Street 2	Text	Medium	
Street 3	Text	Low	Not a necessity.
City	Text	High	
Post Code	Text	High	
Country	Text	High	
Birthdate	Date	Medium	

In this example we are saying that if we had a middle name on a matched record pair, but that wasn't displayed on the Master Record, then it doesn't really matter, so we can cross that one out for Attribute Groups. The same applies to Office Phone and Street 3. Records can have many more fields available for population, so by starting with this process of elimination it will help with identifying the important fields.

The next step would be to then look at the fields that are left and put them into groups. Taking the fields in the example, the groups would look like the following:

Fields	Field Type	Priority	Notes	Group
Title	Dropdown	High		Contact Details
First Name	Text	High		
Middle Name	Text	Low	Not a necessity.	
Last Name	Text	High		
Email	Text	High		Email
Email Opt Out	Checkbox	High		
Mobile	Text	High		Phone
Phone	Text	High		
Office Phone	Text	Low	Not a necessity and rarely used.	

Street	Text	High		Address
Street 2	Text	Medium		
Street 3	Text	Low	Not a necessity.	
City	Text	High		
Post Code	Text	High		
Country	Text	High		

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Birthdate	Date	Medium		Birthdate
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We now have 5 groups that need further discussion to determine the behaviour that needs to be applied to populate the Master Record if the matched records within a group have any of these fields populated.

We are going to take our 5 example groups and add some logic to populate the Master Record with these field values. To start with we are going to describe the ideal behaviour for each group. (clearMDM supports the newest, oldest or quality priority within Attribute Groups).

Fields	Field Type	Priority	Group	Behaviour
Title	Dropdown	High	Contact Details	We want the most recent values from these fields within a matched group to be populated on the Master Record.
First Name	Text	High		
Last Name	Text	High		
Email	Text	High	Email	We want the most recent email supplied and also if the email opt out checkbox has been ticked, regardless of the age of the record, we want this to be populated on the Master Record.
Email Opt Out	Checkbox	High		
Mobile	Text	High	Phone	We want valid phone numbers to be populated on the Master Record based upon the most recent value.
Phone	Text	High		
Street	Text	High	Address	We want the most recent address details to be populated on the Master record.
Street 2	Text	Medium		
City	Text	High		
Post Code	Text	High		
Country	Text	High		

Date of Birth	Date	Medium	Date of Birth	We want the birthdate from the oldest record to be populated on the Master Record.
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We now have the Attribute Groups we want to setup, the fields associated with those groups and the behaviour for each one.

Settings

Within clearMDM there is the Settings area which holds all the configuration required to meet the creation of the Master Record. A lot of these settings once initially setup do not need changing. Attribute Groups is an area that may need changing by adding new groups, or tweaking existing ones. This next section will show you how to set these up.

We will take the 5 groups that we have identified and we will add these to the Attribute Group Settings. The first thing we will need to do though is to add the fields identified to the Target Object so that they can be selected when creating the Attribute Groups.

We do this by following these steps:

1. Navigate to Target Object in Settings.
2. Click edit next to the Target Object in question (in this example Contact).
3. Navigate to the rules section.
4. Add the field from the Target Field dropdown. For our example, it would be the following fields:

Fields
Title
First Name
Last Name
Email
Email Opt Out
Mobile

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Phone
Street
Street 2
City
Post Code
Country
Date of Birth

5. Ensure the 'Is Active?' checkbox is ticked against each one.
6. Select the Match Type to 'Ignore'.
7. Click on save.

These fields have now been added and will be available when creating the Attribute Groups.

We do this by following these steps:

1. Navigate to Attribute Group Settings.
2. Click on Add (Attribute Group).
3. Enter the details below for each Group identified.

Attribute Group	Contact Details
Field	Value
Name	Contact Details
Target Object	Contact
Priority Type	Newest
Is Active?	Tick
Target Field Name(s) (Click Add in the Fields section)	First Name Last Name Title
Attribute Group required? (If one of the fields in the group is not ticked, then if there are blank values the group will not be taken into account during the merge process).	First Name (tick)

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Data Source (Click Add in the Data Sources section)	Contact
Dynamic Merge Priority Field Name (this is the date field that will determine the newest value).	Last Modified Date

4. Click on Save.
5. Add new Attribute Group.

Attribute Group	Email
Name	Email
Target Object	Contact
Priority Type	Newest
Is Active?	Tick
Is Checkbox Restricted Validity? (this must always be ticked where one of the fields is a checkbox value that needs to be appended to the Master Record).	Tick
Target Field Name(s) (Click Add in the Fields section)	Email Email Opt Out
Attribute Group required? (If one of the fields in the group is not ticked, then if there are blank values the group will not be taken into account during the merge process).	Email (tick)
Data Source (Click Add in the Data Sources section)	Contact
Dynamic Merge Priority Field Name (this is the date field that will determine the newest value).	Last Modified Date

6. Click on Save.

The Phone Attribute Group is a little different as not only do we want the latest Phone details but we also only want them if they are valid. In order to do this, we need to setup 3 custom fields in the Target Object first.

Is Valid Mobile? - A formula field which can be how you want the Mobile Number to be identified as potentially valid, so it isn't blank and is greater than a certain number of characters for example.

