

Training – Merge Rules Module

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This document will provide initial training for the Merge Rules function within clearMDM. It's intended to introduce how to setup Merge Rules based upon limited or no experience using clearMDM. This document does not explain the technical aspect or discuss the other functions within clearMDM. More detailed technical information can be found in the quick start guides located here clearMDM.com

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Merge Function Introduction

The merge function is the process that happens after there have been records identified as matches (once the matching process is complete), in other words multiple contact details of individuals or companies that are actually the same. This could quite easily happen if multiple systems are being used to record contact details or if a search was not performed beforehand to see if the record already exists. These records for the same contact could contain out of date information, for example the address or the name may have changed and stored in one of these records, but not all.

Merging these multiple records into one produce's what is known as the 'Master record'. This is the record which holds the most up to date information for the contact. The other multiple records will still be referenced in the Master record, but ultimately, the information displayed is the correct information.

How the Master record is populated is determined by the Merge Rules. Hence why it is important to understand how to set these up correctly. This is a straight forward process, the more complex part is deciding what the rules will be in the first instance. Which leads us onto the first step in the process.

The steps below will help understand how to determine the merge rules to apply and also how to set these up within clearMDM.

Step 1 – Identify the Contact Information Your Company Captures

The most important process for the Merge Rules is determining what these should be. This will probably need to be decided by numerous people from varying departments. Decide who this group should be keeping the numbers to a minimum

When records are created within one or multiple systems, there are numerous fields completed and information gathered. The first thing to identify is which fields are the most important and should be populated with the correct information for the Master record. For example, you would more likely want to ensure that the correct surname, title, billing address, telephone information and email address are up to date. There could be multiple fields capturing email addresses and telephone numbers, so you would also want to make sure you have the primary information for these. Look at the information your company typically captures and make a list of the fields.

Exercise: This process could take some time to finalise, but it's the first step and worth putting the time and effort into it to help with the next step.

Step 2 – Create the Merge Rules

Once the list of fields that will be merged has been agreed, the next step is to decide what rule will determine that the correct information for the field is updated to the Master record. This can be a rule per field, or setup as a group of fields. For example, the telephone number may have numerous fields associated with it that need updating to the Master record. In clearMDM we call this an Attribute Group. This can be numerous fields, associated with one rule or indeed just one field.

Note: The rules in clearMDM can be determined by priority type ‘newest’, ‘oldest’ or ‘quality’. Quality is prioritised by a score (More about this in the Data Quality Rule Module), so for example you may want the mobile phone to be prioritised by the mobile phone quality score. For now, concentrate on deciding the rules and groups.

We suggest using the template table below to help with this process (Note: this template does not cover all fields in the Attribute Group section of clearMDM settings, but serves as a start to begin thinking about the merge rules required.)

Attribute Group Name	Priority Type	Target Field Names	Target Object	Dynamic Merge Priority Field Name (usually a date)	Secondary Priority (Quality Only)

- Attribute Group – Name of the group containing one or more fields.
- Target Field Names – The predetermined list of field names that have been agreed in step 1.
- Priority Type – This is where you decide whether the rule is going to be determined by the newest information, oldest or whether a quality score will be applied.
- Dynamic Merge Priority – This is the field that determines the primary priority, so for example if ‘Newest’ was selected then it is likely a date field will be used to identify this.
- Secondary Priority – When ‘Quality’ has been selected as primary, you can also select a secondary priority, so for example you could select the quality score based upon the newest ‘date’.

To put the above into a bit more context, the table below gives some examples:

Attribute Group	Priority Type	Target Field Names	Target Object (e.g)	Merge Priority Field Name	Secondary Priority (Quality Only)
Create Date Salesforce	Oldest	Creation Date Salesforce	Account	Creation Date Salesforce	
Birthdate	Newest	Birthdate	Account	System Timestamp	
Postal Address	Newest	Street Town City County Postcode	Account		
Mobile Phone Number	Quality	Number	Account	Mobile Quality Score	System Timestamp
Phone Opt Out (checkbox field example)	Newest (this is just for completion and does not affect the AG).	Phone Opt Out	Account	For checkbox fields and value can be entered in this field. The key is to have the 'Is Checkbox Restricted Validity?' Checkbox ticked.	

