



# FLOSS Solutions for Open Land Administration (SOLA)

## **Data Dictionary**

FAO NRC Land Tenure Team  
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# 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.

document

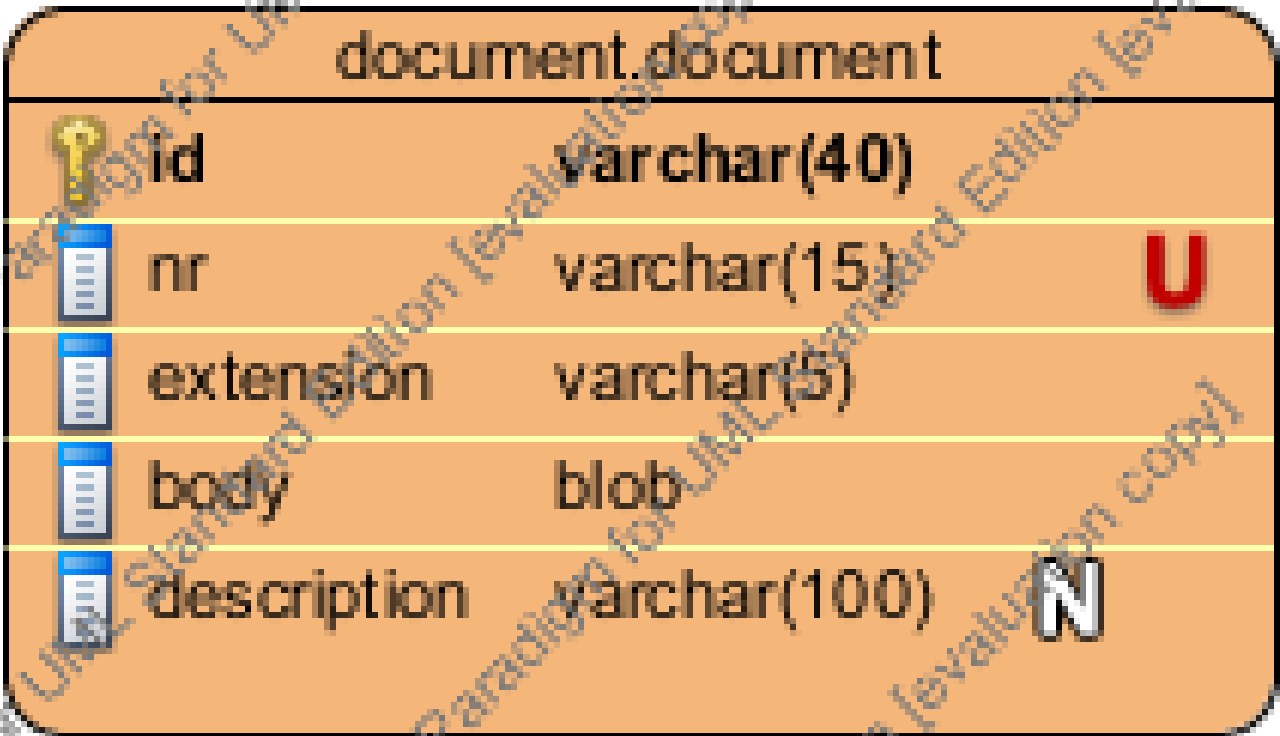


Table: document

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

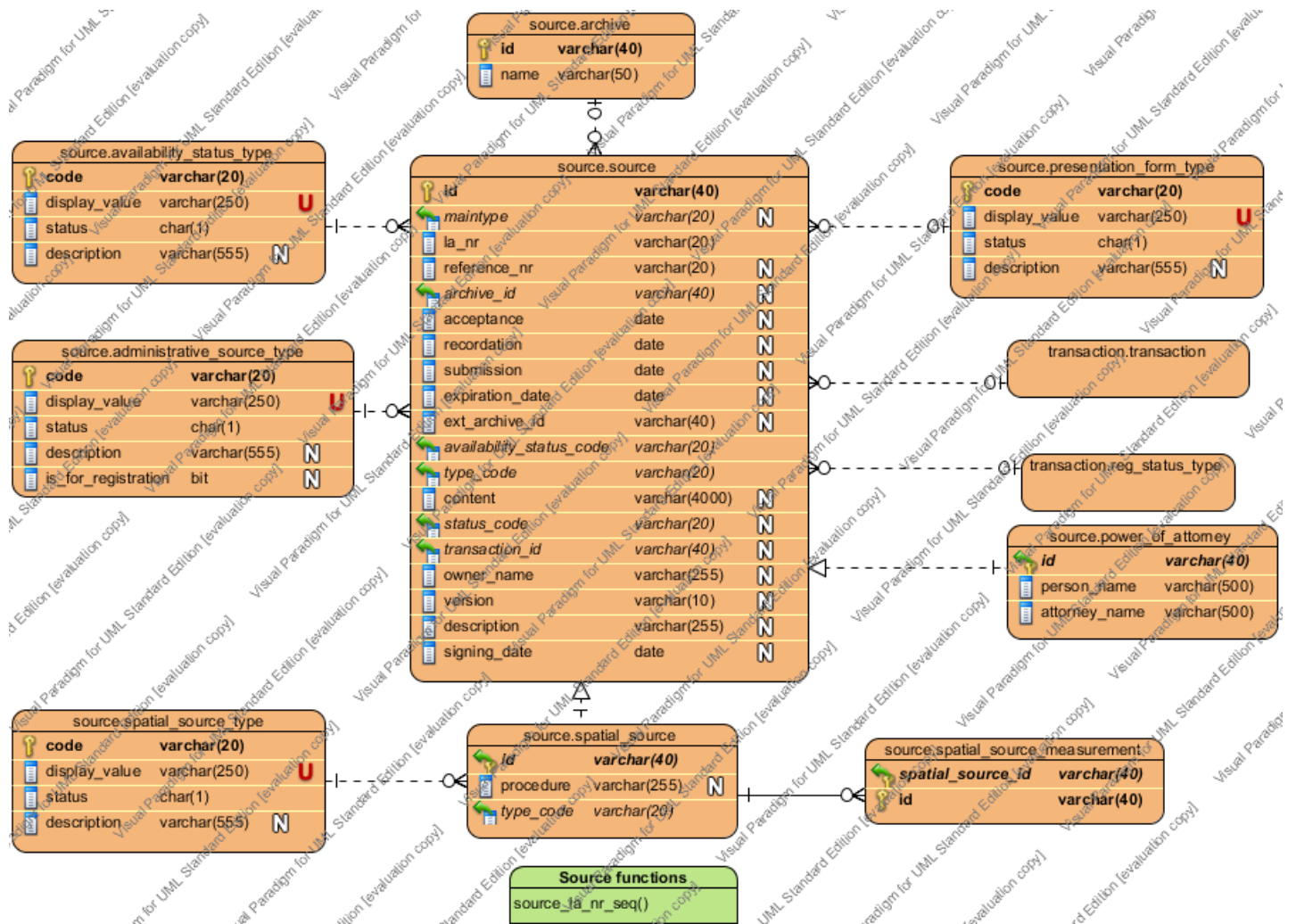
### **Constraints**

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.

