



# FLOSS Solutions for Open Land Administration (SOLA)

## **Data Dictionary**

FAO NRC Land Tenure Team  
version: 1.1  
29/08/2013

## Contents

|   |    |
|---|----|
| Introduction . . . . .                              | 6  |
| address . . . . .                                   | 7  |
| Table: address . . . . .                            | 7  |
| administrative . . . . .                            | 9  |
| Table: admin_fee_rate . . . . .                     | 9  |
| Table: admin_fee_type . . . . .                     | 11 |
| Table: admin_rate_type . . . . .                    | 12 |
| Table: ba_unit . . . . .                            | 13 |
| Table: ba_unit_area . . . . .                       | 16 |
| Table: ba_unit_as_party . . . . .                   | 17 |
| Table: ba_unit_contains_spatial_unit . . . . .      | 18 |
| Table: ba_unit_rel_type . . . . .                   | 19 |
| Table: ba_unit_target . . . . .                     | 20 |
| Table: ba_unit_type . . . . .                       | 21 |
| Table: dispute . . . . .                            | 22 |
| Table: dispute_action . . . . .                     | 23 |
| Table: dispute_category . . . . .                   | 24 |
| Table: dispute_comments . . . . .                   | 25 |
| Table: dispute_party . . . . .                      | 26 |
| Table: dispute_reports . . . . .                    | 27 |
| Table: dispute_status . . . . .                     | 28 |
| Table: dispute_type . . . . .                       | 29 |
| Table: lease_special_condition . . . . .            | 30 |
| Table: mortgage_type . . . . .                      | 31 |
| Table: notation . . . . .                           | 32 |
| Table: other_authorities . . . . .                  | 33 |
| Table: party_for_rrr . . . . .                      | 34 |
| Table: required_relationship_baunit . . . . .       | 35 |
| Table: rrr . . . . .                                | 36 |
| Table: rrr_group_type . . . . .                     | 39 |
| Table: rrr_share . . . . .                          | 40 |
| Table: rrr_type . . . . .                           | 41 |
| Table: source_describes_ba_unit . . . . .           | 43 |
| Table: source_describes_rrr . . . . .               | 44 |
| Sequence: rrr_nr_seq . . . . .                      | 45 |
| Sequence: notation_reference_nr_seq . . . . .       | 46 |
| Sequence: ba_unit_first_name_part_seq . . . . .     | 47 |
| Sequence: ba_unit_last_name_part_seq . . . . .      | 48 |
| Function: get_ba_unit_pending_action . . . . .      | 49 |
| Function: ba_unit_name_is_valid . . . . .           | 50 |
| Function: get_calculated_area_size_action . . . . . | 51 |
| Function: get_concatenated_name . . . . .           | 52 |

|   |     |
|---|-----|
| Function: get_parcel_ownersnames . . . . .  | 53  |
| Function: getsysregmanagement . . . . .     | 54  |
| Function: get_objections . . . . .          | 55  |
| Function: getsysregstatus . . . . .         | 56  |
| Function: getsysregprogress . . . . .       | 57  |
| Sequence: dispute_nr_seq . . . . .          | 58  |
| source . . . . .                            | 59  |
| Table: administrative_source_type . . . . . | 59  |
| Table: archive . . . . .                    | 62  |
| Table: availability_status_type . . . . .   | 63  |
| Table: power_of_attorney . . . . .          | 64  |
| Table: presentation_form_type . . . . .     | 65  |
| Table: source . . . . .                     | 67  |
| Table: spatial_source . . . . .             | 70  |
| Table: spatial_source_measurement . . . . . | 71  |
| Table: spatial_source_type . . . . .        | 72  |
| Sequence: source_la_nr_seq . . . . .        | 74  |
| system . . . . .                            | 75  |
| Table: appgroup . . . . .                   | 75  |
| Table: approle . . . . .                    | 77  |
| Table: approle_appgroup . . . . .           | 82  |
| Table: appuser . . . . .                    | 84  |
| Table: appuser_appgroup . . . . .           | 85  |
| Table: appuser_setting . . . . .            | 86  |
| Table: br . . . . .                         | 87  |
| Table: br_definition . . . . .              | 88  |
| Table: br_severity_type . . . . .           | 89  |
| Table: br_technical_type . . . . .          | 90  |
| Table: br_validation . . . . .              | 91  |
| Table: br_validation_target_type . . . . .  | 93  |
| Table: config_map_layer . . . . .           | 95  |
| Table: config_map_layer_type . . . . .      | 99  |
| Table: language . . . . .                   | 100 |
| Table: map_search_option . . . . .          | 101 |
| Table: query . . . . .                      | 103 |
| Table: query_field . . . . .                | 108 |
| Table: setting . . . . .                    | 111 |
| View: br_current . . . . .                  | 112 |
| View: br_report . . . . .                   | 113 |
| View: user_roles . . . . .                  | 114 |
| Function: setPassword . . . . .             | 115 |
| Function: get_setting . . . . .             | 116 |
| application . . . . .                       | 117 |
| Table: application . . . . .                | 117 |

|  |     |
|--|-----|
| Table: application_action_type . . . . .             | 120 |
| Table: application_form . . . . .                    | 122 |
| Table: application_property . . . . .                | 123 |
| Table: application_spatial_unit . . . . .            | 124 |
| Table: application_status_type . . . . .             | 125 |
| Table: application_uses_source . . . . .             | 127 |
| Table: request_category_type . . . . .               | 128 |
| Table: request_type . . . . .                        | 129 |
| Table: request_type_requires_source_type . . . . .   | 134 |
| Table: service . . . . .                             | 136 |
| Table: service_action_type . . . . .                 | 138 |
| Table: service_status_type . . . . .                 | 140 |
| Table: type_action . . . . .                         | 141 |
| View: systematic_registration_certificates . . . . . | 142 |
| Sequence: application_nr_seq . . . . .               | 143 |
| Function: getlodgement . . . . .                     | 144 |
| Function: getlodgetiming . . . . .                   | 145 |
| Function: get_concatenated_name . . . . .            | 146 |
| cadastre . . . . .                                   | 147 |
| Table: area_type . . . . .                           | 148 |
| Table: building_unit_type . . . . .                  | 150 |
| Table: cadastre_object . . . . .                     | 151 |
| Table: cadastre_object_node_target . . . . .         | 154 |
| Table: cadastre_object_target . . . . .              | 155 |
| Table: cadastre_object_type . . . . .                | 156 |
| Table: dimension_type . . . . .                      | 157 |
| Table: ground_rent_multiplication_factor . . . . .   | 158 |
| Table: land_grade_type . . . . .                     | 160 |
| Table: land_use_grade . . . . .                      | 161 |
| Table: land_use_type . . . . .                       | 167 |
| Table: legal_space_utility_network . . . . .         | 169 |
| Table: level . . . . .                               | 170 |
| Table: level_content_type . . . . .                  | 172 |
| Table: register_type . . . . .                       | 174 |
| Table: road_class_type . . . . .                     | 175 |
| Table: spatial_unit . . . . .                        | 176 |
| Table: spatial_unit_address . . . . .                | 178 |
| Table: spatial_unit_group . . . . .                  | 179 |
| Table: spatial_unit_in_group . . . . .               | 180 |
| Table: spatial_value_area . . . . .                  | 181 |
| Table: structure_type . . . . .                      | 182 |
| Table: surface_relation_type . . . . .               | 183 |
| Table: survey_point . . . . .                        | 184 |
| Table: utility_network_status_type . . . . .         | 185 |

|   |     |
|---|-----|
| Table: utility_network_type . . . . .             | 186 |
| View: place_name . . . . .                        | 187 |
| View: road . . . . .                              | 188 |
| View: survey_control . . . . .                    | 189 |
| Function: cadastre_object_name_is_valid . . . . . | 190 |
| Function: add_topo_points . . . . .               | 191 |
| Function: snap_geometry_to_geometry . . . . .     | 192 |
| party . . . . .                                   | 193 |
| Table: communication_type . . . . .               | 193 |
| Table: gender_type . . . . .                      | 195 |
| Table: group_party . . . . .                      | 196 |
| Table: id_type . . . . .                          | 197 |
| Table: legal_type . . . . .                       | 198 |
| Table: party . . . . .                            | 200 |
| Table: party_member . . . . .                     | 203 |
| Table: party_role . . . . .                       | 204 |
| Table: party_role_type . . . . .                  | 205 |
| Table: party_type . . . . .                       | 207 |
| Function: is_rightholder . . . . .                | 208 |
| document . . . . .                                | 209 |
| Table: document . . . . .                         | 209 |
| Sequence: document_nr_seq . . . . .               | 211 |
| transaction . . . . .                             | 212 |
| Table: reg_status_type . . . . .                  | 212 |
| Table: transaction . . . . .                      | 214 |
| Table: transaction_source . . . . .               | 216 |
| Table: transaction_status_type . . . . .          | 217 |
| bulk_operation . . . . .                          | 218 |
| Table: spatial_unit_temporary . . . . .           | 218 |
| Function: move_spatial_units . . . . .            | 220 |
| Function: move_cadastre_objects . . . . .         | 221 |
| Function: move_other_objects . . . . .            | 222 |
| Function: clean_after_rollback . . . . .          | 223 |
| public . . . . .                                  | 224 |
| Function: f_for_trg_track_changes . . . . .       | 224 |
| Function: f_for_trg_track_history . . . . .       | 225 |
| Function: fn_triggerall . . . . .                 | 226 |
| Function: clean_db . . . . .                      | 227 |
| Function: compare_strings . . . . .               | 228 |
| Function: get_geometry_with_srid . . . . .        | 229 |
| Function: get_translation . . . . .               | 230 |
| Function: clean_db_foreign_constraints . . . . .  | 231 |
| Function: clean_db_triggers . . . . .             | 232 |

## Introduction

The SOLA database has been created as part of a project undertaken by the UN Food and Agriculture Organization (with funding from the Government of Finland) to develop open source software that supports cadastre and registration functions in land administration agencies. It has a particular goal of making computerized systems supporting open land administration more affordable and sustainable in developing countries.

The SOLA database is implemented in a Postgre SQL database and is a relational database implementation of an extended version of the Land Administration Data Model (LADM) which is currently a Draft International Standard (DIS 19152). It has been necessary to extend DIS 19152 because of the operational needs of land administration agencies to incorporate case management and other features into any system that supports the processing of client service requests (for land information, registration and cadastre change requests and others) and the maintaining and updating of the record of rights and restrictions, ownership and property boundaries. The FLOSS SOLA software supports this range of land administration business processes and the SOLA database is an integral part of the FLOSS SOLA database.

The SOLA Data Dictionary is organized according to the database schemas defined in the SOLA database. Within each section for a schema there is a definition of all tables including their description, column, constraints and relationship details.

The SOLA database should be considered a work in progress over the period 2011 - 2013 while the initial FLOSS SOLA software is under development and pilot implementation are being undertaken. For this reason those referring to this document should check [www.flossola.org](http://www.flossola.org) to ensure they have the latest version.

## address

| address.address   |                |              |   |
|---|----------------|--------------|---|
|  | id             | varchar(40)  |   |
|  | description    | varchar(255) | N |
|  | ext_address_id | varchar(40)  | N |

### Table: address

Describes a postal or location address

#### LADM Reference Object

FLOSS SOLA Extension

#### LADM Definition

Not Applicable

### Columns

| Name           | Type         | Optional | Default | Description  |
|----------------|--------------|----------|---------|--|
| id             | varchar(40)  | False    |         | <b>SOLA Extension</b> - Address identifier                                     |
| description    | varchar(255) | True     |         | <b>SOLA Extension</b> - Description of an address                              |
| ext_address_id | varchar(40)  | True     |         | <b>SOLA Extension</b> Identifier of an address referencing an external system. |

### Constraints

| Name         | Type        | Explanation                            |
|--------------|-------------|--|
| address_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (to)

| Name                  | Information  | Description                             |
|-----------------------|--|---|
| party_address_id_fk10 | <b>From columns:</b> address_id<br><b>From Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | FLOSS SOLA relationship - no refinement |

|                                      |  |   |
|--------------------------------------|--|---|
| spatial_unit_address_address_id_fk92 | <b>From columns:</b> address_id<br><b>From Entity:</b> spatial_unit_address<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
|--------------------------------------|--|---|



# administrative

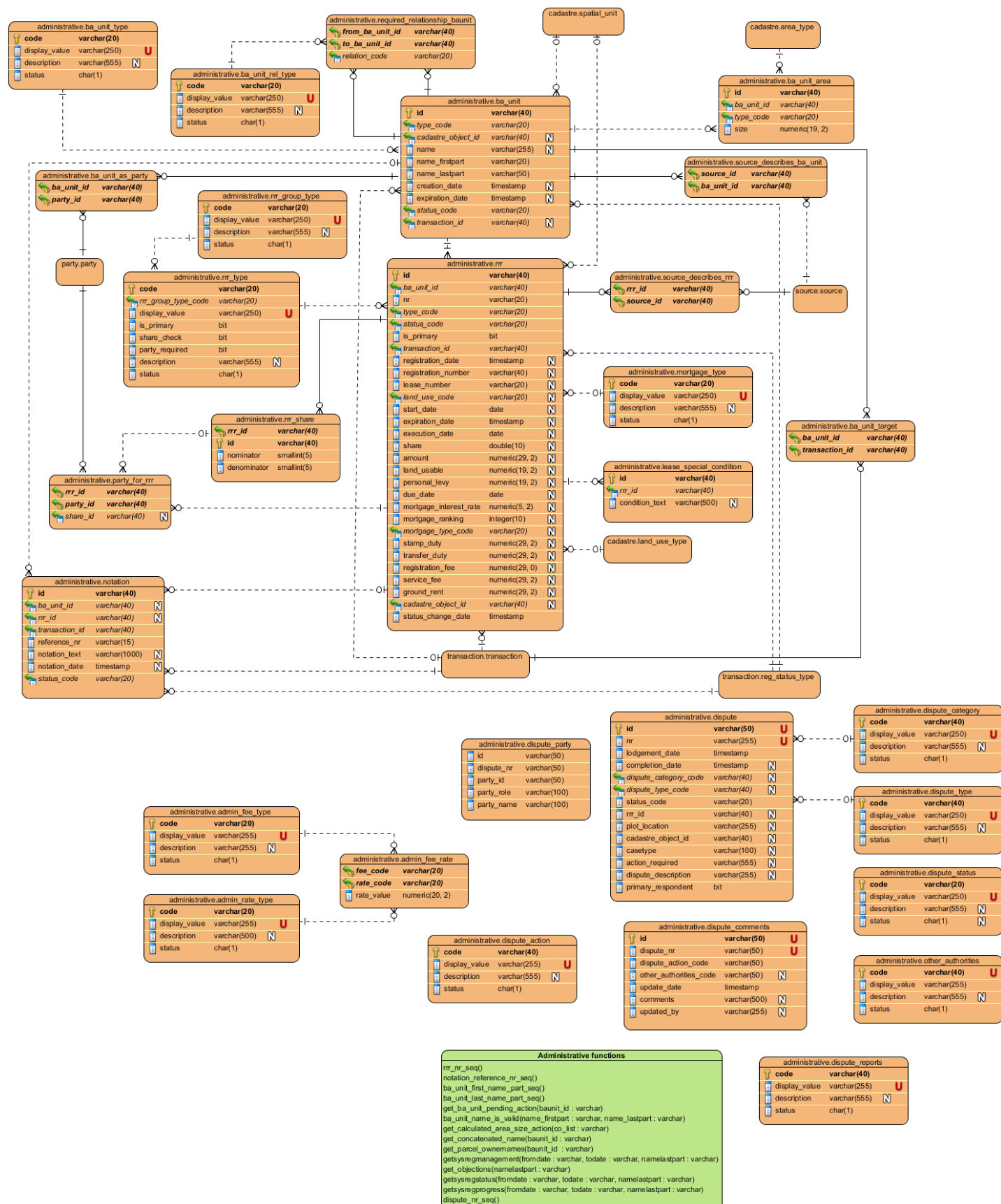


Table: admin\_fee\_rate

**Columns**

| Name       | Type           | Optional | Default | Description |
|------------|----------------|----------|---------|-------------|
| fee_code   | varchar(20)    | False    |         |             |
| rate_code  | varchar(20)    | False    |         |             |
| rate_value | numeric(20, 2) | False    | 0       |             |

**Constraints**

| Name                | Type        | Explanation  |
|---------------------|-------------|--|
| admin_fee_rate_pkey | PRIMARY KEY | Combination of (fee_code,rate_code) is the primary key |

**Relationships (from)**

| Name                          | Information  | Description |
|-------------------------------|--|-------------|
| admin_fee_rate_fee_code_fk87  | <b>From columns:</b> fee_code<br><b>To Entity:</b> admin_fee_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1   |             |
| admin_fee_rate_rate_code_fk88 | <b>From columns:</b> rate_code<br><b>To Entity:</b> admin_rate_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

**Data**

| Nr | fee_code     | rate_code      | rate_value |
|----|--------------|----------------|------------|
| 1  | stampDuty    | lowerRate      | 0.01       |
| 2  | stampDuty    | upperRate      | 0.03       |
| 3  | stampDuty    | thresholdValue | 7000       |
| 4  | transferDuty | lowerRate      | 0.03       |
| 5  | transferDuty | upperRate      | 0.04       |
| 6  | transferDuty | thresholdValue | 10000      |

## Table: admin\_fee\_type

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(20)  | False    |         |             |
| display_value | varchar(255) | False    |         |             |
| description   | varchar(255) | True     |         |             |
| status        | char(1)      | False    | 'c'     |             |

### Constraints

| Name                                | Type        | Explanation                              |
|-------------------------------------|-------------|--|
| admin_fee_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| admin_fee_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                         | Information  | Description |
|------------------------------|--|-------------|
| admin_fee_rate_fee_code_fk87 | <b>From columns:</b> fee_code<br><b>From Entity:</b> admin_fee_rate<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code         | display_value | description | status |
|----|--------------|---------------|-------------|--------|
| 1  | groundRent   | Ground Rent   |             | c      |
| 2  | stampDuty    | Stamp Duty    |             | c      |
| 3  | transferDuty | Transfer Duty |             | c      |

## Table: admin\_rate\_type

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(20)  | False    |         |             |
| display_value | varchar(255) | False    |         |             |
| description   | varchar(500) | True     |         |             |
| status        | char(1)      | False    | 'c'     |             |

### Constraints

| Name                                 | Type        | Explanation                              |
|--------------------------------------|-------------|--|
| admin_rate_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| admin_rate_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                          | Information   | Description |
|-------------------------------|---|-------------|
| admin_fee_rate_rate_code_fk88 | <b>From columns:</b> rate_code<br><b>From Entity:</b> admin_fee_rate<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code           | display_value   | description | status |
|----|----------------|-----------------|-------------|--------|
| 1  | lowerRate      | Lower Rate      |             | c      |
| 2  | upperRate      | Upper Rate      |             | c      |
| 3  | thresholdValue | Threshold Value |             | c      |

## Table: ba\_unit

Refer to LADM DefinitionLADM Reference Object LA\_BAUnitLADM DefinitionBasic administrative units (abbreviated as baunits), are needed, among other things, to register 'basic property units', which consist of several spatial units, belonging to a party, under the same right (a right must be 'homogeneous' over the whole baunit)..

### Columns

| Name               | Type         | Optional | Default         | Description  |
|--------------------|--------------|----------|-----------------|--|
| id                 | varchar(40)  | False    |                 | <b>LADM Definition</b> - The identifier of the basic administrative unit   |
| type_code          | varchar(20)  | False    | 'basicProperty' | <b>LADM Definition</b> - The type of the basic administrative unit   |
| cadastre_object_id | varchar(40)  | True     |                 | Cadastre object id. Introduced in Lesotho project.   |
| name               | varchar(255) | True     |                 | <b>LADM Definition</b> - The name of the basic administrative unit   |
| name_firstpart     | varchar(20)  | False    |                 | <b>LADM Definition</b> - It is the part of the identifier of the property. Together with the name_lastpart is supposed to uniquely identify the property. This constraint it is not enforced, because there will be cases when it is not unique. Combination of name_firstpart and name_lastpart must derive the value of ba_unit.       |
| name_lastpart      | varchar(50)  | False    |                 | <b>LADM Definition</b> - It is the last part of the identifier of the property. Together with the name_firstpart is supposed to uniquely identify the property. This constraint it is not enforced, because there will be cases when it is not unique. Combination of name_firstpart and name_lastpart must derive the value of ba_unit. |
| creation_date      | timestamp    | True     |                 | LADM Extension The date the ba_unit is formally recognised. In the case of titles, the date of issue   |
| expiration_date    | timestamp    | True     |                 | LADM Extension The date on which a ba_unit ceases to have validity   |
| status_code        | varchar(20)  | False    | 'pending'       | The status of the ba unit.   |
| transaction_id     | varchar(40)  | True     |                 | Transaction which creates the baunit.  |

### Constraints

| Name         | Type        | Explanation                            |
|--------------|-------------|--|
| ba_unit_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                   | Information   | Description                       |
|------------------------|---|-----------------------------------|
| ba_unit_type_code_fk38 | <b>From columns:</b> type_code<br><b>To Entity:</b> ba_unit_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

|                                 |   |  |
|---------------------------------|---|--|
| ba_unit_status_code_fk39        | <b>From columns:</b> status_code<br><b>To Entity:</b> reg_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1        |  |
| ba_unit_transaction_id_fk40     | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1      |  |
| ba_unit_cadastre_object_id_fk41 | <b>From columns:</b> cadastre_object_id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |  |

**Relationships (to)**

| Name  | Information   | Description                       |
|---|---|-----------------------------------|
| rrr_ba_unit_id_fk57                               | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 1..*<br><b>To Cardinality:</b> 1                               | LADM Definition - no refinement   |
| source_describes_ba_unit_ba_unit_id_fk65          | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> source_describes_ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1          | LADM relationship - no refinement |
| required_relationship_baunit_from_ba_unit_id_fk66 | <b>From columns:</b> from_ba_unit_id<br><b>From Entity:</b> required_relationship_baunit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |
| required_relationship_baunit_to_ba_unit_id_fk68   | <b>From columns:</b> to_ba_unit_id<br><b>From Entity:</b> required_relationship_baunit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1   | LADM relationship - no refinement |
| ba_unit_as_party_ba_unit_id_fk70                  | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> ba_unit_as_party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                  |                                   |
| notation_ba_unit_id_fk74                          | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> notation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                       |                                   |
| ba_unit_area_ba_unit_id_fk76                      | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> ba_unit_area<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                      |                                   |
| ba_unit_target_ba_unit_id_fk82                    | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> ba_unit_target<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                    |                                   |

|  |   |   |
|--|---|---|
| ba_unit_contains_spatial_unit_ba_unit_id_fk109 | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> ba_unit_contains_spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement           |
| application_property_ba_unit_id_fk114          | <b>From columns:</b> ba_unit_id<br><b>From Entity:</b> application_property<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1          | SOLA Extension relationship - no refinement |

### ***Triggers***

| <b>Name</b>           | <b>Event</b>            |
|-----------------------|-------------------------|
| check_cadastre_object | before insert or update |

## Table: ba\_unit\_area

### Columns

| Name       | Type           | Optional | Default | Description |
|------------|----------------|----------|---------|-------------|
| id         | varchar(40)    | False    |         |             |
| ba_unit_id | varchar(40)    | False    |         |             |
| type_code  | varchar(20)    | False    |         |             |
| size       | numeric(19, 2) | False    |         |             |

### Constraints

| Name              | Type        | Explanation                            |
|-------------------|-------------|--|
| ba_unit_area_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                         | Information  | Description |
|------------------------------|--|-------------|
| ba_unit_area_ba_unit_id_fk76 | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  |             |
| ba_unit_area_type_code_fk77  | <b>From columns:</b> type_code<br><b>To Entity:</b> area_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |



## Table: ba\_unit\_as\_party

LADM Definition LA\_BAUnit is associated to class LA\_Party (a party may be an basic administrative unit, indicated by the attribute 'partyType').LADM Reference ObjectAssociation baunitAsParty

### Columns

| Name       | Type        | Optional | Default | Description         |
|------------|-------------|----------|---------|---------------------|
| ba_unit_id | varchar(40) | False    |         | The id of ba_unit   |
| party_id   | varchar(40) | False    |         | The id of the party |

### Constraints

| Name                  | Type        | Explanation   |
|-----------------------|-------------|---|
| ba_unit_as_party_pkey | PRIMARY KEY | Combination of (ba_unit_id,party_id) is the primary key |

### Relationships (from)

| Name                             | Information   | Description |
|----------------------------------|---|-------------|
| ba_unit_as_party_ba_unit_id_fk70 | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| ba_unit_as_party_party_id_fk71   | <b>From columns:</b> party_id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1     |             |

## Table: ba\_unit\_contains\_spatial\_unit

Defines the spatial unit(s) associated with ba\_unitLADM Reference Object Implements the many to many relationship  
LA\_BAUnit - LA\_SpatialUnitLADM Definition Not defined.

### Columns

| Name            | Type        | Optional | Default | Description   |
|-----------------|-------------|----------|---------|---|
| ba_unit_id      | varchar(40) | False    |         | <b>LADM Definition</b> Basic administrative unit identifier |
| spatial_unit_id | varchar(40) | False    |         | <b>LADM Definition</b> Spatial unit identifier              |

### Constraints

| Name                               | Type        | Explanation  |
|------------------------------------|-------------|--|
| ba_unit_contains_spatial_unit_pkey | PRIMARY KEY | Combination of (ba_unit_id,spatial_unit_id) is the primary key |

### Relationships (from)

| Name  | Information   | Description                       |
|---|---|-----------------------------------|
| ba_unit_contains_spatial_unit_ba_unit_id      | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                 | LADM relationship - no refinement |
| ba_unit_contains_spatial_unit_spatial_unit_id | <b>From columns:</b> spatial_unit_id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1       | LADM relationship - no refinement |
| ba_unit_contains_spatial_unit_spatial_unit_id | <b>From columns:</b> spatial_unit_id<br><b>To Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |                                   |

## Table: ba\_unit\_rel\_type

The types of relation two ba\_units can have between each other.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code                                     |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| description   | varchar(555) | True     |         | Description                                  |
| status        | char(1)      | False    |         | The status of this code itself.              |

### Constraints

| Name                                  | Type        | Explanation                              |
|---------------------------------------|-------------|--|
| ba_unit_rel_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| ba_unit_rel_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                       | Information   | Description |
|--|---|-------------|
| required_relationship_baunit_relation_code | <b>From columns:</b> relation_code<br><b>From Entity:</b> required_relationship_baunit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code       | display_value | description   | status |
|----|------------|---------------|---------------|--------|
| 1  | priorTitle | Prior Title   | Prior Title   | c      |
| 2  | rootTitle  | Root of Title | Root of Title | c      |

## Table: ba\_unit\_target

This table holds information about which ba units are being targets of a transaction. It is used when a ba unit is marked for cancellation.

### Columns

| Name           | Type        | Optional | Default | Description                                    |
|----------------|-------------|----------|---------|--|
| ba_unit_id     | varchar(40) | False    |         | Id of the ba unit being target.                |
| transaction_id | varchar(40) | False    |         | Id of the transaction that targes the ba unit. |

### Constraints

| Name                | Type        | Explanation   |
|---------------------|-------------|---|
| ba_unit_target_pkey | PRIMARY KEY | Combination of (ba_unit_id,transaction_id) is the primary key |

### Relationships (from)

| Name                               | Information   | Description |
|------------------------------------|---|-------------|
| ba_unit_target_ba_unit_id_fk82     | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1         |             |
| ba_unit_target_transaction_id_fk83 | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

## Table: ba\_unit\_type

Reference Table / Code list for types of BA Units

### LADM Reference Object

LA\_BAUnitType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> Basic unit type code                  |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> Display value for the basic unit type |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> Description of the unit type          |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> Status of the basic unit type          |

### Constraints

| Name                              | Type        | Explanation                              |
|-----------------------------------|-------------|--|
| ba_unit_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| ba_unit_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                   | Information  | Description                       |
|------------------------|--|-----------------------------------|
| ba_unit_type_code_fk38 | <b>From columns:</b> type_code<br><b>From Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code               | display_value                                 | description   | status |
|----|--------------------|---|---|--------|
| 1  | basicPropertyUnit  | Basic Property Unit:::Unità base Proprieta    | This is the basic property unit that is used by default | c      |
| 2  | leasedUnit         | Leased Unit:::Unità Affitto                   |   | x      |
| 3  | propertyRightUnit  | Property Right Unit:::Unità Diritto Proprieta |   | x      |
| 4  | administrativeUnit | Administrative Unit                           |   | x      |

## Table: dispute

First table created that captures basic information about a dispute.

### Columns

| Name                  | Type         | Optional | Default   | Description |
|-----------------------|--------------|----------|-----------|-------------|
| id                    | varchar(50)  | False    |           |             |
| nr                    | varchar(255) | False    |           |             |
| lodgement_date        | timestamp    | False    | now()     |             |
| completion_date       | timestamp    | True     |           |             |
| dispute_category_code | varchar(40)  | True     |           |             |
| dispute_type_code     | varchar(40)  | True     |           |             |
| status_code           | varchar(20)  | False    | 'Pending' |             |
| rrr_id                | varchar(40)  | True     |           |             |
| plot_location         | varchar(255) | True     |           |             |
| cadastre_object_id    | varchar(40)  | True     |           |             |
| casetype              | varchar(100) | True     |           |             |
| action_required       | varchar(555) | True     |           |             |
| dispute_description   | varchar(255) | True     |           |             |
| primary_respondent    | bool         | False    | 'false'   |             |

### Constraints

| Name              | Type        | Explanation                            |
|-------------------|-------------|--|
| dispute_id_unique | UNIQUE      | Combination of (id) is unique          |
| dispute_nr_unique | UNIQUE      | Combination of (nr) is unique          |
| dispute_pkey      | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                               | Information   | Description |
|------------------------------------|---|-------------|
| dispute_dispute_category_code_fk85 | <b>From columns:</b><br>dispute_category_code<br><b>To Entity:</b> dispute_category<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |
| dispute_dispute_type_code_fk86     | <b>From columns:</b><br>dispute_type_code<br><b>To Entity:</b> dispute_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1         |             |

## Table: dispute\_action

Reference tables for actions taken on a dispute. For example, Refere to ADR, Not Heard etc.

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(40)  | False    |         |             |
| display_value | varchar(255) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | False    |         |             |

### Constraints

| Name                                | Type        | Explanation                              |
|-------------------------------------|-------------|--|
| dispute_action_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| dispute_action_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Data

| Nr | code          | display_value        | description | status |
|----|---------------|----------------------|-------------|--------|
| 1  | noheard       | Not Heard            |             | c      |
| 2  | awaitinginfo  | Awaiting Information |             | c      |
| 3  | referredtoadr | Referred to ADR      |             | c      |

## Table: dispute\_category

Reference table for different categories of disputes. For example, sporadic, regularization. etc

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(40)  | False    |         |             |
| display_value | varchar(250) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | False    |         |             |

### Constraints

| Name                                  | Type        | Explanation                              |
|---------------------------------------|-------------|--|
| dispute_category_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| dispute_category_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                               | Information  | Description |
|------------------------------------|--|-------------|
| dispute_dispute_category_code_fk85 | <b>From columns:</b><br>dispute_category_code<br><b>From Entity:</b> dispute<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code           | display_value  | description | status |
|----|----------------|----------------|-------------|--------|
| 1  | sporadic       | Sporadic       |             | c      |
| 2  | regularization | Regularization |             | c      |
| 3  | unregistered   | Un-Registered  |             | c      |



**Table: dispute\_comments**

Captures updates happening on a specific dispute.

**Columns**

| Name                   | Type         | Optional | Default | Description |
|------------------------|--------------|----------|---------|-------------|
| id                     | varchar(50)  | False    |         |             |
| dispute_nr             | varchar(50)  | False    |         |             |
| dispute_action_code    | varchar(50)  | False    |         |             |
| other_authorities_code | varchar(50)  | True     |         |             |
| update_date            | timestamp    | False    | now()   |             |
| comments               | varchar(500) | True     |         |             |
| updated_by             | varchar(255) | True     |         |             |

**Constraints**

| Name                               | Type        | Explanation                            |
|------------------------------------|-------------|--|
| dispute_comments_id_unique         | UNIQUE      | Combination of (id) is unique          |
| dispute_comments_dispute_nr_unique | UNIQUE      | Combination of (dispute_nr) is unique  |
| dispute_comments_pkey              | PRIMARY KEY | Combination of (id) is the primary key |

**Table: dispute\_party**

Captures individuals involved in a dispute

**Columns**

| Name       | Type         | Optional | Default | Description |
|------------|--------------|----------|---------|-------------|
| id         | varchar(50)  | False    |         |             |
| dispute_nr | varchar(50)  | False    |         |             |
| party_id   | varchar(50)  | False    |         |             |
| party_role | varchar(100) | False    |         |             |
| party_name | varchar(100) | False    |         |             |

**Constraints**

| Name | Type | Explanation |
|------|------|-------------|
|------|------|-------------|

## Table: dispute\_reports

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(40)  | False    |         |             |
| display_value | varchar(255) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | False    | 'c'     |             |

### Constraints

| Name                                 | Type        | Explanation                              |
|--------------------------------------|-------------|--|
| dispute_reports_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| dispute_reports_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Data

| Nr | code         | display_value  | description | status |
|----|--------------|----------------|-------------|--------|
| 1  | monthrep     | Monthly Report |             | c      |
| 2  | status       | Status Report  |             | c      |
| 3  | statistics   | Statistics     |             | c      |
| 4  | confirmation | Confirmation   |             | c      |

## Table: dispute\_status

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(20)  | False    |         |             |
| display_value | varchar(250) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | True     | 'c'     |             |

### Constraints

| Name                                | Type        | Explanation                              |
|-------------------------------------|-------------|--|
| dispute_status_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| dispute_status_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Data

| Nr | code     | display_value | description | status |
|----|----------|---------------|-------------|--------|
| 1  | pending  | Pending       |             | c      |
| 2  | resolved | Resolved      |             | c      |

## Table: dispute\_type

Reference table for different types of disputes. For example, title, boundaries, etc.

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(40)  | False    |         |             |
| display_value | varchar(250) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | False    |         |             |

### Constraints

| Name                              | Type        | Explanation                              |
|-----------------------------------|-------------|--|
| dispute_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| dispute_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                           | Information  | Description |
|--------------------------------|--|-------------|
| dispute_dispute_type_code_fk86 | <b>From columns:</b><br>dispute_type_code<br><b>From Entity:</b> dispute<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code         | display_value | description | status |
|----|--------------|---------------|-------------|--------|
| 1  | title        | Title         |             | c      |
| 2  | boundaries   | Boundaries    |             | c      |
| 3  | encroachment | Encroachment  |             | c      |
| 4  | inheritance  | Inheritance   |             | c      |
| 5  | other        | Other         |             | c      |

## Table: lease\_special\_condition

Special lease conditions list.

