

# Reference Data Management in Reltio MDM

Data Sheet | LumenData

## Creating connections in IICS

Reference data is a slow-changing data. For example, Country Names, State Names, Gender, etc. This data rarely changes. As Reltio combines multiple source systems data, it is required to have uniform data for all Reference Data. For instance, Source A has gender values as Male, Female & others while Source B has gender values as M, F & O. So, it will be very complex to maintain all these data values from all the sources. Here comes the RDM (Reference Data Management) where we will map all these values to the hard coded values known as canonical values. Every time we fetch a record in UI, we will see only these canonical values which will be uniform irrespective of source system. This is explained in detail later in the document.

A reference data management tool is a mechanism that defines business processes around reference data and helps data stewards populate and manage it over time. It automates workflows to create new codes and code sets and delivers codes and code sets to data users.

In the world of data management, reference data is the data that is found in what are typically called type fields which appear in records within transactional systems.

- Gender codes.
- State codes.
- Country codes.
- Specialty codes.
- Account types.
- SIC codes.
- Medical codes.

Reference data and lists of values are stored in RDM as lookups. The different reference data sets from various sources are standardized. This data is later looked up or referenced by Reltio MDM when creating or editing entities.

## **Lookup Types and Canonical Values**

In a typical application landscape, various systems will each have their own set of values they use for common semantic ideas. For example, Gender is a common attribute across many systems, but the value representing females in system A might be 01; in system B it can be F, and in system C, it can be CD Female. If your MDM tenant receives data from these three systems, without the aid of RDM, three different values might accumulate within the gender attribute of a merged record. Of these three values, any one of them may appear for the Gender field in Hub. And in this unconfirmed state, queries become challenging because all three values must be queried to find records representing females. Also, a search facet based on Gender will display all three values, which again is challenging and undesirable.

Instead, RDM allows you to define a Lookup Type called Gender that can be used to transcode the source values into a single Canonical value. Once you create a Lookup Type, within it, you then define Canonical Rows, each one specifying a Canonical value you wish to standardize. This value is then associated with each of the values from various source systems. In this example, you might create a Canonical Row that represents the female Gender and has a canonical value of Female. You can then associate this value with the values of 01, F, and CD Female being provided by the three-source systems A, B, and C respectively.

The screenshot displays the 'MAPPING' tab for a 'Gender' Lookup Type. It features a table with columns for 'Canonical value', 'Reltio (2)', 'FDA (2)', and 'ATC (2)'. The 'Canonical value' column lists 'Female' and 'Male'. The 'Reltio (2)' column lists 'Female' and 'Male'. The 'FDA (2)' column lists 'CD\_Female' and 'CD\_Male'. The 'ATC (2)' column lists '01' and '02'. A '+' icon is visible in the bottom right of the table.

Annotations include:

- 'Lookup Type' pointing to 'Gender'.
- 'Canonical Value for the row' pointing to the 'Female' row.
- 'Canonical Code for the row. Displayed only in the popup box shown here, but not editable after initially set. (It's really the key for the row)' pointing to the 'Male' canonical code in the 'Edit canonical value' popup.
- 'Source Value for the FDA source.' pointing to 'CD\_Male' in the source value input field.
- 'Source Code for the FDA source.' pointing to 'CD\_MALE' in the source code input field.
- A note: 'If either of these strings are passed to RDM with the source of "FDA", the RDM API will return "Male"'. This note is positioned below the source value and code input fields.

Canonical value	Reltio (2)	FDA (2)	ATC (2)
Female	Female	CD_Female	01
Male	Male	CD_Male	02

**Edit canonical value**

Code\* Male

Start date: Never End date: Never

Status: Turn off to disable this canonical value from your tenant.

