

## clearMDM – Trialforce Guide

Product: clearMDM (Enterprise-grade Master Data Management for Salesforce)

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*Product support can be contacted directly ([support@clearmdm.com](mailto:support@clearmdm.com)) for specific questions not addressed by the content of this document or for additional information or feedback in regard to your trial. Additional product documentation resources are available at [www.clearmdm.com](http://www.clearmdm.com).*

### Product Introduction

The clearMDM product is a native application provided as a managed packaged that delivers a master data management solution for the Salesforce platform. There are no off-platform components to the solution, data is not transited off-platform for processing by external services and there is no mobile application.

The clearMDM product supports the MDM operations outlined below in their logical sequence. Prefixes indicate entry points (B=Batch, T=ApexTrigger and U=User Interface).

(BT) **Normalisation.** Standardisation of field values using list Custom Setting lookups (Country codes, Root First Names etc.) or predefined transformation formats (email domain, URL, Title case etc.). Normalisation generates Blocking Keys (or match keys) used as the first pass in record matching.

(BTU) **Matching.** Cross-object matching of records using key, deterministic and probabilistic (fuzzy) matching rules.

(B) **Internal Matching.** Single-object large data volume matching operation.

(BU) **Merge.** Custom merge functionality compatible with Standard and Custom objects and also portal enabled accounts, person accounts and contacts. There is no dependency on the standard platform merge capability.

(B) **Conversion.** Master Record creation on a one-to-one basis for unmatched records or external data where matching is not required. Once paired Master Records can be updated directly to reflect field modifications on their Source Record.

(B) **Re-parenting.** Child Records related to a Source Record can be re-parented to the related Master Record via lookup relationship.

(B) **Custom Rollups.** Numeric fields on Child Records can be aggregated to the Master Record (via lookup relationship).

## Key Concepts

**Target Object.** A compatible object that is defined as the target for Normalisation operations and where Master Records will be created or updated.

**Data Source.** A compatible object that provides data to MDM operations.

**Master Record.** The Master Record is the output of the Conversion and Merge MDM operations and is optionally related to the underlying Source Records via relationship field or simply through concatenation of identifiers into a field on the Master Record.

**Source Record.** Source Records are the input to MDM operations and may be related to a Master Record.

A broad range of Standard Objects (including Person Accounts) are supported as both Target Objects and Data Sources. Custom Objects are fully supported.

## Trialforce Org (TFO) Configuration

The TFO has been configured to represent a basic but typical implementation configuration where external data (ERP Companies) has been loaded into a custom object and consolidation (de-duplication) is required with an existing set of Account records. 1,000 common source records have been loaded into both objects to ensure matches are created during exploratory testing.

An example common source record is Witco Corporation.

### Test User

The [Admin User] has been configured for clearMDM product testing as a [Data Steward] (or Administrator) role.

### Permission Set

[ERP Company User] - Full Object Access CRUD/FLS permissions to the [ERP Company] custom object.

## Example Test Cases

This section provides a basic set of illustrative test cases (in use case format) to support the trial process. The test cases describe the core functions of the clearMDM product in their logical sequence. Please note, the clearMDM product installed in the trial org is fully featured and not limited to the functions described herein.

### System Actors

**[MDM Data Steward]** - Data steward responsible for data management; this includes settings configuration, candidate match validation, reporting and operational monitoring.

**[MDM Data User]** - Standard Salesforce user that requires point-of-entry duplicate protection functionality or may access the Dynamic Hierarchies functionality.

### Functional Use Cases

#### **UC1.0 View Normalisation Settings for Account**

Primary Actor: MDM Data Steward

Postconditions: None

Preconditions: The MDM custom application is currently selected.

Basic flow:

1. User accesses the Settings tab.
2. User accesses the "Target Objects" tab.
3. User clicks Edit next to a configured Target Object e.g. "Account".
4. User views "Normalisation Settings" page section.
5. User access an exemplar record to view MDM related fields.

#### **UC2.0 Invoke Normalisation MDM Operation**

Primary Actor: MDM Data Steward

Postconditions: Records are normalised for the selected Target Object. A [Batch Job Run] record is created for the job instance.

Preconditions: The MDM custom application is currently selected. Normalisation settings are configured.

Basic flow:

1. User accesses the Jobs tab.
2. User selects the Operation "Normalisation".
3. User selects the Target Object "Account".
4. User sets the "Process Count" = 1.

# CLEARMDM

5. User sets the "Schedule Type" = Now.
6. User clicks the "Schedule Job" button.
7. System creates a [Batch Job Run] record at Scheduled status.
8. User views the job instance appear in the "Scheduled Jobs" pane.
9. System updates the [Batch Job Run] record to "In Progress" status.
10. User views the job instance appear in the "Running Jobs" pane.
11. System normalises records for the Target Object used the defined configuration and normalisation rules.
12. System updates the [Batch Job Run] record to "Completed" status.
13. User views the job instance appear in the "Completed Jobs" pane.
14. User clicks the View link adjacent to the completed [Batch Job Run] record to view the job statistics.

## **UC3.0 View Matching Settings for Account**

Primary Actor: MDM Data Steward

Postconditions: None

Preconditions: The MDM custom application is currently selected.