### Columns

| Name           | Type         | Optional | Default | Description             |
|----------------|--------------|----------|---------|-------------------------|
| id             | varchar(40)  | False    |         | Primary key.            |
| rrr_id         | varchar(40)  | False    |         | Lease ID                |
| condition_text | varchar(500) | True     |         | Special condition text. |

### Constraints

| Name                         | Type        | Explanation                            |
|------------------------------|-------------|--|
| lease_special_condition_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                                | Information   | Description |
|-------------------------------------|---|-------------|
| lease_special_condition_rrr_id_fk84 | <b>From columns:</b> rrr_id<br><b>To Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

## Table: mortgage\_type

Reference Table / Code list for types of mortgage

### LADM Reference Object

LA\_

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> Type of mortgage code           |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> display value of mortgage type  |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> Description of type of mortgage |
| status        | char(1)      | False    |         | <b>SOLA Extension</b> Status of mortgage type          |

### Constraints

| Name                               | Type        | Explanation                              |
|------------------------------------|-------------|--|
| mortgage_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| mortgage_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                        | Information   | Description |
|-----------------------------|---|-------------|
| rrr_mortgage_type_code_fk60 | <b>From columns:</b><br>mortgage_type_code<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code         | display_value                     | description | status |
|----|--------------|-----------------------------------|-------------|--------|
| 1  | levelPayment | Level Payment:::Livello Pagamento |             | c      |
| 2  | linear       | Linear:::Lineare                  |             | c      |
| 3  | microCredit  | Micro Credit:::Micro Credito      |             | c      |

## Table: notation

All notations related with a baunit are maintained here. Every notation gets a reference number and it is always associated with a transaction.

### Columns

| Name           | Type          | Optional | Default   | Description   |
|----------------|---------------|----------|-----------|---|
| id             | varchar(40)   | False    |           | Meaningless id.   |
| ba_unit_id     | varchar(40)   | True     |           | If the notation is only related to baunit the baunit id is given.   |
| rrr_id         | varchar(40)   | True     |           |   |
| transaction_id | varchar(40)   | False    |           | The transaction id which brought the notation.  |
| reference_nr   | varchar(15)   | False    |           | A reference number for the notation   |
| notation_text  | varchar(1000) | True     |           | The notation text. This text is defined by a template which is to be found in request_type. The link is established by the fact that a notation comes from a transaction which optionally can be initiated by a service which is of a certain request_type. |
| notation_date  | timestamp     | True     |           | LADM Extension The date the notation is formalised/registered   |
| status_code    | varchar(20)   | False    | 'pending' | The status of the notation.   |

### Constraints

| Name          | Type        | Explanation                            |
|---------------|-------------|--|
| notation_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                         | Information  | Description |
|------------------------------|--|-------------|
| notation_transaction_id_fk72 | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  |             |
| notation_status_code_fk73    | <b>From columns:</b> status_code<br><b>To Entity:</b> reg_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| notation_ba_unit_id_fk74     | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1       |             |
| notation_rrr_id_fk75         | <b>From columns:</b> rrr_id<br><b>To Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1               |             |



## Table: other\_authorities

Reference table for authorities that a dispute can be lodged with. For example, police, courts of law, etc.

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(40)  | False    |         |             |
| display_value | varchar(255) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | False    |         |             |

### Constraints

| Name                          | Type        | Explanation                              |
|-------------------------------|-------------|--|
| other_authorities_code_unique | UNIQUE      | Combination of (code) is unique          |
| other_authorities_pkey        | PRIMARY KEY | Combination of (code) is the primary key |

### Data

| Nr | code           | display_value     | description | status |
|----|----------------|-------------------|-------------|--------|
| 1  | courtoflaw     | Courts of Law     |             | c      |
| 2  | localauthority | Local Authorities |             | c      |
| 3  | areachief      | Area Chief        |             | c      |
| 4  | police         | Police            |             | c      |
| 5  | other          | Other Authorities |             | c      |

## Table: party\_for\_rrr

There may be parties involved in an RRR. Parties can be involved also in Shares.

### Columns

| Name     | Type        | Optional | Default | Description                           |
|----------|-------------|----------|---------|---------------------------------------|
| rrr_id   | varchar(40) | False    |         | Rrr where party belongs to.           |
| party_id | varchar(40) | False    |         | Id of the party.                      |
| share_id | varchar(40) | True     |         | The share where the party belongs to. |

### Constraints

| Name               | Type        | Explanation   |
|--------------------|-------------|---|
| party_for_rrr_pkey | PRIMARY KEY | Combination of (rrr_id,party_id) is the primary key |

### Relationships (from)

| Name                        | Information   | Description |
|-----------------------------|---|-------------|
| party_for_rrr_rrr_id_fk79   | <b>From columns:</b> rrr_id,share_id<br><b>To Entity:</b> rrr_share<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |
| party_for_rrr_rrr_id_fk80   | <b>From columns:</b> rrr_id<br><b>To Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                   |             |
| party_for_rrr_party_id_fk81 | <b>From columns:</b> party_id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1               |             |

## Table: required\_relationship\_baunit

Refer to LADM Definition

### LADM Reference Object

LA\_RequiredRelationshipBAUnit

### LADM Definition

A required relationship between basic administrative units.

### Columns

| Name            | Type        | Optional | Default | Description   |
|-----------------|-------------|----------|---------|---|
| from_ba_unit_id | varchar(40) | False    |         | <b>LADM Definition</b> -The identifier of the originating basic administrative unit   |
| to_ba_unit_id   | varchar(40) | False    |         | <b>LADM Definition</b> -The identifier of the target basic administrative unit  |
| relation_code   | varchar(20) | False    |         | The relationship between the basic administrative units. It exists in LADM as a open text. It is decided to make it a codelist to be used also in business rules. <b>LADM Definition</b> LADM Reference Object Relationship |

### Constraints

| Name                              | Type        | Explanation   |
|-----------------------------------|-------------|---|
| required_relationship_baunit_pkey | PRIMARY KEY | Combination of (from_ba_unit_id,to_ba_unit_id) is the primary key |

### Relationships (from)

| Name   | Information   | Description                       |
|--|---|-----------------------------------|
| required_relationship_baunit_from_ba_unit_id | <b>From Columns:</b> from_ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1        | LADM relationship - no refinement |
| required_relationship_baunit_to_ba_unit_id   | <b>From Columns:</b> to_ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1          | LADM relationship - no refinement |
| required_relationship_baunit_relation_code   | <b>From Columns:</b> relation_code<br><b>To Entity:</b> ba_unit_rel_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |                                   |

## Table: rrr

Refer to LADM DefinitionLADM Reference Object LA\_RRRLADM DefinitionA right, restriction or responsibility.

### Columns

| Name                | Type             | Optional | Default   | Description   |
|---------------------|------------------|----------|-----------|---|
| id                  | varchar(40)      | False    |           | <b>LADM Definition</b> - Identifier for the right, responsibility and restrictions  |
| ba_unit_id          | varchar(40)      | False    |           | <b>LADM Definition</b> - basic administrative unit identifier   |
| nr                  | varchar(20)      | False    |           | This is a unique number of rrr within a baunit to identify it in baunit.  |
| type_code           | varchar(20)      | False    |           | <b>LADM Definition</b> - code for type of right, responsibility restriction   |
| status_code         | varchar(20)      | False    | 'pending' | The status of the rrr.  |
| is_primary          | bool             | False    | false     | It marks the rrr as being primary. Only one rrr can be primary for one BaUnit.  |
| transaction_id      | varchar(40)      | False    |           | The transaction that brought changes to the rrr.  |
| registration_date   | timestamp        | True     |           | This is the registration date of the rrr. It takes the value from the approval date.  |
| registration_number | varchar(40)      | True     |           | Registration number of the right, assigned by the office. Introduced in Lesotho project.  |
| lease_number        | varchar(20)      | True     |           | Introduced in Lesotho project. Contains lease number.   |
| land_use_code       | varchar(20)      | True     |           | Introduced in Lesotho project. Land use code for the lease.   |
| start_date          | date             | True     |           | Introduced in Lesotho project. Determines right start date (e.g. lease start date)  |
| expiration_date     | timestamp        | True     |           | <b>LADM Definition</b> - the dates defining when the rrr remains in force LADM Reference Object - rrr.timespec  |
| execution_date      | date             | True     |           | Introduced in Lesotho project. Lease execution date.  |
| share               | double precision | True     |           | Actually, SOLA is defining shares in a separate table. So within one rrr we can have multiple shares instead of multiple rrr of the same type within a baunit as LADM proposes. <b>LADM Definition</b> - share of a right, (restriction or responsibility) expressed as a fraction with numerator and denominator |
| amount              | numeric(29, 2)   | True     |           | <b>LADM Definition</b> The amount of money of the mortgage <b>SOLA Extension:</b> The amount of money associated with the rrr (includes amount of mortgage and ground rent amount for a lease)  |
| land_usable         | numeric(19, 2)   | True     |           | Introduced in Lesotho project. Indicates usable percentage of land for the lease ground rent calculation. Can be from 1 to 100.   |
| personal_levy       | numeric(19, 2)   | True     |           | Introduced in Lesotho project. Indicates personal levy for the lease. Can be from 1 to 2 or 0 for exempted.   |

|                        |                |       |       |  |
|------------------------|----------------|-------|-------|--|
| due_date               | date           | True  |       | <b>SOLA Extension:</b> The date on which a payment associated with a rrr is due (eg lease rent due date) |
| mortgage_interest_rate | numeric(5, 2)  | True  |       | <b>LADM Definition</b> Interest rate of the mortgage (percentage)  |
| mortgage_ranking       | integer        | True  |       | <b>LADM Definition</b> The ranking order if more than one mortgage applies to a right                    |
| mortgage_type_code     | varchar(20)    | True  |       |  |
| stamp_duty             | numeric(29, 2) | True  | 0     | <b>SOLA Extension:</b> The stamp duty for a lease  |
| transfer_duty          | numeric(29, 2) | True  | 0     | <b>SOLA Extension:</b> The transfer duty for a lease (payable for a transfer service)                    |
| registration_fee       | numeric(29, 0) | True  | 0     | <b>SOLA Extension:</b> The amount of money paid for registration of a new lease or a transfer            |
| service_fee            | numeric(29, 2) | True  | 0     | <b>SOLA Extension:</b> The amount of money for obtaining a given service                                 |
| ground_rent            | numeric(29, 2) | True  |       | Introduced in Lesotho project. Lease ground rent fee.  |
| cadastre_object_id     | varchar(40)    | True  |       | Cadastre object ID   |
| status_change_date     | timestamp      | False | now() | The date when RRR status was changed. Introduced in Lesotho project.                                     |

### Constraints

| Name     | Type        | Explanation                            |
|----------|-------------|--|
| rrr_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                    | Information  | Description                       |
|-------------------------|--|-----------------------------------|
| rrr_type_code_fk56      | <b>From columns:</b> type_code<br><b>To Entity:</b> rrr_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1          | LADM relationship - no refinement |
| rrr_ba_unit_id_fk57     | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 1..*<br><b>To Cardinality:</b> 1          | LADM Definition - no refinement   |
| rrr_status_code_fk58    | <b>From columns:</b> status_code<br><b>To Entity:</b> reg_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |                                   |
| rrr_transaction_id_fk59 | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  |                                   |

|                             |   |  |
|-----------------------------|---|--|
| rrr_mortgage_type_code_fk60 | <b>From columns:</b><br>mortgage_type_code<br><b>To Entity:</b> mortgage_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |  |
| rrr_cadastre_object_id_fk61 | <b>From columns:</b><br>cadastre_object_id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1  |  |
| rrr_land_use_code_fk62      | <b>From columns:</b> land_use_code<br><b>To Entity:</b> land_use_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1         |  |

**Relationships (to)**

| Name                                | Information  | Description                                 |
|-------------------------------------|--|---|
| source_describes_rrr_rrr_id_fk63    | <b>From columns:</b> rrr_id<br><b>From Entity:</b> source_describes_rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1       | SOLA Extension relationship - no refinement |
| notation_rrr_id_fk75                | <b>From columns:</b> rrr_id<br><b>From Entity:</b> notation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                |   |
| rrr_share_rrr_id_fk78               | <b>From columns:</b> rrr_id<br><b>From Entity:</b> rrr_share<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                  |   |
| party_for_rrr_rrr_id_fk80           | <b>From columns:</b> rrr_id<br><b>From Entity:</b> party_for_rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1              |   |
| lease_special_condition_rrr_id_fk84 | <b>From columns:</b> rrr_id<br><b>From Entity:</b><br>lease_special_condition<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |   |

**Triggers**

| Name                | Event         |
|---------------------|---------------|
| change_from_pending | before update |

## Table: rrr\_group\_type

Reference Table / Code list for different categories of LA\_RRR

### LADM Reference Object

LA\_Responsibility, LA\_Right, LA\_Restriction as specialisations of LA\_RR

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - Identifier of group type of restriction, rights responsibility  |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the value to be displayed                                       |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - description of group type of restriction, rights responsibility |
| status        | char(1)      | False    |         | <b>SOLA Extension</b> Status of group type of restriction, rights responsibility         |

### Constraints

| Name                                | Type        | Explanation                              |
|-------------------------------------|-------------|--|
| rrr_group_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| rrr_group_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                              | Information  | Description                       |
|-----------------------------------|--|-----------------------------------|
| rrr_type_rrr_group_type_code_fk22 | <b>From columns:</b><br>rrr_group_type_code<br><b>From Entity:</b> rrr_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code             | display_value                     | description | status |
|----|------------------|-----------------------------------|-------------|--------|
| 1  | rights           | Rights:::Diritti                  |             | c      |
| 2  | restrictions     | Restrictions:::Restrizioni        |             | c      |
| 3  | responsibilities | Responsibilities:::Responsabilita |             | x      |

**Table: rrr\_share**

If parties are involved in an rrr then they participate in shares. There is at least one share for each rrr.LADM  
Reference Object LA\_RRR.share

**Columns**

| Name        | Type        | Optional | Default | Description                               |
|-------------|-------------|----------|---------|---|
| rrr_id      | varchar(40) | False    |         | Rrr where the share belongs to.           |
| id          | varchar(40) | False    |         | Id of the share within a RRR.             |
| nominator   | smallint    | False    |         | Nominator / Denominator define the share. |
| denominator | smallint    | False    |         | Nominator / Denominator define the share. |

**Constraints**

| Name           | Type        | Explanation                                   |
|----------------|-------------|---|
| rrr_share_pkey | PRIMARY KEY | Combination of (rrr_id,id) is the primary key |

**Relationships (from)**

| Name                  | Information   | Description |
|-----------------------|---|-------------|
| rrr_share_rrr_id_fk78 | <b>From columns:</b> rrr_id<br><b>To Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

**Relationships (to)**

| Name                      | Information   | Description |
|---------------------------|---|-------------|
| party_for_rrr_rrr_id_fk79 | <b>From columns:</b> rrr_id,share_id<br><b>From Entity:</b> party_for_rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |



## Table: rrr\_type

Reference Table / Code list of rrr types  
LADM Reference Object LA\_RightType, LA\_RestrictionType  
&LA\_ResponsibilityType  
LADM Definition The type of right/restriction/responsibility

### Columns

| Name                | Type         | Optional | Default | Description  |
|---------------------|--------------|----------|---------|--|
| code                | varchar(20)  | False    |         | <b>LADM Definition</b> - Code for responsibility and rights type code  |
| rrr_group_type_code | varchar(20)  | False    |         | <b>LADM Definition</b> - Group restriction, responsibility and rights type code  |
| display_value       | varchar(250) | False    |         | <b>LADM Definition</b> - displayed value of right (responsibility or restriction) type   |
| is_primary          | bool         | False    | false   |  |
| share_check         | bool         | False    |         | <b>LADM Definition</b> - the check that totals all shares of a right (restriction or responsibility) to ensure they equal 1 (100%) |
| party_required      | bool         | False    |         | <b>LADM Definition</b> - A flag to indicate that a party must related to this type of right (restriction or responsibility)        |
| description         | varchar(555) | True     |         | <b>LADM Definition</b> - Description for restriction, responsibility and rights type   |
| status              | char(1)      | False    | 't'     | <b>SOLA Extension</b> - Status of restriction, responsibility and rights type  |

### Constraints

| Name                          | Type        | Explanation                              |
|-------------------------------|-------------|--|
| rrr_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| rrr_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (from)

| Name                              | Information  | Description                       |
|-----------------------------------|--|-----------------------------------|
| rrr_type_rrr_group_type_code_fk22 | <b>From columns:</b><br>rrr_group_type_code<br><b>To Entity:</b> rrr_group_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Relationships (to)

| Name                            | Information  | Description |
|---------------------------------|--|-------------|
| request_type_rrr_type_code_fk21 | <b>From columns:</b> rrr_type_code<br><b>From Entity:</b> request_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

|  |  |                                   |
|--|--|-----------------------------------|
| rrr_type_code_fk56                       | <b>From columns:</b> type_code<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                         | LADM relationship - no refinement |
| br_validation_target_rrr_type_code_fk130 | <b>From columns:</b> target_rrr_type_code<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |                                   |

**Data**

| Nr | code             | rrr_group_type_code | display_value     | is_primary | share_check |
|----|------------------|---------------------|-------------------|------------|-------------|
| 1  | lease            | rights              | Lease             | false      | true        |
| 2  | mortgage         | restrictions        | Mortgage          | false      | true        |
| 3  | servitude        | restrictions        | Servitude         | false      | false       |
| 4  | subLease         | rights              | Sub Lease         | false      | false       |
| 5  | subLeaseMortgage | rights              | Sublease Mortgage | false      | false       |
| 6  | tenancy          | rights              | tenancy           | false      | false       |

| Nr | party_required | description   | status |
|----|----------------|---|--------|
| 1  | true           |   | c      |
| 2  | true           |   | c      |
| 3  | false          |   | c      |
| 4  | true           | Indicates the property is subject to a sublease agreement | c      |
| 5  | false          | Indicates the property is subject to a sublease mortgage  | c      |
| 6  | false          | for migration purposes only                               | x      |

## Table: source\_describes\_ba\_unit

Implements the many-to-many relationship identifying administrative source instances with ba\_unit instances

### LADM Reference Object

Relationship LA\_AdministrativeSource - LA\_BAUnit

### LADM Definition

Not Defined

### Columns

| Name       | Type        | Optional | Default | Description  |
|------------|-------------|----------|---------|--|
| source_id  | varchar(40) | False    |         | In Sola the source is referenced instead of the Administrative source. <b>LADM Definition</b> Administrative source identifier |
| ba_unit_id | varchar(40) | False    |         | <b>LADM Definition</b> Basic unit identifier   |

### Constraints

| Name                          | Type        | Explanation  |
|-------------------------------|-------------|--|
| source_describes_ba_unit_pkey | PRIMARY KEY | Combination of (source_id,ba_unit_id) is the primary key |

### Relationships (from)

| Name                                     | Information   | Description                       |
|--|---|-----------------------------------|
| source_describes_ba_unit_ba_unit_id_fk65 | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |
| source_describes_ba_unit_source_id_fk66  | <b>From columns:</b> source_id<br><b>To Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1   |                                   |

**Table: source\_describes\_rrr**

Implements the many-to-many relationship identifying administrative source instances with rrr instances

**LADM Reference Object**

Relationship LA\_AdministrativeSource - LA\_RRR

**LADM Definition**

Not Defined

**Columns**

| Name      | Type        | Optional | Default | Description  |
|-----------|-------------|----------|---------|--|
| rrr_id    | varchar(40) | False    |         | <b>LADM Definition</b> - Identifier for the right, responsibility and restrictions |
| source_id | varchar(40) | False    |         |  |

**Constraints**

| Name                      | Type        | Explanation  |
|---------------------------|-------------|--|
| source_describes_rrr_pkey | PRIMARY KEY | Combination of (rrr_id,source_id) is the primary key |

**Relationships (from)**

| Name                                | Information   | Description                                 |
|-------------------------------------|---|---|
| source_describes_rrr_rrr_id_fk63    | <b>From columns:</b> rrr_id<br><b>To Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1       | SOLA Extension relationship - no refinement |
| source_describes_rrr_source_id_fk64 | <b>From columns:</b> source_id<br><b>To Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |   |

**Sequence: rrr\_nr\_seq**

Allocates numbers 1 to 9999 for rrr number

## **Sequence: notation\_reference\_nr\_seq**

Allocates numbers 1 to 9999 for reference number for notation.

**Sequence: ba\_unit\_first\_name\_part\_seq**

Allocates numbers 1 to 9999 for ba unit first name part.

## **Sequence: ba\_unit\_last\_name\_part\_seq**

Allocates numbers 1 to 9999 for ba unit last name part.



**Function: get\_ba\_unit\_pending\_action**

It returns the action that must be taken in the pending ba\_unit.

***Parameters***

| Name      | Type    | Direction | Description    |
|-----------|---------|-----------|----------------|
| baunit_id | varchar |           | Id of ba unit. |

**Function: ba\_unit\_name\_is\_valid**

This function, checks if the name parts of the ba unit are valid.

***Parameters***

| Name           | Type    | Direction | Description    |
|----------------|---------|-----------|----------------|
| name_firstpart | varchar |           | Id of ba unit. |
| name_lastpart  | varchar |           |                |

**Function: get\_calculated\_area\_size\_action**

It returns the sum of parcel areas for the selected ba unit id if any

***Parameters***

| Name    | Type    | Direction | Description |
|---------|---------|-----------|-------------|
| co_list | varchar |           |             |

**Function: get\_concatenated\_name**

This function returns the concatenated list of spatial objects contained in a ba\_unit for each rrr, if any. If there are no spatial objects then it only returns that it is a property.

***Parameters***

| Name      | Type    | Direction | Description |
|-----------|---------|-----------|-------------|
| baunit_id | varchar |           |             |

**Function: get\_parcel\_ownernames*****Parameters***

| Name      | Type    | Direction | Description |
|-----------|---------|-----------|-------------|
| baunit_id | varchar |           |             |

## Function: getsysregmanagement

### *Parameters*

| Name         | Type    | Direction | Description |
|--------------|---------|-----------|-------------|
| fromdate     | varchar |           |             |
| todate       | varchar |           |             |
| namelastpart | varchar |           |             |

## Function: get\_objections

### *Parameters*

| Name         | Type    | Direction | Description |
|--------------|---------|-----------|-------------|
| namelastpart | varchar |           |             |

**Function: getsysregstatus*****Parameters***

| Name         | Type    | Direction | Description |
|--------------|---------|-----------|-------------|
| fromdate     | varchar |           |             |
| todate       | varchar |           |             |
| namelastpart | varchar |           |             |



## Function: getsysregprogress

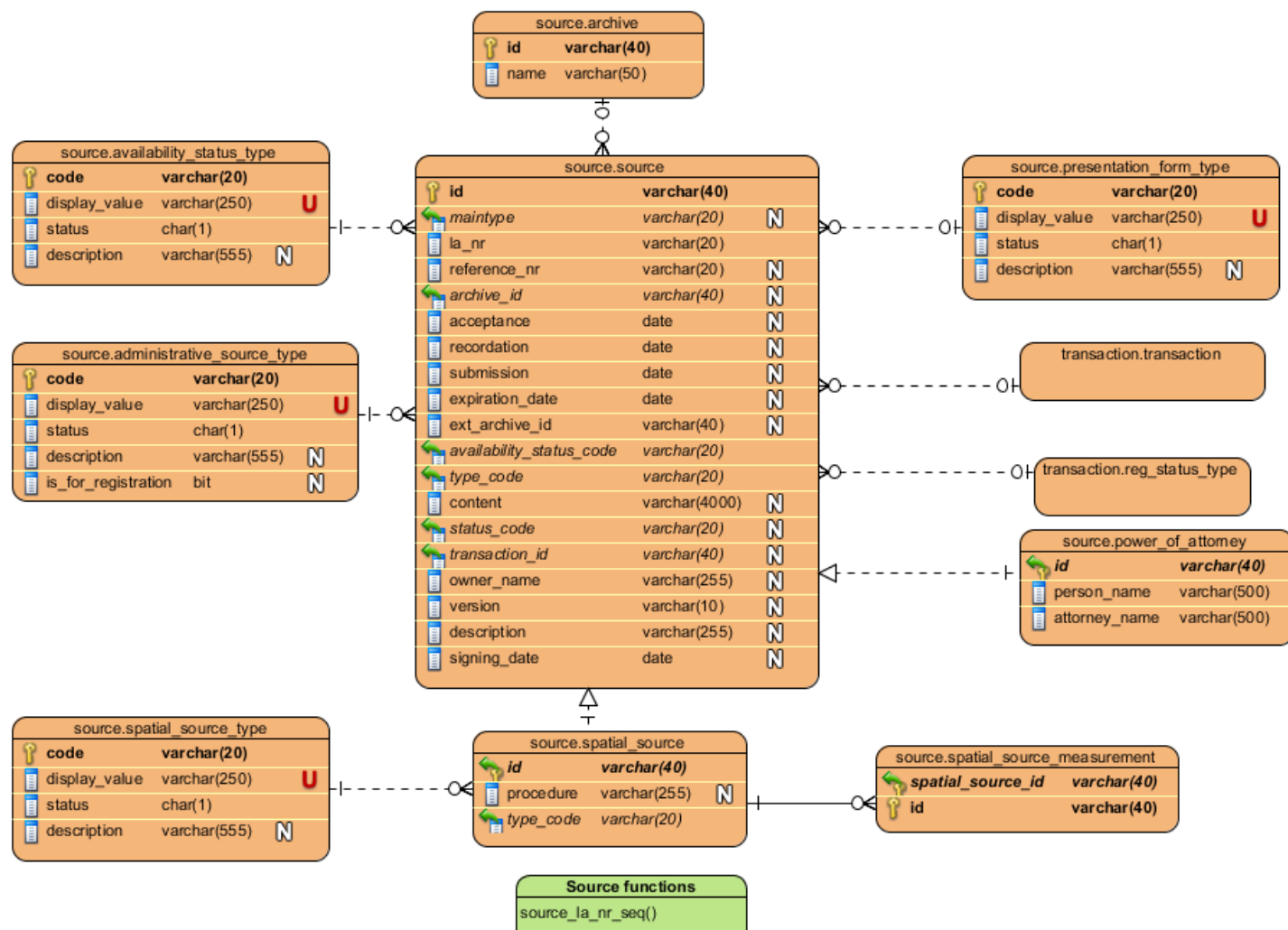
### *Parameters*

| Name         | Type    | Direction | Description |
|--------------|---------|-----------|-------------|
| fromdate     | varchar |           |             |
| todate       | varchar |           |             |
| namelastpart | varchar |           |             |

## **Sequence: dispute\_nr\_seq**

Allocates numbers 1 to 9999 for dispute number

# source



## Table: administrative\_source\_type

Reference Table / Code list of administrative source types

### LADM Reference Object

LA\_AdministrativeSourceType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> -The code for the administrative source type        |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - displayed value of the administrative source type |
| status        | char(1)      | False    |         | <b>SOLA Extension</b> - Status of the administrative source type           |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - Description of the administrative source type     |

|                     |      |      |       |   |
|---------------------|------|------|-------|---|
| is_for_registration | bool | True | false | <b>SOLA Extension</b> - To identify documents to be registered that must have current status to be used in rights registration (or other processes controlled by a transaction) |
|---------------------|------|------|-------|---|

### Constraints

| Name  | Type        | Explanation                              |
|---|-------------|--|
| administrative_source_type_display_value_UNIQUE | UNIQUE      | Combination of (display_value) is unique |
| administrative_source_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name  | Information   | Description                             |
|---|---|---|
| source_type_code_fk3                                    | <b>From columns:</b> type_code<br><b>From Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                                   | FLOSS SOLA relationship - no refinement |
| request_type_requires_source_type_source_type_code_fk17 | <b>From columns:</b> source_type_code<br><b>From Entity:</b> request_type_requires_source_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code            | display_value           | status | description       | is_for_registration |
|----|-----------------|-------------------------|--------|-------------------|---------------------|
| 1  | deed            | Deed                    | c      |                   |                     |
| 2  | lease           | Lease                   | c      |                   |                     |
| 3  | courtOrder      | Court Paper             | c      | Extension to LADM |                     |
| 4  | agreement       | Agreement               | c      | Extension to LADM |                     |
| 5  | contractForSale | Contract for Sale       | c      | Extension to LADM |                     |
| 6  | will            | Will and Last Testament | c      | Extension to LADM |                     |
| 7  | powerOfAttorney | Power of Attorney       | c      | Extension to LADM | true                |
| 8  | cadastralSurvey | Plan of Survey (S10)    | c      | Extension to LADM |                     |
| 9  | idVerification  | Identification Document | c      | Extension to LADM |                     |
| 10 | pdf             | Pdf Scanned Document    | x      |                   |                     |
| 11 | tiff            | Tiff Scanned Document   | x      |                   |                     |

|    |                 |                                   |   |  |       |
|----|-----------------|-----------------------------------|---|--|-------|
| 12 | jpg             | Jpg Scanned Document              | x |  |       |
| 13 | tif             | Tif Scanned Document              | x |  |       |
| 14 | valuationReport | Property Valuation Report         | c |  |       |
| 15 | offPaymentRecpt | Official Payment Receipt          | c |  |       |
| 16 | groundRentExemp | Ground Rent Exemption Certificate | c |  |       |
| 17 | declareLandHold | Declaration of Land Holdings      | c |  |       |
| 18 | consentCert     | Consent Certificate               | c |  |       |
| 19 | marriageCert    | Marriage Certificate              | c |  |       |
| 20 | disputedoc      | Dispute Document                  | c |  | false |
| 21 | appForm         | Application Form                  | c |  | true  |
| 22 | surveyReport    | Complete Survey Report            | c |  |       |
| 23 | certIncorp      | Certificate of Incorporation      | c |  |       |
| 24 | changeUseApp    | Change of Use Approval            | c |  |       |
| 25 | deathCert       | Death Certificate                 | c |  |       |
| 26 | landUseCert     | Land Use Certificate              | c |  |       |
| 27 | memoArticles    | Memorandum of Articles            | c |  |       |
| 28 | memoAssoc       | Memorandum of Association         | c |  |       |
| 29 | otherDocument   | Other Documents                   | c |  |       |
| 30 | swornAffdt      | Sworn Affidavit                   | c |  |       |
| 31 | taxClrCert      | Tax Clearance Certificate         | c |  |       |
| 32 | titleDeed       | Title Deed                        | c |  |       |
| 33 | trust           | Trust                             | c |  |       |
| 34 | bond            | Bond                              | c |  |       |

## Table: archive

Details about collections of sources (documents) in both paper and digital formats

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name | Type        | Optional | Default | Description  |
|------|-------------|----------|---------|--|
| id   | varchar(40) | False    |         | <b>SOLA Extension</b> The archive identifier of the source |
| name | varchar(50) | False    |         | <b>SOLA Extension</b> - The name description of the source |

### Constraints

| Name         | Type        | Explanation                            |
|--------------|-------------|--|
| archive_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (to)

| Name                  | Information   | Description                             |
|-----------------------|---|---|
| source_archive_id_fk0 | <b>From columns:</b> archive_id<br><b>From Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | FLOSS SOLA relationship - no refinement |

## Table: availability\_status\_type

Reference Table / Code list of source (document) availability status type

### LADM Reference Object

LA\_AvailabilityStatusType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> -The code for the availability status type                   |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - The display value assigned to the availability status type |
| status        | char(1)      | False    | 'c'     | <b>SOLA Extension</b> - The status of the availability status type                  |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - description of the availability status type                |

### Constraints

| Name  | Type        | Explanation                              |
|---|-------------|--|
| availability_status_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| availability_status_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                | Information   | Description                       |
|-------------------------------------|---|-----------------------------------|
| source_availability_status_code_fk2 | <b>From columns:</b><br>availability_status_code<br><b>From Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code             | display_value            | status | description       |
|----|------------------|--------------------------|--------|-------------------|
| 1  | archiveConverted | Converted::::Convertito  | c      |                   |
| 2  | archiveDestroyed | Destroyed::::Distrutto   | x      |                   |
| 3  | incomplete       | Incomplete::::Incompleto | c      |                   |
| 4  | archiveUnknown   | Unknown::::Sconosciuto   | c      |                   |
| 5  | available        | Available                | c      | Extension to LADM |

## Table: power\_of\_attorney

### Columns

| Name          | Type         | Optional | Default | Description                                   |
|---------------|--------------|----------|---------|---|
| id            | varchar(40)  | False    |         |   |
| person_name   | varchar(500) | False    |         | The name of person, giving power of attorney. |
| attorney_name | varchar(500) | False    |         | The name of attorney.                         |

### Constraints

| Name                   | Type        | Explanation                            |
|------------------------|-------------|--|
| power_of_attorney_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                      | Information   | Description |
|---------------------------|---|-------------|
| power_of_attorney_id_fk31 | <b>From columns:</b> id<br><b>To Entity:</b> source<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1 |             |



## Table: presentation\_form\_type

Reference Table / Code list for the different formats of sources (documents) that are presented to the land office

### LADM Reference Object

CI\_PresentationFormCode

### LADM Definition

The type of document;

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - Code for the presentation form type          |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - The display value for presentation form type |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - The status of the presentation form type      |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - description of the presentation form type    |

### Constraints

| Name  | Type        | Explanation                              |
|---|-------------|--|
| presentation_form_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| presentation_form_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                | Information   | Description                       |
|---------------------|---|-----------------------------------|
| source_maintype_fk1 | <b>From columns:</b> maintype<br><b>From Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |

### Data

| Nr | code             | display_value                                   | status | description |
|----|------------------|---|--------|-------------|
| 1  | documentDigital  | Digital<br>Document:::Documento<br>Digitale     | c      |             |
| 2  | documentHardcopy | Hardcopy<br>Document:::Documento<br>in Hardcopy | c      |             |
| 3  | imageDigital     | Digital Image:::Immagine<br>Digitale            | c      |             |
| 4  | imageHardcopy    | Hardcopy<br>Image:::Immagine in<br>Hardcopy     | c      |             |

|    |                 |  |   |  |
|----|-----------------|--|---|--|
| 5  | mapDigital      | Digital Map:::Mappa Digitale           | c |  |
| 6  | mapHardcopy     | Hardcopy Map:::Mappa in Hardcopy       | c |  |
| 7  | modelDigital    | Digital Model:::Modello Digitale',     | c |  |
| 8  | modelHarcopy    | Hardcopy Model:::Modello in Hardcopy   | c |  |
| 9  | profileDigital  | Digital Profile:::Profilo Digitale     | c |  |
| 10 | profileHardcopy | Hardcopy Profile:::Profilo in Hardcopy | c |  |
| 11 | tableDigital    | Digital Table:::Tabella Digitale       | c |  |
| 12 | tableHardcopy   | Hardcopy Table:::Tabella in Hardcopy   | c |  |
| 13 | videoDigital    | Digital Video:::Video Digitale',       | c |  |
| 14 | videoHardcopy   | Hardcopy Video:::Video in Hardcopy     | c |  |