## source



### 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 officeLADM Reference Object LA\_SourceLADM DefinitionNot 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 <b>To Entity:</b> archive <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
source_maintype_fk1	<b>From columns:</b> maintype <b>To Entity:</b> presentation_form_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement

source_availability_status_code_fk2	<b>From columns:</b> availability_status_code <b>To Entity:</b> availability_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
source_type_code_fk3	<b>From columns:</b> type_code <b>To Entity:</b> administrative_source_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
source_status_code_fk4	<b>From columns:</b> status_code <b>To Entity:</b> reg_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
source_transaction_id_fk5	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

### Relationships (to)

Name	Information	Description
spatial_source_id_fk28	<b>From columns:</b> id <b>From Entity:</b> spatial_source <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	LADM relationship - no refinement
source_describes_rrr_source_id_fk40	<b>From columns:</b> source_id <b>From Entity:</b> source_describes_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
source_describes_ba_unit_source_id_fk42	<b>From columns:</b> source_id <b>From Entity:</b> source_describes_ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
power_of_attorney_id_fk74	<b>From columns:</b> id <b>From Entity:</b> power_of_attorney <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	
transaction_source_source_id_fk97	<b>From columns:</b> source_id <b>From Entity:</b> transaction_source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
application_uses_source_source_id_fk102	<b>From columns:</b> source_id <b>From Entity:</b> application_uses_source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement

### Triggers

Name	Event
change_of_status	before update

## 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 <b>From Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement

## 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 <b>From Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement

### Data

Nr	code	display_value	status	description
1	documentDigital	Digital Document:::Documento Digitale	c	
2	documentHardcopy	Hardcopy Document:::Documento in Hardcopy	c	
3	imageDigital	Digital Image:::Immagine Digitale	c	
4	imageHardcopy	Hardcopy Image:::Immagine in 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: 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> availability_status_code <b>From Entity:</b> source <b>From cardinality:</b> 0..* <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: 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 <b>From Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
request_type_requires_source_type_source_type_code_fk3	<b>From columns:</b> request_type_code <b>From Entity:</b> request_type_requires_source_type <b>From cardinality:</b> 0..* <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: 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 <b>To Entity:</b> source <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_source_type_code_fk29	<b>From columns:</b> type_code <b>To Entity:</b> spatial_source_type <b>From cardinality:</b> 0..* <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 <b>From Entity:</b> spatial_source_measurement <b>From cardinality:</b> 0..* <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 <b>From Entity:</b> spatial_source <b>From cardinality:</b> 0..* <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 Catastale	c	Extension to LADM
8	surveyData	Survey Data (Coordinates)::::Rilevamento Data	c	Extension to LADM

## 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 <b>To Entity:</b> spatial_source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement



**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

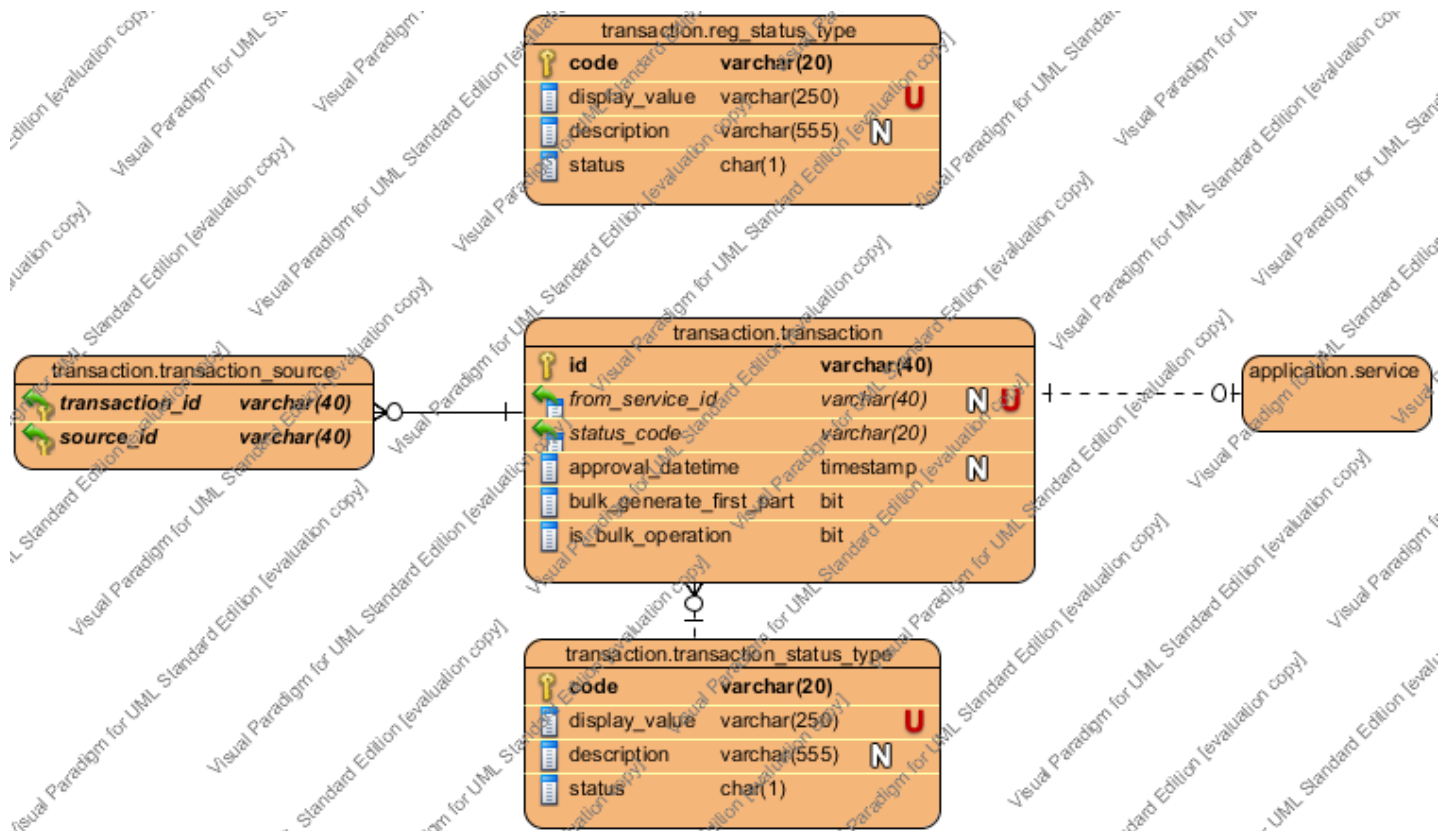
**Relationships (from)**

Name	Information	Description
power_of_attorney_id_fk74	<b>From columns:</b> id <b>To Entity:</b> source <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	