Basic flow:

1. User accesses the Settings tab.
2. User accesses the "Target Objects" tab.
3. User Click Edit next to a configured Target Object "Account".
4. User views "Matching Settings".
5. User access an exemplar record to view MDM related fields.

## **UC4.0 User Interface - Matching Test**

Primary Actor: MDM Data Steward

Postconditions: Matching settings are evaluated, refined and saved for use by the Matching MDM operation.

Preconditions: The MDM custom application is currently selected. Matching settings are configured.

Basic flow:

1. User accesses the "Matching Test" tab.
2. User selects Target Object "Account".
3. User sets default filter by selecting a field and providing a value.
4. User clicks add filter and sets the new filter by selecting a field and providing a value.
5. User clicks the Search button.
6. System searches for matching records across all Data Sources for the Target Object.
7. System renders search results grouped by Data Source.
8. User selects 2 records to compare and clicks the Next button.
9. System renders the record field values for the two records.
10. User clicks the Compare button.
11. System compares the 2 candidate match records using the configured matching rules for the Target Object.
12. User experiments with matching rules and clicks the "Apply to Settings" button to update the Target Object settings.
13. User views the Target Object settings (fields section) to confirm updated settings have been applied.

## **UC5.0 Matching MDM Operation**

Primary Actor: MDM Data Steward

Postconditions: Matching Records are identified and created as [Matched Record Pair] records within a Matched Record Group. A [Batch Job Run] record is created for the job instance.

Preconditions: The MDM custom application is currently selected. Normalisation and Matching settings are configured.

Basic flow:

1. User accesses the Jobs tab.
2. User selects the Operation "Matching".
3. User selects the Target Object "Account".
4. User sets the "Process Count" = 5.
5. User sets the "Schedule Type" = Now.
6. See UC 2.0 step 6 on.
7. User accesses the "Matched Record Pair" tab.
8. User views matched record pairs within groups defined by the "Record Group Id" field.

## **UC6.0 User Interface - Active Point-of-entry Protection**

Primary Actor: MDM User

Postconditions: None

Preconditions: The Sales Cloud application is currently selected. Normalisation and Matching settings are configured.

Basic flow:

1. User clicks the "New" button on the Accounts tab.
2. System renders a Visualforce page override "Search before Create".
3. User sets default filter by selecting a field and providing a value.
4. User clicks add filter and sets the new filter by selecting a field and providing a value.
5. User clicks the Search button.
6. System searches for matching records across all Data Sources for the Target Object.
7. System renders search results grouped by Data Source.
8. User identifies the required Account record in the search results or clicks the Create button to navigate to the standard Account create page.

## **UC7.0 User Interface - Passive Point-of-entry Protection**

Primary Actor: MDM User

Postconditions: None

Preconditions: The Sales Cloud application is currently selected. Normalisation and Matching settings are configured.

Extends: UC6.0

Basic flow:

1. User populates the new Account record and clicks the Save button.
2. System normalises the new record to compose the blocking key group and blocking key values that serve as inputs to the Matching MDM operation.
3. System performs the Matching MDM operation for the new record.
4. System notifies that Match matches exist via a validation error on the standard page, or in the case that no matches are found saves the new record without error.

UC7.0 Example New Account Field Population :

Account name : Witco Corporation

Billing Street : 69 Vandever Ave

Billing State : Philadelphia

Billing City : Philadelphia

Billing Zip/Postal Code : 19107

Billing Country : USA

## UC8.0 Merge MDM Operation

Primary Actor: MDM Data Steward

Postconditions: Matching Records Groups held as [Matched Record Pair] records are processed into Master Record update or create actions. A [Batch Job Run] record is created for the job instance.

Preconditions: The MDM custom application is currently selected. Normalisation and Matching and Merge settings are configured.

Basic flow:

1. User accesses the Jobs tab.
2. User selects the Operation "Merge".
3. User selects the Target Object "Account".
4. User sets the "Process Count" = 5.
5. User sets the "Schedule Type" = Now.
6. See UC 2.0 step 6 on.
7. User accesses the "Matched Record Pair" tab.
8. User views that the only Matched Record Groups that remain are those with at least one "Candidate" status matched record pair record.



## Appendix A – Application Configuration

### 1. Target Object : **Account**

Data Volume : 17,101 records

Normalisation Settings:

Blocking Key – [Normalised Company Name, 5]+[Billing City,2]

Normalisation Rules:

Account Name – [Remove End] => Normalised Company Name

Matching Settings:

BlockingKeyMatchLength – 7

Matching Rules:

Account Name – [Fuzzy] 80/5 (max score/min score)

Billing City – [Fuzzy] 20/5

Billing Postal Code – [Fuzzy] 60/5

Website – [Fuzzy] 70/5

### 2. Target Object : **[ERP Company]**

Data Volume : 13,001 records

Normalisation Settings configured (required for Matching to identify the blocking key composition) – rules as per Account.

### 3. Data Source : **Account**

Target Object : Account

Source Object : NA (internal type data source)

Matching Settings configured

### 4. Data Source : **[ERP Companies]**

Target Object : Account

Source Object : [ERP Company]

Matching Settings configured

Field mappings defined.