## Table: source

Documents or recognised facts providing the basis for the recording of a registration, cadastre change, right, responsibility or administrative action performed by the land office  
LADM Reference Object LA\_Source  
LADM Definition  
Not defined

### Columns

| Name                     | Type          | Optional | Default     | Description  |
|--------------------------|---------------|----------|-------------|--|
| id                       | varchar(40)   | False    |             | <b>LADM Definition</b> - Source identifier   |
| maintype                 | varchar(20)   | True     |             | <b>LADM Definition</b> - The type of the representation of the content of the source.  |
| la_nr                    | varchar(20)   | False    |             | <b>SOLA Extension</b> - This number is given by the land administration office for their own administration.   |
| reference_nr             | varchar(20)   | True     |             | <b>SOLA Extension</b> -This is the number as given by the external agency.   |
| archive_id               | varchar(40)   | True     |             | <b>SOLA Extension</b> - The archive identifier of the source   |
| acceptance               | date          | True     |             | <b>LADM Definition</b> -The date of force of law of the source by an authority   |
| recordation              | date          | True     |             | <b>LADM Definition</b> - The date of formalization by the source agency.   |
| submission               | date          | True     | now()       | <b>LADM Definition</b> - The date of submission of the source by a party   |
| expiration_date          | date          | True     |             |  |
| ext_archive_id           | varchar(40)   | True     |             | <b>LADM Definition</b> -The identifier of a source in an external registration. This attribute is used to link the source with the document management system.   |
| availability_status_code | varchar(20)   | False    | 'available' | <b>LADM Definition</b> - the code describing how available this source (document) is   |
| type_code                | varchar(20)   | False    |             | <b>LADM Definition</b> - Type of the document (administrative_source)  |
| content                  | varchar(4000) | True     |             | <b>LADM Definition</b> -Content of the source (administrative_source)  |
| status_code              | varchar(20)   | True     |             | The status of the document. For some documents is important to know if the document is valid or not.   |
| transaction_id           | varchar(40)   | True     |             | The transaction that brought the document in the system. This is not valid for all documents but for some of them. There are request types that bring only documents in the system without involving a ba unit. In this case is important to know which transaction brought this document in order to handle it within transaction (approve, reject) life cycle. |
| owner_name               | varchar(255)  | True     |             | Document owner name.   |
| version                  | varchar(10)   | True     |             | Document version.  |
| description              | varchar(255)  | True     |             | Document description.  |
| signing_date             | date          | True     |             |  |

**Constraints**

| Name        | Type        | Explanation                            |
|-------------|-------------|--|
| source_pkey | PRIMARY KEY | Combination of (id) is the primary key |

**Relationships (from)**

| Name                                | Information  | Description                             |
|-------------------------------------|--|---|
| source_archive_id_fk0               | <b>From columns:</b> archive_id<br><b>To Entity:</b> archive<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                             | FLOSS SOLA relationship - no refinement |
| source_maintype_fk1                 | <b>From columns:</b> maintype<br><b>To Entity:</b> presentation_form_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                | LADM relationship - no refinement       |
| source_availability_status_code_fk2 | <b>From columns:</b> availability_status_code<br><b>To Entity:</b> availability_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement       |
| source_type_code_fk3                | <b>From columns:</b> type_code<br><b>To Entity:</b> administrative_source_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1              | FLOSS SOLA relationship - no refinement |
| source_status_code_fk4              | <b>From columns:</b> status_code<br><b>To Entity:</b> reg_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                    |   |
| source_transaction_id_fk5           | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                     |   |

**Relationships (to)**

| Name                                | Information   | Description                       |
|-------------------------------------|---|-----------------------------------|
| spatial_source_id_fk28              | <b>From columns:</b> id<br><b>From Entity:</b> spatial_source<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                 | LADM relationship - no refinement |
| power_of_attorney_id_fk31           | <b>From columns:</b> id<br><b>From Entity:</b> power_of_attorney<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1              |                                   |
| source_describes_rrr_source_id_fk64 | <b>From columns:</b> source_id<br><b>From Entity:</b> source_describes_rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |                                   |

|   |   |   |
|---|---|---|
| source_describes_ba_unit_source_id_fk66 | <b>From columns:</b> source_id<br><b>From Entity:</b> source_describes_ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |   |
| transaction_source_source_id_fk106      | <b>From columns:</b> source_id<br><b>From Entity:</b> transaction_source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1       |   |
| application_uses_source_source_id_fk116 | <b>From columns:</b> source_id<br><b>From Entity:</b> application_uses_source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  | FLOSS SOLA relationship - no refinement |

**Triggers**

| Name             | Event         |
|------------------|---------------|
| change_of_status | before update |

## Table: spatial\_source

Refer to LADM Definition

### LADM Reference Object

LA\_Source

### LADM Definition

A spatial source may be the final (sometimes formal) documents, or all documents related to a survey. Sometimes several documents are the result of a single survey. A spatial source may be official or not (ie a registered survey plan or an aerial photograph).

### Columns

| Name      | Type         | Optional | Default | Description  |
|-----------|--------------|----------|---------|--|
| id        | varchar(40)  | False    |         | <b>LADM Definition</b> - Spatial source identifier           |
| procedure | varchar(255) | True     |         | <b>LADM Definition</b> - Procedures, steps or method adopted |
| type_code | varchar(20)  | False    |         | <b>LADM Definition</b> - Code type assigned to the source    |

### Constraints

| Name                | Type        | Explanation                            |
|---------------------|-------------|--|
| spatial_source_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                          | Information  | Description                       |
|-------------------------------|--|-----------------------------------|
| spatial_source_id_fk28        | <b>From columns:</b> id<br><b>To Entity:</b> source<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                        | LADM relationship - no refinement |
| spatial_source_type_code_fk29 | <b>From columns:</b> type_code<br><b>To Entity:</b> spatial_source_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Relationships (to)

| Name  | Information   | Description                       |
|---|---|-----------------------------------|
| spatial_source_measurement_spatial_source_id_fk30 | <b>From columns:</b> spatial_source_id<br><b>From Entity:</b> spatial_source_measurement<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

## Table: spatial\_source\_measurement

Refer to LADM Definition

### LADM Reference Object

OM\_Observation

### LADM Definition

The observations, and measurements, as a basis for mapping, and as a basis for historical reconstruction of the location of (parts of) the spatial unit in the field

### Columns

| Name              | Type        | Optional | Default | Description  |
|-------------------|-------------|----------|---------|--|
| spatial_source_id | varchar(40) | False    |         | Spatial source identifier  |
| id                | varchar(40) | False    |         | <b>LADM Definition</b> - This is an identifier of a measurement within a spatial source. |

### Constraints

| Name                            | Type        | Explanation  |
|---------------------------------|-------------|--|
| spatial_source_measurement_pkey | PRIMARY KEY | Combination of (spatial_source_id,id) is the primary key |

### Relationships (from)

| Name                                      | Information  | Description                       |
|---|--|-----------------------------------|
| spatial_source_measurement_spatial_source | <b>From column:</b> spatial_source_id<br><b>To Entity:</b> spatial_source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

## Table: spatial\_source\_type

Reference Table / Code list of spatial source type

### LADM Reference Object

LA\_SpatialSourceType

### LADM Definition

Type of Spatial Source

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - The code for the spatial source type         |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - The display value of the spatial source type |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> The status of the spatial source type           |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - description of the spatial source type       |

### Constraints

| Name                                     | Type        | Explanation                              |
|--|-------------|--|
| spatial_source_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| spatial_source_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                          | Information   | Description                       |
|-------------------------------|---|-----------------------------------|
| spatial_source_type_code_fk29 | <b>From columns:</b> type_code<br><b>From Entity:</b> spatial_source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code                | display_value                              | status | description |
|----|---------------------|--|--------|-------------|
| 1  | fieldSketch         | Field Sketch:::Schizzo Campo               | c      |             |
| 2  | gnssSurvey          | GNSS (GPS) Survey:::Rilevamento GNSS (GPS) | c      |             |
| 3  | orthoPhoto          | Orthophoto:::Foto Ortopanoramica           | c      |             |
| 4  | relativeMeasurement | Relative Measurements:::Misura relativa    | c      |             |
| 5  | topoMap             | Topographical Map:::Mappa Topografica      | c      |             |
| 6  | video               | Video:::Video                              | c      |             |

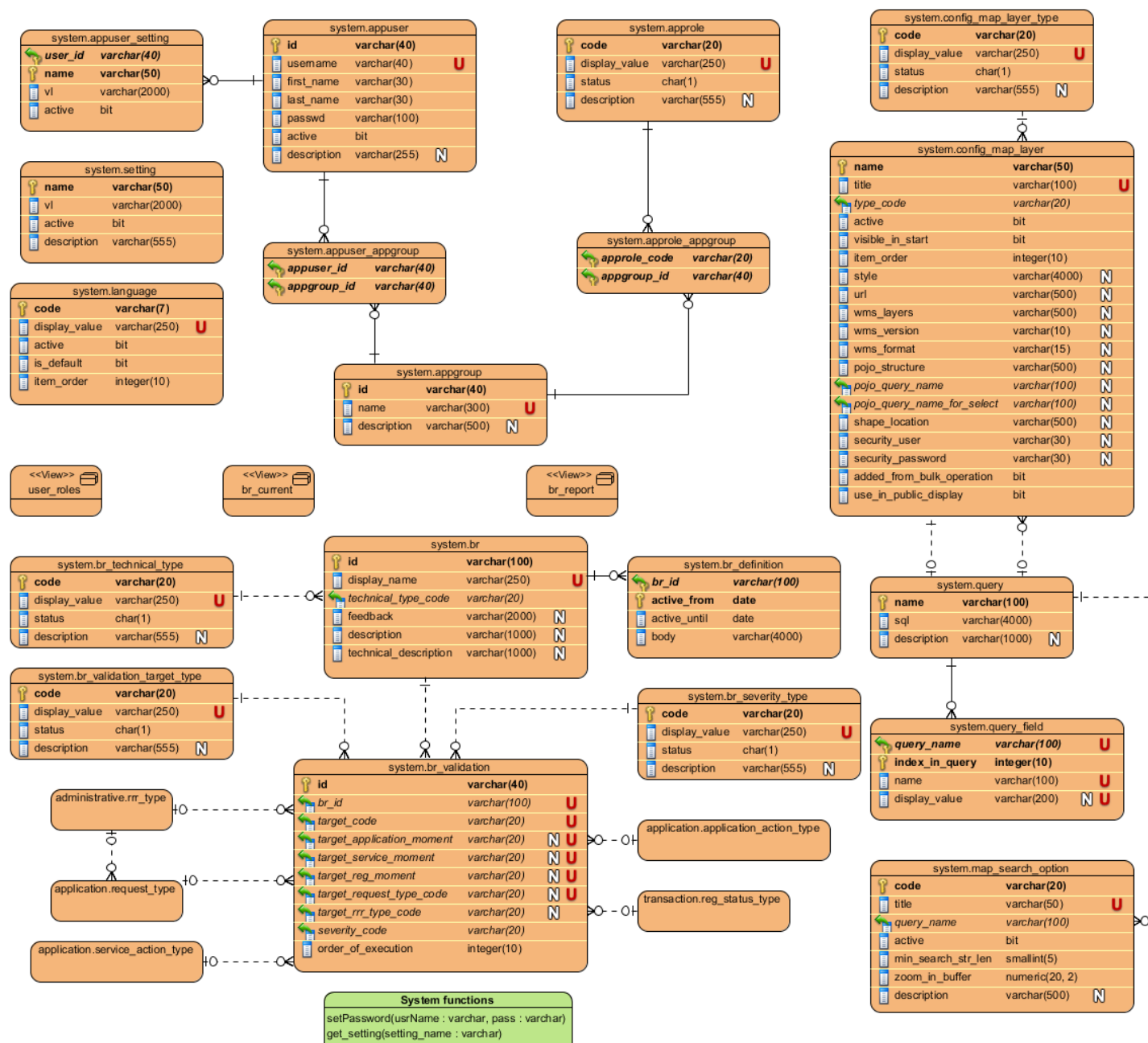


|   |                 |  |   |                   |
|---|-----------------|--|---|-------------------|
| 7 | cadastralSurvey | Cadastral Survey::::Perizia<br>Catastale         | c | Extension to LADM |
| 8 | surveyData      | Survey Data<br>(Coordinates)::::Rilevamento Data | c | Extension to LADM |

## **Sequence: source\_la\_nr\_seq**

Allocates numbers 1 to 999999999 for source la number.

# system



## Table: appgroup

This table contains list of groups, which are used to group users with similar rights in the system.

### Columns

| Name        | Type         | Optional | Default | Description |
|-------------|--------------|----------|---------|-------------|
| id          | varchar(40)  | False    |         |             |
| name        | varchar(300) | False    |         |             |
| description | varchar(500) | True     |         |             |

### Constraints

| Name                 | Type        | Explanation                            |
|----------------------|-------------|--|
| appgroup_name_unique | UNIQUE      | Combination of (name) is unique        |
| appgroup_pkey        | PRIMARY KEY | Combination of (id) is the primary key |

### ***Relationships (to)***

| Name                               | Information   | Description |
|------------------------------------|---|-------------|
| approle_appgroup_appgroup_id_fk136 | <b>From columns:</b> appgroup_id<br><b>From Entity:</b> approle_appgroup<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| appuser_appgroup_appgroup_id_fk138 | <b>From columns:</b> appgroup_id<br><b>From Entity:</b> appuser_appgroup<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### ***Data***

| Nr | id             | name        | description   |
|----|----------------|-------------|---|
| 1  | super-group-id | Super group | This is a group of users that has right in anything. It is used in developement. In production must be removed. |

## Table: approle

This table contains list of security roles, used to restrict access to the different parts of application, both on server and client side.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code                                     |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| status        | char(1)      | False    |         | The status of this code itself.              |
| description   | varchar(555) | True     |         | Description                                  |

### Constraints

| Name                         | Type        | Explanation                              |
|------------------------------|-------------|--|
| approle_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| approle_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                | Information  | Description |
|-------------------------------------|--|-------------|
| approle_appgroup_approle_code_fk135 | <b>From columns:</b> approle_code<br><b>From Entity:</b> approle_appgroup<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code                | display_value                   | status | description  |
|----|---------------------|---------------------------------|--------|--|
| 1  | DashbrdViewAssign   | View Assigned Applications      | c      | View Assigned Applications in Dashboard              |
| 2  | DashbrdViewUnassign | View Unassigned Applications    | c      | View Unassigned Applications in Dashboard            |
| 3  | DashbrdViewOwn      | View Own Applications           | c      | View Applications assigned to user in Dashboard      |
| 4  | ApplnView           | Search and View Applications    | c      | Search and view applications                         |
| 5  | ApplnCreate         | Lodge new Applications          | c      | Lodge new Applications                               |
| 6  | ApplnStatus         | Generate and View Status Report | c      | Generate and View Status Report                      |
| 7  | ApplnAssignSelf     | Assign Applications to Self     | c      | Able to assign (unassigned) applications to yourself |

|    |                     |  |   |   |
|----|---------------------|--|---|---|
| 8  | ApplnUnassignSelf   | Unassign Applications to Self            | c | Able to unassign (assigned) applications from yourself  |
| 9  | ApplnAssignOthers   | Assign Applications to Other Users       | c | Able to assign (unassigned) applications to other users   |
| 10 | ApplnUnassignOthers | Unassign Applications to Others          | c | Able to unassign (assigned) applications to other users   |
| 11 | StartService        | Start Service                            | c | Start Service   |
| 12 | CompleteService     | Complete Service                         | c | Complete Service (prior to approval)  |
| 13 | CancelService       | Cancel Service                           | c | Cancel Service  |
| 14 | RevertService       | Revert Service                           | c | Revert previously Complete Service  |
| 15 | ApplnRequisition    | Requisition application and request      | c | Request further information from applicant  |
| 16 | ApplnResubmit       | Resubmit Application                     | c | Resubmit (requisitioned) application  |
| 17 | ApplnApprove        | Approve Application                      | c | Approve Application   |
| 18 | ApplnWithdraw       | Withdraw Application                     | c | Applicant withdraws their application   |
| 19 | ApplnReject         | Reject Application                       | c | Land Office rejects an application  |
| 20 | ApplnValidate       | Validate Application                     | c | User manually runs validation rules for application   |
| 21 | ApplnDispatch       | Dispatch Application                     | c | Dispatch any documents to be returned to applicant and any certificates/reports/map prints requested by applicant |
| 22 | ApplnArchive        | Archive Application                      | c | Paper Application File is stored in Land Office Archive   |
| 23 | BaunitSave          | Create or Modify BA Unit                 | c | Create or Modify BA Unit (Property)   |
| 24 | BauunitrrrSave      | Create or Modify Rights or Restrictions  | c | Create or Modify Rights or Restrictions   |
| 25 | BaunitParcelSave    | Create or Modify (BA Unit) Parcels       | c | Create or Modify (BA Unit) Parcels  |
| 26 | BaunitNotatSave     | Create or Modify (BA Unit) Notations     | c | Create or Modify (BA Unit) Notations  |
| 27 | BaunitCertificate   | Generate and Print (BA Unit) Certificate | c | Generate and Print (BA Unit) Certificate  |
| 28 | BaunitSearch        | Search BA Unit                           | c | Search BA Unit  |

|    |                      |                                    |   |   |
|----|----------------------|------------------------------------|---|---|
| 29 | TransactionCommit    | Approve (and Cancel) Transaction   | c | Approve (and Cancel) Transaction                                |
| 30 | ViewMap              | View Cadastral Map                 | c | View Cadastral Map  |
| 31 | PrintMap             | Print Map                          | c | Print Map   |
| 32 | ParcelSave           | Create or modify (Cadastre) Parcel | c | Create or modify (Cadastre) Parcel                              |
| 33 | PartySave            | Create or modify Party             | c | Create or modify Party  |
| 34 | SourceSave           | Create or modify Source            | c | Create or modify Source   |
| 35 | SourceSearch         | Search Sources                     | c | Search sources  |
| 36 | SourcePrint          | Print Sources                      | c | Print Source  |
| 37 | ReportGenerate       | Generate and View Reports          | c | Generate and View reports                                       |
| 38 | ArchiveApps          | Archive applications               | c | Archive applications  |
| 39 | ManageSecurity       | Manage users, groups and roles     | c | Manage users, groups and roles                                  |
| 40 | ManageRefdata        | Manage reference data              | c | Manage reference data   |
| 41 | ManageSettings       | Manage system settings             | c | Manage system settings  |
| 42 | ApplnEdit            | Application Edit                   | c | Allows editing of Applications                                  |
| 43 | ManageBR             | Manage business rules              | c | Allows to manage business rules                                 |
| 44 | buildingRestriction  | Register Building Restriction      | c | Allows to make changes for registration of building restriction |
| 45 | cadastreChange       | Cadastre Change                    | c | Allows to make changes to the cadastre                          |
| 46 | cadastrePrint        | Cadastre Print                     | c | Allows to make prints of cadastre map                           |
| 47 | cancelProperty       | Cancel Title                       | c | Allows to make changes to cancel title                          |
| 48 | caveat               | Register Caveat                    | c | Allows to make changes for registration of caveat               |
| 49 | cnclPowerOfAttorney  | Cancel Power of Attorney           | c | Allows to make changes to cancel power of attorney              |
| 50 | cnclStandardDocument | Withdraw Standard Document         | c | Allows to make changes to withdraw standard document            |
| 51 | documentCopy         | Print Archived Document            | c | Allows to print an archived document                            |

|    |                      |                                 |   |  |
|----|----------------------|---------------------------------|---|--|
| 52 | historicOrder        | Register Historic Order         | c | Allows to make changes for registration of historic order                        |
| 53 | limitedRoadAccess    | Register Limited Road Access    | c | Allows to make changes for registration of limited road access                   |
| 54 | mortgage             | Register Mortgage               | c | Allows to make changes for registration of mortgage                              |
| 55 | newApartment         | Register Apartment              | c | Allows to make changes for registration of an apartment                          |
| 56 | newDigitalTitle      | Convert Title                   | c | Allows to make changes for digital conversion of an existing title               |
| 57 | newFreehold          | Freehold Title                  | c | Allows to make changes for registration of a new freehold title                  |
| 58 | newOwnership         | Change Ownership                | c | Allows to make changes for registration of ownership change                      |
| 59 | redefineCadastre     | Redefine Cadastre               | c | Allows to make changes to existing cadastre objects                              |
| 60 | registerLease        | Lease                           | c | Allows to make changes for registration of a lease                               |
| 61 | regnOnTitle          | General Title Registration      | c | Allows to make changes for general (not specific) registration on a title        |
| 62 | regnPowerOfAttorney  | Power of Attorney               | c | Allows to make changes for registration of power of attorney                     |
| 63 | regnStandardDocument | Standard Document               | c | Allows to make changes for registration of a standard document                   |
| 64 | removeCaveat         | Remove Caveat                   | c | Allows to make changes for the removal of a caveat                               |
| 65 | removeRestriction    | Remove Restriction              | c | Allows to make changes for the removal of a restriction                          |
| 66 | removeRight          | Remove Right                    | c | Allows to make changes for the removal of a right                                |
| 67 | serviceEnquiry       | Service Enquiry                 | c | Allows to make a service enquiry   |
| 68 | servitude            | Servitude                       | c | Allows to make changes for the registration of a servitude                       |
| 69 | surveyPlanCopy       | Survey Plan Print               | c | Allows to make a print of a Survey Plan  |
| 70 | titleSearch          | Title Search                    | c | Allows to make title search  |
| 71 | varyCaveat           | Vary Caveat                     | c | Allows to make changes for registration of a variation to a caveat               |
| 72 | varyLease            | Vary Lease                      | c | Allows to make changes for registration of a variation to a lease                |
| 73 | varyMortgage         | Vary Mortgage                   | c | Allows to make changes for registration of a variation to a mortgage             |
| 74 | varyRight            | Vary Right or Restriction       | c | Allows to make changes for registration of a variation to a right or restriction |
| 75 | BulkApplication      | Bulk operation application      | c | Allows usage of Bulk Application   |
| 76 | sysRegnReports       | Systematic Registration Reports | c | Allows generation of Systematic Registration Reports                             |



|    |                     |                         |   |   |
|----|---------------------|-------------------------|---|---|
| 77 | systematicRegn      | Systematic Registration | c | Allows to access Systematic Registration Service                    |
| 78 | lodgeObjection      | Objection lodgment      | c | Allows to access Lodge Objection Service                            |
| 79 | RightsExport        | Export                  | c | Allows to export  |
| 80 | newLease            | New Lease               | c | Allows to Apply for a lease   |
| 81 | dispute             | Dispute                 | c | Allows to dispute Service   |
| 82 | DisputeSave         | Dispute Save            | c | Allows to save dispute Service                                      |
| 83 | DisputeCommentsSave | Dispute Comments Save   | c | Allows to add changes to dispute comments service                   |
| 84 | DisputeSearch       | Dispute Search          | c | Allows to search dispute Service                                    |
| 85 | DisputePartySave    | Dispute Party Search    | c | Allows to save disputing parties                                    |
| 86 | DisputeView         | Dispute View            | c | Allows to view disputes   |
| 87 | manageLease         | Manage lease            | c | Allows to prepare or vary lease                                     |
| 88 | regLease            | Register lease          | c | Allows to do lease registration including registration of variation |
| 89 | endorseRight        | Endorse Right           | c | Allows to do rights endorsement                                     |
| 90 | nameChange          | Name Change             | c | Allows to do Name change Service                                    |
| 91 | renewLease          | Renew Lease             | c | Allows to do Renew Lease Service                                    |
| 92 | cancelMortBonds     | Cancel Mortgage         | c | Allows to do Cancellation of Mortgage Bond Service                  |
| 93 | cnclSublease        | Cancel Sublease         | c | Allows to do Cancel Sublease Service                                |
| 94 | varySublease        | Vary Sublease           | c | Allows to do Vary Sublease Service                                  |
| 95 | groundRentExemp     | Ground Rent Exemption   | c | Allows to do Ground Rent Exception Service                          |
| 96 | mapSale             | Map Sale                | c | Allows to do Map Sale Service                                       |
| 97 | cadastreImport      | Cadastre Import         | c | Allows to do Cadastre Import Service                                |

## Table: approle\_appgroup

This many-to-many table contains groups, related to security roles. Allows to have multiple roles for one group.

### Columns

| Name         | Type        | Optional | Default | Description |
|--------------|-------------|----------|---------|-------------|
| approle_code | varchar(20) | False    |         |             |
| appgroup_id  | varchar(40) | False    |         |             |

### Constraints

| Name                  | Type        | Explanation   |
|-----------------------|-------------|---|
| approle_appgroup_pkey | PRIMARY KEY | Combination of (approle_code, appgroup_id) is the primary key |

### Relationships (from)

| Name                                | Information   | Description |
|-------------------------------------|---|-------------|
| approle_appgroup_approle_code_fk135 | <b>From columns:</b> approle_code<br><b>To Entity:</b> approle<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| approle_appgroup_appgroup_id_fk136  | <b>From columns:</b> appgroup_id<br><b>To Entity:</b> appgroup<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | approle_code        | appgroup_id    |
|----|---------------------|----------------|
| 1  | DashbrdViewAssign   | super-group-id |
| 2  | DashbrdViewUnassign | super-group-id |
| 3  | DashbrdViewOwn      | super-group-id |
| 4  | ApplnView           | super-group-id |
| 5  | ApplnCreate         | super-group-id |
| 6  | ApplnStatus         | super-group-id |
| 7  | ApplnAssignSelf     | super-group-id |
| 8  | ApplnUnassignSelf   | super-group-id |
| 9  | ApplnAssignOthers   | super-group-id |
| 10 | ApplnUnassignOthers | super-group-id |
| 11 | BulkApplication     | super-group-id |
| 12 | systematicRegn      | super-group-id |
| 13 | lodgeObjection      | super-group-id |
| 14 | RightsExport        | super-group-id |
| 15 | newLease            | super-group-id |

|    |                     |                |
|----|---------------------|----------------|
| 16 | dispute             | super-group-id |
| 17 | DisputeSave         | super-group-id |
| 18 | DisputeCommentsSave | super-group-id |
| 19 | DisputeSearch       | super-group-id |
| 20 | DisputePartySave    | super-group-id |
| 21 | manageLease         | super-group-id |
| 22 | regLease            | super-group-id |
| 23 | endorseRight        | super-group-id |
| 24 | nameChange          | super-group-id |
| 25 | renewLease          | super-group-id |
| 26 | cancelMortBonds     | super-group-id |
| 27 | cnclSublease        | super-group-id |
| 28 | varySublease        | super-group-id |
| 29 | groundRentExemp     | super-group-id |
| 30 | mapSale             | super-group-id |
| 31 | cadastreImport      | super-group-id |

## Table: appuser

This table contains list of users, who has an access to the application, can login and do certain actions.

### Columns

| Name        | Type         | Optional | Default            | Description  |
|-------------|--------------|----------|--------------------|--|
| id          | varchar(40)  | False    |                    | <b>SOLA Extension</b> - the SOLA user id   |
| username    | varchar(40)  | False    |                    | <b>SOLA Extension</b> - User name of a SOLA user                                       |
| first_name  | varchar(30)  | False    |                    | <b>SOLA Extension</b> - First name of SOLA user  |
| last_name   | varchar(30)  | False    |                    | <b>SOLA Extension</b> - Last name of SOLA user   |
| passwd      | varchar(100) | False    | uuid_generate_v4() | <b>SOLA Extension</b> - Password of the SOLA user                                      |
| active      | bool         | False    | true               | <b>SOLA Extension</b> - the flag for whether a SOLA user is considered active (or not) |
| description | varchar(255) | True     |                    | <b>SOLA Extension</b> - a description of the SOLA user                                 |

### Constraints

| Name                    | Type        | Explanation                            |
|-------------------------|-------------|--|
| appuser_username_unique | UNIQUE      | Combination of (username) is unique    |
| appuser_pkey            | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (to)

| Name                              | Information  | Description                             |
|-----------------------------------|--|---|
| application_assignee_id_fk15      | <b>From columns:</b> assignee_id<br><b>From Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1  | FLOSS SOLA relationship - no refinement |
| appuser_setting_user_id_fk121     | <b>From columns:</b> user_id<br><b>From Entity:</b> appuser_setting<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1     | FLOSS SOLA relationship - no refinement |
| appuser_appgroup_appuser_id_fk137 | <b>From columns:</b> appuser_id<br><b>From Entity:</b> appuser_appgroup<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |   |

### Data

| Nr | id      | username | first_name |
|----|---------|----------|------------|
| 1  | test-id | test     | Test       |

| Nr | last_name | passwd   | active | description |
|----|-----------|--|--------|-------------|
| 1  | The BOSS  | 9f86d081884c7d659a2feaa0c55ad015a3bf4f1b2b0b822cd15d6c15b0f00a08 | true   |             |

## Table: appuser\_appgroup

This many-to-many table contains users, related to groups. Allows to have multiple groups for one user.

### Columns

| Name        | Type        | Optional | Default | Description |
|-------------|-------------|----------|---------|-------------|
| appuser_id  | varchar(40) | False    |         |             |
| appgroup_id | varchar(40) | False    |         |             |

### Constraints

| Name                  | Type        | Explanation   |
|-----------------------|-------------|---|
| appuser_appgroup_pkey | PRIMARY KEY | Combination of (appuser_id, appgroup_id) is the primary key |

### Relationships (from)

| Name                               | Information   | Description |
|------------------------------------|---|-------------|
| appuser_appgroup_appuser_id_fk137  | <b>From columns:</b> appuser_id<br><b>To Entity:</b> appuser<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1   |             |
| appuser_appgroup_appgroup_id_fk138 | <b>From columns:</b> appgroup_id<br><b>To Entity:</b> appgroup<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | appuser_id | appgroup_id    |
|----|------------|----------------|
| 1  | test-id    | super-group-id |

## Table: appuser\_setting

Software settings specific for a user within the FLOSS SOLA application

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name    | Type          | Optional | Default | Description                                      |
|---------|---------------|----------|---------|--|
| user_id | varchar(40)   | False    |         | <b>SOLA Extension</b> - SOLA user id             |
| name    | varchar(50)   | False    |         | <b>SOLA Extension</b> - name of the setting      |
| vl      | varchar(2000) | False    |         | <b>SOLA Extension</b> - value of the setting     |
| active  | bool          | False    | true    | <b>SOLA Extension</b> - if the setting is active |

### Constraints

| Name                 | Type        | Explanation                                      |
|----------------------|-------------|--|
| appuser_setting_pkey | PRIMARY KEY | Combination of (user_id,name) is the primary key |

### Relationships (from)

| Name                          | Information  | Description                             |
|-------------------------------|--|---|
| appuser_setting_user_id_fk121 | <b>From columns:</b> user_id<br><b>To Entity:</b> appuser<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

## Table: br

In this table there are defined the business rules that are used in the system.

### Columns

| Name                  | Type          | Optional | Default            | Description  |
|-----------------------|---------------|----------|--------------------|--|
| id                    | varchar(100)  | False    |                    | The name of the business rule  |
| display_name          | varchar(250)  | False    | uuid_generate_v4() | This is a compact identifier for the business rule.  |
| technical_type_code   | varchar(20)   | False    |                    | The implementation type of the rule. This defines also which engine must interpret the rule.                         |
| feedback              | varchar(2000) | True     |                    | A message that will be sent to the user if the rule is broken. It is not always relevant.                            |
| description           | varchar(1000) | True     |                    | Here it comes description about the rule for the end-user.   |
| technical_description | varchar(1000) | True     |                    | This is a description aimed for developers. Here it should come also description about parameters used for the rule. |

### Constraints

| Name                   | Type        | Explanation                             |
|------------------------|-------------|---|
| br_display_name_unique | UNIQUE      | Combination of (display_name) is unique |
| br_pkey                | PRIMARY KEY | Combination of (id) is the primary key  |

### Relationships (from)

| Name                         | Information   | Description |
|------------------------------|---|-------------|
| br_technical_type_code_fk125 | <b>From columns:</b><br>technical_type_code<br><b>To Entity:</b> br_technical_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Relationships (to)

| Name                      | Information  | Description |
|---------------------------|--|-------------|
| br_validation_br_id_fk126 | <b>From columns:</b> br_id<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| br_definition_br_id_fk134 | <b>From columns:</b> br_id<br><b>From Entity:</b> br_definition<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

**Table: br\_definition****Columns**

| Name         | Type          | Optional | Default    | Description   |
|--------------|---------------|----------|------------|---|
| br_id        | varchar(100)  | False    |            |   |
| active_from  | date          | False    |            |   |
| active_until | date          | False    | 'infinity' | The date until this rule is active.   |
| body         | varchar(4000) | False    |            | The definition of the rule. The interpretation of the definition is done from the rule engine in use. |

**Constraints**

| Name               | Type        | Explanation   |
|--------------------|-------------|---|
| br_definition_pkey | PRIMARY KEY | Combination of (br_id,active_from) is the primary key |

**Relationships (from)**

| Name                      | Information   | Description |
|---------------------------|---|-------------|
| br_definition_br_id_fk134 | <b>From columns:</b> br_id<br><b>To Entity:</b> br<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |



## Table: br\_severity\_type

These are the types of severity of the business rules within the context of there use.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code                                     |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| status        | char(1)      | False    |         | The status of this code itself.              |
| description   | varchar(555) | True     |         | Description                                  |

### Constraints

| Name                                  | Type        | Explanation                              |
|---------------------------------------|-------------|--|
| br_severity_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| br_severity_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                              | Information  | Description |
|-----------------------------------|--|-------------|
| br_validation_severity_code_fk127 | <b>From columns:</b> severity_code<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code     | display_value | status | description |
|----|----------|---------------|--------|-------------|
| 1  | critical | Critical      | c      |             |
| 2  | medium   | Medium        | c      |             |
| 3  | warning  | Warning       | c      |             |

## Table: br\_technical\_type

Here are specified the types of technical implementations of the business rule.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code                                     |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| status        | char(1)      | False    |         | The status of this code itself.              |
| description   | varchar(555) | True     |         | Description                                  |

### Constraints

| Name                                   | Type        | Explanation                              |
|--|-------------|--|
| br_technical_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| br_technical_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                         | Information  | Description |
|------------------------------|--|-------------|
| br_technical_type_code_fk125 | <b>From columns:</b><br>technical_type_code<br><b>From Entity:</b> br<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code   | display_value   | status | description  |
|----|--------|-----------------|--------|--|
| 1  | sql    | SQL:::SQL       | c      | The rule definition is based in sql and it is executed by the database engine. |
| 2  | drools | Drools:::Drools | c      | The rule definition is based on Drools engine.                                 |

## Table: br\_validation

In this table are defined the sets of rules that has to be executed. If for a rule there is not target moment specified, then the rule will not be part of the set.