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

Allocates numbers 1 to 999999999 for source la 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 <b>From Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
cadastre_object_status_code_fk54	<b>From columns:</b> status_code <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
notation_status_code_fk63	<b>From columns:</b> status_code <b>From Entity:</b> notation <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_status_code_fk76	<b>From columns:</b> status_code <b>From Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
rrr_status_code_fk80	<b>From columns:</b> status_code <b>From Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
br_validation_target_reg_moment_fk117	<b>From columns:</b> target_reg_moment <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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. 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. 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 <b>To Entity:</b> service <b>From cardinality:</b> 1 <b>To Cardinality:</b> 0..1	
transaction_status_code_fk27	<b>From columns:</b> status_code <b>To Entity:</b> transaction_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Relationships (to)

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

cadastre_object_transaction_id_fk56	<b>From columns:</b> transaction_id <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
notation_transaction_id_fk62	<b>From columns:</b> transaction_id <b>From Entity:</b> notation <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_target_transaction_id_fk73	<b>From columns:</b> transaction_id <b>From Entity:</b> ba_unit_target <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_transaction_id_fk77	<b>From columns:</b> transaction_id <b>From Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
rrr_transaction_id_fk81	<b>From columns:</b> transaction_id <b>From Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_target_transaction_id_fk94	<b>From columns:</b> transaction_id <b>From Entity:</b> cadastre_object_target <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
survey_point_transaction_id_fk95	<b>From columns:</b> transaction_id <b>From Entity:</b> survey_point <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
transaction_source_transaction_id_fk96	<b>From columns:</b> transaction_id <b>From Entity:</b> transaction_source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_node_target_transaction_id_fk98	<b>From columns:</b> transaction_id <b>From Entity:</b> cadastre_object_node_target <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
spatial_unit_temporary_transaction_id_fk125	<b>From columns:</b> transaction_id <b>From Entity:</b> spatial_unit_temporary <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
spatial_unit_transaction_id_fk127	<b>From columns:</b> transaction_id <b>From Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
consent_transaction_id_fk146	<b>From columns:</b> transaction_id <b>From Entity:</b> consent <b>From cardinality:</b> 1 <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 <b>From Entity:</b> transaction <b>From cardinality:</b> 0..* <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

## 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_fk96	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
transaction_source_source_id_fk97	<b>From columns:</b> source_id <b>To Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	





## Columns

- 33 -

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: request_type.area_base_fee * 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: request_type.value_base_fee * 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 <b>To Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement

service_request_type_code_fk19	<b>From columns:</b> request_type_code <b>To Entity:</b> request_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
service_status_code_fk24	<b>From columns:</b> status_code <b>To Entity:</b> service_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
service_action_code_fk25	<b>From columns:</b> action_code <b>To Entity:</b> service_action_type <b>From cardinality:</b> 0..* <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 <b>From Entity:</b> transaction <b>From cardinality:</b> 1 <b>To Cardinality:</b> 0..1	

## 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.
receipt_date	date	True		
collection_date	date	True		
stage_code	varchar(20)	False		The stage of the application

### 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 <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
application_contact_person_id_fk14	<b>From columns:</b> contact_person_id <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_assignee_id_fk15	<b>From columns:</b> assignee_id <b>To Entity:</b> appuser <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
application_action_code_fk16	<b>From columns:</b> action_code <b>To Entity:</b> application_action_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_status_code_fk18	<b>From columns:</b> status_code <b>To Entity:</b> application_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_stage_code_fk149	<b>From columns:</b> stage_code <b>To Entity:</b> application_stage_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Relationships (to)

Name	Information	Description
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service_application_id_fk7	<b>From columns:</b> application_id <b>From Entity:</b> service <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
application_property_application_id_fk99	<b>From columns:</b> application_id <b>From Entity:</b> application_property <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_uses_source_application_id_fk100	<b>From columns:</b> application_id <b>From Entity:</b> application_uses_source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_spatial_unit_application_id_fk101	<b>From columns:</b> application_id <b>From Entity:</b> application_spatial_unit <b>From cardinality:</b> 0..* <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 <b>To Entity:</b> application_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

### Relationships (to)

Name	Information	Description
application_action_code_fk16	<b>From columns:</b> action_code <b>From Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
br_validation_target_application_moment_fk15	<b>From columns:</b> target_application_moment <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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\_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 <b>From Entity:</b> application_action_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
application_status_code_fk18	<b>From columns:</b> status_code <b>From Entity:</b> application <b>From cardinality:</b> 0..* <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	
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## 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> request_category_code <b>To Entity:</b> request_category_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
request_type_rrr_type_code_fk21	<b>From columns:</b> rrr_type_code <b>To Entity:</b> rrr_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
request_type_type_action_code_fk23	<b>From columns:</b> type_action_code <b>To Entity:</b> type_action <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

### Relationships (to)

Name	Information	Description
service_request_type_code_fk19	<b>From columns:</b> request_type_code <b>From Entity:</b> service <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
request_type_requires_source_type_request_type_code_fk104	<b>From columns:</b> request_type_code <b>From Entity:</b> request_type_requires_source_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
br_validation_target_request_type_code_fk110	<b>From columns:</b> target_request_type_code <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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 faovour 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\_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> request_category_code <b>From Entity:</b> request_type <b>From cardinality:</b> 0..* <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: 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 <b>From Entity:</b> request_type <b>From cardinality:</b> 0..* <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

## 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 <b>From Entity:</b> service <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
service_action_type_status_to_set_fk26	<b>From columns:</b> status_to_set <b>From Entity:</b> service_action_type <b>From cardinality:</b> 0..* <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: 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 <b>To Entity:</b> service_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

### Relationships (to)

Name	Information	Description
service_action_code_fk25	<b>From columns:</b> action_code <b>From Entity:</b> service <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
br_validation_target_service_moment_fk11	<b>From columns:</b> target_service_moment <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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: 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_fk99	<b>From columns:</b> application_id <b>To Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_property_ba_unit_id_fk100	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	SOLA Extension relationship - no refinement

## 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_fk102	<b>From columns:</b> application_id <b>To Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
application_uses_source_source_id_fk102	<b>From columns:</b> source_id <b>To Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement

## 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 <b>To Entity:</b> administrative_source_type <b>From cardinality:</b> 0..* <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 <b>To Entity:</b> request_type <b>From cardinality:</b> 0..* <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: 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_spatial_unit_id_fk1	<b>From columns:</b> spatial_unit_id <b>To Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
application_spatial_unit_application_id_fk1	<b>From columns:</b> application_id <b>To Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## Table: application2

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 bound 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(255)	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
application2_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
application2_pkey	PRIMARY KEY	Combination of (id) is the primary key

**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\_stage\_type

### Columns

Name	Type	Optional	Default	Description
code	varchar(20)	False		Reference Table / Code list of stage types that are performed in relation to an (land office) application for services LADM Reference Object FLOSS <b>SOLA Extension LADM Definition</b> Not Applicable
display_value	varchar(255)	False		
status	char(1)	False		
description	varchar(555)	True		

### Constraints

Name	Type	Explanation
application_stage_type_display_value_unique	UNIQUE	Combination of (display_value) is unique
application_stage_type_pkey	PRIMARY KEY	Combination of (code) is the primary key