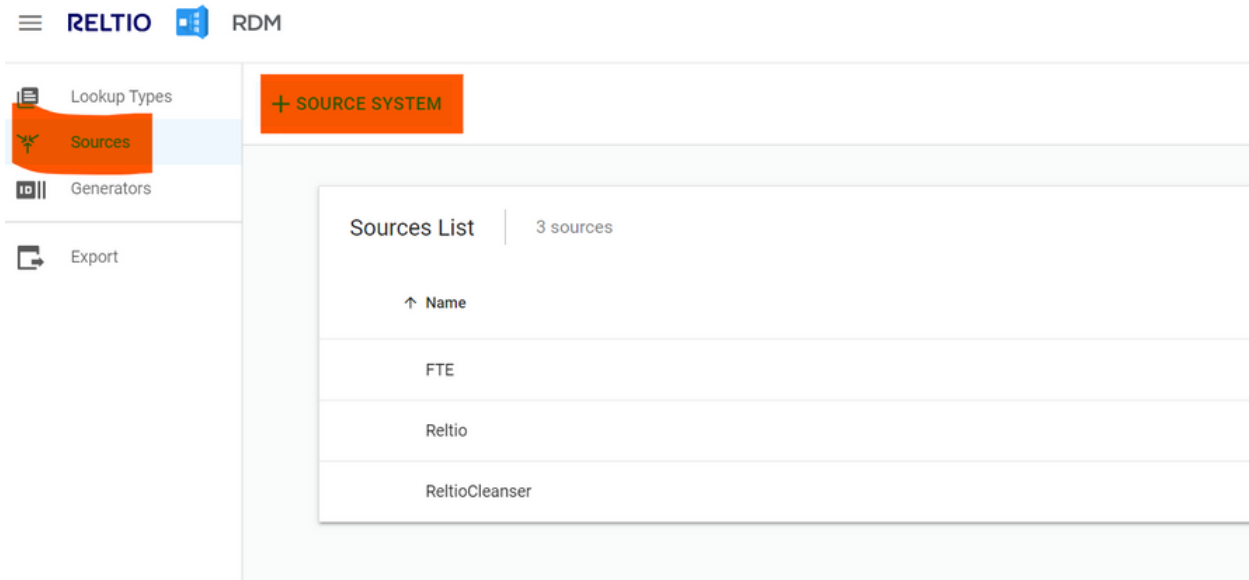
DELETE CANCEL DONE

CD\_Male

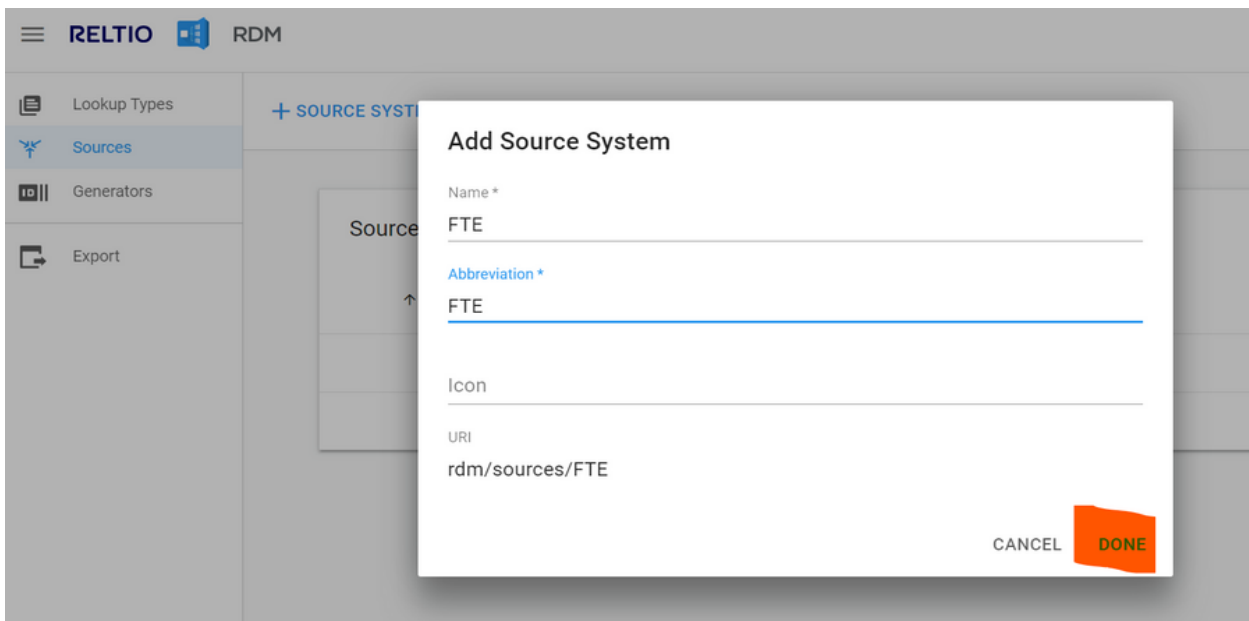
CD\_MALE