### Columns

| Name                      | Type         | Optional | Default            | Description  |
|---------------------------|--------------|----------|--------------------|--|
| id                        | varchar(40)  | False    | uuid_generate_v4() | This is a meaningless identifier for the rule.   |
| br_id                     | varchar(100) | False    |                    | Name of the business rule  |
| target_code               | varchar(20)  | False    |                    | The type of the target of the the validation.  |
| target_application_moment | varchar(20)  | True     |                    | The moment of execution of the rule if the target is the application.  |
| target_service_moment     | varchar(20)  | True     |                    | The moment of execution of the rule if the target is the service.  |
| target_reg_moment         | varchar(20)  | True     |                    | The moment of execution of the rule if the target is the ba_unit, rrr or cadastre_object.  |
| target_request_type_code  | varchar(20)  | True     |                    | If the target is a request type then here is given which is the request type. If this is null the business rule will be relevant for all services. |
| target_rrr_type_code      | varchar(20)  | True     |                    | If the target is a registration on RRR then here is given the rrr type. If this is null the business rule validation will be valid for all rrr-s.  |
| severity_code             | varchar(20)  | False    |                    | Severity of the failure of the business rule.  |
| order_of_execution        | integer      | False    | 0                  | The order of the execution of the rule.  |

### Constraints

| Name                                     | Type   | Explanation  |
|--|--------|--|
| br_validation_service_request_type_valid | CHECK  | Rule (target_request_type_code is null or (target_request_type_code is not null and target_code != 'application')) must be true It checks if the target_request_type_code is provided then the target_code must not be of value 'application'. |
| br_validation_rrr_rrr_type_valid         | CHECK  | Rule (target_rrr_type_code is null or (target_rrr_type_code is not null and target_code = 'rrr')) must be true It checks if the target_rrr_type_code is provided then the target_code must be of value 'rrr'.                                  |
| br_validation_app_moment_unique          | UNIQUE | Combination of (br_id, target_code, target_application_moment) is unique   |
| br_validation_service_moment_unique      | UNIQUE | Combination of (br_id, target_code, target_service_moment, target_request_type_code) is unique   |
| br_validation_reg_moment_unique          | UNIQUE | Combination of (br_id, target_code, target_reg_moment) is unique   |
| br_validation_service_moment_valid       | CHECK  | Rule (target_code!= 'service' or (target_code = 'service' and target_application_moment is null and target_reg_moment is null)) must be true   |
| br_validation_application_moment_valid   | CHECK  | Rule (target_code!= 'application' or (target_code = 'application' and target_service_moment is null and target_reg_moment is null)) must be true   |

|                                |             |  |
|--------------------------------|-------------|--|
| br_validation_reg_moment_valid | CHECK       | Rule (target_code in ( 'application', 'service') or (target_code not in ( 'application', 'service') and target_service_moment is null and target_application_moment is null)) must be true |
| br_validation_pkey             | PRIMARY KEY | Combination of (id) is the primary key   |

**Relationships (from)**

| Name  | Information   | Description |
|---|---|-------------|
| br_validation_br_id_fk126                     | <b>From columns:</b> br_id<br><b>To Entity:</b> br<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1   |             |
| br_validation_severity_code_fk127             | <b>From columns:</b> severity_code<br><b>To Entity:</b> br_severity_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                       |             |
| br_validation_target_code_fk128               | <b>From columns:</b> target_code<br><b>To Entity:</b> br_validation_target_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                |             |
| br_validation_target_request_type_code_fk129  | <b>From columns:</b> target_request_type_code<br><b>To Entity:</b> request_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1             |             |
| br_validation_target_rrr_type_code_fk130      | <b>From columns:</b> target_rrr_type_code<br><b>To Entity:</b> rrr_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                     |             |
| br_validation_target_application_moment_fk131 | <b>From columns:</b> target_application_moment<br><b>To Entity:</b> application_action_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |
| br_validation_target_service_moment_fk132     | <b>From columns:</b> target_service_moment<br><b>To Entity:</b> service_action_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1         |             |
| br_validation_target_reg_moment_fk133         | <b>From columns:</b> target_reg_moment<br><b>To Entity:</b> reg_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                 |             |

## Table: br\_validation\_target\_type

The potential targets of the validation rules.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code                                     |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| status        | char(1)      | False    |         | The status of this code itself.              |
| description   | varchar(555) | True     |         | Description                                  |

### Constraints

| Name   | Type        | Explanation                              |
|--|-------------|--|
| br_validation_target_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| br_validation_target_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                            | Information  | Description |
|---------------------------------|--|-------------|
| br_validation_target_code_fk128 | <b>From columns:</b> target_code<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code                 | display_value                                | status | description  |
|----|----------------------|--|--------|--|
| 1  | application          | Application::::Pratica                       | c      | The target of the validation is the application. It accepts one parameter {id} which is the application id.                                  |
| 2  | service              | Service::::Servizio                          | c      | The target of the validation is the service. It accepts one parameter {id} which is the service id.  |
| 3  | rrr                  | Right or Restriction::::Diritto o Rstrizione | c      | The target of the validation is the rrr. It accepts one parameter {id} which is the rrr id.  |
| 4  | ba_unit              | Administrative Unit::::Unita Amministrativa  | c      | The target of the validation is the ba_unit. It accepts one parameter {id} which is the ba_unit id.  |
| 5  | source               | Source::::Sorgente                           | c      | The target of the validation is the source. It accepts one parameter {id} which is the source id.  |
| 6  | cadastre_object      | Cadastre Object::::Oggetto Catastale         | c      | The target of the validation is the transaction related with the cadastre change. It accepts one parameter {id} which is the transaction id. |
| 7  | bulkOperationSpatial | BULK operation                               | c      | The target of the validation is the transaction related with the bulk operations.  |

|   |                |                |   |  |
|---|----------------|----------------|---|--|
| 8 | public_display | Public display | c | The target of the validation is the set of cadastre objects/ba units that belong to a certain last part. It accepts one parameter {lastPart} which is the last part. |
|---|----------------|----------------|---|--|

## Table: config\_map\_layer

Sola extension: In this table are defined map layers for configuring the map component. The layers can be of different types. For the type of layers supported, check out the data in the table config\_map\_layer\_type.

### Columns

| Name                       | Type          | Optional | Default | Description  |
|----------------------------|---------------|----------|---------|--|
| name                       | varchar(50)   | False    |         | <b>SOLA Extension</b> - name of map layer  |
| title                      | varchar(100)  | False    |         | The title of the layer. The title is the one that will be visible to the users. It can be localizable.   |
| type_code                  | varchar(20)   | False    |         | The map layer type   |
| active                     | bool          | False    | true    | Flag to indicate whether instance of config map layer is active (or not)   |
| visible_in_start           | bool          | False    | true    | If it is true, the layer will be switched on in the start of the map control.  |
| item_order                 | integer       | False    | 0       | Map layer order of display. Smaller this number, the lower in the list of layers the layer is found.   |
| style                      | varchar(4000) | True     |         | Map layer style given in SLD. The style can be used by layers of type shape, po_jo.  |
| url                        | varchar(500)  | True     |         | Url is the end point of a server based map layer. It is used by layer of type wms.   |
| wms_layers                 | varchar(500)  | True     |         | The layer names separated with comma that will be requested for a wms layer.   |
| wms_version                | varchar(10)   | True     |         | The version of the wms server. Allowed values are 1.0.0, 1.1.0, 1.1.1., 1.3.0.   |
| wms_format                 | varchar(15)   | True     |         | Format of the output for the wms layer. Allowed values are as defined by the wms server capabilities. Example: image/png or image/jpeg.  |
| pojo_structure             | varchar(500)  | True     |         | Plain old java object structure. It is given in the format as required by featurtype definition in geotools. It is used in layer type : po_jo. Example: theGeom:Polygon,label:"" |
| pojo_query_name            | varchar(100)  | True     |         | The name of the query that will be used to retrieve the features for this layer. It is used from layer of type po_jo.  |
| pojo_query_name_for_select | varchar(100)  | True     |         | Query name of the query that is used to select objects corresponding to the layer. It can be used from any layer type.   |
| shape_location             | varchar(500)  | True     |         | The location of the shapefile. It is used for layers of type shape. The client application must have access to this file.  |
| security_user              | varchar(30)   | True     |         | The username to access the layer. At the moment it is not used.  |
| security_password          | varchar(30)   | True     |         | The password to access the layer. At the moment it is not used.  |
| added_from_bulk_operation  | bool          | False    | false   | If true, the layer is added during a bulk operation.   |

|                       |      |       |       |  |
|-----------------------|------|-------|-------|--|
| use_in_public_display | bool | False | false | If true, the layer will be set visible when printing the public display map. It is not relevant for other kinds of map operations. |
|-----------------------|------|-------|-------|--|

### Constraints

| Name                             | Type        | Explanation   |
|----------------------------------|-------------|---|
| config_map_layer_fields_required | CHECK       | Rule (case when type_code = 'wms' then url is not null and wms_layers is not null when type_code = 'pojo' then pojo_query_name is not null and pojo_structure is not null and style is not null when type_code = 'shape' then shape_location is not null and style is not null end) must be true It checks if the information is filled properly for each of type of the layer supported. |
| config_map_layer_title_unique    | UNIQUE      | Combination of (title) is unique  |
| config_map_layer_pkey            | PRIMARY KEY | Combination of (name) is the primary key  |

### Relationships (from)

| Name  | Information  | Description                             |
|---|--|---|
| config_map_layer_type_code_fk122                  | <b>From columns:</b> type_code<br><b>To Entity:</b> config_map_layer_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1     | FLOSS SOLA relationship - no refinement |
| config_map_layer_pojo_query_name_fk123            | <b>From columns:</b> pojo_query_name<br><b>To Entity:</b> query<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 0..1               |   |
| config_map_layer_pojo_query_name_for_select_fk124 | <b>From columns:</b> pojo_query_name_for_select<br><b>To Entity:</b> query<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |   |

### Data

| Nr | name                        | title                                 | type_code |
|----|-----------------------------|---------------------------------------|-----------|
| 1  | parcels                     | Parcels:::Particelle                  | pojo      |
| 2  | pending-parcels             | Pending parcels:::Particelle pendenti | pojo      |
| 3  | roads                       | Roads:::Strade                        | pojo      |
| 4  | survey-controls             | Survey controls:::Piani di controllo  | pojo      |
| 5  | place-names                 | Places names:::Nomi di luoghi         | pojo      |
| 6  | applications                | Applications:::Pratiche               | pojo      |
| 7  | parcels-historic-current-ba | Historic parcels with current titles  | pojo      |
| 8  | parcel-nodes                | Parcel nodes                          | pojo      |



|    |                             |                             |                     |
|----|-----------------------------|-----------------------------|---------------------|
| 9  | orthophoto                  | Orthophoto                  | wms                 |
| 10 | public-display-parcels      | Public display parcels      | pojo_public_display |
| 11 | public-display-parcels-next | Public display parcels next | pojo_public_display |

| Nr | active | visible_in_start | item_order |
|----|--------|------------------|------------|
| 1  | true   | true             | 20         |
| 2  | true   | true             | 30         |
| 3  | true   | true             | 40         |
| 4  | true   | true             | 50         |
| 5  | true   | true             | 60         |
| 6  | true   | true             | 70         |
| 7  | true   | true             | 10         |
| 8  | true   | true             | 5          |
| 9  | true   | false            | 1          |
| 10 | true   | true             | 35         |
| 11 | true   | true             | 30         |

| style                          | url                                      | wms_layers         | wms_version |
|--------------------------------|--|--------------------|-------------|
| parcel.xml                     |  |                    |             |
| pending_parcel.xml             |  |                    |             |
| road.xml                       |  |                    |             |
| survey_control.xml             |  |                    |             |
| place_name.xml                 |  |                    |             |
| application.xml                |  |                    |             |
| parcel_historic_current_ba.xml |  |                    |             |
| parcel_node.xml                |  |                    |             |
|                                | http://localhost:8085/geoserver/sola/wms | sola:nz_orthophoto | 1.1.1       |
| public_display_parcel.xml      |  |                    |             |
| public_display_parcel_next.xml |  |                    |             |

| Nr | wms_format | pojo_structure                |
|----|------------|-------------------------------|
| 1  |            | theGeom:Polygon,label:""      |
| 2  |            | theGeom:Polygon,label:""      |
| 3  |            | theGeom:MultiPolygon,label:"" |
| 4  |            | theGeom:Point,label:""        |
| 5  |            | theGeom:Point,label:""        |
| 6  |            | theGeom:MultiPoint,label:""   |
| 7  |            | theGeom:Polygon,label:""      |
| 8  |            | theGeom:Polygon,label:""      |
| 9  | image/jpeg |                               |
| 10 |            | theGeom:Polygon,label:""      |
| 11 |            | theGeom:Polygon,label:""      |

| query_name                               | pojo_query_name_for_select                             | shape |
|--|--|-------|
| alResult.getParcels                      | dynamic.informationtool.get_parcel                     |       |
| alResult.getParcelsPending               | dynamic.informationtool.get_parcel_pending             |       |
| alResult.getRoads                        | dynamic.informationtool.get_road                       |       |
| alResult.getSurveyControls               | dynamic.informationtool.get_survey_control             |       |
| alResult.getPlaceNames                   | dynamic.informationtool.get_place_name                 |       |
| alResult.getApplications                 | dynamic.informationtool.get_application                |       |
| alResult.getParcelsHistoricWithCurrentBA | dynamic.informationtool.get_parcel_historic_current_ba |       |
| alResult.getParcelNodes                  |  |       |
|  |  |       |
| c_display.parcels                        |  |       |
| c_display.parcels_next                   |  |       |

| Nr | security_user | security_password | added_from_bulk_operation | use_in_public_display |
|----|---------------|-------------------|---------------------------|-----------------------|
| 1  |               |                   |                           | false                 |
| 2  |               |                   |                           | false                 |
| 3  |               |                   |                           | true                  |
| 4  |               |                   |                           | false                 |
| 5  |               |                   |                           | false                 |
| 6  |               |                   |                           | false                 |
| 7  |               |                   |                           | false                 |
| 8  |               |                   |                           | false                 |
| 9  |               |                   |                           | false                 |
| 10 |               |                   |                           | true                  |
| 11 |               |                   |                           | true                  |

## Table: config\_map\_layer\_type

Parameters for defining categories/types of map layers in FLOSS SOLA gis component

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - code identifying a config map layer type       |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - displayed value of config map layer type       |
| status        | char(1)      | False    |         | <b>SOLA Extension</b> - status of an instance of config map layer type |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - description of config map layer type           |

### Constraints

| Name                                       | Type        | Explanation                              |
|--|-------------|--|
| config_map_layer_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| config_map_layer_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                             | Information   | Description                             |
|----------------------------------|---|---|
| config_map_layer_type_code_fk122 | <b>From columns:</b> type_code<br><b>From Entity:</b> config_map_layer<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code                | display_value                                  | status | description   |
|----|---------------------|--|--------|---|
| 1  | wms                 | WMS server with layers::::Server WMS con layer | c      |   |
| 2  | shape               | Shapefile::::Shapefile                         | c      |   |
| 3  | pojo                | Pojo layer::::Pojo layer                       | c      |   |
| 4  | pojo_public_display | Pojo layer used for public display             | c      | It is an extension of pojo layer. It is used only during the public display map generation. |

## Table: language

The languages that can be used within the FLOSS SOLA application.

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(7)   | False    |         | <b>SOLA Extension</b> - A unique code of the localization.   |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - displayed value of localisation setting  |
| active        | bool         | False    | true    | <b>SOLA Extension</b> -status of the instance of language  |
| is_default    | bool         | False    | false   | <b>SOLA Extension</b> - If it is the default. One of the records in this table can have this value true. |
| item_order    | integer      | False    | 1       |  |

### Constraints

| Name                          | Type        | Explanation                              |
|-------------------------------|-------------|--|
| language_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| language_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Data

| Nr | code  | display_value      | active | is_default | item_order |
|----|-------|--------------------|--------|------------|------------|
| 1  | en-US | English:::Inglese  | true   | true       | 1          |
| 2  | it-IT | Italian:::Italiano | true   | false      | 2          |

## Table: map\_search\_option

This table contains information about the options to search objects in the map. The list of options here will be used to configure the list of search by options in the Map Search Component.

### Columns

| Name               | Type           | Optional | Default | Description   |
|--------------------|----------------|----------|---------|---|
| code               | varchar(20)    | False    |         | The unique code of the search option. This code is used programatically.  |
| title              | varchar(50)    | False    |         | The unique title that is visible to the user. It can be localizable.  |
| query_name         | varchar(100)   | False    |         | The query that will be used for retrieving the search results. The query requires only one parameter: search_string.<br>So, it means that queries that are used here, should contain only one parameter with this name. These queries also should return only 3 fields:<br>- id: Unique id of returned match<br>- label: What will be displayed to the user<br>- the_geom: the WKB form of the geometry |
| active             | bool           | False    | true    | If the search option is active or not   |
| min_search_str_len | smallint       | False    | 3       | The minimum number of characters required for the search string.  |
| zoom_in_buffer     | numeric(20, 2) | False    | 50      | The buffer distance to use when zooming the map to display the selected object. The units of this value are dependent on the coordinate system of the map (usually meters).   |
| description        | varchar(500)   | True     |         | A description about the option  |

### Constraints

| Name                           | Type        | Explanation                              |
|--------------------------------|-------------|--|
| map_search_option_title_unique | UNIQUE      | Combination of (title) is unique         |
| map_search_option_pkey         | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (from)

| Name                               | Information   | Description |
|------------------------------------|---|-------------|
| map_search_option_query_name_fk140 | <b>From columns:</b> query_name<br><b>To Entity:</b> query<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code   | title  | query_name                           | active |
|----|--------|--------|--------------------------------------|--------|
| 1  | NUMBER | Number | map_search.cadastre_object_by_number | true   |

|   |                 |                 |  |      |
|---|-----------------|-----------------|--|------|
| 2 | BAUNIT          | Property number | map_search.cadastre_object_by_baunit       | true |
| 3 | OWNER_OF_BAUNIT | Property owner  | map_search.cadastre_object_by_baunit_owner | true |

| Nr | min_search_str_len | zoom_in_buffer | description |
|----|--------------------|----------------|-------------|
| 1  | 3                  | 50             |             |
| 2  | 3                  | 50             |             |
| 3  | 3                  | 50             |             |

## Table: query

It defines a query that can be executed by the search ejb.

### Columns

| Name        | Type          | Optional | Default | Description                            |
|-------------|---------------|----------|---------|--|
| name        | varchar(100)  | False    |         | Unique identifier for the query        |
| sql         | varchar(4000) | False    |         | Query definition                       |
| description | varchar(1000) | True     |         | Technical description about the query. |

### Constraints

| Name       | Type        | Explanation                              |
|------------|-------------|--|
| query_pkey | PRIMARY KEY | Combination of (name) is the primary key |

### Relationships (to)

| Name  | Information   | Description |
|---|---|-------------|
| config_map_layer_pojo_query_name_fk125            | <b>From columns:</b> pojo_query_name<br><b>From Entity:</b> config_map_layer<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 0..1               |             |
| config_map_layer_pojo_query_name_for_select_fk124 | <b>From columns:</b> pojo_query_name_for_select<br><b>From Entity:</b> config_map_layer<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |
| query_field_query_name_fk139                      | <b>From columns:</b> query_name<br><b>From Entity:</b> query_field<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                         |             |
| map_search_option_query_name_fk140                | <b>From columns:</b> query_name<br><b>From Entity:</b> map_search_option<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                   |             |

### Data

| Nr |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |

|    |
|----|
| 9  |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |
| 19 |
| 20 |
| 21 |

|                     | sql   | description |
|---------------------|---|-------------|
| t.getParcels        | select co.id, co.name_firstpart    '/'    co.name_lastpart as label, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co where type_code= 'parcel' and status_code= 'current' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}),ST_Point({maxx}, {maxy})), {srid})) and st_area(co.geom_polygon)> power(5 * {pixel_res}, 2)   |             |
| t.getParcelsPending | select co.id, co.name_firstpart    '/'    co.name_lastpart as label, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co where type_code= 'parcel' and status_code= 'pending' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}),ST_Point({maxx}, {maxy})), {srid})) union select co.id, co.name_firstpart    '/'    co.name_lastpart as label, st_asewkb(co_t.geom_polygon) as the_geom from cadastre.cadastre_object co inner join cadastre.cadastre_object_target co_t on co.id = co_t.cadastre_object_id and co_t.geom_polygon is not null where ST_Intersects(co_t.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}),ST_Point({maxx}, {maxy})), {srid})) and co_t.transaction_id in (select id from transaction.transaction where status_code not in ('approved')) |             |
| t.getSurveyControls | select id, label, st_asewkb(geom) as the_geom from cadastre.survey_control where ST_Intersects(geom, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}),ST_Point({maxx}, {maxy})), {srid}))   |             |
| t.getRoads          | select id, label, st_asewkb(geom) as the_geom from cadastre.road where ST_Intersects(geom, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}),ST_Point({maxx}, {maxy})), {srid})) and st_area(geom)> power(5 * {pixel_res}, 2)  |             |



|                                |  |  |
|--------------------------------|--|--|
| t.getPlaceNames                | select id, label, st_asewkb(geom) as the_geom from cadastre.place_name where ST_Intersects(geom, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}), ST_Point({maxx}, {maxy})), {srid}))   |  |
| t.getApplications              | select id, nr as label, st_asewkb(location) as the_geom from application.application where ST_Intersects(location, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}), ST_Point({maxx}, {maxy})), {srid}))   |  |
| rmationtool.get_parcel         | select co.id, co.name_firstpart    '/'    co.name_lastpart as parcel_nr, (select string_agg(ba.name_firstpart    '/'    ba.name_lastpart, ',')) from administrative.ba_unit_contains_spatial_unit bas, administrative.ba_unit ba where spatial_unit_id= co.id and bas.ba_unit_id= ba.id) as ba_units, ( SELECT spatial_value_area.size FROM cadastre.spatial_value_area WHERE spatial_value_area.type_code='officialArea' and spatial_value_area.spatial_unit_id = co.id) AS area_official_sqm, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co where type_code= 'parcel' and status_code= 'current' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid}))  |  |
| rmationtool.get_parcel_pending | select co.id, co.name_firstpart    '/'    co.name_lastpart as parcel_nr, ( SELECT spatial_value_area.size FROM cadastre.spatial_value_area WHERE spatial_value_area.type_code='officialArea' and spatial_value_area.spatial_unit_id = co.id) AS area_official_sqm, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co where type_code= 'parcel' and ((status_code= 'pending' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid}))) or (co.id in (select cadastre_object_id from cadastre.cadastre_object_target co_t inner join transaction.transaction t on co_t.transaction_id=t.id where ST_Intersects(co_t.geom_polygon, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid})) and t.status_code not in ('approved')))) |  |
| rmationtool.get_place_name     | select id, label, st_asewkb(geom) as the_geom from cadastre.place_name where ST_Intersects(geom, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid}))   |  |
| rmationtool.get_road           | select id, label, st_asewkb(geom) as the_geom from cadastre.road where ST_Intersects(geom, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid}))   |  |
| rmationtool.get_application    | select id, nr, st_asewkb(location) as the_geom from application.application where ST_Intersects(location, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid}))  |  |
| rmationtool.get_survey_control | select id, label, st_asewkb(geom) as the_geom from cadastre.survey_control where ST_Intersects(geom, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid}))   |  |

|  |   |  |
|--|---|--|
| t.getParcelsHistoricWithCurrentBA          | select co.id, co.name_firstpart    '/'    co.name_lastpart as label, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co inner join administrative.ba_unit_contains_spatial_unit ba_co on co.id = ba_co.spatial_unit_id inner join administrative.ba_unit ba_unit on ba_unit.id= ba_co.ba_unit_id where co.type_code='parcel' and co.status_code= 'historic' and ba_unit.status_code = 'current' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}),ST_Point({maxx}, {maxy})), {srid}))  |  |
| rmationtool.get_parcel_historic_current_ba | select co.id, co.name_firstpart    '/'    co.name_lastpart as parcel_nr, (select string_agg(ba.name_firstpart    '/'    ba.name_lastpart, ',')) from administrative.ba_unit_contains_spatial_unit bas, administrative.ba_unit ba where spatial_unit_id= co.id and bas.ba_unit_id= ba.id) as ba_units, (SELECT spatial_value_area.size FROM cadastre.spatial_value_area WHERE spatial_value_area.type_code='officialArea' and spatial_value_area.spatial_unit_id = co.id) AS area_official_sqm, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co inner join administrative.ba_unit_contains_spatial_unit ba_co on co.id = ba_co.spatial_unit_id inner join administrative.ba_unit ba_unit on ba_unit.id= ba_co.ba_unit_id where co.type_code='parcel' and co.status_code= 'historic' and ba_unit.status_code = 'current' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_GeomFromWKB({wkb_geom}), {srid})) |  |
| cadastre_object_by_number                  | select id, name_firstpart    '/'    name_lastpart as label, st_asewkb(geom_polygon) as the_geom from cadastre.cadastre_object where status_code= 'current' and compare_strings({search_string}, name_firstpart    '/'    name_lastpart) limit 30  |  |
| cadastre_object_by_baunit                  | select distinct co.id, ba_unit.name_firstpart    '/'    ba_unit.name_lastpart    ' > '    co.name_firstpart    '/'    co.name_lastpart as label, st_asewkb(geom_polygon) as the_geom from cadastre.cadastre_object co inner join administrative.ba_unit_contains_spatial_unit bas on co.id = bas.spatial_unit_id inner join administrative.ba_unit on ba_unit.id = bas.ba_unit_id where (co.status_code= 'current' or ba_unit.status_code= 'current') and compare_strings({search_string}, ba_unit.name_firstpart    '/'    ba_unit.name_lastpart) limit 30   |  |

|                                 |  |   |
|---------------------------------|--|---|
| cadastre_object_by_baunit_owner | select distinct co.id, coalesce(party.name, "")    ' '    coalesce(party.last_name, "")    ' > '    co.name_firstpart    '/'    co.name_lastpart as label, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co inner join administrative.ba_unit_contains_spatial_unit bas on co.id = bas.spatial_unit_id inner join administrative.ba_unit on bas.ba_unit_id= ba_unit.id inner join administrative.rrr on (ba_unit.id = rrr.ba_unit_id and rrr.status_code = 'current' and rrr.type_code = 'ownership') inner join administrative.party_for_rrr pfr on rrr.id = pfr.rrr_id inner join party.party on pfr.party_id= party.id where (co.status_code= 'current' or ba_unit.status_code= 'current') and compare_strings({search_string}, coalesce(party.name, "")    ' '    coalesce(party.last_name, "")) limit 30 |   |
| ch.cadastre_object_by_baunit_id | SELECT id, name_firstpart    '/'    name_lastpart as label, st_asewkb(geom_polygon) as the_geom FROM cadastre.cadastre_object WHERE transaction_id IN (SELECT cot.transaction_id FROM (administrative.ba_unit_contains_spatial_unit ba_su INNER JOIN cadastre.cadastre_object co ON ba_su.spatial_unit_id = co.id) INNER JOIN cadastre.cadastre_object_target cot ON co.id = cot.cadastre_object_id WHERE ba_su.ba_unit_id = {search_string}) AND (SELECT COUNT(1) FROM administrative.ba_unit_contains_spatial_unit WHERE spatial_unit_id = cadastre_object.id) = 0 AND status_code = 'current'   | Query used by BaUnitBean.   |
| t.getParcelNodes                | select distinct st_astext(geom) as id, " as label, st_asewkb(geom) as the_geom from (select (ST_DumpPoints(geom_polygon)).* from cadastre.cadastre_object co where type_code= 'parcel' and status_code= 'current' and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}), ST_Point({maxx}, {maxy})), {srid}))) tmp_table  |   |
| ay.parcels                      | select co.id, co.name_firstpart as label, st_asewkb(co.geom_polygon) as the_geom from cadastre.cadastre_object co where type_code= 'parcel' and status_code= 'current' and name_lastpart = {name_lastpart} and ST_Intersects(co.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}), ST_Point({maxx}, {maxy})), {srid}))  | Query is used to display map. parcels being (name_lastpart)             |
| ay.parcels_next                 | SELECT co_next.id, co_next.name_firstpart as label, st_asewkb(co_next.geom_polygon) as the_geom from cadastre.cadastre_object co_next, cadastre.cadastre_object co where co.type_code= 'parcel' and co.status_code= 'current' and co_next.type_code= 'parcel' and co_next.status_code= 'current' and co.name_lastpart = {name_lastpart} and co_next.name_lastpart != {name_lastpart} and st_dwithin(co.geom_polygon, co_next.geom_polygon, 5) and ST_Intersects(co_next.geom_polygon, ST_SetSRID(ST_MakeBox3D(ST_Point({minx}, {miny}), ST_Point({maxx}, {maxy})), {srid}))  | Query is used to display map. parcels being of the layer public-display |

## Table: query\_field

It defines a field in the query. The field is returned by the select part. Not for all queries is needed to define the fields. It becomes important only for queries that will need to have fields that has to be localized.

### Columns

| Name           | Type         | Optional | Default | Description  |
|----------------|--------------|----------|---------|--|
| query_name     | varchar(100) | False    |         | Query identifier   |
| index_in_query | integer      | False    |         |  |
| name           | varchar(100) | False    |         | The index of the field in the query. The index is zero based. It should not exceed the number of fields in the select part of the query. |
| display_value  | varchar(200) | True     |         | The title of the field to be used in the query. It can be localized.   |

### Constraints

| Name                      | Type        | Explanation  |
|---------------------------|-------------|--|
| query_field_display_value | UNIQUE      | Combination of (query_name, display_value) is unique           |
| query_field_name          | UNIQUE      | Combination of (query_name, name) is unique                    |
| query_field_pkey          | PRIMARY KEY | Combination of (query_name, index_in_query) is the primary key |

### Relationships (from)

| Name                         | Information   | Description |
|------------------------------|---|-------------|
| query_field_query_name_fk139 | <b>From columns:</b> query_name<br><b>To Entity:</b> query<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | query_name                                 | index_in_query |
|----|--|----------------|
| 1  | dynamic.informationtool.get_parcel         | 1              |
| 2  | dynamic.informationtool.get_parcel         | 2              |
| 3  | dynamic.informationtool.get_parcel         | 3              |
| 4  | dynamic.informationtool.get_parcel         | 0              |
| 5  | dynamic.informationtool.get_parcel         | 4              |
| 6  | dynamic.informationtool.get_parcel_pending | 0              |
| 7  | dynamic.informationtool.get_parcel_pending | 1              |
| 8  | dynamic.informationtool.get_parcel_pending | 2              |
| 9  | dynamic.informationtool.get_parcel_pending | 3              |
| 10 | dynamic.informationtool.get_place_name     | 0              |
| 11 | dynamic.informationtool.get_place_name     | 1              |
| 12 | dynamic.informationtool.get_place_name     | 2              |

|    |  |   |
|----|--|---|
| 13 | dynamic.informationtool.get_road                       | 0 |
| 14 | dynamic.informationtool.get_road                       | 1 |
| 15 | dynamic.informationtool.get_road                       | 2 |
| 16 | dynamic.informationtool.get_application                | 0 |
| 17 | dynamic.informationtool.get_application                | 1 |
| 18 | dynamic.informationtool.get_application                | 2 |
| 19 | dynamic.informationtool.get_survey_control             | 0 |
| 20 | dynamic.informationtool.get_survey_control             | 1 |
| 21 | dynamic.informationtool.get_survey_control             | 2 |
| 22 | dynamic.informationtool.get_parcel_historic_current_ba | 0 |
| 23 | dynamic.informationtool.get_parcel_historic_current_ba | 1 |
| 24 | dynamic.informationtool.get_parcel_historic_current_ba | 2 |
| 25 | dynamic.informationtool.get_parcel_historic_current_ba | 3 |
| 26 | dynamic.informationtool.get_parcel_historic_current_ba | 4 |

| Nr | name              | display_value                            |
|----|-------------------|--|
| 1  | parcel_nr         | Parcel number:::Numero Particella        |
| 2  | ba_units          | Properties:::Proprieta                   |
| 3  | area_official_sqm | Official area (m2):::Area ufficiale (m2) |
| 4  | id                |  |
| 5  | the_geom          |  |
| 6  | id                |  |
| 7  | parcel_nr         | Parcel number:::Numero Particella        |
| 8  | area_official_sqm | Official area (m2):::Area ufficiale (m2) |
| 9  | the_geom          |  |
| 10 | id                |  |
| 11 | label             | Name:::Nome                              |
| 12 | the_geom          |  |
| 13 | id                |  |
| 14 | label             | Name:::Nome                              |
| 15 | the_geom          |  |
| 16 | id                |  |
| 17 | nr                | Number:::Numero                          |
| 18 | the_geom          |  |
| 19 | id                |  |
| 20 | label             | Label:::Etichetta                        |
| 21 | the_geom          |  |
| 22 | id                |  |
| 23 | parcel_nr         | Parcel number:::Numero Particella        |
| 24 | ba_units          | Properties:::Proprieta                   |
| 25 | area_official_sqm | Official area (m2):::Area ufficiale (m2) |

|    |          |  |
|----|----------|--|
| 26 | the_geom |  |
|----|----------|--|

## Table: setting

Global settings for the FLOSS SOLA application

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name        | Type          | Optional | Default | Description  |
|-------------|---------------|----------|---------|--|
| name        | varchar(50)   | False    |         | <b>SOLA Extension</b> - name of the setting              |
| vl          | varchar(2000) | False    |         | <b>SOLA Extension</b> - Value of the setting             |
| active      | bool          | False    | true    | <b>SOLA Extension</b> - if the setting is active or not. |
| description | varchar(555)  | False    |         |  |

### Constraints

| Name         | Type        | Explanation                              |
|--------------|-------------|--|
| setting_pkey | PRIMARY KEY | Combination of (name) is the primary key |

### Data

| Nr | name                         | vl      | active | description   |
|----|------------------------------|---------|--------|---|
| 1  | map-srid                     | 2193    | true   | The srid of the geographic data that are administered in the system.  |
| 2  | map-west                     | 1776400 | true   | The most west coordinate. It is used in the map control.  |
| 3  | map-south                    | 5919888 | true   | The most south coordinate. It is used in the map control.   |
| 4  | map-east                     | 1795771 | true   | The most east coordinate. It is used in the map control.  |
| 5  | map-north                    | 5932259 | true   | The most north coordinate. It is used in the map control.   |
| 6  | map-tolerance                | 0.01    | true   | The tolerance that is used while snapping geometries to each other. If two points are within this distance are considered being in the same location. |
| 7  | map-shift-tolerance-rural    | 20      | true   | The shift tolerance of boundary points used in cadastre change in rural areas.  |
| 8  | map-shift-tolerance-urban    | 5       | true   | The shift tolerance of boundary points used in cadastre change in urban areas.  |
| 9  | public-notification-duration | 30      | true   | The notification duration for the public display.   |

## **View: br\_current**

It retrieves the active business rules.