### Relationships (to)

Name	Information	Description
application_stage_code_fk149	<b>From columns:</b> stage_code <b>From Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Data

Nr	code	display_value	status	description
1	newApp	New applicatoin lodged	c	Application awaiting approval for processing
2	appApprove	Application awaiting approval	c	All services in the application have been completed and the application can now be approved
3	appProcess	Application to be processed	c	The application has been lodged and is ready to be processed
4	appInfoWrong	Application sent back to correct input information	c	Processed application has incomplete or incorrect information and cannot be approved
5	missingPlot	Application sent back because of missing plot	c	Application cannot be processed because of missing plot. Awaiting response from Survey and Mapping department

6	areaMismatch	Application sent back to correct plot area mismatch	c	Application cannot be processed because the cadastral area in the system is different from the area on the S10 Form
7	custCollect	Customer Services to enter collection details	c	Customer Services enters details of the person who collects the completed, approved application
8	callCustomer	Customer Services to call customer for signature	c	The customer is called to sign the draft
9	custSign	Customer to sign draft	c	Lease draft awaits customer's signature
10	executiveSign	Executive Office to sign lease draft	c	The lease draft shall be signed by the Director General
11	bindDraft	Leasing Services to bind lease draft	c	The lease draft shall now be bound and made ready for registration
12	checkDraft	Director of Lease Services to check draft	c	The signed lease draft is ready to be checked and the application approved
13	logDraft	Leasing Services to Log ready drafts	c	The application is ready to be logged as completed and approved for registration

**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

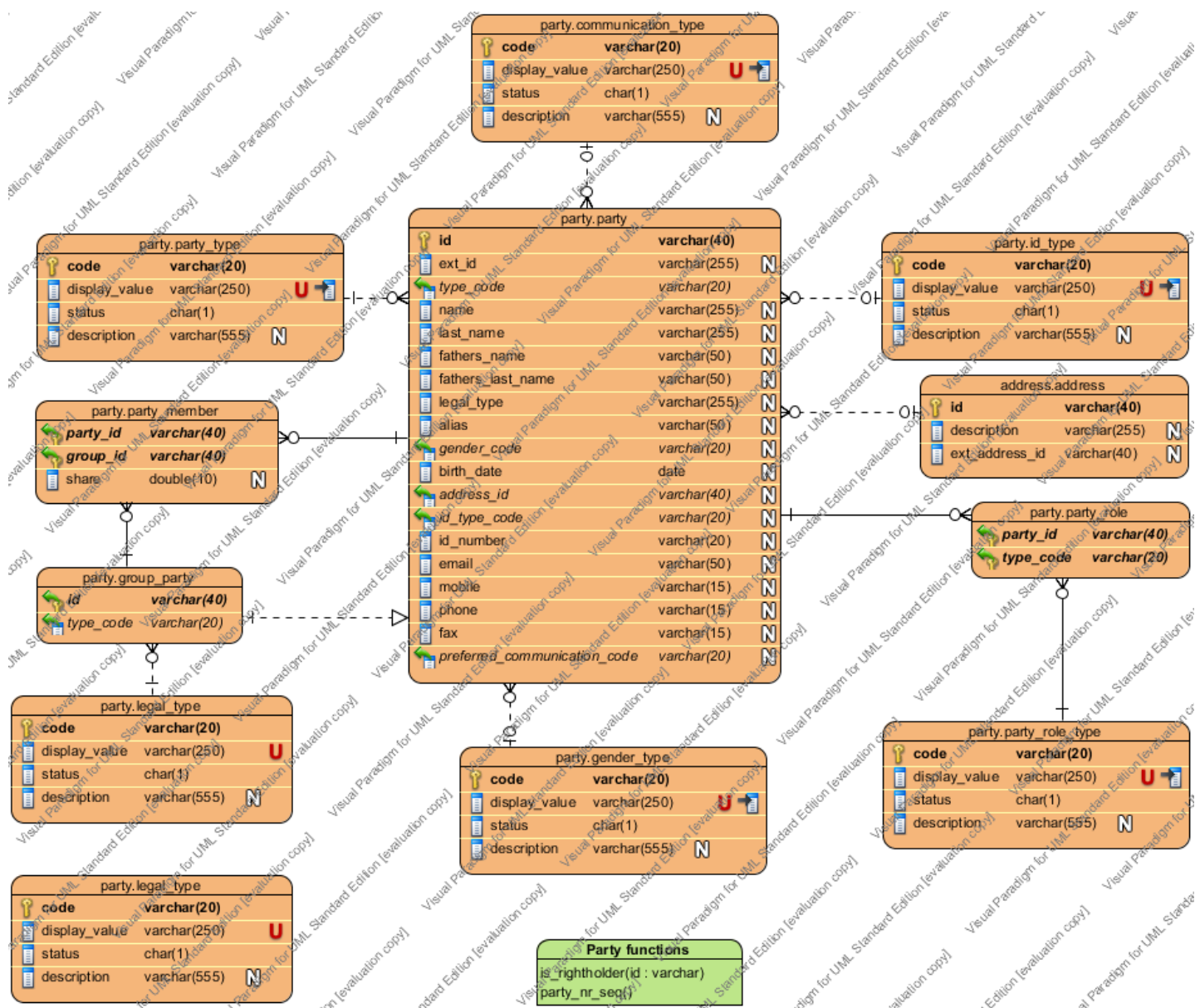
**Function: get\_concatenated\_name**

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		

# party



## 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 <b>To Entity:</b> party_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
party_address_id_fk10	<b>From columns:</b> address_id <b>To Entity:</b> address <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement

party_preferred_communication_code_fk1	<b>From columns:</b> preferred_communication_code <b>To Entity:</b> communication_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
party_id_type_code_fk12	<b>From columns:</b> id_type_code <b>To Entity:</b> id_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
party_gender_code_fk13	<b>From columns:</b> gender_code <b>To Entity:</b> gender_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

**Relationships (to)**

Name	Information	Description
application_agent_id_fk8	<b>From columns:</b> agent_id <b>From Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
application_contact_person_id_fk14	<b>From columns:</b> contact_person_id <b>From Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
group_party_id_fk31	<b>From columns:</b> id <b>From Entity:</b> group_party <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	LADM relationship - no refinement
party_member_party_id_fk33	<b>From columns:</b> party_id <b>From Entity:</b> party_member <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
party_role_party_id_fk35	<b>From columns:</b> party_id <b>From Entity:</b> party_role <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
ba_unit_as_party_party_id_fk61	<b>From columns:</b> party_id <b>From Entity:</b> ba_unit_as_party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
party_for_rrr_party_id_fk71	<b>From columns:</b> party_id <b>From Entity:</b> party_for_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
consent_party_party_id_fk147	<b>From columns:</b> party_id <b>From Entity:</b> consent_party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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 <b>From Entity:</b> party <b>From cardinality:</b> 0..* <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		