Exercise: Take the list of fields identified in Step 1 and using the template table, identify the attribute groups, fields and priorities.

Step 3 – Adding the Fields into clearMDM

Now that you have your table completed for the Merge rules, you need to add the fields into clearMDM so that the Attribute Groups can be setup.

To do this, log into your Salesforce Sandbox (always do this first before applying to production so that you can test the outcome).

Exercise:

Follow these steps:

1. Within clearMDM, navigate to Settings>Target Objects.
2. Select the Target Object the Merge Rules are to be applied against (e.g. Contacts in Salesforce, or Accounts etc).
3. Navigate to the Rules tab (scroll down in Salesforce classic).
4. Click on Add.
5. From the drop down, select one of the fields identified in Step 2.
6. Tick the 'Active?' checkbox.
7. Select 'Match Type' of 'ignore' from the drop down.
8. Continue this process until all the fields have been added.

Step 4 – Creating the Attribute Groups

Once all the fields have been added into the Target Object settings, the Attribute Groups can then be set up for the Merge Rules.

Exercise:

Follow these steps:

1. Within the Setting's, navigate to Attribute Groups tab.
2. Click on Add Attribute Group.
3. Using the table completed in Step 2, enter the following:
 - Name – Name of the Attribute Group
 - Target Object – Account/Contact etc that the merge rules apply to
 - Priority Type – This is newest, oldest or quality(dynamic)
 - Is Active? – Tick
 - Is Checkbox Restricted Validity? - Tick (applies to checkbox fields only. When this is ticked then any record within the matched group that has this field ticked then the Master Record will also be ticked).
4. Click on Add under Fields.
5. Click on the Target fields dropdown which will contain all the fields that have been added in Step 3. Select the field associated with this Attribute Group.
6. Tick the 'Attribute Group Required?' (only needs doing for one field).

7. Continue adding all fields associated with this Attribute Group.
8. Click on Add under Data Sources.
9. Select the Data Source that this Attribute group relates to (i.e. where the data is currently held).
10. Select the Merge Priority field name (e.g. System timestamp).
11. Once complete, click on save.

Repeat these steps for all the attribute groups identified in Step 2.

You can now create Merge Rules and add these into clearMDM. The next step will be to execute the Merge Process which is discussed in the 'Jobs' Training module.

New Features

Attribute Group Sub Groups

Attribute Group Sub Groups. 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).

Blank Source Records

It is now possible for the merge engine to blank Source Record field values when populating the master – this is typically required where a unique constraint exists on the field.

Cross Field Merge

When setting up an Attribute Group Template, you can now specify whether unique values only are used during the Merge process. An example of this could be a duplicate address. If Records have the same address, when the Master Record is created a duplicate value of the same address will not be merged to the Master Record.

Other Fields

In the Attribute Group Settings section, there are some checkboxes that can also be selected if required. The following explains what each one does:

Field Name	Description
Is Active?	If false, the attribute group is ignored by Merge and Synchronisation MDM Operations.
Is Checkbox Restricted Validity?	If TRUE, Checkbox fields must be TRUE to pass the validity test if set to required.
Is Sum Numeric Values?	If TRUE, the merge engine will sum all values for all valid Source Records when populating numeric fields on the Master Record. Not supported by Attribute Group Templates.
Allow Invalid if No Valid Records?	If TRUE, Invalid Source Records are processed if no valid records exist. This setting overrides the [Is Blank Update Allowed?] Setting.
Is Multi-Select Picklist All Values?	If TRUE the Merge Engine will combine all values for all valid Source Records when populating Multi-Select Picklist fields on the Master Record. Not supported by Attribute Group Templates.
Is Blank Update Allowed?	If TRUE the Merge Engine will blank Master Record files if no valid Source Records exist and the Master Record does not exist on a mapped Attribute Group Data Source.