## **View: br\_report**

This view is used in a report to document the business rules.

## **View: user\_roles**

This view is used to retrieve the roles of a user.

## Function: setPassword

This function changes the password of the user.

### *Parameters*

| Name    | Type    | Direction | Description                                |
|---------|---------|-----------|--|
| usrName | varchar |           | The user name.                             |
| pass    | varchar |           | Password. The password is given encrypted. |

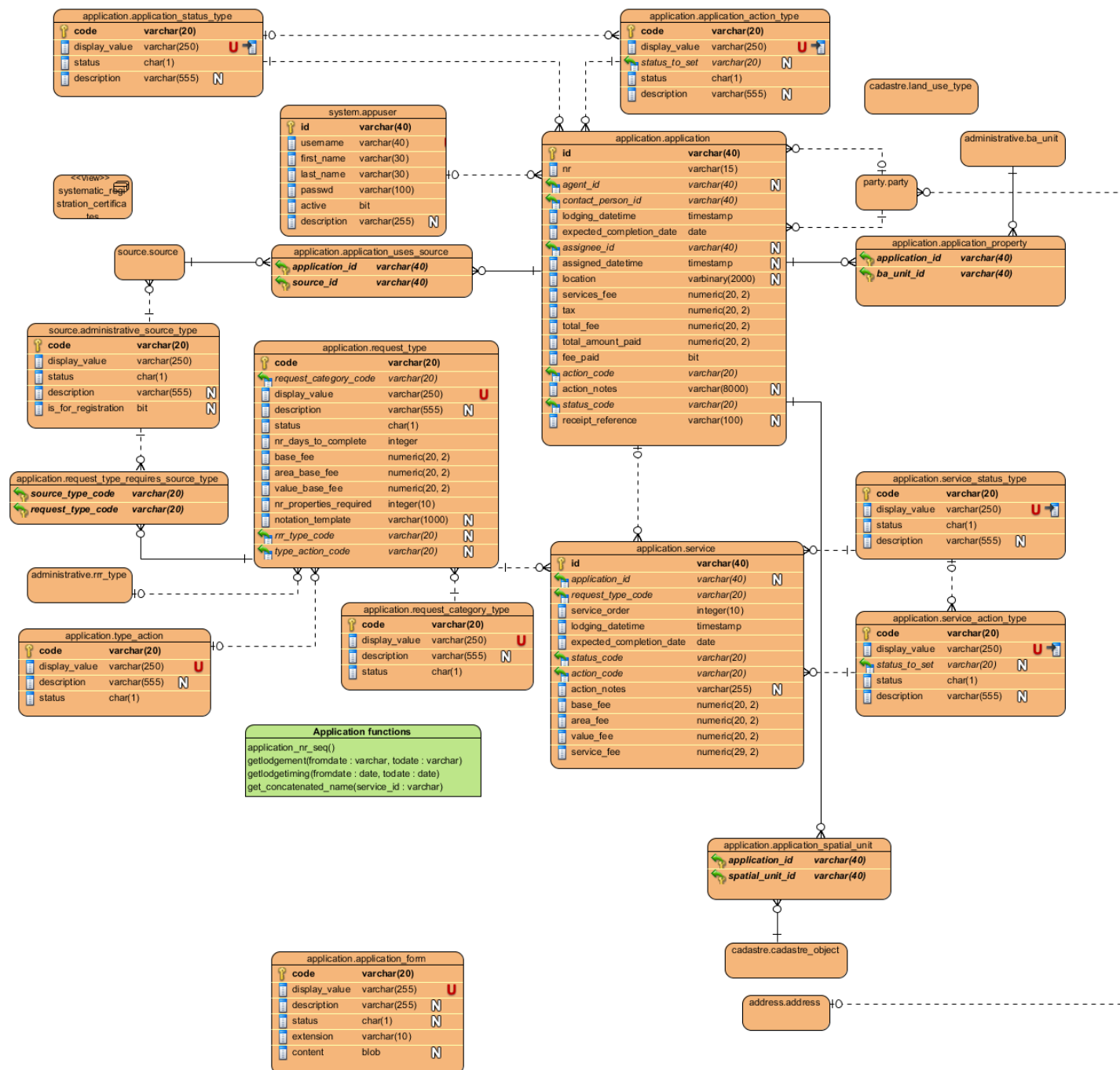
**Function: get\_setting**

Gets the value of a setting.

***Parameters***

| Name         | Type    | Direction | Description   |
|--------------|---------|-----------|---------------|
| setting_name | varchar |           | Setting name. |

# application



## Table: application

An application is a bundle of services that a client or customer wants from the registration office. LADM Reference Object FLOSS SOLA Extension LADM Definition Not Applicable

### Columns

| Name | Type        | Optional | Default | Description                                    |
|------|-------------|----------|---------|--|
| id   | varchar(40) | False    |         | <b>SOLA Extension</b> - application identifier |

|                          |                |       |          |  |
|--------------------------|----------------|-------|----------|--|
| nr                       | varchar(15)    | False |          | <b>SOLA Extension</b> - This is the application number that is exposed to the user. It is generated as the date + the ordinal number within that day.  |
| agent_id                 | varchar(40)    | True  |          | <b>SOLA Extension</b> - The id of the agent which is filling the application. It is not necessary one of the parties involved in user rights. It can be a firm or individual.  |
| contact_person_id        | varchar(40)    | False |          | <b>SOLA Extension</b> - This is the contact person and it is always an individual that can be reachable in different ways.   |
| lodging_datetime         | timestamp      | False | now()    | <b>SOLA Extension</b> - The lodging date and time of the application. This date is important because it marks the time when the application has been officially accepted from the RO.  |
| expected_completion_date | date           | False | now()    | <b>SOLA Extension</b> - The date when the application is supposed to be completed or cancelled by then. It is a derived value by picking up the most later expected date from the services that are boundled with the application. |
| assignee_id              | varchar(40)    | True  |          | <b>SOLA Extension</b> - The person that is assigned to the application. If this value is missing it means that the application is not assigned.  |
| assigned_datetime        | timestamp      | True  |          | <b>SOLA Extension</b> - Date and time the application is assigned. It has a meaning only if the assignee_login_name is present.  |
| location                 | GEOMETRY       | True  |          | <b>SOLA Extension</b> - The location of the application given as multi point in the map.   |
| services_fee             | numeric(20, 2) | False | 0        | <b>SOLA Extension</b> - The total amount of services fee. This is derived as the sum of fees of all services bundled in the application.   |
| tax                      | numeric(20, 2) | False | 0        | <b>SOLA Extension</b> - Tax or proportionate component of the services_fee.  |
| total_fee                | numeric(20, 2) | False | 0        | <b>SOLA Extension</b> - The total amount of the fee (including tax) that has to be paid. Derived as: services_fee + tax  |
| total_amount_paid        | numeric(20, 2) | False | 0        | <b>SOLA Extension</b> - The amount paid. Normally it must be equal to the total_fee.   |
| fee_paid                 | bool           | False | false    | <b>SOLA Extension</b> - It shows if the fee is paid.   |
| action_code              | varchar(20)    | False | 'lodge'  | <b>SOLA Extension</b> - The last action that happened to the application. Some values of this attribute are generated by the system.   |
| action_notes             | varchar(8000)  | True  |          | <b>SOLA Extension</b> - Extra description about the action.  |
| status_code              | varchar(20)    | False | 'lodged' | The status of the application.   |
| receipt_reference        | varchar(100)   | True  |          | <b>SOLA Extension</b> - This is the fee receipt reference number that is exposed to the user.  |

## Constraints

| Name | Type | Explanation |
|------|------|-------------|
|------|------|-------------|

|                            |             |  |
|----------------------------|-------------|--|
| application_check_assigned | CHECK       | Rule ((assignee_id is null and assigned_datetime is null) or (assignee_id is not null and assigned_datetime is not null)) must be true |
| application_pkey           | PRIMARY KEY | Combination of (id) is the primary key   |

***Relationships (from)***

| Name                               | Information  | Description                             |
|------------------------------------|--|---|
| application_agent_id_fk8           | <b>From columns:</b> agent_id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                   | FLOSS SOLA relationship - no refinement |
| application_contact_person_id_fk14 | <b>From columns:</b> contact_person_id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1             | FLOSS SOLA relationship - no refinement |
| application_assignee_id_fk15       | <b>From columns:</b> assignee_id<br><b>To Entity:</b> appuser<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1              | FLOSS SOLA relationship - no refinement |
| application_action_code_fk16       | <b>From columns:</b> action_code<br><b>To Entity:</b> application_action_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| application_status_code_fk18       | <b>From columns:</b> status_code<br><b>To Entity:</b> application_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

***Relationships (to)***

| Name  | Information  | Description                             |
|---|--|---|
| service_application_id_fk7                    | <b>From columns:</b> application_id<br><b>From Entity:</b> service<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1               | FLOSS SOLA relationship - no refinement |
| application_property_application_id_fk113     | <b>From columns:</b> application_id<br><b>From Entity:</b> application_property<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1     | FLOSS SOLA relationship - no refinement |
| application_uses_source_application_id_fk115  | <b>From columns:</b> application_id<br><b>From Entity:</b> application_uses_source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  | FLOSS SOLA relationship - no refinement |
| application_spatial_unit_application_id_fk119 | <b>From columns:</b> application_id<br><b>From Entity:</b> application_spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |   |

## Table: application\_action\_type

Reference Table / Code list of action types that are performed in relation to an (land office) application for servicesLADM Reference Object FLOSS SOLA ExtensionLADM DefinitionNot Applicable

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - Communication type code                  |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - Display value for the communication type |
| status_to_set | varchar(20)  | True     |         |  |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - Status of the communication type         |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - Description of the communication type    |

### Constraints

| Name   | Type        | Explanation                              |
|--|-------------|--|
| application_action_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| application_action_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (from)

| Name                                      | Information   | Description |
|---|---|-------------|
| application_action_type_status_to_set_fk1 | <b>From columns:</b> status_to_set<br><b>To Entity:</b> application_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Relationships (to)

| Name  | Information   | Description                             |
|---|---|---|
| application_action_code_fk16                | <b>From columns:</b> action_code<br><b>From Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                    | FLOSS SOLA relationship - no refinement |
| br_validation_target_application_moment_fk1 | <b>From columns:</b> target_application_moment<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |   |

### Data

| Nr | code | display_value | status_to_set | status | description |
|----|------|---------------|---------------|--------|-------------|
|----|------|---------------|---------------|--------|-------------|



|    |                |   |               |   |   |
|----|----------------|---|---------------|---|---|
| 1  | lodge          | Lodgement Notice Prepared::::Ricevuta della Registrazione Preparata | lodged        | c | Lodgement notice is prepared (action is automatically logged when application details are saved for the first time::::La ricevuta della registrazione pronta  |
| 2  | addDocument    | Add document::::Documenti scannerizzati allegati alla pratica       |               | c | Scanned Documents linked to Application (action is automatically logged when a new document is saved)::::Documenti scannerizzati allegati alla pratica  |
| 3  | withdraw       | Withdraw application::::Pratica Ritirata                            | annulled      | c | Application withdrawn by Applicant (action is manually logged)::::Pratica Ritirata dal Richiedente  |
| 4  | cancel         | Cancel application::::Pratica cancellata                            | annulled      | c | Application cancelled by Land Office (action is automatically logged when application is cancelled)::::Pratica cancellata da Ufficio Territoriale   |
| 5  | requisition    | Requisition::::Ulteriori Informazioni domandate dal richiedente     | requisitioned | c | Further information requested from applicant (action is manually logged)::::Ulteriori Informazioni domandate dal richiedente  |
| 6  | validateFailed | Quality Check Fails::::Controllo Qualita Fallito                    |               | c | Quality check fails (automatically logged when a critical business rule failure occurs)::::Controllo Qualita Fallito  |
| 7  | validatePassed | Quality Check Passes::::Controllo Qualita Superato                  |               | c | Quality check passes (automatically logged when business rules are run without any critical failures)::::Controllo Qualita Superato   |
| 8  | approve        | Approve::::Approvata  | approved      | c | Application is approved (automatically logged when application is approved successively)::::Pratica approvata   |
| 9  | archive        | Archive::::Archiviata   | completed     | c | Paper application records are archived (action is manually logged)::::I fogli della pratica sono stati archiviati   |
| 10 | dispatch       | Dispatch::::Inviata   |               | c | Application documents and new land office products are sent or collected by applicant (action is manually logged)::::I documenti della pratica e i nuovi prodotti da Ufficio Territoriale sono stati spediti o ritirati dal richiedente |
| 11 | lapse          | Lapse::::Decadimento  | annulled      | c |   |
| 12 | assign         | Assign::::Assegna   |               | c |   |
| 13 | unAssign       | Unassign::::Dealloca  |               | c |   |
| 14 | resubmit       | Resubmit::::Reinvia   | lodged        | c |   |
| 15 | validate       | Validate::::Convalida   |               | c | The action validate does not leave a mark, because validateFailed and validateSucceeded will be used instead when the validate is completed.  |

## Table: application\_form

### Columns

| Name          | Type         | Optional | Default | Description     |
|---------------|--------------|----------|---------|-----------------|
| code          | varchar(20)  | False    |         |                 |
| display_value | varchar(255) | False    |         |                 |
| description   | varchar(255) | True     |         |                 |
| status        | char(1)      | True     | 'c'     |                 |
| extension     | varchar(10)  | False    |         | File extension. |
| content       | bytea        | True     |         |                 |

### Constraints

| Name                                  | Type        | Explanation                              |
|---------------------------------------|-------------|--|
| application_form_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| application_form_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

## Table: application\_property

Details of the property associated with an applicationLADM Reference ObjectFLOSS SOLA ExtensionLADM DefinitionNot Applicable

### Columns

| Name           | Type        | Optional | Default | Description                                 |
|----------------|-------------|----------|---------|---|
| application_id | varchar(40) | False    |         | <b>SOLA Extension</b> - the application id  |
| ba_unit_id     | varchar(40) | False    |         | <b>LADM Definition</b> - the id for ba_unit |

### Constraints

| Name                      | Type        | Explanation   |
|---------------------------|-------------|---|
| application_property_pkey | PRIMARY KEY | Combination of (application_id,ba_unit_id) is the primary key |

### Relationships (from)

| Name                                      | Information   | Description                                 |
|---|---|---|
| application_property_application_id_fk113 | <b>From columns:</b> application_id<br><b>To Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement     |
| application_property_ba_unit_id_fk114     | <b>From columns:</b> ba_unit_id<br><b>To Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1         | SOLA Extension relationship - no refinement |

## Table: application\_spatial\_unit

### Columns

| Name            | Type        | Optional | Default | Description |
|-----------------|-------------|----------|---------|-------------|
| application_id  | varchar(40) | False    |         |             |
| spatial_unit_id | varchar(40) | False    |         |             |

### Constraints

| Name                          | Type        | Explanation  |
|-------------------------------|-------------|--|
| application_spatial_unit_pkey | PRIMARY KEY | Combination of (application_id,spatial_unit_id) is the primary key |

### Relationships (from)

| Name   | Information  | Description |
|--|--|-------------|
| application_spatial_unit_application_id_fk1  | <b>From columns:</b> application_id<br><b>To Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1      |             |
| application_spatial_unit_spatial_unit_id_fk1 | <b>From columns:</b> spatial_unit_id<br><b>To Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

## Table: application\_status\_type

Reference Table / Code list for application status type

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - status type code                            |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - Display value for the status type           |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - Status of an instance of application status |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - Description of application status           |

### Constraints

| Name   | Type        | Explanation                              |
|--|-------------|--|
| application_status_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| application_status_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                      | Information   | Description                             |
|---|---|---|
| application_action_type_status_to_set_fk1 | <b>From columns:</b> status_to_set<br><b>From Entity:</b> application_action_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |   |
| application_status_code_fk18              | <b>From columns:</b> status_code<br><b>From Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                  | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code      | display_value          | status | description   |
|----|-----------|------------------------|--------|---|
| 1  | lodged    | Lodged:::Registrata    | c      | Application has been lodged and officially received by land office:::La pratica registrata e formalmente ricevuta da ufficio territoriale |
| 2  | approved  | Approved:::Approvato   | c      |   |
| 3  | annulled  | Annulled:::Annullato   | c      |   |
| 4  | completed | Completed:::Completato | c      |   |

|   |               |                            |   |  |
|---|---------------|----------------------------|---|--|
| 5 | requisitioned | Requisitioned::::Requisito | c |  |
|---|---------------|----------------------------|---|--|

## Table: application\_uses\_source

Sources (documents) submitted with an application, created as a result of the application by land officers or further documents added to assist in the processing of the application

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name           | Type        | Optional | Default | Description                                       |
|----------------|-------------|----------|---------|---|
| application_id | varchar(40) | False    |         | <b>SOLA Extension</b> - the application id        |
| source_id      | varchar(40) | False    |         | <b>LADM Definition</b> - the source (document) id |

### Constraints

| Name                         | Type        | Explanation  |
|------------------------------|-------------|--|
| application_uses_source_pkey | PRIMARY KEY | Combination of (application_id,source_id) is the primary key |

### Relationships (from)

| Name   | Information   | Description                             |
|--|---|---|
| application_uses_source_application_id_fk116 | <b>From columns:</b> application_id<br><b>To Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| application_uses_source_source_id_fk116      | <b>From columns:</b> source_id<br><b>To Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1           | FLOSS SOLA relationship - no refinement |

## Table: request\_category\_type

Reference Table / Code list for categories of (service) requests received by a land office

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - The code request category type                  |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - The display value for the request category type |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - Description of the request category type        |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - Status of the request category type             |

### Constraints

| Name                                       | Type        | Explanation                              |
|--|-------------|--|
| request_category_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| request_category_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                    | Information  | Description                             |
|---|--|---|
| request_type_request_category_code_fk20 | <b>From columns:</b><br>request_category_code<br><b>From Entity:</b> request_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code                 | display_value                                    | description | status |
|----|----------------------|--|-------------|--------|
| 1  | registrationServices | Registration Services:::Servizi di Registrazione |             | c      |
| 2  | informationServices  | Information Services:::Servizi Informativi       |             | c      |
| 3  | legalServices        | Legal Services                                   |             | c      |



## Table: request\_type

Reference Table / Code list of the (service) request types received by a land officeLADM Reference Object FLOSS  
SOLA ExtensionLADM DefinitionNot Applicable

### Columns

| Name                   | Type           | Optional | Default | Description   |
|------------------------|----------------|----------|---------|---|
| code                   | varchar(20)    | False    |         | <b>SOLA Extension</b> - Code for the request type   |
| request_category_code  | varchar(20)    | False    |         | <b>SOLA Extension</b> - The code for the request category type  |
| display_value          | varchar(250)   | False    |         | <b>SOLA Extension</b> - The display value for the request type  |
| description            | varchar(555)   | True     |         | <b>SOLA Extension</b> - The description of the request type   |
| status                 | char(1)        | False    | 't'     | <b>SOLA Extension</b> - Status of the request type  |
| nr_days_to_complete    | integer        | False    | 0       | <b>SOLA Extension</b> - The number of days within the service must be completed.  |
| base_fee               | numeric(20, 2) | False    | 0       | <b>SOLA Extension</b> - The base fee that will be asked for this kind of request.   |
| area_base_fee          | numeric(20, 2) | False    | 0       | <b>SOLA Extension</b> - The fee that will be asked per m2 of the area of the properties that will be dealt with for this kind of request.   |
| value_base_fee         | numeric(20, 2) | False    | 0       | <b>SOLA Extension</b> - The fee that will be asked per value unit of the properties that will be dealt with for this kind of request.   |
| nr_properties_required | integer        | False    | 0       | <b>SOLA Extension</b> - The minimum number of properties that is required by this service.  |
| notation_template      | varchar(1000)  | True     |         |   |
| rrr_type_code          | varchar(20)    | True     |         | The type of rrr which will be affected from the service of this request type. It is optional because not every request type affects rrr. If this value is filled then also the column rrr_type_action must be filled. |
| type_action_code       | varchar(20)    | True     |         | This holds the action that has to happen on the rrr or ba unit if the request type targets rrr or ba unit.  |

### Constraints

| Name                              | Type        | Explanation                              |
|-----------------------------------|-------------|--|
| request_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| request_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (from)

| Name | Information | Description |
|------|-------------|-------------|
|------|-------------|-------------|

|   |   |   |
|---|---|---|
| request_type_request_category_code_fk20 | <b>From columns:</b><br>request_category_code<br><b>To Entity:</b> request_category_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| request_type_rrr_type_code_fk21         | <b>From columns:</b> rrr_type_code<br><b>To Entity:</b> rrr_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                      |   |
| request_type_type_action_code_fk23      | <b>From columns:</b> type_action_code<br><b>To Entity:</b> type_action<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                |   |

### Relationships (to)

| Name  | Information  | Description                             |
|---|--|---|
| service_request_type_code_fk19                            | <b>From columns:</b><br>request_type_code<br><b>From Entity:</b> service<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                              | FLOSS SOLA relationship - no refinement |
| request_type_requires_source_type_request_type_code_fk118 | <b>From columns:</b><br>request_type_code<br><b>From Entity:</b><br>request_type_requires_source_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| br_validation_target_request_type_code_fk120              | <b>From columns:</b><br>target_request_type_code<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1              |   |

### Data

| Nr | code                | request_category_code | display_value                     | description | status |
|----|---------------------|-----------------------|-----------------------------------|-------------|--------|
| 1  | cadastreChange      | registrationServices  | Change to Cadastre                |             | c      |
| 2  | redefineCadastre    | registrationServices  | Redefine Cadastre                 |             | c      |
| 3  | documentCopy        | informationServices   | Copy of Lost Deed                 |             | c      |
| 4  | varyMortgage        | registrationServices  | Cession of Mortgage               |             | c      |
| 5  | regnDeeds           | registrationServices  | Deed Registration                 |             | c      |
| 6  | regnPowerOfAttorney | registrationServices  | Registration of Power of Attorney |             | c      |
| 7  | surveyPlanCopy      | informationServices   | Print Survey Diagram              |             | c      |

|    |                     |                      |                                   |   |   |
|----|---------------------|----------------------|-----------------------------------|---|---|
| 8  | cadastrePrint       | informationServices  | Print Location Map                |   | c |
| 9  | registerLease       | registrationServices | Grant of New Lease                |   | c |
| 10 | newOwnership        | registrationServices | Transfer Lease                    | New Ownership through sale or inheritance of property | c |
| 11 | mortgage            | registrationServices | Register Mortgage                 |   | c |
| 12 | servitude           | registrationServices | Register Servitude                |   | c |
| 13 | varyLease           | registrationServices | Vary Lease                        |   | c |
| 14 | removeRight         | registrationServices | Termination of a lease            |   | c |
| 15 | cancelProperty      | registrationServices | Surrender of a lease              |   | c |
| 16 | cnclPowerOfAttorney | registrationServices | Cancel Power of Attorney          |   | c |
| 17 | cancelMortBonds     | registrationServices | Cancel Mortgage                   |   | c |
| 18 | cnclNotBond         | registrationServices | Cancel Notarial Bond              |   | c |
| 19 | regSublease         | registrationServices | New Sub-Lease                     |   | c |
| 20 | cnclSublease        | registrationServices | Cancel Sub-Lease                  |   | c |
| 21 | consentApplication  | registrationServices | Consent Application               |   | c |
| 22 | varySublease        | registrationServices | Vary Sublease                     |   | c |
| 23 | endorseRight        | registrationServices | Endorsement                       |   | c |
| 24 | renewLease          | registrationServices | Renewal of Lease                  |   | c |
| 25 | groundRentExemp     | informationServices  | Ground Rent Exemption Application |   | c |
| 26 | nameChange          | informationServices  | Change of Lessee name(s)          |   | c |
| 27 | mapSale             | informationServices  | Map Sale                          |   | c |
| 28 | cadastreImport      | registrationServices | Cadastre Import                   |   | c |
| 29 | DisputeView         | informationServices  | Dispute and Court Cases           |   | c |
| 30 | regNotBond          | registrationServices | Register Notarial Bond            |   | c |

| Nr | nr_days_to_complete | base_fee | area_base_fee | value_base_fee | nr_properties_required | notation_template |
|----|---------------------|----------|---------------|----------------|------------------------|-------------------|
|----|---------------------|----------|---------------|----------------|------------------------|-------------------|

|    |    |       |      |      |   |                             |
|----|----|-------|------|------|---|-----------------------------|
| 1  | 30 | 50.00 | 0.10 | 0    | 1 |                             |
| 2  | 30 | 50.00 | 0.10 | 0    | 1 |                             |
| 3  | 1  | 0     | 0.00 | 0    | 0 |                             |
| 4  | 1  | 0     | 0.00 | 0    | 1 | Change on the mortgage      |
| 5  | 3  | 0     | 0.00 | 0    | 1 | Registration of Deed        |
| 6  | 3  | 0     | 0.00 | 0    | 0 |                             |
| 7  | 1  | 0     | 0.00 | 0    | 0 |                             |
| 8  | 1  | 0     | 0.00 | 0    | 0 |                             |
| 9  | 5  | 0     | 0.00 | 0    | 0 | Lease of nn years to        |
| 10 | 5  | 0     | 0.00 | 0.02 | 1 | Transfer to                 |
| 11 | 5  | 0     | 0.00 | 0    | 1 | Mortgage to                 |
| 12 | 5  | 0     | 0.00 | 0    | 1 | Servitude over in favour of |
| 13 | 5  | 50.00 | 0.00 | 0    | 1 | Variation of Lease          |
| 14 | 5  | 0     | 0.00 | 0    | 1 | Termination of lease        |
| 15 | 5  | 50    | 0    | 0    | 1 | Surrender of lease          |
| 16 | 1  | 5.00  | 0    | 0    | 0 |                             |
| 17 | 0  | 0     | 0    | 0    | 1 | Cancellation of Mortgage    |
| 18 | 0  | 0     | 0    | 0    | 0 |                             |
| 19 | 0  | 50    | 0    | 0    | 1 | Sublease In faavour of      |
| 20 | 0  | 0     | 0    | 0    | 1 | Sublease cancellation       |
| 21 | 0  | 50    | 0    | 0    | 1 |                             |
| 22 | 0  | 0     | 0    | 0    | 1 | Variation of lease          |
| 23 | 0  | 0     | 0    | 0    | 1 | Endorsement for lease       |
| 24 | 0  | 0     | 0    | 0    | 1 | Renewal of a Lease          |
| 25 | 0  | 0     | 0    | 0    | 1 |                             |
| 26 | 0  | 0     | 0    | 0    | 1 | Lessee name change from to  |
| 27 | 0  | 0     | 0    | 0    | 0 |                             |
| 28 | 0  | 0     | 0    | 0    | 0 |                             |
| 29 | 0  | 0     | 0    | 0    | 0 |                             |
| 30 | 0  | 0     | 0    | 0    | 0 |                             |

| Nr | rrr_type_code | type_action_code |
|----|---------------|------------------|
| 1  |               |                  |
| 2  |               |                  |
| 3  |               |                  |

|    |           |        |
|----|-----------|--------|
| 4  | mortgage  | vary   |
| 5  |           | vary   |
| 6  |           |        |
| 7  |           |        |
| 8  |           |        |
| 9  | lease     | new    |
| 10 | lease     | vary   |
| 11 | mortgage  | new    |
| 12 | servitude | new    |
| 13 | lease     | vary   |
| 14 |           | cancel |
| 15 |           | cancel |
| 16 |           | cancel |
| 17 | mortgage  | cancel |
| 18 |           | cancel |
| 19 | subLease  | new    |
| 20 | subLease  | cancel |
| 21 |           |        |
| 22 | subLease  | vary   |
| 23 | lease     | vary   |
| 24 | lease     | vary   |
| 25 |           |        |
| 26 | lease     | vary   |
| 27 |           |        |
| 28 |           |        |
| 29 |           |        |
| 30 |           |        |

## Table: request\_type\_requires\_source\_type

Source (documents) required for a particular (Service) Request received by a land office

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name              | Type        | Optional | Default | Description                               |
|-------------------|-------------|----------|---------|---|
| source_type_code  | varchar(20) | False    |         | <b>SOLA Extension</b> - source type code  |
| request_type_code | varchar(20) | False    |         | <b>SOLA Extension</b> - request type code |

### Constraints

| Name                                   | Type        | Explanation  |
|--|-------------|--|
| request_type_requires_source_type_pkey | PRIMARY KEY | Combination of (source_type_code,request_type_code) is the primary key |

### Relationships (from)

| Name  | Information   | Description                             |
|---|---|---|
| request_type_requires_source_type_source_type_code  | <b>From column:</b> source_type_code<br><b>To Entity:</b> administrative_source_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| request_type_requires_source_type_request_type_code | <b>From column:</b> request_type_code<br><b>To Entity:</b> request_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1              | FLOSS SOLA relationship - no refinement |

### Data

| Nr | source_type_code | request_type_code |
|----|------------------|-------------------|
| 1  | surveyReport     | cadastreChange    |
| 2  | surveyReport     | redefineCadastre  |
| 3  | appForm          | registerLease     |
| 4  | idVerification   | registerLease     |
| 5  | consentCert      | newOwnership      |
| 6  | lease            | newOwnership      |
| 7  | consentCert      | servitude         |
| 8  | cadastralSurvey  | servitude         |
| 9  | deed             | mortgage          |
| 10 | appForm          | mortgage          |

|    |             |                 |
|----|-------------|-----------------|
| 11 | consentCert | varyMortgage    |
| 12 | deed        | varyMortgage    |
| 13 | consentCert | cancelMortBonds |
| 14 | consentCert | regSublease     |
| 15 | appForm     | newOwnership    |

## Table: service

Various forms of services provided by a land officeLADM Reference ObjectFLOSS SOLA ExtensionLADM  
DefinitionNot Applicable

### Columns

| Name                     | Type           | Optional | Default  | Description  |
|--------------------------|----------------|----------|----------|--|
| id                       | varchar(40)    | False    |          | <b>SOLA Extension</b> - system generated id for a service  |
| application_id           | varchar(40)    | True     |          | <b>SOLA Extension</b> - Application where this service is found.   |
| request_type_code        | varchar(20)    | False    |          | <b>SOLA Extension</b> -The request typecode  |
| service_order            | integer        | False    | 0        | <b>SOLA Extension</b> - The order of the service within the application.   |
| lodging_datetime         | timestamp      | False    | now()    | <b>SOLA Extension</b> - The start date a lodgement is made. By default it is assigned from the system.   |
| expected_completion_date | date           | False    |          | <b>SOLA Extension</b> - Expected date when the service must be completed. It is calculated based in the lodging_datetime plus the nr_days_to_complete of the selected service type. At the moment, it is done as a simple adding of an interval. |
| status_code              | varchar(20)    | False    | 'lodged' | <b>SOLA Extension</b> - service status code  |
| action_code              | varchar(20)    | False    | 'lodge'  | <b>SOLA Extension</b> - action code  |
| action_notes             | varchar(255)   | True     |          | <b>SOLA Extension</b> - Extra description that can be added when the status of service can be changed.   |
| base_fee                 | numeric(20, 2) | False    | 0        | <b>SOLA Extension</b> - Base fee of this service. It is derived by the base_fee of the request_type. For LAA this represents registration fee  |
| area_fee                 | numeric(20, 2) | False    | 0        | <b>SOLA Extension</b> - It is the fee calculated based in the sum of areas of all properties involved in the service. Derived as:<br>request_type.area_base_fee *<br>SUM(application_property.area)  |
| value_fee                | numeric(20, 2) | False    | 0        | <b>SOLA Extension</b> - It is the fee calculated based in the sum of values of all properties involved in the service. Derived as:<br>request_type.value_base_fee *<br>SUM(application_property.value)   |
| service_fee              | numeric(29, 2) | False    | 0        |  |

### Constraints

| Name         | Type        | Explanation                            |
|--------------|-------------|--|
| service_pkey | PRIMARY KEY | Combination of (id) is the primary key |



**Relationships (from)**

| Name                           | Information  | Description                             |
|--------------------------------|--|---|
| service_application_id_fk7     | <b>From columns:</b> application_id<br><b>To Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1   | FLOSS SOLA relationship - no refinement |
| service_request_type_code_fk19 | <b>From columns:</b> request_type_code<br><b>To Entity:</b> request_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  | FLOSS SOLA relationship - no refinement |
| service_status_code_fk24       | <b>From columns:</b> status_code<br><b>To Entity:</b> service_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| service_action_code_fk25       | <b>From columns:</b> action_code<br><b>To Entity:</b> service_action_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

**Relationships (to)**

| Name                            | Information  | Description |
|---------------------------------|--|-------------|
| transaction_from_service_id_fk6 | <b>From columns:</b> from_service_id<br><b>From Entity:</b> transaction<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 0..1 |             |

## Table: service\_action\_type

Reference Table / Code list of types of action that a land officer can perform to complete a service request

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - the code identifying a service action type       |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - the displayed value of a service action type     |
| status_to_set | varchar(20)  | True     |         |  |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of an instance of service action type |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - the description of a service action type         |

### Constraints

| Name                                     | Type        | Explanation                              |
|--|-------------|--|
| service_action_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| service_action_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (from)

| Name                                   | Information   | Description |
|--|---|-------------|
| service_action_type_status_to_set_fk26 | <b>From columns:</b> status_to_set<br><b>To Entity:</b> service_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Relationships (to)

| Name                                      | Information   | Description                             |
|---|---|---|
| service_action_code_fk25                  | <b>From columns:</b> action_code<br><b>From Entity:</b> service<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                    | FLOSS SOLA relationship - no refinement |
| br_validation_target_service_moment_fk132 | <b>From columns:</b> target_service_moment<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |   |

**Data**

| Nr | code     | display_value                 | status_to_set | status | description  |
|----|----------|-------------------------------|---------------|--------|--|
| 1  | lodge    | Lodge::::Registrata           | lodged        | c      | Application for service(s) is officially received by land office (action is automatically logged when application is saved for the first time)::::La pratica per i servizi formalmente ricevuta da ufficio territoriale  |
| 2  | start    | Start::::Comincia             | pending       | c      | Provisional RRR Changes Made to Database as a result of application (action is automatically logged when a change is made to a rrr object)::::Apportate Modifiche Provvisorie di tipo RRR al Database come risultato della pratica   |
| 3  | cancel   | Cancel::::Cancella la pratica | cancelled     | c      | Service is cancelled by Land Office (action is automatically logged when a service is cancelled)::::Pratica cancellata da Ufficio Territoriale   |
| 4  | complete | Complete::::Completa          | completed     | c      | Application is ready for approval (action is automatically logged when service is marked as complete)::::Pratica pronta per approvazione   |
| 5  | revert   | Revert::::Ripristino          | pending       | c      | The status of the service has been reverted to pending from being completed (action is automatically logged when a service is reverted back for further work)::::Lo stato del servizio riportato da completato a pendente (azione automaticamente registrata quando un servizio viene reinviato per ulteriori adempimenti) |

## Table: service\_status\_type

It is the status that a service can have.