## 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> preferred_communication_code <b>From Entity:</b> party <b>From cardinality:</b> 0..* <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: 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 <b>From Entity:</b> party <b>From cardinality:</b> 0..* <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: 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 <b>From Entity:</b> party <b>From cardinality:</b> 0..* <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_fk31	<b>From columns:</b> id <b>To Entity:</b> party <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	LADM relationship - no refinement
group_party_type_code_fk32	<b>From columns:</b> type_code <b>To Entity:</b> legal_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement

**Relationships (to)**

Name	Information	Description
party_member_group_id_fk34	<b>From columns:</b> group_id <b>From Entity:</b> party_member <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement

## 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_fk32	<b>From columns:</b> type_code <b>From Entity:</b> group_party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement

### Data

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

9	regCompany	Registered Under Companies Act	c	
10	single	Single	c	

**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_fk33	<b>From columns:</b> party_id <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
party_member_group_id_fk34	<b>From columns:</b> group_id <b>To Entity:</b> group_party <b>From cardinality:</b> 0..* <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_fk35	<b>From columns:</b> party_id <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
party_role_type_code_fk36	<b>From columns:</b> type_code <b>To Entity:</b> party_role_type <b>From cardinality:</b> 0..* <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_fk36	<b>From columns:</b> type_code <b>From Entity:</b> party_role <b>From cardinality:</b> 0..* <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 Surveyor:::Cancelliere/ Perito Approvatore/	c	
12	landOfficer	Land Officer:::Ufficiale del Registro Territoriale	c	Extension to LADM
13	lodgingAgent	Lodging Agent:::Richiedente 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 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.

**Function: is\_rightholder**

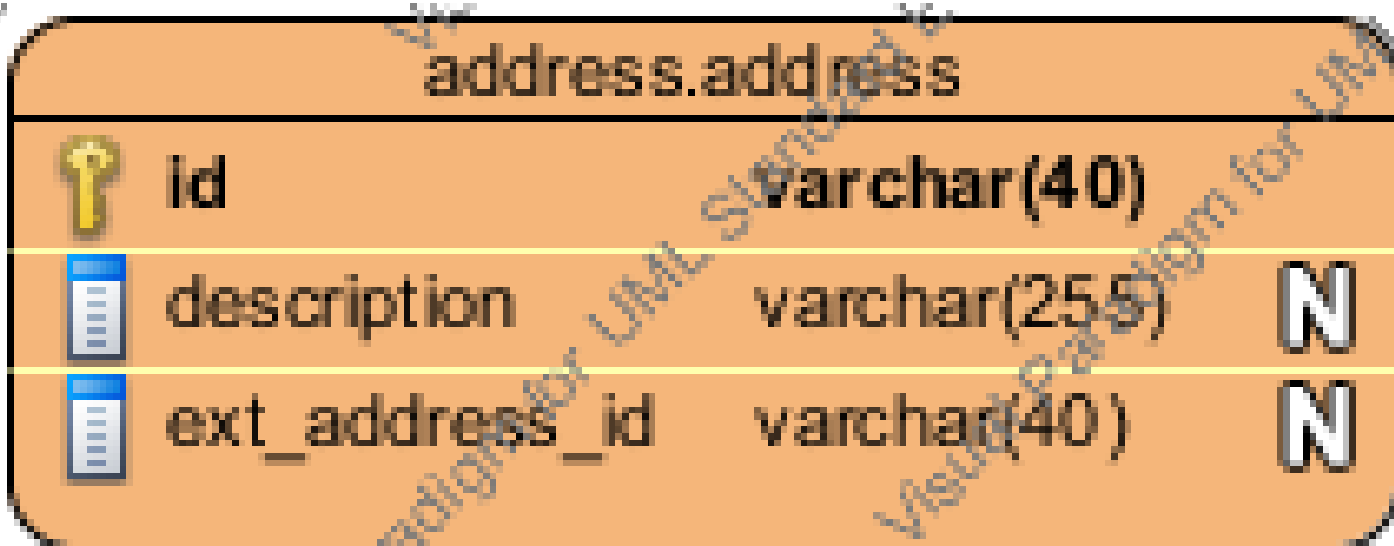
Gets if a party is rightholder.

***Parameters***

Name	Type	Direction	Description
id	varchar		Party id

**Sequence: party\_nr\_seq**

## address



### 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

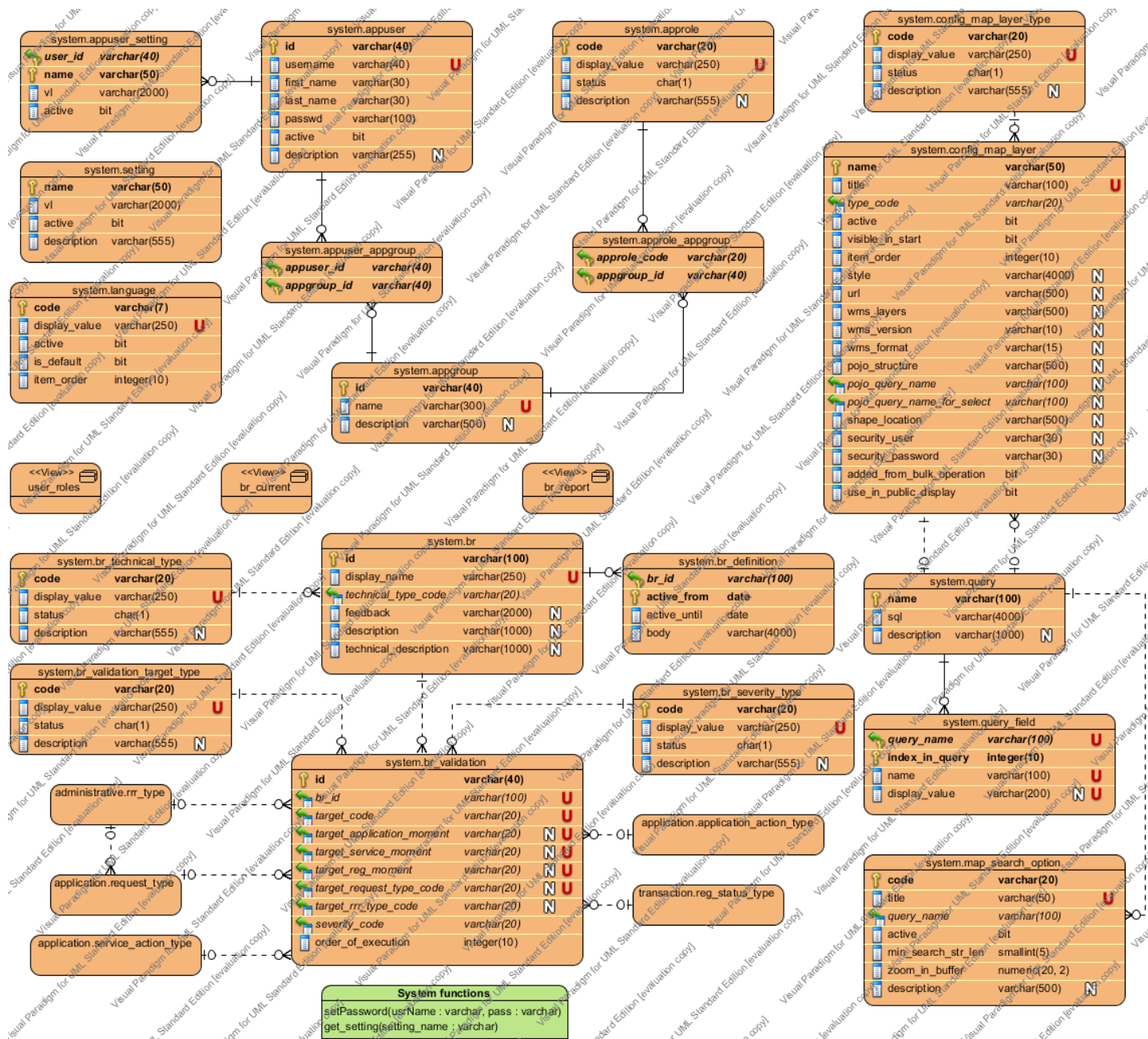
Name	Type	Explanation
address_pkey	PRIMARY KEY	Combination of (id) is the primary key