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Is Valid Phone? - As with the Is Valid Mobile? A formula field defining the criteria for a valid Phone.

Is Valid Phone – Formula field that returns a value of True or False (checkbox) where the criteria for Is Valid Mobile? or Is Valid Phone? Has or has not be achieved.

7. Add new Attribute Group.

Attribute Group	Phone
Field	Value
Name	Phone
Target Object	Contact
Priority Type	Newest
Is Active?	Tick
Target Field Name(s) (Click Add in the Fields section)	Phone Mobile
Attribute Group required? (If one of the fields in the group is not ticked, then if there are blank values the group will not be taken into account during the merge process).	Phone (tick)
Attribute Group Sub Group Filter Field	Is Valid Phone? Is Valid Mobile?
Data Source (Click Add in the Data Sources section)	Contact
Is Valid Field Override Name	Is Valid Phone
Dynamic Merge Priority Field Name (this is the date field that will determine the newest value).	Last Modified Date

8. Click on Save.

9. Add new Attribute Group.

Attribute Group	Contact Details
Field	Value
Name	Contact Details
Target Object	Contact
Priority Type	Newest
Is Active?	Tick

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Target Field Name(s) (Click Add in the Fields section)	First Name Last Name Title
Attribute Group required? (If one of the fields in the group is not ticked, then if there are blank values the group will not be taken into account during the merge process).	First Name (tick)
Data Source (Click Add in the Data Sources section)	Contact
Dynamic Merge Priority Field Name (this is the date field that will determine the newest value).	Last Modified Date

10. Click on Save.

11. Add new Attribute Group.

Attribute Group	Address
Field	Value
Name	Address
Target Object	Contact
Priority Type	Newest
Is Active?	Tick
Target Field Name(s) (Click Add in the Fields section)	Street Street 2 City Post Code Country
Attribute Group required? (If one of the fields in the group is not ticked, then if there are blank values the group will not be taken into account during the merge process).	Street (tick)
Data Source (Click Add in the Data Sources section)	Contact
Dynamic Merge Priority Field Name (this is the date field that will determine the newest value).	Last Modified Date

12. Click on Save.

13. Add new Attribute Group.

Attribute Group	Date of Birth
Field	Value
Name	Birthdate
Target Object	Contact
Priority Type	Oldest
Is Active?	Tick
Target Field Name(s) (Click Add in the Fields section)	Date of Birth
Attribute Group required? (If one of the fields in the group is not ticked, then if there are blank values the group will not be taken into account during the merge process).	Date of Birth (tick)
Data Source (Click Add in the Data Sources section)	Contact
Dynamic Merge Priority Field Name (this is the date field that will determine the newest value).	Last Modified Date

14. Click on save.

The Attribute Groups have now been setup. They now need validating to ensure they are setup correctly and provide the expected outcomes.

Validation

The easiest way to validate the attribute groups is to test each one individually. That way you are just concentrating on one at a time which keeps it simple and clear.

Depending what your Blocking Key is which is the first part of the Matching process, to test the Contacts Attribute Group.

In our example we will assume the Blocking Key is First Name and Last Name.

1. Create a contact record with the First Name, Last Name and no title.
2. Create a second record with the same First Name and Last Name (so the same Blocking Key is generated) and then add a title.
3. Navigate to the Jobs tab in clearMDM.
4. Select Job type of 'Normalisation'.
5. Select the Object.

6. Schedule Now.

Once the jobs have fully finished running and have a status of complete you can validate the records have matched and merged and the correct values are displayed on the Master Record.

New Features

Updating Source Records

A new field has been added called 'Source Record Update Mode' which has 3 options you can select. If you leave it set to 'none' then the master record will be updated with the attribute group merge rules specified. If you select 'correct' then when the master record is updated, the monitored field (s) will update the source record the original values came from. The idea here is that the original source record will remain in a current state with the values that are updated in the master record being fed back.

You can also select an option called 'overwrite' which will update all source records. If you have a master record which has more than one source record attached to it, and one of these records is updated, then if the update is a monitored attribute group field the update will be appended to the master record once the mdm jobs are run. This in turn will also pass the update down to all source records so they all have the same information.

Invalid Record Field Values

Within Attribute Groups (fields section), a new setting has been added called 'Attribute Group Secondary Required?'. When this checkbox is ticked and set to TRUE, if there are no valid record values within the specified target field names, the invalid ones will be displayed in the Master Record. The validity of the target fields are determined by custom formula fields.

Sub Groups no longer default to the winning Attribute Group when there is no valid record. A couple of new settings have also been added, 'Is Blank Update Allowed?' This is a checkbox and if it is set to TRUE then the merge engine will blank Master Record fields if no valid source record exists on a mapped Attribute Group Data Source. 'Allow invalid if no valid records?' is also a checkbox and if this is set to TRUE then invalid source records are processed if no valid record exists. This setting overrides the 'Is Blank Update Allowed?' setting.

Sub Groups

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This new capability allows Data Sharing Consent flags to be taken from other matched records within the group that share common attributes with the Attribute Group Winning Record. For example, divisional (or channel-specific) email consent flags could be taken from records that provide a trusted source for a given division and have the same Email address as the winning record for the Attribute Group (from which all other attributes on the Master Record would be populated).