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - the code identifying a service status type       |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - the displayed value of a service status type     |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of an instance of service status type |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - the description of a service status type         |

### Constraints

| Name                                     | Type        | Explanation                              |
|--|-------------|--|
| service_status_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| service_status_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                   | Information   | Description                             |
|--|---|---|
| service_status_code_fk24               | <b>From columns:</b> status_code<br><b>From Entity:</b> service<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                  | FLOSS SOLA relationship - no refinement |
| service_action_type_status_to_set_fk26 | <b>From columns:</b> status_to_set<br><b>From Entity:</b> service_action_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |   |

### Data

| Nr | code      | display_value          | status | description  |
|----|-----------|------------------------|--------|--|
| 1  | lodged    | Lodged:::Registrata    | c      | Application for a service has been lodged and officially received by land office:::La pratica per un servizio, registrata e formalmente ricevuta da ufficio territoriale |
| 2  | completed | Completed:::Completata | c      |  |
| 3  | pending   | Pending:::Pendente     | c      |  |
| 4  | cancelled | Cancelled:::Cancellato | c      |  |

## Table: type\_action

This is the coded list of allowed operations on rrr and ba\_unit. Present values are: new, remove, vary.

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(20)  | False    |         |             |
| display_value | varchar(250) | False    |         |             |
| description   | varchar(555) | True     |         |             |
| status        | char(1)      | False    | 't'     |             |

### Constraints

| Name                             | Type        | Explanation                              |
|----------------------------------|-------------|--|
| type_action_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| type_action_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                               | Information   | Description |
|------------------------------------|---|-------------|
| request_type_type_action_code_fk23 | <b>From columns:</b> type_action_code<br><b>From Entity:</b> request_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code   | display_value          | description | status |
|----|--------|------------------------|-------------|--------|
| 1  | new    | New:::Nuovo            |             | c      |
| 2  | vary   | Vary:::Variazione      |             | c      |
| 3  | cancel | Cancel:::Cancellazione |             | c      |

**View: systematic\_registration\_certificates**

## **Sequence: application\_nr\_seq**

Allocates numbers 1 to 9999 for application number

## Function: getlodgement

### *Parameters*

| Name     | Type    | Direction | Description |
|----------|---------|-----------|-------------|
| fromdate | varchar |           | From date   |
| todate   | varchar |           | To date.    |



## Function: getlodgetiming

### *Parameters*

| Name     | Type | Direction | Description |
|----------|------|-----------|-------------|
| fromdate | date |           | From date   |
| todate   | date |           | To date     |

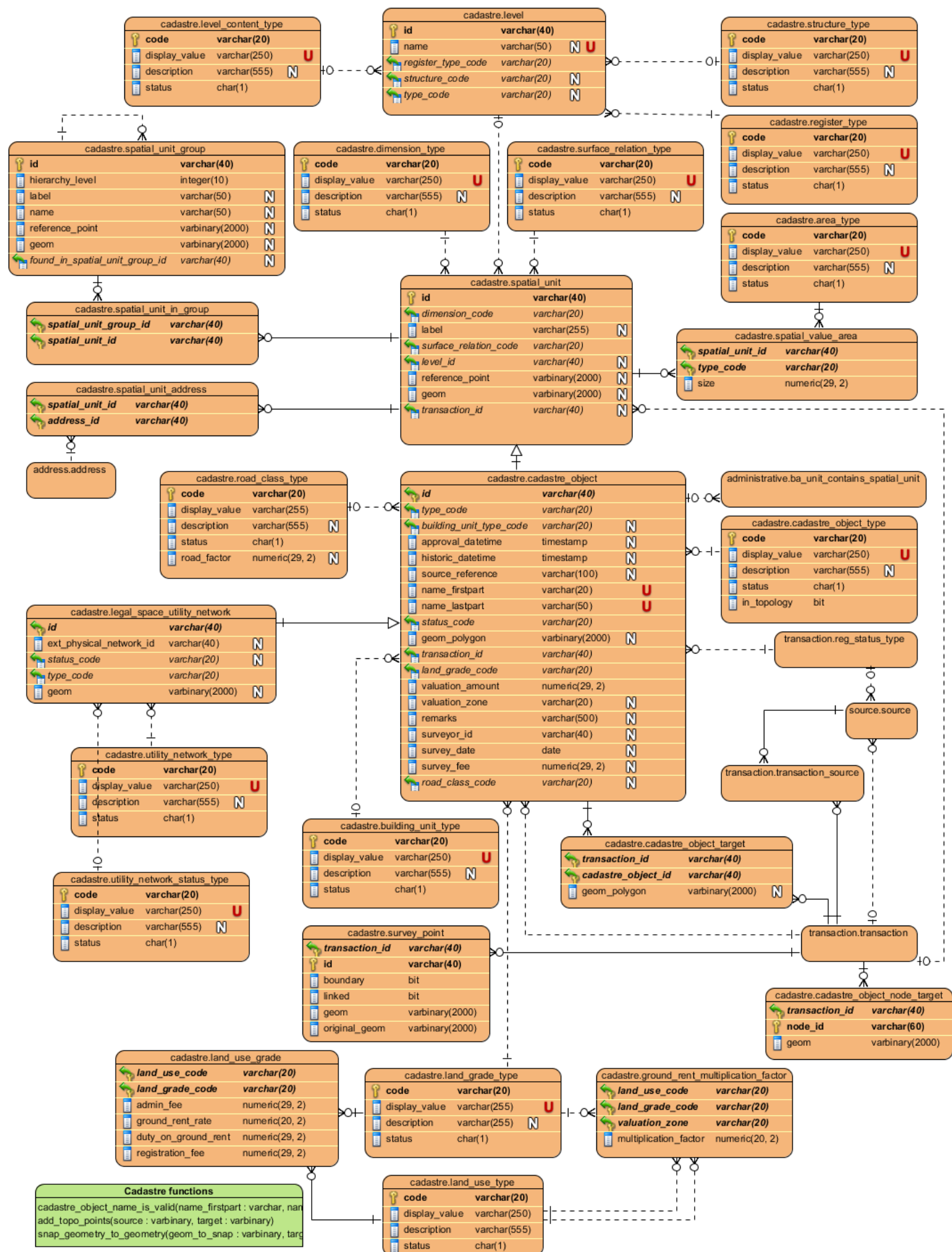
**Function: get\_concatenated\_name**

This function returns the concatenated list of spatial objects contained in a ba\_unit for each service, if any. If there are no spatial objects then it only returns that it is a property.

***Parameters***

| Name       | Type    | Direction | Description |
|------------|---------|-----------|-------------|
| service_id | varchar |           |             |

# cadastre



## Table: area\_type

Reference Table / Code list of the different versions or means of calculated area

### LADM Reference Object

LA\_AreaType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - code for area type           |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - displayed value of area type |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - description of area type     |
| status        | char(1)      | False    | 'c'     | <b>SOLA Extension</b> - status of area type values    |

### Constraints

| Name                           | Type        | Explanation                              |
|--------------------------------|-------------|--|
| area_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| area_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                              | Information   | Description                       |
|-----------------------------------|---|-----------------------------------|
| ba_unit_area_type_code_fk77       | <b>From columns:</b> type_code<br><b>From Entity:</b> ba_unit_area<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1       |                                   |
| spatial_value_area_type_code_fk90 | <b>From columns:</b> type_code<br><b>From Entity:</b> spatial_value_area<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code            | display_value                          | description | status |
|----|-----------------|--|-------------|--------|
| 1  | calculatedArea  | Calculated Area:::Area calcolata       |             | c      |
| 2  | nonOfficialArea | Non-official Area:::Area Non ufficiale |             | c      |
| 3  | officialArea    | Official Area:::Area Ufficiale         |             | c      |

|   |              |   |  |   |
|---|--------------|---|--|---|
| 4 | surveyedArea | Surveyed<br>Area::::Area<br>Sorvegliata |  | c |
|---|--------------|---|--|---|

## Table: building\_unit\_type

Reference Table / Code list for types of building units

### LADM Reference Object

LA\_BuildingUnitType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code identifying different building unit types |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value of building unit type          |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of building unit type              |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of the code value for building unit type |

### Constraints

| Name                                    | Type        | Explanation                              |
|---|-------------|--|
| building_unit_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| building_unit_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                    | Information  | Description |
|---|--|-------------|
| cadastre_object_building_unit_type_code | <b>From columns:</b><br>building_unit_type_code<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code       | display_value            | description | status |
|----|------------|--------------------------|-------------|--------|
| 1  | individual | Individual:::Individuale |             | c      |
| 2  | shared     | Shared:::Condiviso       |             | c      |

## Table: cadastre\_object

It is a specialisation of spatial\_unit. Cadastre objects are targeted from cadastre change and redefine cadastre processes.

### Columns

| Name                    | Type           | Optional | Default          | Description   |
|-------------------------|----------------|----------|------------------|---|
| id                      | varchar(40)    | False    |                  |   |
| type_code               | varchar(20)    | False    | 'parcel'         | SOLA Extention - It defines the type of the spatial unit.   |
| building_unit_type_code | varchar(20)    | True     |                  |   |
| approval_datetime       | timestamp      | True     |                  | <b>SOLA Extension</b> - Approval datetime of the spatial unit change.   |
| historic_datetime       | timestamp      | True     |                  | <b>SOLA Extension</b> - Datetime when the spatial unit is superseded and has status of historic.  |
| source_reference        | varchar(100)   | True     |                  | This is a temporary solution. It is an identifier   |
| name_firstpart          | varchar(20)    | False    |                  | <b>SOLA Extension</b> - First part of the parcel identifier. First part in combination with last part are supposed to identify uniquely the parcel. |
| name_lastpart           | varchar(50)    | False    |                  | <b>SOLA Extension</b> - Last part of the parcel identifier. First part in combination with last part are supposed to identify uniquely the parcel.  |
| status_code             | varchar(20)    | False    | 'pending'        | <b>SOLA Extension</b> - It is the status of the spatial_unit which defines if it is pending or approved.  |
| geom_polygon            | GEOMETRY       | True     |                  | <b>SOLA Extension</b> - The polygon geometry  |
| transaction_id          | varchar(40)    | False    |                  |   |
| land_grade_code         | varchar(20)    | False    | 'grade3'         |   |
| valuation_amount        | numeric(29, 2) | False    | 0                | Parcel value. Introduced in Lesotho project.  |
| valuation_zone          | varchar(20)    | True     |                  |   |
| remarks                 | varchar(500)   | True     |                  | Remarks/comments to the parcel. Introduced in Lesotho project.  |
| surveyor_id             | varchar(40)    | True     |                  | Private surveyor name, who prepared survey plan. Introduced in Lesotho project.   |
| survey_date             | date           | True     |                  | Parcel survey date. Introduced in Lesotho project.  |
| survey_fee              | numeric(29, 2) | True     |                  | Survey fee. Introduced in Lesotho project.  |
| road_class_code         | varchar(20)    | True     | 'minor_surfaces' | Introduced in Lesotho project. Road access type code.   |

### Constraints

| Name                 | Type        | Explanation  |
|----------------------|-------------|--|
| cadastre_object_name | UNIQUE      | Combination of (name_firstpart, name_lastpart) is unique |
| cadastre_object_pkey | PRIMARY KEY | Combination of (id) is the primary key                   |

**Relationships (from)**

| Name   | Information  | Description |
|--|--|-------------|
| cadastre_object_id_fk48                      | <b>From columns:</b> id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                                  |             |
| cadastre_object_type_code_fk49               | <b>From columns:</b> type_code<br><b>To Entity:</b> cadastre_object_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                |             |
| cadastre_object_status_code_fk50             | <b>From columns:</b> status_code<br><b>To Entity:</b> reg_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                   |             |
| cadastre_object_building_unit_type_code_fk51 | <b>From columns:</b> building_unit_type_code<br><b>To Entity:</b> building_unit_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |
| cadastre_object_transaction_id_fk52          | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                    |             |
| cadastre_object_land_grade_code_fk53         | <b>From columns:</b> land_grade_code<br><b>To Entity:</b> land_grade_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1               |             |
| cadastre_object_road_class_code_fk54         | <b>From columns:</b> road_class_code<br><b>To Entity:</b> road_class_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1            |             |

**Relationships (to)**

| Name  | Information   | Description |
|---|---|-------------|
| legal_space_utility_network_id_fk96                 | <b>From columns:</b> id<br><b>From Entity:</b> legal_space_utility_network<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                      |             |
| ba_unit_contains_spatial_unit_spatial_unit_id_fk100 | <b>From columns:</b> spatial_unit_id<br><b>From Entity:</b> ba_unit_contains_spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |
| cadastre_object_target_cadastre_object_id_fk102     | <b>From columns:</b> cadastre_object_id<br><b>From Entity:</b> cadastre_object_target<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1        |             |



|  |  |  |
|--|--|--|
| application_spatial_unit_spatial_unit_id_fk1 | <b>From columns:</b> spatial_unit_id<br><b>From Entity:</b><br>application_spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |  |
|--|--|--|

### ***Triggers***

| <b>Name</b> | <b>Event</b>                           |
|-------------|--|
| remove      | before delete                          |
| new         | before insert                          |
| geommodify  | after insert or update of geom_polygon |

## Table: cadastre\_object\_node\_target

The nodes that have been changed or added from the transaction.

### Columns

| Name           | Type        | Optional | Default | Description   |
|----------------|-------------|----------|---------|---|
| transaction_id | varchar(40) | False    |         | The id of the transaction that is changing or inserting a new node. |
| node_id        | varchar(60) | False    |         | The node id.  |
| geom           | GEOMETRY    | False    |         | The geometry of the node.   |

### Constraints

| Name                             | Type        | Explanation  |
|----------------------------------|-------------|--|
| cadastre_object_node_target_pkey | PRIMARY KEY | Combination of (transaction_id,node_id) is the primary key |

### Relationships (from)

| Name                                    | Information   | Description |
|---|---|-------------|
| cadastre_object_node_target_transaction | <b>From Columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

## Table: cadastre\_object\_target

This is a cadastre object that is a target of a cadastre related transaction. If the transaction is not yet approved or cancelled, the cadastre object gets a pending status.

### Columns

| Name               | Type        | Optional | Default | Description   |
|--------------------|-------------|----------|---------|---|
| transaction_id     | varchar(40) | False    |         | The id of the transaction that is doing changes to the cadastre object.   |
| cadastre_object_id | varchar(40) | False    |         | The id of the cadastre object being target of transaction.  |
| geom_polygon       | GEOMETRY    | True     |         | The new geometry of the target cadastre object. It is used only when the transaction involves changes of the existing cadastre object geometry. Example of a transaction that changes an existing cadastre object is cadastre redefinition. |

### Constraints

| Name                        | Type        | Explanation   |
|-----------------------------|-------------|---|
| cadastre_object_target_pkey | PRIMARY KEY | Combination of (transaction_id,cadastre_object_id) is the primary key |

### Relationships (from)

| Name  | Information  | Description |
|---|--|-------------|
| cadastre_object_target_cadastre_object_id_fk1 | <b>From columns:</b><br>cadastre_object_id<br><b>To Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| cadastre_object_target_transaction_id_fk1     | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1            |             |

## Table: cadastre\_object\_type

The type of spatial object. This defines the specialisation of the spatial unit. It can be a parcel, building\_unit or backgroup data like a road etc.

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code   |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user                     |
| description   | varchar(555) | True     |         | Description  |
| status        | char(1)      | False    |         | The status of this code itself.                                  |
| in_topology   | bool         | False    | false   | It shows if the cadastre objects of this type are in a topology. |

### Constraints

| Name                                      | Type        | Explanation                              |
|---|-------------|--|
| cadastre_object_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| cadastre_object_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name  | Information   | Description |
|---|---|-------------|
| cadastre_object_type_code_fk49                    | <b>From columns:</b> type_code<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                          |             |
| spatial_unit_temporary_cadastre_object_type_fk148 | <b>From column:</b> cadastre_object_type_code<br><b>From Entity:</b> spatial_unit_temporary<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code           | display_value                  | description | status | in_topology |
|----|----------------|--------------------------------|-------------|--------|-------------|
| 1  | parcel         | Parcel:::Particella            |             | c      | true        |
| 2  | buildingUnit   | Building Unit:::Unità Edile    |             | c      | false       |
| 3  | utilityNetwork | Utility Network:::Rete Utilità |             | c      | false       |

## Table: dimension\_type

Reference Table / Code list to identify the number of dimensions used to define a spatial unit

### LADM Reference Object

LA\_DimensionType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code value to identify different dimension types |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value for a dimension type             |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of a dimension type                  |
| status        | char(1)      | False    | 't'     |   |

### Constraints

| Name                                | Type        | Explanation                              |
|-------------------------------------|-------------|--|
| dimension_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| dimension_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                             | Information  | Description                       |
|----------------------------------|--|-----------------------------------|
| spatial_unit_dimension_code_fk42 | <b>From columns:</b> dimension_code<br><b>From Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code    | display_value | description | status |
|----|---------|---------------|-------------|--------|
| 1  | 0D      | 0D:::0D       |             | c      |
| 2  | 1D      | 1D:::1D       |             | c      |
| 3  | 2D      | 2D:::sD       |             | c      |
| 4  | 3D      | 3D:::3D       |             | c      |
| 5  | liminal | Liminal       |             | x      |

## Table: ground\_rent\_multiplication\_factor

### Columns

| Name                  | Type           | Optional | Default | Description |
|-----------------------|----------------|----------|---------|-------------|
| land_use_code         | varchar(20)    | False    |         |             |
| land_grade_code       | varchar(20)    | False    |         |             |
| valuation_zone        | varchar(20)    | False    |         |             |
| multiplication_factor | numeric(20, 2) | False    | 0       |             |

### Constraints

| Name                                   | Type        | Explanation  |
|--|-------------|--|
| ground_rent_multiplication_factor_pkey | PRIMARY KEY | Combination of (land_use_code,land_grade_code,valuation_zone) is the primary key |

### Relationships (from)

| Name  | Information   | Description |
|---|---|-------------|
| ground_rent_multiplication_factor_land_use_code   | From column: land_use_code<br>To Entity: land_use_type<br>From cardinality: 0..*<br>To Cardinality: 1     |             |
| ground_rent_multiplication_factor_land_grade_code | From column: land_grade_code<br>To Entity: land_grade_type<br>From cardinality: 0..*<br>To Cardinality: 1 |             |
| ground_rent_multiplication_factor_valuation_zone  | From column: valuation_zone<br>To Entity: land_use_type<br>From cardinality: 0..*<br>To Cardinality: 1    |             |

### Data

| Nr | land_use_code | land_grade_code | valuation_zone | multiplication_factor |
|----|---------------|-----------------|----------------|-----------------------|
| 1  | commercial    | grade1          | residential    | 1.80                  |
| 2  | commercial    | grade2          | residential    | 1.70                  |
| 3  | commercial    | grade3          | residential    | 1.60                  |
| 4  | commercial    | grade4          | residential    | 1.50                  |
| 5  | commercial    | grade5          | residential    | 1.40                  |
| 6  | commercial    | grade6          | residential    | 1.30                  |
| 7  | industrial    | grade1          | residential    | 1.80                  |
| 8  | industrial    | grade2          | residential    | 1.70                  |
| 9  | industrial    | grade3          | residential    | 1.60                  |
| 10 | industrial    | grade4          | residential    | 1.50                  |

|    |             |        |             |      |
|----|-------------|--------|-------------|------|
| 11 | industrial  | grade5 | residential | 1.40 |
| 12 | industrial  | grade6 | residential | 1.30 |
| 13 | petroleum   | grade1 | residential | 1.80 |
| 14 | petroleum   | grade2 | residential | 1.70 |
| 15 | petroleum   | grade3 | residential | 1.60 |
| 16 | petroleum   | grade4 | residential | 1.50 |
| 17 | petroleum   | grade5 | residential | 1.40 |
| 18 | petroleum   | grade6 | residential | 1.30 |
| 19 | warehouse   | grade1 | residential | 1.80 |
| 20 | warehouse   | grade2 | residential | 1.70 |
| 21 | warehouse   | grade3 | residential | 1.60 |
| 22 | warehouse   | grade4 | residential | 1.50 |
| 23 | warehouse   | grade5 | residential | 1.40 |
| 24 | warehouse   | grade6 | residential | 1.30 |
| 25 | residential | grade1 | commercial  | 0.62 |
| 26 | residential | grade2 | commercial  | 0.75 |
| 27 | residential | grade3 | commercial  | 0.85 |
| 28 | residential | grade1 | industrial  | 0.62 |
| 29 | residential | grade2 | industrial  | 0.75 |
| 30 | residential | grade3 | industrial  | 0.85 |

## Table: land\_grade\_type

### Columns

| Name          | Type         | Optional | Default | Description |
|---------------|--------------|----------|---------|-------------|
| code          | varchar(20)  | False    |         |             |
| display_value | varchar(255) | False    |         |             |
| description   | varchar(255) | True     |         |             |
| status        | char(1)      | False    | 'c'     |             |

### Constraints

| Name                                 | Type        | Explanation                              |
|--------------------------------------|-------------|--|
| land_grade_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| land_grade_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name  | Information  | Description |
|---|--|-------------|
| cadastre_object_land_grade_code_fk53                    | <b>From columns:</b> land_grade_code<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                   |             |
| land_use_grade_land_grade_code_fk109                    | <b>From columns:</b> land_grade_code<br><b>From Entity:</b> land_use_grade<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                    |             |
| ground_rent_multiplication_factor_land_grade_code_fk115 | <b>From columns:</b> land_grade_code<br><b>From Entity:</b> ground_rent_multiplication_factor<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code   | display_value | description | status |
|----|--------|---------------|-------------|--------|
| 1  | grade1 | Zone1         |             | c      |
| 2  | grade2 | Zone2         |             | c      |
| 3  | grade3 | Zone3         |             | c      |
| 4  | grade4 | Zone4         |             | c      |
| 5  | grade5 | Zone5         |             | c      |
| 6  | grade6 | Zone6         |             | c      |



**Table: land\_use\_grade****Columns**

| Name                | Type           | Optional | Default | Description |
|---------------------|----------------|----------|---------|-------------|
| land_use_code       | varchar(20)    | False    |         |             |
| land_grade_code     | varchar(20)    | False    |         |             |
| admin_fee           | numeric(29, 2) | False    | 0       |             |
| ground_rent_rate    | numeric(20, 2) | False    | 0       |             |
| duty_on_ground_rent | numeric(29, 2) | False    | 0       |             |
| registration_fee    | numeric(29, 2) | False    | 0       |             |

**Constraints**

| Name                | Type        | Explanation   |
|---------------------|-------------|---|
| land_use_grade_pkey | PRIMARY KEY | Combination of (land_use_code,land_grade_code) is the primary key |

**Relationships (from)**

| Name                                 | Information  | Description |
|--------------------------------------|--|-------------|
| land_use_grade_land_use_code_fk108   | <b>From columns:</b> land_use_code<br><b>To Entity:</b> land_use_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1     |             |
| land_use_grade_land_grade_code_fk109 | <b>From columns:</b> land_grade_code<br><b>To Entity:</b> land_grade_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

**Data**

| Nr | land_use_code | land_grade_code | admin_fee | ground_rent_rate |
|----|---------------|-----------------|-----------|------------------|
| 1  | commercial    | grade1          | 600       | 0.79             |
| 2  | commercial    | grade2          | 200       | 0.57             |
| 3  | commercial    | grade3          | 100       | 0.35             |
| 4  | commercial    | grade4          | 100       | 0.24             |
| 5  | hotel         | grade1          | 600       | 0.60             |
| 6  | hotel         | grade2          | 200       | 0.38             |
| 7  | hotel         | grade3          | 100       | 0.23             |
| 8  | industrial    | grade1          | 600       | 0.60             |
| 9  | industrial    | grade2          | 200       | 0.38             |

|    |                   |        |     |      |
|----|-------------------|--------|-----|------|
| 10 | industrial        | grade3 | 100 | 0.23 |
| 11 | petroleum         | grade1 | 600 | 0.60 |
| 12 | petroleum         | grade2 | 200 | 0.38 |
| 13 | petroleum         | grade3 | 100 | 0.23 |
| 14 | retail            | grade1 | 600 | 0.60 |
| 15 | retail            | grade2 | 200 | 0.38 |
| 16 | retail            | grade3 | 100 | 0.23 |
| 17 | warehouse         | grade1 | 600 | 0.60 |
| 18 | warehouse         | grade2 | 200 | 0.38 |
| 19 | warehouse         | grade3 | 100 | 0.23 |
| 20 | residential       | grade1 | 50  | 0.29 |
| 21 | residential       | grade2 | 50  | 0.24 |
| 22 | residential       | grade3 | 50  | 0.21 |
| 23 | residential       | grade4 | 50  | 0.17 |
| 24 | residential       | grade5 | 50  | 0.12 |
| 25 | residential       | grade6 | 50  | 0.12 |
| 26 | recreational      | grade1 | 100 | 500  |
| 27 | charitable        | grade1 | 100 | 200  |
| 28 | hospital          | grade1 | 100 | 200  |
| 29 | educational       | grade1 | 100 | 200  |
| 30 | religious         | grade1 | 100 | 20   |
| 31 | recreational      | grade2 | 100 | 200  |
| 32 | agricIrrigated    | grade1 | 500 | 105  |
| 33 | agricIrrigated    | grade2 | 500 | 80   |
| 34 | agricIrrigated    | grade3 | 500 | 52   |
| 35 | agricIrrigated    | grade4 | 500 | 31   |
| 36 | agricIrrigated    | grade5 | 500 | 21   |
| 37 | agricNonIrrigated | grade1 | 50  | 21   |
| 38 | agricNonIrrigated | grade2 | 50  | 16   |
| 39 | agricNonIrrigated | grade3 | 50  | 11   |
| 40 | agricNonIrrigated | grade4 | 50  | 9    |
| 41 | agricNonIrrigated | grade5 | 50  | 6    |
| 42 | agricRangeGrazing | grade1 | 100 | 6    |
| 43 | agricRangeGrazing | grade2 | 100 | 3    |
| 44 | agricRangeGrazing | grade3 | 100 | 5    |
| 45 | agricRangeGrazing | grade4 | 100 | 3    |
| 46 | agricRangeGrazing | grade5 | 100 | 1    |
| 47 | agricOther        | grade1 | 100 | 105  |
| 48 | agricOther        | grade2 | 100 | 84   |
| 49 | agricOther        | grade3 | 100 | 63   |
| 50 | agricOther        | grade4 | 100 | 31   |

|    |              |        |     |      |
|----|--------------|--------|-----|------|
| 51 | agricOther   | grade5 | 100 | 10   |
| 52 | recreational | grade3 | 100 | 200  |
| 53 | recreational | grade4 | 100 | 200  |
| 54 | recreational | grade5 | 100 | 200  |
| 55 | recreational | grade6 | 100 | 200  |
| 56 | charitable   | grade2 | 100 | 200  |
| 57 | charitable   | grade3 | 100 | 200  |
| 58 | charitable   | grade4 | 100 | 200  |
| 59 | charitable   | grade5 | 100 | 200  |
| 60 | charitable   | grade6 | 100 | 200  |
| 61 | hospital     | grade2 | 100 | 200  |
| 62 | hospital     | grade3 | 100 | 200  |
| 63 | hospital     | grade4 | 100 | 200  |
| 64 | hospital     | grade5 | 100 | 200  |
| 65 | hospital     | grade6 | 100 | 200  |
| 66 | educational  | grade2 | 100 | 200  |
| 67 | educational  | grade3 | 100 | 200  |
| 68 | educational  | grade4 | 100 | 200  |
| 69 | educational  | grade5 | 100 | 200  |
| 70 | educational  | grade6 | 100 | 200  |
| 71 | religious    | grade2 | 100 | 200  |
| 72 | religious    | grade3 | 100 | 200  |
| 73 | religious    | grade4 | 100 | 200  |
| 74 | religious    | grade5 | 100 | 200  |
| 75 | religious    | grade6 | 100 | 200  |
| 76 | devotional   | grade1 | 100 | 200  |
| 77 | devotional   | grade2 | 100 | 200  |
| 78 | devotional   | grade3 | 100 | 200  |
| 79 | devotional   | grade4 | 100 | 200  |
| 80 | devotional   | grade5 | 100 | 200  |
| 81 | devotional   | grade6 | 100 | 200  |
| 82 | benovelent   | grade1 | 100 | 200  |
| 83 | benovelent   | grade2 | 100 | 200  |
| 84 | benovelent   | grade3 | 100 | 200  |
| 85 | benovelent   | grade4 | 100 | 200  |
| 86 | benovelent   | grade5 | 100 | 200  |
| 87 | benovelent   | grade6 | 100 | 200  |
| 88 | commercial   | grade5 | 100 | 0.24 |
| 89 | commercial   | grade6 | 100 | 0.24 |
| 90 | hotel        | grade4 | 100 | 0.23 |
| 91 | hotel        | grade5 | 100 | 0.23 |

|    |            |        |     |      |
|----|------------|--------|-----|------|
| 92 | hotel      | grade6 | 100 | 0.23 |
| 93 | industrial | grade4 | 100 | 0.23 |
| 94 | industrial | grade5 | 100 | 0.23 |
| 95 | industrial | grade6 | 100 | 0.23 |
| 96 | petroleum  | grade4 | 100 | 0.23 |
| 97 | petroleum  | grade5 | 100 | 0.23 |
| 98 | petroleum  | grade6 | 100 | 0.23 |
| 99 | retail     | grade4 | 100 | 0.23 |
| 10 | retail     | grade5 | 100 | 0.23 |
| 10 | retail     | grade6 | 100 | 0.23 |
| 10 | warehouse  | grade4 | 100 | 0.23 |
| 10 | warehouse  | grade5 | 100 | 0.23 |
| 10 | warehouse  | grade6 | 100 | 0.23 |

| Nr | duty_on_ground_rent | registration_fee |
|----|---------------------|------------------|
| 1  | 10                  | 100              |
| 2  | 10                  | 100              |
| 3  | 10                  | 100              |
| 4  | 10                  | 100              |
| 5  | 0                   | 100              |
| 6  | 0                   | 100              |
| 7  | 0                   | 100              |
| 8  | 0                   | 100              |
| 9  | 0                   | 100              |
| 10 | 0                   | 100              |
| 11 | 0                   | 100              |
| 12 | 0                   | 100              |
| 13 | 0                   | 100              |
| 14 | 0                   | 100              |
| 15 | 0                   | 100              |
| 16 | 0                   | 100              |
| 17 | 0                   | 100              |
| 18 | 0                   | 100              |
| 19 | 0                   | 100              |
| 20 | 8                   | 25               |
| 21 | 8                   | 25               |
| 22 | 8                   | 25               |
| 23 | 8                   | 25               |
| 24 | 8                   | 25               |
| 25 | 8                   | 25               |
| 26 | 0                   | 0                |

|    |   |   |
|----|---|---|
| 27 | 0 | 0 |
| 28 | 0 | 0 |
| 29 | 0 | 0 |
| 30 | 0 | 0 |
| 31 | 0 | 0 |
| 32 | 0 | 0 |
| 33 | 0 | 0 |
| 34 | 0 | 0 |
| 35 | 0 | 0 |
| 36 | 0 | 0 |
| 37 | 0 | 0 |
| 38 | 0 | 0 |
| 39 | 0 | 0 |
| 40 | 0 | 0 |
| 41 | 0 | 0 |
| 42 | 0 | 0 |
| 43 | 0 | 0 |
| 44 | 0 | 0 |
| 45 | 0 | 0 |
| 46 | 0 | 0 |
| 47 | 0 | 0 |
| 48 | 0 | 0 |
| 49 | 0 | 0 |
| 50 | 0 | 0 |
| 51 | 0 | 0 |
| 52 | 0 | 0 |
| 53 | 0 | 0 |
| 54 | 0 | 0 |
| 55 | 0 | 0 |
| 56 | 0 | 0 |
| 57 | 0 | 0 |
| 58 | 0 | 0 |
| 59 | 0 | 0 |
| 60 | 0 | 0 |
| 61 | 0 | 0 |
| 62 | 0 | 0 |
| 63 | 0 | 0 |
| 64 | 0 | 0 |
| 65 | 0 | 0 |
| 66 | 0 | 0 |
| 67 | 0 | 0 |

|    |    |     |
|----|----|-----|
| 68 | 0  | 0   |
| 69 | 0  | 0   |
| 70 | 0  | 0   |
| 71 | 0  | 0   |
| 72 | 0  | 0   |
| 73 | 0  | 0   |
| 74 | 0  | 0   |
| 75 | 0  | 0   |
| 76 | 0  | 0   |
| 77 | 0  | 0   |
| 78 | 0  | 0   |
| 79 | 0  | 0   |
| 80 | 0  | 0   |
| 81 | 0  | 0   |
| 82 | 0  | 0   |
| 83 | 0  | 0   |
| 84 | 0  | 0   |
| 85 | 0  | 0   |
| 86 | 0  | 0   |
| 87 | 0  | 0   |
| 88 | 10 | 100 |
| 89 | 10 | 100 |
| 90 | 0  | 100 |
| 91 | 0  | 100 |
| 92 | 0  | 100 |
| 93 | 0  | 100 |
| 94 | 0  | 100 |
| 95 | 0  | 100 |
| 96 | 0  | 100 |
| 97 | 0  | 100 |
| 98 | 0  | 100 |
| 99 | 0  | 100 |
| 10 | 0  | 100 |
| 10 | 0  | 100 |
| 10 | 0  | 100 |
| 10 | 0  | 100 |
| 10 | 0  | 100 |

## Table: land\_use\_type

Reference Table / Code list for types of land use LADM Reference Object ExtLandUse LADM Definition Not Defined

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code identifying different land use types |
| display_value | varchar(250) | False    |         | Extension to LADM - the displayed value of land use type               |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of land use type              |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of the code value for land use type |

### Constraints

| Name                               | Type        | Explanation                              |
|------------------------------------|-------------|--|
| land_use_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| land_use_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name   | Information   | Description |
|--|---|-------------|
| rrr_land_use_code_fk62                                 | <b>From columns:</b> land_use_code<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                             |             |
| land_use_grade_land_use_code_fk108                     | <b>From columns:</b> land_use_code<br><b>From Entity:</b> land_use_grade<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                     |             |
| ground_rent_multiplication_factor_land_use_code_fk110  | <b>From columns:</b> land_use_code<br><b>From Entity:</b> ground_rent_multiplication_factor<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1  |             |
| ground_rent_multiplication_factor_valuation_zone_fk112 | <b>From columns:</b> valuation_zone<br><b>From Entity:</b> ground_rent_multiplication_factor<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code        | display_value | description | status |
|----|-------------|---------------|-------------|--------|
| 1  | commercial  | Commercial    |             | c      |
| 2  | residential | Residential   |             | c      |

|    |                   |   |        |   |
|----|-------------------|---|--------|---|
| 3  | industrial        | Industrial                                |        | c |
| 4  | hotel             | Hotel                                     |        | c |
| 5  | petroleum         | Petroleum                                 |        | c |
| 6  | retail            | Retail                                    |        | c |
| 7  | warehouse         | Warehouse                                 |        | c |
| 8  | charitable        | Charitable                                |        | c |
| 9  | hospital          | Hospital                                  |        | c |
| 10 | religious         | Religious                                 |        | c |
| 11 | educational       | Educational                               |        | c |
| 12 | recreational      | Recreational                              |        | c |
| 13 | institutional     | Institutional                             |        | c |
| 14 | agricIrrigated    | Irrigated<br>Agriculture                  |        | c |
| 15 | agricNonIrrigated | Non-irrigated<br>Agriculture              |        | c |
| 16 | agricRangeGrazing | Range<br>Grazing or<br>Forestry           |        | c |
| 17 | agricOther        | Other<br>Agricultural<br>Use              |        | c |
| 18 | agricIntensive    | Livestock,<br>Poultry, or<br>Horticulture |        | c |
| 19 | other             | Other                                     | (NULL) | c |
| 20 | benovelent        | Benovelent                                |        | c |
| 21 | devotional        | Devotional                                |        | c |



## Table: legal\_space\_utility\_network

Refer to LADM Definition

### LADM Reference Object

LA\_LegalSpaceUtilityNetwork

### LADM Definition

A utility network concerns legal space, which does not necessarily coincide with the physical space of a utility network..