# Adding Source System

1. Click Sources and add Source system.

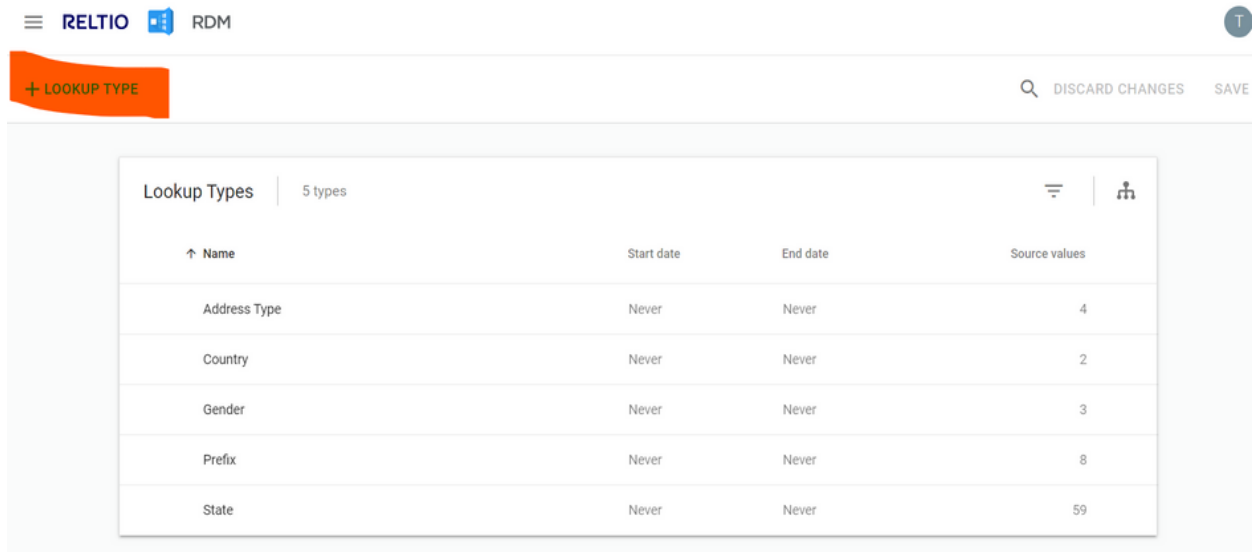


- 2.