### Relationships (to)

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

spatial_unit_address_address_id_fk86	<b>From columns:</b> address_id <b>From Entity:</b> spatial_unit_address <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
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# system



## 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	<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 <b>From Entity:</b> application <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	FLOSS SOLA relationship - no refinement
appuser_setting_user_id_fk105	<b>From columns:</b> user_id <b>From Entity:</b> appuser_setting <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
appuser_appgroup_appuser_id_fk121	<b>From columns:</b> appuser_id <b>From Entity:</b> appuser_appgroup <b>From cardinality:</b> 0..* <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: 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.



## 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_fk105	<b>From columns:</b> user_id <b>To Entity:</b> appuser <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement

## 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: 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.
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### 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_fk106	<b>From columns:</b> type_code <b>To Entity:</b> config_map_layer_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
config_map_layer_pojo_query_name_fk107	<b>From columns:</b> pojo_query_name <b>To Entity:</b> query <b>From cardinality:</b> 1 <b>To Cardinality:</b> 0..1	
config_map_layer_pojo_query_name_for_select_fk108	<b>From columns:</b> pojo_query_name_for_select <b>To Entity:</b> query <b>From cardinality:</b> 0..* <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_fk106	<b>From columns:</b> type_code <b>From Entity:</b> config_map_layer <b>From cardinality:</b> 0..* <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: 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_fk10	<b>From columns:</b> pojo_query_name <b>From Entity:</b> config_map_layer <b>From cardinality:</b> 1 <b>To Cardinality:</b> 0..1	
config_map_layer_pojo_query_name_for_select_fk108	<b>From columns:</b> pojo_query_name_for_select <b>From Entity:</b> config_map_layer <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
query_field_query_name_fk123	<b>From columns:</b> query_name <b>From Entity:</b> query_field <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
map_search_option_query_name_fk124	<b>From columns:</b> query_name <b>From Entity:</b> map_search_option <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Data

Nr
1
2
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	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: 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_fk109	<b>From columns:</b> technical_type_code <b>To Entity:</b> br_technical_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Relationships (to)

Name	Information	Description
br_validation_br_id_fk110	<b>From columns:</b> br_id <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
br_definition_br_id_fk118	<b>From columns:</b> br_id <b>From Entity:</b> br_definition <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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_fk109	<b>From columns:</b> technical_type_code <b>From Entity:</b> br <b>From cardinality:</b> 0..* <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_fk110	<b>From columns:</b> br_id <b>To Entity:</b> br <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
br_validation_severity_code_fk111	<b>From columns:</b> severity_code <b>To Entity:</b> br_severity_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
br_validation_target_code_fk112	<b>From columns:</b> target_code <b>To Entity:</b> br_validation_target_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
br_validation_target_request_type_code_fk113	<b>From columns:</b> target_request_type_code <b>To Entity:</b> request_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
br_validation_target_rrr_type_code_fk114	<b>From columns:</b> target_rrr_type_code <b>To Entity:</b> rrr_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
br_validation_target_application_moment_fk115	<b>From columns:</b> target_application_moment <b>To Entity:</b> application_action_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
br_validation_target_service_moment_fk116	<b>From columns:</b> target_service_moment <b>To Entity:</b> service_action_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
br_validation_target_reg_moment_fk117	<b>From columns:</b> target_reg_moment <b>To Entity:</b> reg_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..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_fk111	<b>From columns:</b> severity_code <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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\_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_fk112	<b>From columns:</b> target_code <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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: 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_fk118	<b>From columns:</b> br_id <b>To Entity:</b> br <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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_fk119	<b>From columns:</b> approle_code <b>From Entity:</b> approle_appgroup <b>From cardinality:</b> 0..* <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_fk119	<b>From columns:</b> approle_code <b>To Entity:</b> approle <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
approle_appgroup_appgroup_id_fk120	<b>From columns:</b> appgroup_id <b>To Entity:</b> appgroup <b>From cardinality:</b> 0..* <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: 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_fk120	<b>From columns:</b> appgroup_id <b>From Entity:</b> approle_appgroup <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
appuser_appgroup_appgroup_id_fk122	<b>From columns:</b> appgroup_id <b>From Entity:</b> appuser_appgroup <b>From cardinality:</b> 0..* <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: 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_fk121	<b>From columns:</b> appuser_id <b>To Entity:</b> appuser <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
appuser_appgroup_appgroup_id_fk122	<b>From columns:</b> appgroup_id <b>To Entity:</b> appgroup <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Data

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

## 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_fk123	<b>From columns:</b> query_name <b>To Entity:</b> query <b>From cardinality:</b> 0..* <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	
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## 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. 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: - id: Unique id of returned match - label: What will be displayed to the user - 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_fk124	<b>From columns:</b> query_name <b>To Entity:</b> query <b>From cardinality:</b> 0..* <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	

## **View: user\_roles**

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

## **View: br\_current**

It retrieves the active business rules.