### Columns

| Name                    | Type        | Optional | Default | Description   |
|-------------------------|-------------|----------|---------|---|
| id                      | varchar(40) | False    |         | <b>LADM Definition</b> - Legal space utility network identifier             |
| ext_physical_network_id | varchar(40) | True     |         | <b>LADM Definition</b> - External Identifier for a physical utility network |
| status_code             | varchar(20) | True     |         | <b>LADM Definition</b> - Code for the legal space utility network           |
| type_code               | varchar(20) | False    |         | <b>LADM Definition</b> - Type code for the legal space utility network      |
| geom                    | GEOMETRY    | True     |         |   |

### Constraints

| Name                             | Type        | Explanation                            |
|----------------------------------|-------------|--|
| legal_space_utility_network_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name   | Information   | Description                       |
|--|---|-----------------------------------|
| legal_space_utility_network_id_fk96          | <b>From columns:</b> id<br><b>To Entity:</b> cadastre_object<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                            |                                   |
| legal_space_utility_network_status_code_fk97 | <b>From columns:</b> status_code<br><b>To Entity:</b> utility_network_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |
| legal_space_utility_network_type_code_fk98   | <b>From columns:</b> type_code<br><b>To Entity:</b> utility_network_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1             | LADM relationship - no refinement |

## Table: level

Refer to LADM DefinitionLADM Reference Object LA\_LevelLADM DefinitionA set of spatial units, with a geometric, and/or topologic, and/or thematic coherence  
 EXAMPLE 1 One level for an urban cadastre and another level for a rural cadastre. EXAMPLE 2 One level with rights and another level with restrictions. EXAMPLE 3 One level with formal rights, a second level with informal rights and a third level with customary rights. EXAMPLE 4 One level with point based spatial units, a second level with line based spatial units, and a third level with polygon based spatial units..

### Columns

| Name               | Type        | Optional | Default | Description  |
|--------------------|-------------|----------|---------|--|
| id                 | varchar(40) | False    |         | <b>LADM Definition</b> - Level identifier                              |
| name               | varchar(50) | True     |         | <b>LADM Definition</b> - The name of the level                         |
| register_type_code | varchar(20) | False    | 'all'   | <b>LADM Definition</b> - The register type of the content of the level |
| structure_code     | varchar(20) | True     |         | <b>LADM Definition</b> - Code for the structure of the level geometry  |
| type_code          | varchar(20) | True     |         | <b>LADM Definition</b> - The type of the content the level             |

### Constraints

| Name              | Type        | Explanation                            |
|-------------------|-------------|--|
| level_name_unique | UNIQUE      | Combination of (name) is unique        |
| level_pkey        | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                          | Information   | Description                       |
|-------------------------------|---|-----------------------------------|
| level_register_type_code_fk45 | <b>From columns:</b> register_type_code<br><b>To Entity:</b> register_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |
| level_structure_code_fk46     | <b>From columns:</b> structure_code<br><b>To Entity:</b> structure_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |
| level_type_code_fk47          | <b>From columns:</b> type_code<br><b>To Entity:</b> level_content_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1  | LADM relationship - no refinement |

### Relationships (to)

| Name                       | Information   | Description                       |
|----------------------------|---|-----------------------------------|
| spatial_unit_level_id_fk44 | <b>From columns:</b> level_id<br><b>From Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |

**Data**

| Nr | id             | name               | register_type_code | structure_code | type_code    |
|----|----------------|--------------------|--------------------|----------------|--------------|
| 1  | cadastreObject | Cadastre<br>object | all                | polygon        | primaryRight |

## Table: level\_content\_type

Reference Table / Code list for the content type of a level

### LADM Reference Object

LA\_

### LADM Definition

The type of the content of the level;

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code identifying a level content type      |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value of a level content type    |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - a description for a level content type         |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of an instance of level content type |

### Constraints

| Name                                    | Type        | Explanation                              |
|---|-------------|--|
| level_content_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| level_content_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                 | Information   | Description                       |
|----------------------|---|-----------------------------------|
| level_type_code_fk47 | <b>From columns:</b> type_code<br><b>From Entity:</b> level<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |

### Data

| Nr | code           | display_value                    | description | status |
|----|----------------|----------------------------------|-------------|--------|
| 1  | building       | Building:::Costruzione           |             | x      |
| 2  | customary      | Customary:::Consueto             |             | x      |
| 3  | informal       | Informal:::Informale             |             | x      |
| 4  | mixed          | Mixed:::Misto                    |             | x      |
| 5  | network        | Network:::Rete                   |             | x      |
| 6  | primaryRight   | Primary Right:::Diritto Primario |             | c      |
| 7  | responsibility | Responsibility:::Responsabilita  |             | x      |
| 8  | restriction    | Restriction:::Restrizione        |             | c      |

|   |                   |   |                      |   |
|---|-------------------|---|----------------------|---|
| 9 | geographicLocator | Geographic Locators::::Locatori<br>Geografici | Extension<br>to LADM | c |
|---|-------------------|---|----------------------|---|

## Table: register\_type

Reference Table / Code list for register types

### LADM Reference Object

LA\_

### LADM Definition

The register type of the content of the [map] level

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code identifying a register type      |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value of a register type    |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of a register type        |
| status        | char(1)      | False    |         | <b>SOLA Extension</b> - the status of an instance of register type |

### Constraints

| Name                               | Type        | Explanation                              |
|------------------------------------|-------------|--|
| register_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| register_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                          | Information  | Description                       |
|-------------------------------|--|-----------------------------------|
| level_register_type_code_fk45 | <b>From columns:</b><br>register_type_code<br><b>From Entity:</b> level<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code        | display_value                  | description | status |
|----|-------------|--------------------------------|-------------|--------|
| 1  | all         | All:::Tutti                    |             | c      |
| 2  | forest      | Forest:::Forestale             |             | c      |
| 3  | mining      | Mining:::Minerario             |             | c      |
| 4  | publicSpace | Public Space:::Spazio Pubblico |             | c      |
| 5  | rural       | Rural:::Rurale                 |             | c      |
| 6  | urban       | Urban:::Urbano                 |             | c      |

## Table: road\_class\_type

### Columns

| Name          | Type           | Optional | Default | Description |
|---------------|----------------|----------|---------|-------------|
| code          | varchar(20)    | False    |         |             |
| display_value | varchar(255)   | False    |         |             |
| description   | varchar(555)   | True     |         |             |
| status        | char(1)        | False    | 'c'     |             |
| road_factor   | numeric(29, 2) | True     |         |             |

### Constraints

| Name                 | Type        | Explanation                              |
|----------------------|-------------|--|
| road_class_type_pkey | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                 | Information   | Description |
|--------------------------------------|---|-------------|
| cadastre_object_road_class_code_fk54 | <b>From columns:</b> road_class_code<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code                 | display_value           | description                    | status | road_factor |
|----|----------------------|-------------------------|--------------------------------|--------|-------------|
| 1  | main_surfaced        | Main Tarred Road        | Main tarred/surfaced road      | c      | 1.2         |
| 2  | main_unsurfaced      | Main Untarred Road      | Main untarred/unsurfaced road  | c      | 0.9         |
| 3  | minor_surfaced       | Minor Tarred Road       | Minor tarred/surfaced road     | c      | 1           |
| 4  | minor_unsurfaced     | Minor Untarred Road     | minor road network unsurfaced  | c      | 0.7         |
| 5  | no_vehicular_access  | No Vehicular Access     | no road network                | c      | 0.5         |
| 6  | secondary_surfaced   | Secondary Tarred Road   | Secondary tarred/surfaced road | c      | 1.1         |
| 7  | secondary_unsurfaced | Secondary Untarred Road | Secondary untarred/unsurface   | c      | 0.8         |

## Table: spatial\_unit

Single area (or multiple areas) of land or water, or a single volume (or multiple volumes) of spaceLADM Reference  
Object LA\_SpatialUnitLADM DefinitionNot Defined

### Columns

| Name                  | Type         | Optional | Default     | Description  |
|-----------------------|--------------|----------|-------------|--|
| id                    | varchar(40)  | False    |             | <b>LADM Definition</b> - Spatial unit identifier   |
| dimension_code        | varchar(20)  | False    | '2D'        | <b>LADM Definition</b> - Code for dimension  |
| label                 | varchar(255) | True     |             | <b>LADM Definition</b> -Label for the spatial unit   |
| surface_relation_code | varchar(20)  | False    | 'onSurface' | <b>LADM Definition</b> - Code given to the surface relation to indicate whether a spatial unit is above or below the surface   |
| level_id              | varchar(40)  | True     |             | <b>LADM Definition</b> - Level identifier  |
| reference_point       | GEOMETRY     | True     |             | <b>LADM Definition</b> -The coordinates of a point inside the spatial unit   |
| geom                  | GEOMETRY     | True     |             | <b>SOLA Extension</b> -The geometry type of the spatial unit   |
| transaction_id        | varchar(40)  | True     |             | The transaction that is used during the bulk operation that has introduced the spatial unit. This transaction id is used in case the bulk operation has to be rolled back. |

### Constraints

| Name              | Type        | Explanation                            |
|-------------------|-------------|--|
| spatial_unit_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name                                    | Information  | Description                       |
|---|--|-----------------------------------|
| spatial_unit_dimension_code_fk42        | <b>From columns:</b> dimension_code<br><b>To Entity:</b> dimension_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1               | LADM relationship - no refinement |
| spatial_unit_surface_relation_code_fk43 | <b>From columns:</b> surface_relation_code<br><b>To Entity:</b> surface_relation_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |
| spatial_unit_level_id_fk44              | <b>From columns:</b> level_id<br><b>To Entity:</b> level<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                           | LADM relationship - no refinement |
| spatial_unit_transaction_id_fk55        | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1               |                                   |



**Relationships (to)**

| Name  | Information   | Description                             |
|---|---|---|
| ba_unit_cadastre_object_id_fk41                     | <b>From columns:</b><br>cadastre_object_id<br><b>From Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                 |   |
| cadastre_object_id_fk48                             | <b>From columns:</b> id<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                                  |   |
| rrr_cadastre_object_id_fk61                         | <b>From columns:</b><br>cadastre_object_id<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                     |   |
| spatial_value_area_spatial_unit_id_fk89             | <b>From columns:</b> spatial_unit_id<br><b>From Entity:</b> spatial_value_area<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1               | LADM relationship - no refinement       |
| spatial_unit_address_spatial_unit_id_fk91           | <b>From columns:</b> spatial_unit_id<br><b>From Entity:</b> spatial_unit_address<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1             | FLOSS SOLA relationship - no refinement |
| spatial_unit_in_group_spatial_unit_id_fk95          | <b>From columns:</b> spatial_unit_id<br><b>From Entity:</b> spatial_unit_in_group<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1            | LADM relationship - no refinement       |
| ba_unit_contains_spatial_unit_spatial_unit_id_fk100 | <b>From columns:</b> spatial_unit_id<br><b>From Entity:</b><br>ba_unit_contains_spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement       |

## Table: spatial\_unit\_address

Implements the many-to-many relationship between address and spatial\_unit

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name            | Type        | Optional | Default | Description                                      |
|-----------------|-------------|----------|---------|--|
| spatial_unit_id | varchar(40) | False    |         | <b>LADM Definition</b> - Spatial unit identifier |
| address_id      | varchar(40) | False    |         | <b>LADM Definition</b> - Address identifier      |

### Constraints

| Name                      | Type        | Explanation  |
|---------------------------|-------------|--|
| spatial_unit_address_pkey | PRIMARY KEY | Combination of (spatial_unit_id,address_id) is the primary key |

### Relationships (from)

| Name                                      | Information   | Description                             |
|---|---|---|
| spatial_unit_address_spatial_unit_id_fk91 | <b>From columns:</b> spatial_unit_id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| spatial_unit_address_address_id_fk92      | <b>From columns:</b> address_id<br><b>To Entity:</b> address<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1           | FLOSS SOLA relationship - no refinement |

## Table: spatial\_unit\_group

Refer to LADM Definition

### LADM Reference Object

LA\_SpatialUnitGroup

### LADM Definition

Any number of spatial units, considered as a single entity

### Columns

| Name                           | Type        | Optional | Default | Description   |
|--------------------------------|-------------|----------|---------|---|
| id                             | varchar(40) | False    |         | <b>LADM Definition</b> - The identifier of the spatial unit group                                 |
| hierarchy_level                | integer     | False    |         | <b>LADM Definition</b> - The level in the hierarchy of the (administrative or zoning) subdivision |
| label                          | varchar(50) | True     |         | <b>LADM Definition</b> - Short textual description of the spatial unit group                      |
| name                           | varchar(50) | True     |         | <b>LADM Definition</b> - The name of the spatial unit group                                       |
| reference_point                | GEOMETRY    | True     |         | <b>LADM Definition</b> - The coordinates of a point within the spatial unit group                 |
| geom                           | GEOMETRY    | True     |         | <b>SOLA Extension</b> - the spatial geometry for a spatial unit group                             |
| found_in_spatial_unit_group_id | varchar(40) | True     |         | <b>LADM Definition</b> - the identifier of the spatial unit group where the spatial unit is found |

### Constraints

| Name                    | Type        | Explanation                            |
|-------------------------|-------------|--|
| spatial_unit_group_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name  | Information   | Description                       |
|---|---|-----------------------------------|
| spatial_unit_group_found_in_spatial_unit_group_id | <b>From columns:</b><br>found_in_spatial_unit_group_id<br><b>To Entity:</b> spatial_unit_group<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Relationships (to)

| Name  | Information   | Description                       |
|---|---|-----------------------------------|
| spatial_unit_in_group_spatial_unit_group_id | <b>From columns:</b><br>spatial_unit_group_id<br><b>From Entity:</b> spatial_unit_in_group<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

## Table: spatial\_unit\_in\_group

Implements the many-to-many relationship between spatial\_unit\_group and spatial\_unit

### LADM Reference Object

Relationship LA\_SpatialUnitGroup - LA\_SpatialUnit

### LADM Definition

Not defined

### Columns

| Name                  | Type        | Optional | Default | Description   |
|-----------------------|-------------|----------|---------|---|
| spatial_unit_group_id | varchar(40) | False    |         | <b>LADM Definition</b> - Identifier of the spatial unit group |
| spatial_unit_id       | varchar(40) | False    |         | <b>LADM Definition</b> - Spatial unit identifier              |

### Constraints

| Name                       | Type        | Explanation   |
|----------------------------|-------------|---|
| spatial_unit_in_group_pkey | PRIMARY KEY | Combination of (spatial_unit_group_id,spatial_unit_id) is the primary key |

### Relationships (from)

| Name   | Information  | Description                       |
|--|--|-----------------------------------|
| spatial_unit_in_group_spatial_unit_group_id_fk94 | <b>From columns:</b><br>spatial_unit_group_id<br><b>To Entity:</b> spatial_unit_group<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |
| spatial_unit_in_group_spatial_unit_id_fk95       | <b>From columns:</b> spatial_unit_id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                | LADM relationship - no refinement |

**Table: spatial\_value\_area**

Refer to LADM Definition

**LADM Reference Object**

LA\_AreaValue

**LADM Definition**

The area (size) of 2 dimension spatial unit

**Columns**

| Name            | Type           | Optional | Default | Description   |
|-----------------|----------------|----------|---------|---|
| spatial_unit_id | varchar(40)    | False    |         | <b>LADM Definition</b> - Spatial unit identifier        |
| type_code       | varchar(20)    | False    |         | <b>LADM Definition</b> - Type of the spatial value area |
| size            | numeric(29, 2) | False    |         | <b>LADM Definition</b> - The area of the spatial unit   |

**Constraints**

| Name                    | Type        | Explanation   |
|-------------------------|-------------|---|
| spatial_value_area_pkey | PRIMARY KEY | Combination of (spatial_unit_id,type_code) is the primary key |

**Relationships (from)**

| Name                                    | Information   | Description                       |
|---|---|-----------------------------------|
| spatial_value_area_spatial_unit_id_fk89 | <b>From columns:</b> spatial_unit_id<br><b>To Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |
| spatial_value_area_type_code_fk90       | <b>From columns:</b> type_code<br><b>To Entity:</b> area_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1          | LADM relationship - no refinement |

## Table: structure\_type

Reference Table / Code list of different forms of spatial unit definitions (within a level)

### LADM Reference Object

LA\_StructureType

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code identifying a structure type      |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value for a structure type   |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of a structure type        |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of an instance of structure type |

### Constraints

| Name                                | Type        | Explanation                              |
|-------------------------------------|-------------|--|
| structure_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| structure_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                      | Information  | Description                       |
|---------------------------|--|-----------------------------------|
| level_structure_code_fk46 | <b>From columns:</b> structure_code<br><b>From Entity:</b> level<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |

### Data

| Nr | code             | display_value                       | description | status |
|----|------------------|-------------------------------------|-------------|--------|
| 1  | point            | Point:::Punto                       |             | c      |
| 2  | polygon          | Polygon:::Poligono                  |             | c      |
| 3  | sketch           | Sketch:::Schizzo                    |             | c      |
| 4  | text             | Text:::Testo                        |             | c      |
| 5  | topological      | Topological:::Topologico            |             | c      |
| 6  | unStructuredLine | UnstructuredLine:::LineanonDefinita |             | c      |

## Table: surface\_relation\_type

Refer to LADM Definition

### LADM Reference Object

LA\_SurfaceRelationType

### LADM Definition

The type of relation that exists between spatial objects and space (surface)

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - the code identifying a surface relation type      |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value for a surface relation type   |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of a surface relation type        |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of an instance of surface relation type |

### Constraints

| Name                                       | Type        | Explanation                              |
|--|-------------|--|
| surface_relation_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| surface_relation_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                    | Information  | Description                       |
|---|--|-----------------------------------|
| spatial_unit_surface_relation_code_fk43 | <b>From columns:</b><br>surface_relation_code<br><b>From Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code      | display_value                 | description | status |
|----|-----------|-------------------------------|-------------|--------|
| 1  | above     | Above:::Sopra                 |             | x      |
| 2  | below     | Below:::Sotto                 |             | x      |
| 3  | mixed     | Mixed:::Misto                 |             | x      |
| 4  | onSurface | On Surface:::Sulla Superficie |             | c      |

## Table: survey\_point

### Columns

| Name           | Type        | Optional | Default | Description                               |
|----------------|-------------|----------|---------|---|
| transaction_id | varchar(40) | False    |         |   |
| id             | varchar(40) | False    |         |   |
| boundary       | bool        | False    | true    | If the survey point is part of a boundary |
| linked         | bool        | False    | false   | If the survey point is linked.            |
| geom           | GEOMETRY    | False    |         | The current position of the point.        |
| original_geom  | GEOMETRY    | False    |         | The original position of the point.       |

### Constraints

| Name              | Type        | Explanation   |
|-------------------|-------------|---|
| survey_point_pkey | PRIMARY KEY | Combination of (transaction_id,id) is the primary key |

### Relationships (from)

| Name                              | Information   | Description |
|-----------------------------------|---|-------------|
| survey_point_transaction_id_fk104 | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |



## Table: utility\_network\_status\_type

Reference Table / Code list for the status of utility networks

### LADM Reference Object

LA\_UtilityNetworkStatusType

### LADM Definition

Status of the type of utility network

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - a code identifying a utility network status type        |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value of a utility network status type    |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - a description of a utility network status type          |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - the status of an instance of utility network status type |

### Constraints

| Name   | Type        | Explanation                              |
|--|-------------|--|
| utility_network_status_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| utility_network_status_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name  | Information   | Description                       |
|---|---|-----------------------------------|
| legal_space_utility_network_status_code_ref | <b>From columns:</b> status_code<br><b>From Entity:</b> legal_space_utility_network<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | LADM relationship - no refinement |

### Data

| Nr | code     | display_value          | description | status |
|----|----------|------------------------|-------------|--------|
| 1  | inUse    | In Use:::In uso        |             | c      |
| 2  | outOfUse | Out of Use:::Fuori uso |             | c      |
| 3  | planned  | Planned:::Pianificato  |             | c      |

## Table: utility\_network\_type

Reference Table / Code list of utility network types

### LADM Reference Object

LA\_

### LADM Definition

Not Defined

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - a code identifying a utility network type        |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - the displayed value for a utility network type   |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - the description of a utility network type        |
| status        | char(1)      | False    |         | <b>SOLA Extension</b> - the status of an instance of utility network type |

### Constraints

| Name                                      | Type        | Explanation                              |
|---|-------------|--|
| utility_network_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| utility_network_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                     | Information  | Description                       |
|--|--|-----------------------------------|
| legal_space_utility_network_type_code_fk | <b>From columns:</b> type_code<br><b>From Entity:</b> legal_space_utility_network<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code              | display_value                         | description | status |
|----|-------------------|---------------------------------------|-------------|--------|
| 1  | chemical          | Chemicals:::Cimica                    |             | c      |
| 2  | electricity       | Electricity:::Elettricita             |             | c      |
| 3  | gas               | Gas:::Gas                             |             | c      |
| 4  | heating           | Heating:::Riscaldamento               |             | c      |
| 5  | oil               | Oil:::Carburante                      |             | c      |
| 6  | telecommunication | Telecommunication:::Telecomunicazione |             | c      |
| 7  | water             | Water:::Acqua                         |             | c      |

**View: place\_name**

View for retrieving place names to be used in the gis component.

**Columns**

| Name  | Type         | Optional | Default | Description                       |
|-------|--------------|----------|---------|-----------------------------------|
| id    | varchar(40)  | True     |         | Identifier of village             |
| label | varchar(255) | True     |         | Labels and description of village |
| geom  | GEOMETRY     | True     |         | Description of the geometry type  |

## View: road

A map feature (used in the Samoa implementation) that identifies the centrelines of roads in SamoaLADM Reference ObjectFLOSS SOLA ExtensionLADM DefinitionNot Applicable

### Columns

| Name  | Type         | Optional | Default | Description          |
|-------|--------------|----------|---------|----------------------|
| id    | varchar(40)  | True     |         | Road identifier      |
| label | varchar(255) | True     |         | Name of each of road |
| geom  | GEOMETRY     | True     |         | Geometry type        |

## View: survey\_control

This is a view which is used to retrieve the survey points from the spatial units. It is used from the gis component.

### Columns

| Name  | Type         | Optional | Default | Description             |
|-------|--------------|----------|---------|-------------------------|
| id    | varchar(40)  | True     |         | identifier              |
| label | varchar(255) | True     |         | Label of island         |
| geom  | GEOMETRY     | True     |         | geometry type of island |

**Function: cadastre\_object\_name\_is\_valid*****Parameters***

| Name           | Type    | Direction | Description |
|----------------|---------|-----------|-------------|
| name_firstpart | varchar |           |             |
| name_lastpart  | varchar |           |             |

## Function: add\_topo\_points

This function searches for any point in source that falls into target. If a point is found then the point it is added in the target. It returns the modified target.

### *Parameters*

| Name   | Type     | Direction | Description         |
|--------|----------|-----------|---------------------|
| source | geometry |           | The source geometry |
| target | geometry |           | The target geometry |

**Function: snap\_geometry\_to\_geometry**

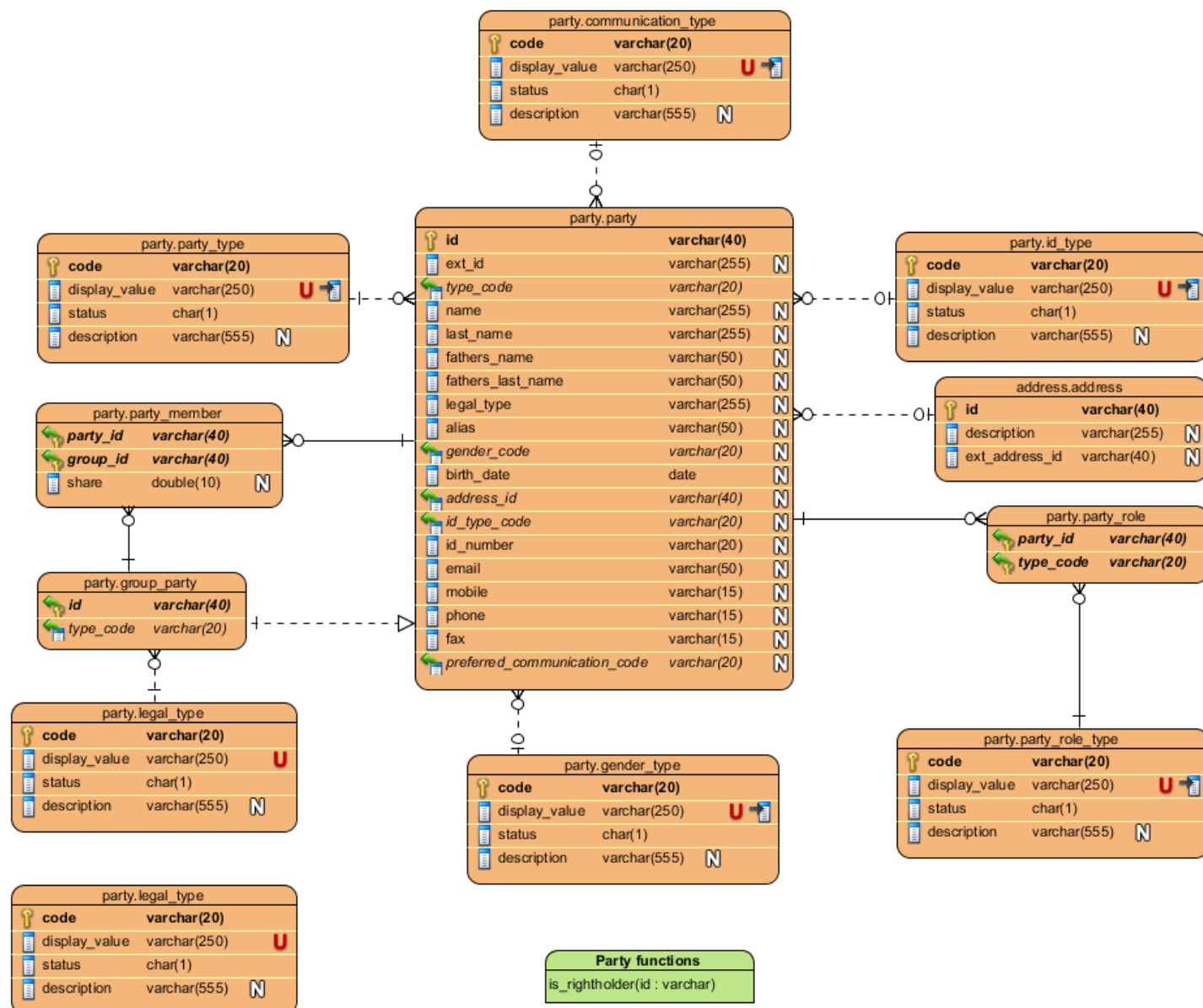
It snaps one geometry to the other. If points needs to be added they will be added.

**Parameters**

| Name                    | Type     | Direction | Description   |
|-------------------------|----------|-----------|---|
| geom_to_snap            | geometry | inout     | Geometry that has to be snapped. It can be point, linestring or polygon   |
| target_geom             | geometry | inout     | Geometry that will be the target to used for snapping.  |
| snap_distance           | float    |           | The snap distance in map units  |
| change_target_if_needed | bool     |           | It gives if it is allowed to change target during snapping  |
| snapped                 | bool     | out       | An output value showing if the geometry is snapped. If it is a linestring or polygon, even if one point of them is snapped it returns true. |
| target_is_changed       | bool     | out       | It shows if the target changed during the snapping process.   |



# party



## Table: communication\_type

Reference Table / Code list for the different means of communication (from land office to their clients)

**LADM Reference Object**  
FLOSS SOLA Extension

**LADM Definition**  
Not Applicable

## Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - Communication type code                  |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - Display value for the communication type |

|             |              |       |     |   |
|-------------|--------------|-------|-----|---|
| status      | char(1)      | False | 't' | <b>SOLA Extension</b> - Status of the communication type      |
| description | varchar(555) | True  |     | <b>SOLA Extension</b> - Description of the communication type |

### Constraints

| Name                                    | Type        | Explanation                              |
|---|-------------|--|
| communication_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| communication_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                                   | Information   | Description                             |
|--|---|---|
| party_preferred_communication_code_fk1 | <b>From columns:</b><br>preferred_communication_code<br><b>From Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code    | display_value      | status | description |
|----|---------|--------------------|--------|-------------|
| 1  | eMail   | e-Mail:::E-mail    | c      |             |
| 2  | fax     | Fax:::Fax          | c      |             |
| 3  | post    | Post:::Posta       | c      |             |
| 4  | phone   | Phone:::Telefono   | c      |             |
| 5  | courier | Courier:::Corriere | c      |             |

## Table: gender\_type

The gender type list a party can have.

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - code for party role type             |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - displayed value of party role type   |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - Indication of party role type status |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - description of party role type       |

### Constraints

| Name                             | Type        | Explanation                              |
|----------------------------------|-------------|--|
| gender_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| gender_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                   | Information   | Description |
|------------------------|---|-------------|
| party_gender_code_fk13 | <b>From columns:</b> gender_code<br><b>From Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

### Data

| Nr | code   | display_value | status | description |
|----|--------|---------------|--------|-------------|
| 1  | male   | Male          | c      |             |
| 2  | female | Female        | c      |             |

**Table: group\_party**

Refer to LADM Definition

**LADM Reference Object**

LA\_GroupParty

**LADM Definition**

Any number of parties, forming together a distinct entity, with each party identified

**Columns**

| Name      | Type        | Optional | Default | Description                                    |
|-----------|-------------|----------|---------|--|
| id        | varchar(40) | False    |         | LADM Description - Identifier of a group party |
| type_code | varchar(20) | False    |         | LADM Description - The type of a group party   |

**Constraints**

| Name             | Type        | Explanation                            |
|------------------|-------------|--|
| group_party_pkey | PRIMARY KEY | Combination of (id) is the primary key |

**Relationships (from)**

| Name                       | Information   | Description                       |
|----------------------------|---|-----------------------------------|
| group_party_id_fk32        | <b>From columns:</b> id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                | LADM relationship - no refinement |
| group_party_type_code_fk33 | <b>From columns:</b> type_code<br><b>To Entity:</b> legal_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

**Relationships (to)**

| Name                       | Information  | Description                       |
|----------------------------|--|-----------------------------------|
| party_member_group_id_fk35 | <b>From columns:</b> group_id<br><b>From Entity:</b> party_member<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

## Table: id\_type

Reference Table / Code list for the types of the documents that can be used to identify a party.

### LADM Reference Object

FLOSS SOLA Extension

### LADM Definition

Not Applicable

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - identifier for the type of person ID   |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - displayed value of type of personal ID |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - (personal) ID type status              |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - description of personal ID type        |

### Constraints

| Name                         | Type        | Explanation                              |
|------------------------------|-------------|--|
| id_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| id_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                    | Information  | Description                             |
|-------------------------|--|---|
| party_id_type_code_fk12 | <b>From columns:</b> id_type_code<br><b>From Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code             | display_value                            | status | description  |
|----|------------------|--|--------|--|
| 1  | nationalID       | National ID:::Carta Identita Nazionale   | c      | The main person ID that exists in the country:::Il principale documento identificativo nel paese |
| 2  | nationalPassport | National Passport:::Passaporto Nazionale | c      | A passport issued by the country:::Passaporto fornito dal paese                                  |
| 3  | otherPassport    | Other Passport:::Altro Passaporto        | c      | A passport issued by another country:::Passaporto Fornito da un altro paese                      |

## Table: legal\_type

Introduced in Lesotho project. Contains various legal types like marital status or company type or guardianship type.