# Creating New Lookups and Canonical Rows

## 1. Click Lookup TYPE



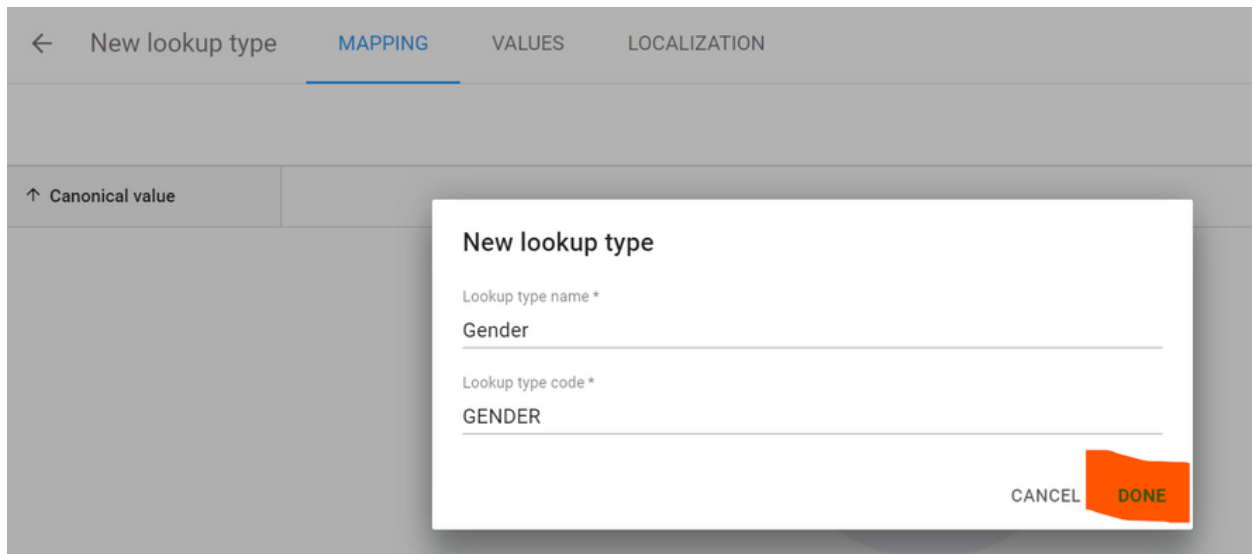
RELTIO RDM

+ LOOKUP TYPE

DISCARD CHANGES SAVE

↑ Name	Start date	End date	Source values
Address Type	Never	Never	4
Country	Never	Never	2
Gender	Never	Never	3
Prefix	Never	Never	8
State	Never	Never	59

## 2. Enter Lookup name and click save.



← New lookup type

MAPPING VALUES LOCALIZATION

↑ Canonical value

**New lookup type**

Lookup type name \*

Gender

Lookup type code \*

GENDER

CANCEL DONE

### 3. We can add Source columns by clicking add column.

← Gender    MAPPING    VALUES    LOCALIZATION

+ CANONICAL VALUE ROW

↑ Canonical value	Reltio (3)	ReltioCleanser (3)	+
Female	Female	Female	Add column
Male	Male	Male	
Unknown	Unknown	Unknown	
+			

### 4. Add Canonical values for required source systems.

← Gender    MAPPING    VALUES    LOCALIZATION

+ CANONICAL VALUE ROW

DISCARD CHANGES    SAVE

↑ Canonical value	Reltio (3)	ReltioCleanser (3)	FTE (2)
Female	Female	Female	F <span>NEW</span>
Male	Male	Male	M <span>NEW</span>
Unknown	Unknown	Unknown	
+			

RDM stores additional information with each Lookup Code definition, such as:

- Source Mapping
- Hierarchy
- Localization

## Dependent Lookups

When we have data that is driven by other data - for example, a list of states/regions/cities depends on the country.

### Special features of dependent lookups:

- One dependent lookup value can belong to multiple dependent values - for example, MD (specialty - medical doctor) exists in multiple countries. Some specialties can be in multiple countries, while other specialties can belong only to one country.
- There can be multiple level dependent lookups over a sequence of dependent lookups when one lookup drives another one, then another - for example, Continent > Country > State > County > City.
- Simple, nested, and reference attribute elements can be driven by simple attributes.

Users can work with dependent and non-dependent lookups in Edit mode. Users cannot edit a dependent lookup value that does not have an attribute value for the attribute on which it depends. Upon saving a profile, the system performs validation of dependent lookup values: if a dependent lookup is not filled, it will be highlighted on the page with a corresponding message.

## ABOUT LUMENDATA:

LumenData is a leading provider of Enterprise Data Management, Cloud & Analytics solutions. We help businesses navigate their data visualization and analytics anxieties and enable them to accelerate their innovation journeys. Founded in 2008, with locations in multiple countries, LumenData is privileged to serve over 100 leading companies, including KwikTrip, Versant Health, US Food & Drug Administration, US Department of Labor, Cummins Engine, BCG, and others. LumenData is SOC2 certified and has instituted extensive controls to protect client data, including adherence to GDPR and CCPA regulations.

Get in touch to discuss how we can facilitate data-driven transformation for your organization.

## MEET OUR AUTHORS



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