## **View: br\_report**

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

## 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.

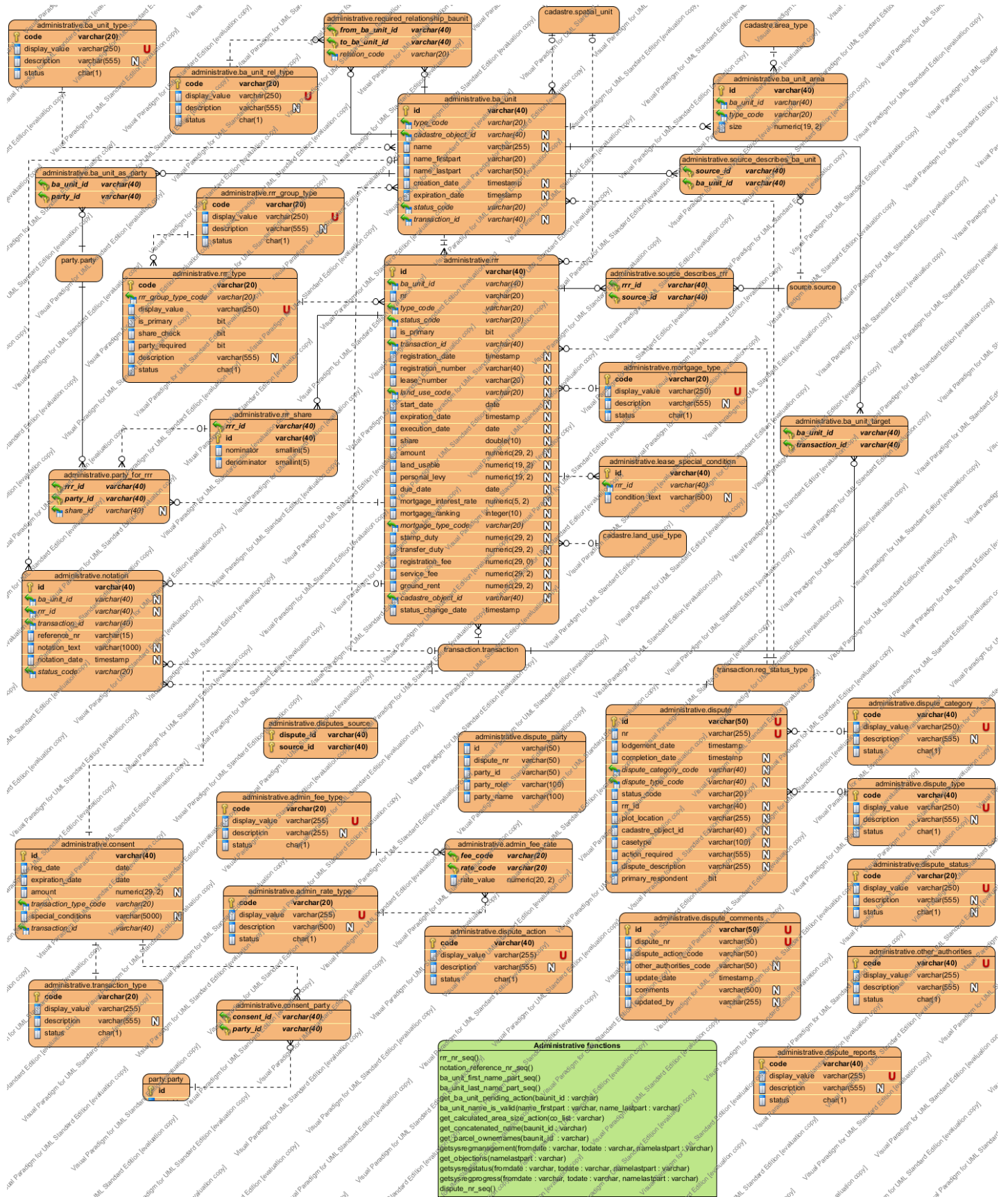
**Function: get\_setting**

Gets the value of a setting.

***Parameters***

Name	Type	Direction	Description
setting_name	varchar		Setting name.

# administrative



**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> rrr_group_type_code <b>To Entity:</b> rrr_group_type <b>From cardinality:</b> 0..* <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 <b>From Entity:</b> request_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

rrr_type_code_fk78	<b>From columns:</b> type_code <b>From Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
br_validation_target_rrr_type_code_fk114	<b>From columns:</b> target_rrr_type_code <b>From Entity:</b> br_validation <b>From cardinality:</b> 0..* <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: 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> rrr_group_type_code <b>From Entity:</b> rrr_type <b>From cardinality:</b> 0..* <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: 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_fk75	<b>From columns:</b> type_code <b>To Entity:</b> ba_unit_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement

ba_unit_status_code_fk76	<b>From columns:</b> status_code <b>To Entity:</b> reg_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_transaction_id_fk77	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
ba_unit_cadastre_object_id_fk130	<b>From columns:</b> cadastre_object_id <b>To Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

**Relationships (to)**

Name	Information	Description
source_describes_ba_unit_ba_unit_id_fk4	<b>From columns:</b> ba_unit_id <b>From Entity:</b> source_describes_ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
required_relationship_baunit_from_ba_unit_id_fk43	<b>From columns:</b> from_ba_unit_id <b>From Entity:</b> required_relationship_baunit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
required_relationship_baunit_to_ba_unit_id_fk44	<b>From columns:</b> to_ba_unit_id <b>From Entity:</b> required_relationship_baunit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
ba_unit_contains_spatial_unit_ba_unit_id_fk57	<b>From columns:</b> ba_unit_id <b>From Entity:</b> ba_unit_contains_spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
ba_unit_as_party_ba_unit_id_fk60	<b>From columns:</b> ba_unit_id <b>From Entity:</b> ba_unit_as_party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
notation_ba_unit_id_fk64	<b>From columns:</b> ba_unit_id <b>From Entity:</b> notation <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
ba_unit_area_ba_unit_id_fk66	<b>From columns:</b> ba_unit_id <b>From Entity:</b> ba_unit_area <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_target_ba_unit_id_fk72	<b>From columns:</b> ba_unit_id <b>From Entity:</b> ba_unit_target <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

rrr_ba_unit_id_fk79	<b>From columns:</b> ba_unit_id <b>From Entity:</b> rrr <b>From cardinality:</b> 1..* <b>To Cardinality:</b> 1	LADM Definition - no refinement
application_property_ba_unit_id_fk100	<b>From columns:</b> ba_unit_id <b>From Entity:</b> application_property <b>From cardinality:</b> 0..* <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\_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_fk75	<b>From columns:</b> type_code <b>From Entity:</b> ba_unit <b>From cardinality:</b> 0..* <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: 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_fk78	<b>From columns:</b> type_code <b>To Entity:</b> rrr_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
rrr_ba_unit_id_fk79	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 1..* <b>To Cardinality:</b> 1	LADM Definition - no refinement
rrr_status_code_fk80	<b>From columns:</b> status_code <b>To Entity:</b> reg_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
rrr_transaction_id_fk81	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

rrr_mortgage_type_code_fk82	<b>From columns:</b> mortgage_type_code <b>To Entity:</b> mortgage_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
rrr_cadastre_object_id_fk141	<b>From columns:</b> cadastre_object_id <b>To Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
rrr_land_use_code_fk143	<b>From columns:</b> land_use_code <b>To Entity:</b> land_use_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

### Relationships (to)

Name	Information	Description
mortgage_isbased_in_rrr_rrr_id_fk37	<b>From columns:</b> rrr_id <b>From Entity:</b> mortgage_isbased_in_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
mortgage_isbased_in_rrr_mortgage_id_fk38	<b>From columns:</b> mortgage_id <b>From Entity:</b> mortgage_isbased_in_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
source_describes_rrr_rrr_id_fk39	<b>From columns:</b> rrr_id <b>From Entity:</b> source_describes_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	SOLA Extension relationship - no refinement
notation_rrr_id_fk65	<b>From columns:</b> rrr_id <b>From Entity:</b> notation <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
rrr_share_rrr_id_fk68	<b>From columns:</b> rrr_id <b>From Entity:</b> rrr_share <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
party_for_rrr_rrr_id_fk70	<b>From columns:</b> rrr_id <b>From Entity:</b> party_for_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
lease_special_condition_rrr_id_fk142	<b>From columns:</b> rrr_id <b>From Entity:</b> lease_special_condition <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

### Triggers

Name	Event
change_from_pending	before update

## 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_fk82	<b>From columns:</b> mortgage_type_code <b>From Entity:</b> rrr <b>From cardinality:</b> 0..* <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: mortgage\_isbased\_in\_rrr

This is left in the data model but is not implemented, because the right that is basis for the mortgage can be implied by the primary right for ba\_unit.LADM Reference Object LA\_Mortgage - LA\_Right RelationshipLADM DefinitionIdentifies the right that is the basis for a mortgage.