### Columns

| Name          | Type         | Optional | Default | Description                       |
|---------------|--------------|----------|---------|-----------------------------------|
| code          | varchar(20)  | False    |         | Code/identifier                   |
| display_value | varchar(250) | False    |         | A value assigned for legal type   |
| status        | char(1)      | False    | 't'     | Indication of legal type status   |
| description   | varchar(555) | True     |         | A brief description of legal type |

### Constraints

| Name                            | Type        | Explanation                              |
|---------------------------------|-------------|--|
| legal_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| legal_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                       | Information  | Description                       |
|----------------------------|--|-----------------------------------|
| group_party_type_code_fk33 | <b>From columns:</b> type_code<br><b>From Entity:</b> group_party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code         | display_value  | status | description |
|----|--------------|--|--------|-------------|
| 1  | guardian     | In Trust For<br>xxxx -<br>Widowed                          | c      |             |
| 2  | divorced     | Divorced   | c      |             |
| 3  | marriedInCom | Married in<br>community of<br>property                     | c      |             |
| 4  | marriedOut   | Married out of<br>community of<br>property                 | c      |             |
| 5  | unmarried    | Unmarried  | c      |             |
| 6  | widowed      | Widowed  | c      |             |
| 7  | regSoc1966   | REGISTERED<br>SOCIETY<br>UNDER<br>SOCIETIES<br>ACT OF 1966 | c      |             |
| 8  | separated    | Separated  | c      |             |

|    |            |   |   |  |
|----|------------|---|---|--|
| 9  | regCompany | Registered<br>Under<br>Companies<br>Act | c |  |
| 10 | single     | Single                                  | c |  |

## Table: party

An individual or group of individual people or a non-person organisation that is associated in some way with land office services. Also refer to LADM Definition LADM Reference Object LA\_Party LADM Definition Registered and identified as a constituent of a group party.

### Columns

| Name                         | Type         | Optional | Default | Description  |
|------------------------------|--------------|----------|---------|--|
| id                           | varchar(40)  | False    |         | <b>LADM Definition</b> The identifier of the party   |
| ext_id                       | varchar(255) | True     |         | <b>LADM Definition</b> An identifier for the party from a system external to SOLA                  |
| type_code                    | varchar(20)  | False    |         | <b>LADM Definition</b> The type code for the party   |
| name                         | varchar(255) | True     |         | <b>LADM Definition</b> Name of party   |
| last_name                    | varchar(255) | True     |         | <b>SOLA Extension</b> - Last name of party   |
| fathers_name                 | varchar(50)  | True     |         | <b>SOLA Extension</b> - First name of father of the party.   |
| fathers_last_name            | varchar(50)  | True     |         | <b>SOLA Extension</b> - Last name of father of the party.  |
| legal_type                   | varchar(255) | True     |         | Introduced in Lesotho project. Contains legal type description.                                    |
| alias                        | varchar(50)  | True     |         | <b>SOLA Extension</b> - Alias of the party.  |
| gender_code                  | varchar(20)  | True     |         | The gender of the party. If type of the party is naturalPerson then the gender_code must be given. |
| birth_date                   | date         | True     |         | Date of birth. Introduced in Lesotho project.  |
| address_id                   | varchar(40)  | True     |         | <b>SOLA Extension</b> - An identifier for the contact address of party                             |
| id_type_code                 | varchar(20)  | True     |         | <b>SOLA Extension</b> The type of the identification which is used to identify the party.          |
| id_number                    | varchar(20)  | True     |         | <b>SOLA Extension</b> The number of the id document.   |
| email                        | varchar(50)  | True     |         | <b>SOLA Extension</b> Party's contact email address  |
| mobile                       | varchar(15)  | True     |         | <b>SOLA Extension</b> Contact mobile number of party   |
| phone                        | varchar(15)  | True     |         | <b>SOLA Extension</b> Landline phone number of party   |
| fax                          | varchar(15)  | True     |         | <b>SOLA Extension</b> Fax number of party  |
| preferred_communication_code | varchar(20)  | True     |         | <b>SOLA Extension</b> Code for mode of preferred communication                                     |

### Constraints

| Name                | Type  | Explanation   |
|---------------------|-------|---|
| party_id_is_present | CHECK | Rule ((id_type_code is null and id_number is null) or ((id_type_code is not null and id_number is not null))) must be true If id_type_code is provided then also the id_number must be provided and the other way around. |



|            |             |  |
|------------|-------------|--|
| party_pkey | PRIMARY KEY | Combination of (id) is the primary key |
|------------|-------------|--|

**Relationships (from)**

| Name                                    | Information   | Description                             |
|---|---|---|
| party_type_code_fk9                     | <b>From columns:</b> type_code<br><b>To Entity:</b> party_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                               | LADM relationship - no refinement       |
| party_address_id_fk10                   | <b>From columns:</b> address_id<br><b>To Entity:</b> address<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                              | FLOSS SOLA relationship - no refinement |
| party_preferred_communication_code_fk11 | <b>From columns:</b> preferred_communication_code<br><b>To Entity:</b> communication_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 | FLOSS SOLA relationship - no refinement |
| party_id_type_code_fk12                 | <b>From columns:</b> id_type_code<br><b>To Entity:</b> id_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                            | FLOSS SOLA relationship - no refinement |
| party_gender_code_fk13                  | <b>From columns:</b> gender_code<br><b>To Entity:</b> gender_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                         |   |

**Relationships (to)**

| Name                               | Information  | Description                             |
|------------------------------------|--|---|
| application_agent_id_fk8           | <b>From columns:</b> agent_id<br><b>From Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1       | FLOSS SOLA relationship - no refinement |
| application_contact_person_id_fk14 | <b>From columns:</b> contact_person_id<br><b>From Entity:</b> application<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |
| group_party_id_fk32                | <b>From columns:</b> id<br><b>From Entity:</b> group_party<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 1                   | LADM relationship - no refinement       |
| party_member_party_id_fk34         | <b>From columns:</b> party_id<br><b>From Entity:</b> party_member<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1         | LADM relationship - no refinement       |
| party_role_party_id_fk36           | <b>From columns:</b> party_id<br><b>From Entity:</b> party_role<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1           | FLOSS SOLA relationship - no refinement |

|                                |  |  |
|--------------------------------|--|--|
| ba_unit_as_party_party_id_fk71 | <b>From columns:</b> party_id<br><b>From Entity:</b> ba_unit_as_party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |  |
| party_for_rrr_party_id_fk81    | <b>From columns:</b> party_id<br><b>From Entity:</b> party_for_rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1    |  |

**Table: party\_member**

Refer to LADM Definition

**LADM Reference Object**

LA\_PartyMember

**LADM Definition**

A member belonging to a party.

**Columns**

| Name     | Type             | Optional | Default | Description   |
|----------|------------------|----------|---------|---|
| party_id | varchar(40)      | False    |         | <b>LADM Definition</b> - The identifier of the party  |
| group_id | varchar(40)      | False    |         | <b>LADM Definition</b> - The identifier of the party group  |
| share    | double precision | True     |         | <b>LADM Definition</b> - the share of a right (restriction or responsibility) held by a party member expressed as a fraction with a numerator and denominator |

**Constraints**

| Name              | Type        | Explanation   |
|-------------------|-------------|---|
| party_member_pkey | PRIMARY KEY | Combination of (party_id,group_id) is the primary key |

**Relationships (from)**

| Name                       | Information   | Description                       |
|----------------------------|---|-----------------------------------|
| party_member_party_id_fk34 | <b>From columns:</b> party_id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1       | LADM relationship - no refinement |
| party_member_group_id_fk35 | <b>From columns:</b> group_id<br><b>To Entity:</b> group_party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

**Table: party\_role**

Records the role(s) a party has in land office processes

**LADM Reference Object**

FLOSS SOLA Extension LA\_Party.role

**LADM Definition**

The role of a party in the data update and maintenance process

**Columns**

| Name      | Type        | Optional | Default | Description  |
|-----------|-------------|----------|---------|--|
| party_id  | varchar(40) | False    |         | <b>LADM Definition</b> - The identifier of the party |
| type_code | varchar(20) | False    |         | <b>SOLA Extension</b> - The code for role type       |

**Constraints**

| Name            | Type        | Explanation  |
|-----------------|-------------|--|
| party_role_pkey | PRIMARY KEY | Combination of (party_id,type_code) is the primary key |

**Relationships (from)**

| Name                      | Information  | Description                             |
|---------------------------|--|---|
| party_role_party_id_fk36  | <b>From columns:</b> party_id<br><b>To Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1            | FLOSS SOLA relationship - no refinement |
| party_role_type_code_fk37 | <b>From columns:</b> type_code<br><b>To Entity:</b> party_role_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

## Table: party\_role\_type

Reference Table / Code list of types of party roles

### LADM Reference Object

LA\_

### LADM Definition

The role of the party in the data update and maintenance process;

### Columns

| Name          | Type         | Optional | Default | Description  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | <b>SOLA Extension</b> - code for party role type             |
| display_value | varchar(250) | False    |         | <b>SOLA Extension</b> - displayed value of party role type   |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> - Indication of party role type status |
| description   | varchar(555) | True     |         | <b>SOLA Extension</b> - description of party role type       |

### Constraints

| Name                                 | Type        | Explanation                              |
|--------------------------------------|-------------|--|
| party_role_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| party_role_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                      | Information   | Description                             |
|---------------------------|---|---|
| party_role_type_code_fk37 | <b>From columns:</b> type_code<br><b>From Entity:</b> party_role<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | FLOSS SOLA relationship - no refinement |

### Data

| Nr | code              | display_value                           | status | description |
|----|-------------------|---|--------|-------------|
| 1  | conveyor          | Conveyor::::Trasportatore               | x      |             |
| 2  | notary            | Notary::::Notaio                        | c      |             |
| 3  | writer            | Writer::::Autore                        | x      |             |
| 4  | surveyor          | Surveyor::::Perito                      | x      |             |
| 5  | certifiedSurveyor | Licensed Surveyor::::Perito con Licenza | c      |             |
| 6  | bank              | Bank::::Banca                           | c      |             |
| 7  | moneyProvider     | Money Provider::::Istituto Credito      | c      |             |
| 8  | employee          | Employee::::Impiegato                   | x      |             |

|    |                    |   |   |  |
|----|--------------------|---|---|--|
| 9  | farmer             | Farmer:::Contadino  | x |  |
| 10 | citizen            | Citizen:::Cittadino   | c |  |
| 11 | stateAdministrator | Registrar / Approving<br>Surveyor:::Cancelliere/ Perito<br>Approvatore/ | c |  |
| 12 | landOfficer        | Land Officer:::Ufficiale del<br>Registro Territoriale                   | c | Extension to LADM                          |
| 13 | lodgingAgent       | Lodging Agent:::Richiedente<br>Registrazione                            | c | Extension to LADM                          |
| 14 | powerOfAttorney    | Power of Attorney:::Procuratore   | c | Extension to LADM                          |
| 15 | transferee         | Transferee (to):::Avente Causa  | c | Extension to LADM                          |
| 16 | transferor         | Transferor (from):::Dante<br>Causa                                      | c | Extension to LADM                          |
| 17 | applicant          | Applicant   | c | Extension to LADM                          |
| 18 | accountHolder      | Lease account holder  | c | The person who receives ground rent bills. |

## Table: party\_type

Reference Table / Code list of party types

### LADM Reference Object

LA\_

### LADM Definition

The type of party

### Columns

| Name          | Type         | Optional | Default | Description   |
|---------------|--------------|----------|---------|---|
| code          | varchar(20)  | False    |         | <b>LADM Definition</b> - Code for party type            |
| display_value | varchar(250) | False    |         | <b>LADM Definition</b> - displayed value for party type |
| status        | char(1)      | False    | 't'     | <b>SOLA Extension</b> party type status                 |
| description   | varchar(555) | True     |         | <b>LADM Definition</b> - description of party type      |

### Constraints

| Name                            | Type        | Explanation                              |
|---------------------------------|-------------|--|
| party_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| party_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name                | Information  | Description                       |
|---------------------|--|-----------------------------------|
| party_type_code_fk9 | <b>From columns:</b> type_code<br><b>From Entity:</b> party<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 | LADM relationship - no refinement |

### Data

| Nr | code             | display_value  | status | description |
|----|------------------|--|--------|-------------|
| 1  | naturalPerson    | Natural Person:::Persona Naturale                        | c      |             |
| 2  | nonNaturalPerson | Non-natural Person:::Persona Giuridica                   | c      |             |
| 3  | baunit           | Basic Administrative Unit:::Unita Amministrativa di Base | c      |             |
| 4  | group            | Group:::Gruppo   |        |             |

## Function: **is\_rightholder**






Gets if a party is rightholder.

### ***Parameters***

| Name | Type    | Direction | Description |
|------|---------|-----------|-------------|
| id   | varchar |           | Party id    |



## document

| document.document   |             |              |          |
|---|-------------|--------------|----------|
|  | id          | varchar(40)  |          |
|  | nr          | varchar(15)  | <b>U</b> |
|  | extension   | varchar(5)   |          |
|  | body        | blob         |          |
|  | description | varchar(100) | <b>N</b> |

### Document functions

document\_nr\_seq()

### Table: document

An extension of the source table to contain the image files of scanned documents forming part of the land office archive including the paper documents presented or created through cadastre or registration processes

#### LADM Reference Object

FLOSS SOLA Extension

#### LADM Definition

Not Applicable

### Columns

| Name | Type | Optional | Default | Description |
|------|------|----------|---------|-------------|
|------|------|----------|---------|-------------|

|             |              |       |  |  |
|-------------|--------------|-------|--|--|
| id          | varchar(40)  | False |  | <b>LADM Definition</b> - The identifier of the source document   |
| nr          | varchar(15)  | False |  | <b>SOLA Extension</b> - A unique number to identify the document |
| extension   | varchar(5)   | False |  | <b>SOLA Extension</b> - The extension of the original file.      |
| body        | bytea        | False |  | <b>SOLA Extension</b> - The content of the document              |
| description | varchar(100) | True  |  | <b>SOLA Extension</b> - A name to recognize the document         |

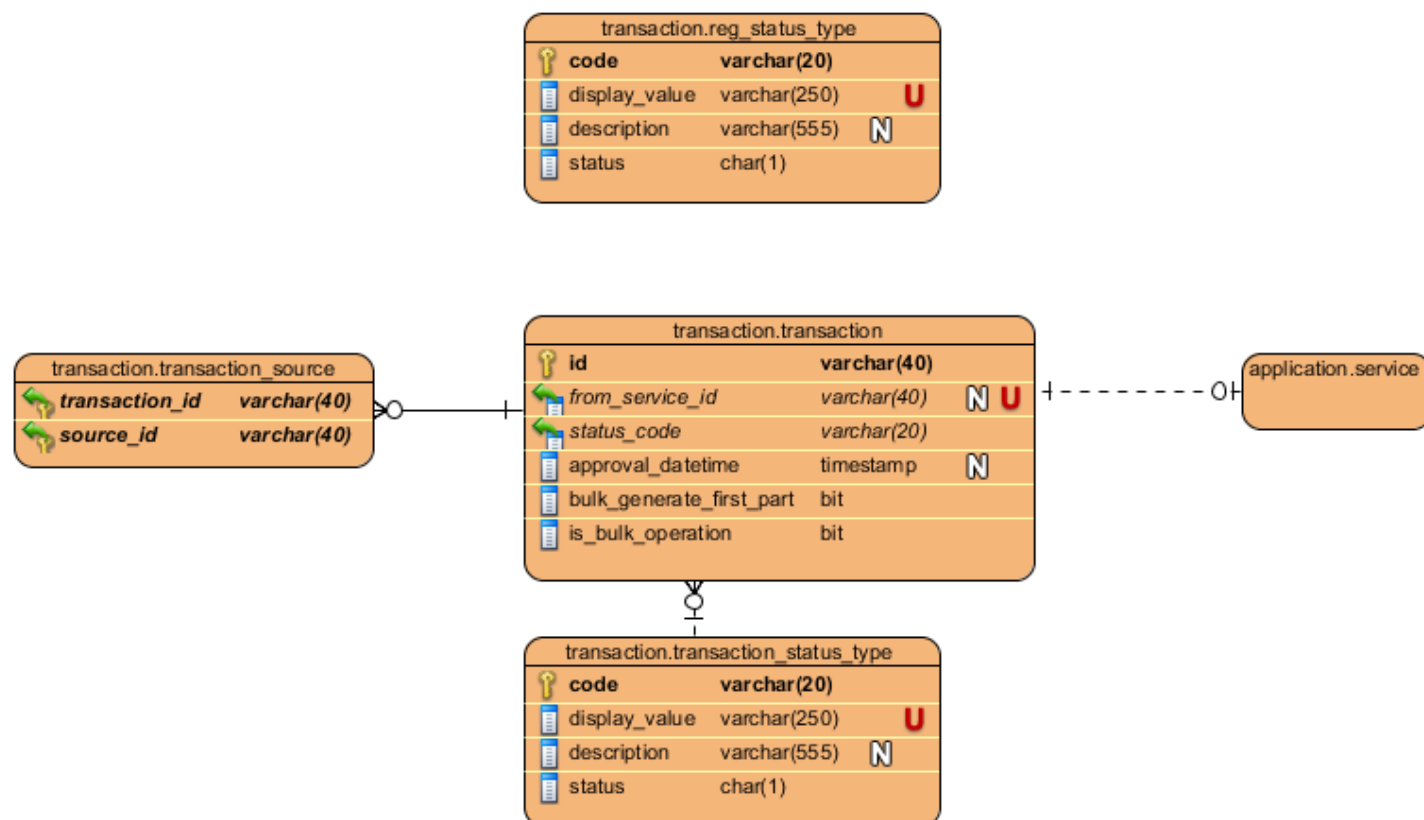
### **Constraints**

| Name               | Type        | Explanation                            |
|--------------------|-------------|--|
| document_nr_unique | UNIQUE      | Combination of (nr) is unique          |
| document_pkey      | PRIMARY KEY | Combination of (id) is the primary key |

## **Sequence: document\_nr\_seq**

Allocates numbers 1 to 9999 for document number.

# transaction



## Table: reg\_status\_type

This table has the list of statuses that a registration about Rights/Restrictions/ Responsibilities/ Cadastral objects / Sources can have.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code of the status that an rrr can have  |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| description   | varchar(555) | True     |         | Description of the status                    |
| status        | char(1)      | False    |         | The status of this code itself.              |

### Constraints

| Name                                 | Type        | Explanation                              |
|--------------------------------------|-------------|--|
| reg_status_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| reg_status_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

### Relationships (to)

| Name | Information | Description |
|------|-------------|-------------|
|------|-------------|-------------|

|                                       |  |  |
|---------------------------------------|--|--|
| source_status_code_fk4                | <b>From columns:</b> status_code<br><b>From Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                 |  |
| ba_unit_status_code_fk39              | <b>From columns:</b> status_code<br><b>From Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                   |  |
| cadastre_object_status_code_fk50      | <b>From columns:</b> status_code<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1           |  |
| rrr_status_code_fk58                  | <b>From columns:</b> status_code<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                       |  |
| notation_status_code_fk73             | <b>From columns:</b> status_code<br><b>From Entity:</b> notation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                  |  |
| br_validation_target_reg_moment_fk133 | <b>From columns:</b><br>target_reg_moment<br><b>From Entity:</b> br_validation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |  |

### Data

| Nr | code     | display_value | description | status |
|----|----------|---------------|-------------|--------|
| 1  | current  | Current       |             | c      |
| 2  | pending  | Pending       |             | c      |
| 3  | historic | Historic      |             | c      |
| 4  | previous | Previous      |             | c      |

## Table: transaction

Changes in the system come by transactions. A transaction is initiated (optionally) by a service. By introducing the concept of transaction it can be traced how the changes in the administrative schema came. Also by approving the transaction we can approve changes or by rejecting a transaction we can remove the pending changes that came with it and restore the previous state of the administrative schema.

### Columns

| Name                     | Type        | Optional | Default   | Description  |
|--------------------------|-------------|----------|-----------|--|
| id                       | varchar(40) | False    |           | Meaningless id.  |
| from_service_id          | varchar(40) | True     |           | The service id if the transaction is initiated by a service.   |
| status_code              | varchar(20) | False    | 'pending' | The status of the transaction.   |
| approval_datetime        | timestamp   | True     |           | The approval datetime of the transaction.  |
| bulk_generate_first_part | bool        | False    | false     | This is used during the bulk operations when transferring cadastre objects.<br>If true, the first part of the name is generated from the process.  |
| is_bulk_operation        | bool        | False    | false     | It is true, if this is a transaction initiated by the bulk operations processes. It is used to distinguish from other kinds of transactions.<br>This property should not be exposed to the client. |

### Constraints

| Name                               | Type        | Explanation                                |
|------------------------------------|-------------|--|
| transaction_from_service_id_unique | UNIQUE      | Combination of (from_service_id) is unique |
| transaction_pkey                   | PRIMARY KEY | Combination of (id) is the primary key     |

### Relationships (from)

| Name                            | Information  | Description |
|---------------------------------|--|-------------|
| transaction_from_service_id_fk6 | <b>From columns:</b> from_service_id<br><b>To Entity:</b> service<br><b>From cardinality:</b> 1<br><b>To Cardinality:</b> 0..1             |             |
| transaction_status_code_fk27    | <b>From columns:</b> status_code<br><b>To Entity:</b> transaction_status_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Relationships (to)

| Name                      | Information   | Description |
|---------------------------|---|-------------|
| source_transaction_id_fk5 | <b>From columns:</b> transaction_id<br><b>From Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

|  |   |  |
|--|---|--|
| ba_unit_transaction_id_fk40                      | <b>From columns:</b> transaction_id<br><b>From Entity:</b> ba_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1                  |  |
| cadastre_object_transaction_id_fk52              | <b>From columns:</b> transaction_id<br><b>From Entity:</b> cadastre_object<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1             |  |
| spatial_unit_transaction_id_fk55                 | <b>From columns:</b> transaction_id<br><b>From Entity:</b> spatial_unit<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1             |  |
| rrr_transaction_id_fk59                          | <b>From columns:</b> transaction_id<br><b>From Entity:</b> rrr<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                         |  |
| notation_transaction_id_fk72                     | <b>From columns:</b> transaction_id<br><b>From Entity:</b> notation<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                    |  |
| ba_unit_target_transaction_id_fk83               | <b>From columns:</b> transaction_id<br><b>From Entity:</b> ba_unit_target<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1              |  |
| cadastre_object_target_transaction_id_fk103      | <b>From columns:</b> transaction_id<br><b>From Entity:</b> cadastre_object_target<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1      |  |
| survey_point_transaction_id_fk104                | <b>From columns:</b> transaction_id<br><b>From Entity:</b> survey_point<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                |  |
| transaction_source_transaction_id_fk105          | <b>From columns:</b> transaction_id<br><b>From Entity:</b> transaction_source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1          |  |
| cadastre_object_node_target_transaction_id_fk107 | <b>From columns:</b> transaction_id<br><b>From Entity:</b> cadastre_object_node_target<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |  |
| spatial_unit_temporary_transaction_id_fk147      | <b>From columns:</b> transaction_id<br><b>From Entity:</b> spatial_unit_temporary<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1      |  |

## Table: transaction\_source

### Columns

| Name           | Type        | Optional | Default | Description |
|----------------|-------------|----------|---------|-------------|
| transaction_id | varchar(40) | False    |         |             |
| source_id      | varchar(40) | False    |         |             |

### Constraints

| Name                    | Type        | Explanation  |
|-------------------------|-------------|--|
| transaction_source_pkey | PRIMARY KEY | Combination of (transaction_id,source_id) is the primary key |

### Relationships (from)

| Name                                    | Information   | Description |
|---|---|-------------|
| transaction_source_transaction_id_fk105 | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |
| transaction_source_source_id_fk106      | <b>From columns:</b> source_id<br><b>To Entity:</b> source<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1           |             |



## Table: transaction\_status\_type

This table has the list of statuses that a transaction can take. Potential values are current, pending, rejected.

### Columns

| Name          | Type         | Optional | Default | Description                                  |
|---------------|--------------|----------|---------|--|
| code          | varchar(20)  | False    |         | The code of the status that an rrr can have  |
| display_value | varchar(250) | False    |         | The value that will be displayed to the user |
| description   | varchar(555) | True     |         | Description of the status                    |
| status        | char(1)      | False    |         | The status of this code itself.              |

### Constraints

| Name   | Type        | Explanation                              |
|--|-------------|--|
| transaction_status_type_display_value_unique | UNIQUE      | Combination of (display_value) is unique |
| transaction_status_type_pkey                 | PRIMARY KEY | Combination of (code) is the primary key |

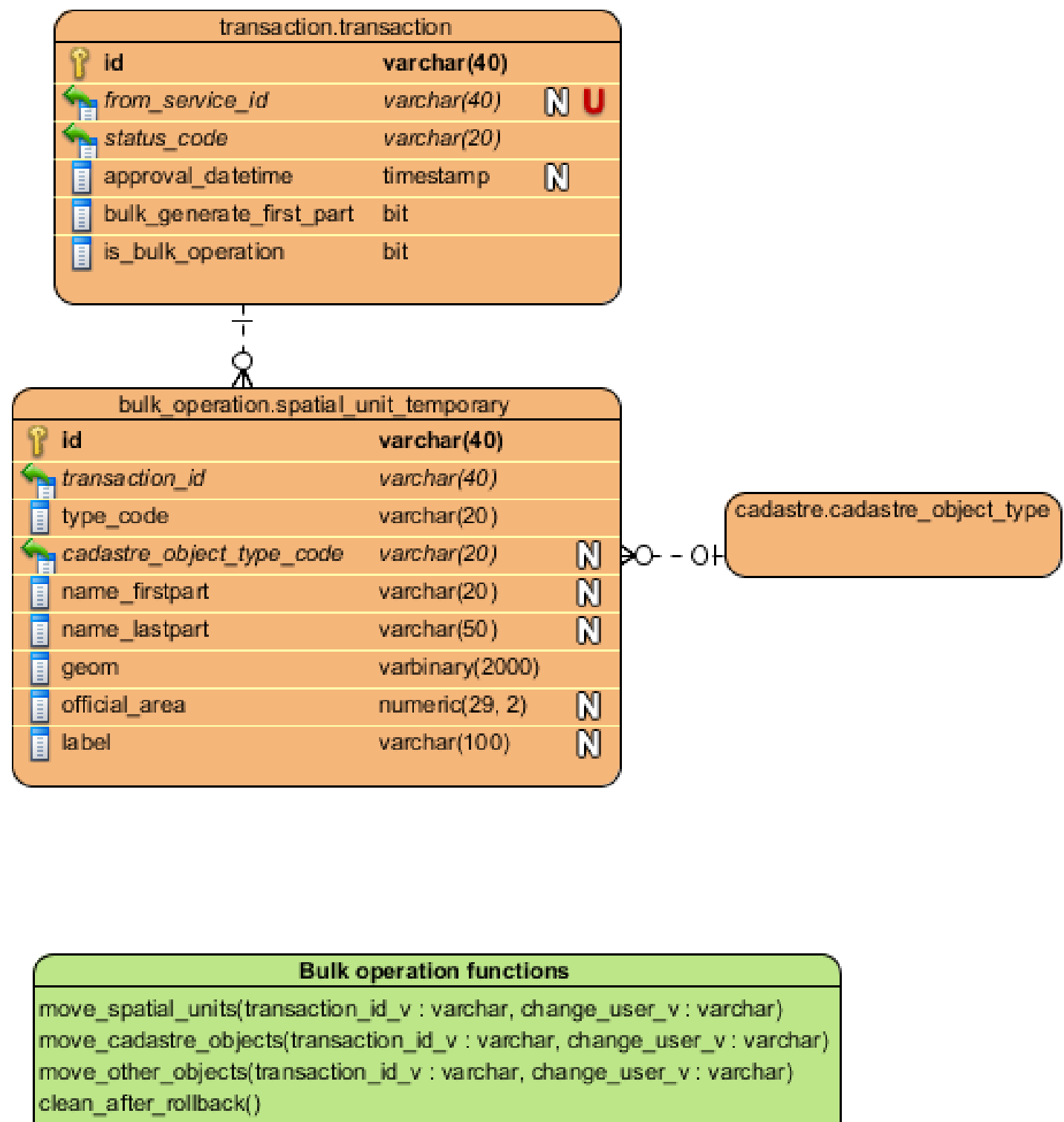
### Relationships (to)

| Name                         | Information  | Description |
|------------------------------|--|-------------|
| transaction_status_code_fk27 | <b>From columns:</b> status_code<br><b>From Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1 |             |

### Data

| Nr | code      | display_value                   | description | status |
|----|-----------|---------------------------------|-------------|--------|
| 1  | approved  | Approved::::Approvata           |             | c      |
| 2  | cancelled | CancelledApproved::::Cancellata |             | c      |
| 3  | pending   | Pending::::In Attesa            |             | c      |
| 4  | completed | Completed::::Completato         |             | c      |

## bulk\_operation



### Table: spatial\_unit\_temporary

This table is used as a temporary place where the cadastre objects coming from the bulk operations will be staying before they are pushed to the cadastre\_object table. From within this table different checks will happen and name parts will be generated if necessary.

### Columns

| Name                      | Type           | Optional | Default | Description   |
|---------------------------|----------------|----------|---------|---|
| id                        | varchar(40)    | False    |         | Unique meaningless identifier   |
| transaction_id            | varchar(40)    | False    |         | The transaction id which bundles cadastre objects loaded in one operation.  |
| type_code                 | varchar(20)    | False    |         | Type of the object that will be uploaded.   |
| cadastre_object_type_code | varchar(20)    | True     |         | Considered if type_code = 'cadastre_object'. The type of the cadastre object.   |
| name_firstpart            | varchar(20)    | True     |         | Considered if type_code = 'cadastre_object'. See cadastre_object.name_firstpart                                       |
| name_lastpart             | varchar(50)    | True     |         | Considered if type_code = 'cadastre_object'. See cadastre_object.name_lastpart  |
| geom                      | GEOMETRY       | False    |         | The geometry of the temporary cadastre object. It can be anything.  |
| official_area             | numeric(29, 2) | True     |         | Considered if type_code = 'cadastre_object'. The official area if defined.  |
| label                     | varchar(100)   | True     |         | Considered if type_code different from 'cadastre_object'. The label that will be used for the generic spatial object. |

### Constraints

| Name                        | Type        | Explanation                            |
|-----------------------------|-------------|--|
| spatial_unit_temporary_pkey | PRIMARY KEY | Combination of (id) is the primary key |

### Relationships (from)

| Name   | Information  | Description |
|--|--|-------------|
| spatial_unit_temporary_transaction_id_fk14             | <b>From columns:</b> transaction_id<br><b>To Entity:</b> transaction<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 1                        |             |
| spatial_unit_temporary_cadastre_object_type_code_fk148 | <b>From columns:</b> cadastre_object_type_code<br><b>To Entity:</b> cadastre_object_type<br><b>From cardinality:</b> 0..*<br><b>To Cardinality:</b> 0..1 |             |

## Function: move\_spatial\_units

This function moves the temporary spatial units to the destination tables. This function is called after the bulk operation transaction is created from the bulk operation application.

### *Parameters*

| Name             | Type    | Direction | Description   |
|------------------|---------|-----------|---|
| transaction_id_v | varchar |           |   |
| change_user_v    | varchar |           | The user that is connected to the system and that is doing the changes. |

## Function: move\_cadastre\_objects

This function will move the cadastre objects from the bulk operation schema to the cadastre schema.

### *Parameters*

| Name             | Type    | Direction | Description   |
|------------------|---------|-----------|---|
| transaction_id_v | varchar |           |   |
| change_user_v    | varchar |           | The user that is connected to the system and that is doing the changes. |

## Function: move\_other\_objects

This function is used to move other kinds of spatial objects except the cadastre objects.  
The function will add a new level if need together with a new structure type if it is not found.

### *Parameters*

| Name             | Type    | Direction | Description   |
|------------------|---------|-----------|---|
| transaction_id_v | varchar |           |   |
| change_user_v    | varchar |           | The user connected to the system doing the transaction. |

## **Function: clean\_after\_rollback**

This function is executed to run clean up tasks after the transaction of bulk operation is rolledback.

## public

### Public functions

```
f_for_trg_track_changes()
f_for_trg_track_history()
fn_triggerall(doenable : bit)
clean_db(schema_name : varchar)
compare_strings(string1 : varchar, string2 : varchar)
get_geometry_with_srid(geom : varbinary)
get_translation(mixed_value : varchar, language_code : varchar)
clean_db_foreign_constraints()
clean_db_triggers()
```

#### Function: f\_for\_trg\_track\_changes

This function is called from triggers in every table that has the columns to track changes.

If the change\_user is null then it is filled with the value from the database user prefixed by 'db:'. It also checks if the record has been already updated from another client application by checking the rowversion.



## **Function: f\_for\_trg\_track\_history**

This function is called after a change is happening in a table to push the former values to the historic keeping table.

## Function: fn\_triggerall

This function can be used to disable all triggers in the database. **How to use** to call to disable all triggers in all schemas in db select fn\_triggerall(false); to call to enable all triggers in all schemas in db select fn\_triggerall(true);

### *Parameters*

| Name     | Type | Direction | Description  |
|----------|------|-----------|--|
| doenable | bool |           | If true all triggers will be enabled.If false triggers will be disabled. |

## Function: `clean_db`

This function will delete any table and function in a schema that does not belong to the standard postgis template.

### *Parameters*

| Name        | Type    | Direction | Description                              |
|-------------|---------|-----------|--|
| schema_name | varchar |           | The name of schema that will be cleaned. |

## Function: `compare_strings`

Special string compare function.

### *Parameters*

| Name    | Type    | Direction | Description |
|---------|---------|-----------|-------------|
| string1 | varchar |           |             |
| string2 | varchar |           |             |

## Function: `get_geometry_with_srid`

This function assigns a srid found in the settings to the geometry passed as parameter.

### *Parameters*

| Name | Type     | Direction | Description |
|------|----------|-----------|-------------|
| geom | geometry |           |             |

## Function: **get\_translation**

This function is used to translate the values that are supposed to be multilingual like the reference data values (display\_value)

### ***Parameters***

| Name          | Type    | Direction | Description |
|---------------|---------|-----------|-------------|
| mixed_value   | varchar |           |             |
| language_code | varchar |           |             |

## **Function: clean\_db\_foreign\_constraints**

This function can be used to drop all foreign key constraints from the database.

## **Function: clean\_db\_triggers**

This function removes all triggers and their related functions in the database. It assumes that the trigger functions are found in the public schema.