### Columns

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

### Constraints

Name	Type	Explanation
mortgage_isbased_in_rrr_pkey	PRIMARY KEY	Combination of (mortgage_id,rrr_id) is the primary key

### Relationships (from)

Name	Information	Description
mortgage_isbased_in_rrr_rrr_id_fk37	<b>From columns:</b> rrr_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
mortgage_isbased_in_rrr_mortgage_id_fk38	<b>From columns:</b> mortgage_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..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_fk39	<b>From columns:</b> rrr_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	SOLA Extension relationship - no refinement
source_describes_rrr_source_id_fk40	<b>From columns:</b> source_id <b>To Entity:</b> source <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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_fk4	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
source_describes_ba_unit_source_id_fk42	<b>From columns:</b> source_id <b>To Entity:</b> source <b>From cardinality:</b> 0..* <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 <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
required_relationship_baunit_to_ba_unit_id	<b>From columns:</b> to_ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
required_relationship_baunit_relation_code	<b>From columns:</b> relation_code <b>To Entity:</b> ba_unit_rel_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 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 <b>From Entity:</b> required_relationship_baunit <b>From cardinality:</b> 0..* <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\_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	From columns: ba_unit_id To Entity: ba_unit From cardinality: 0..* To Cardinality: 1	LADM relationship - no refinement
ba_unit_contains_spatial_unit_spatial_unit_id	From columns: spatial_unit_id To Entity: spatial_unit From cardinality: 0..* To Cardinality: 1	LADM relationship - no refinement
ba_unit_contains_spatial_unit_spatial_unit_id	From columns: spatial_unit_id To Entity: cadastre_object From cardinality: 0..* To Cardinality: 0..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 Object Association 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_fk60	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_as_party_party_id_fk61	<b>From columns:</b> party_id <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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_fk62	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
notation_status_code_fk63	<b>From columns:</b> status_code <b>To Entity:</b> reg_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
notation_ba_unit_id_fk64	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
notation_rrr_id_fk65	<b>From columns:</b> rrr_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

## 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_fk66	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_area_type_code_fk67	<b>From columns:</b> type_code <b>To Entity:</b> area_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

**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_fk68	<b>From columns:</b> rrr_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

**Relationships (to)**

Name	Information	Description
party_for_rrr_rrr_id_fk69	<b>From columns:</b> rrr_id,share_id <b>From Entity:</b> party_for_rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

## 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_fk69	<b>From columns:</b> rrr_id,share_id <b>To Entity:</b> rrr_share <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
party_for_rrr_rrr_id_fk70	<b>From columns:</b> rrr_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
party_for_rrr_party_id_fk71	<b>From columns:</b> party_id <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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_fk72	<b>From columns:</b> ba_unit_id <b>To Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ba_unit_target_transaction_id_fk73	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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_fk142	<b>From columns:</b> rrr_id <b>To Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	



**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_fk139	<b>From columns:</b> fee_code <b>From Entity:</b> admin_fee_rate <b>From cardinality:</b> 0..* <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: 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_type_code_fk131	<b>From columns:</b> dispute_type_code <b>To Entity:</b> dispute_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
dispute_dispute_category_code_fk132	<b>From columns:</b> dispute_category_code <b>To Entity:</b> dispute_category <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

## 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_fk131	<b>From columns:</b> dispute_type_code <b>From Entity:</b> dispute <b>From cardinality:</b> 0..* <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: 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
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## 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: 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_fk132	<b>From columns:</b> dispute_category_code <b>From Entity:</b> dispute <b>From cardinality:</b> 0..* <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: 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_fk140	<b>From columns:</b> rate_code <b>From Entity:</b> admin_fee_rate <b>From cardinality:</b> 0..* <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: 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_fk139	<b>From columns:</b> fee_code <b>To Entity:</b> admin_fee_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
admin_fee_rate_rate_code_fk140	<b>From columns:</b> rate_code <b>To Entity:</b> admin_rate_type <b>From cardinality:</b> 0..* <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: 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\_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: disputes\_source****Columns**

Name	Type	Optional	Default	Description
dispute_id	varchar(40)	False		
source_id	varchar(40)	False		

**Constraints**

Name	Type	Explanation
disputes_source_pkey	PRIMARY KEY	Combination of (dispute_id,source_id) is the primary key

## Table: transaction\_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'	

### Constraints

Name	Type	Explanation
transaction_type_pkey	PRIMARY KEY	Combination of (code) is the primary key

### Relationships (to)

Name	Information	Description
consent_transaction_type_code_fk145	<b>From columns:</b> transaction_type_code <b>From Entity:</b> consent <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	

### Data

Nr	code	display_value	description	status
1	servetude	PRIVATE SERVITUDE	PRIVATE SERVITUDE	c
2	sub_lease	SUB LEASE	SUB LEASE	c
3	transfer	TRANSFER	TRANSFER	c

## Table: consent

### Columns

Name	Type	Optional	Default	Description
id	varchar(40)	False		
reg_date	date	False		
expiration_date	date	False		
amount	numeric(29, 2)	True		
transaction_type_code	varchar(20)	False		
special_conditions	varchar(5000)	True		
transaction_id	varchar(40)	False		

### Constraints

Name	Type	Explanation
consent_pkey	PRIMARY KEY	Combination of (id) is the primary key

### Relationships (from)

Name	Information	Description
consent_transaction_type_code_fk145	<b>From columns:</b> transaction_type_code <b>To Entity:</b> transaction_type <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	
consent_transaction_id_fk146	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	

### Relationships (to)

Name	Information	Description
consent_party_consent_id_fk148	<b>From columns:</b> consent_id <b>From Entity:</b> consent_party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## Table: consent\_party

### Columns

Name	Type	Optional	Default	Description
consent_id	varchar(40)	False		
party_id	varchar(40)	False		

### Constraints

Name	Type	Explanation
consent_party_pkey	PRIMARY KEY	Combination of (consent_id,party_id) is the primary key

### Relationships (from)

Name	Information	Description
consent_party_party_id_fk147	<b>From columns:</b> party_id <b>To Entity:</b> party <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
consent_party_consent_id_fk148	<b>From columns:</b> consent_id <b>To Entity:</b> consent <b>From cardinality:</b> 0..* <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		

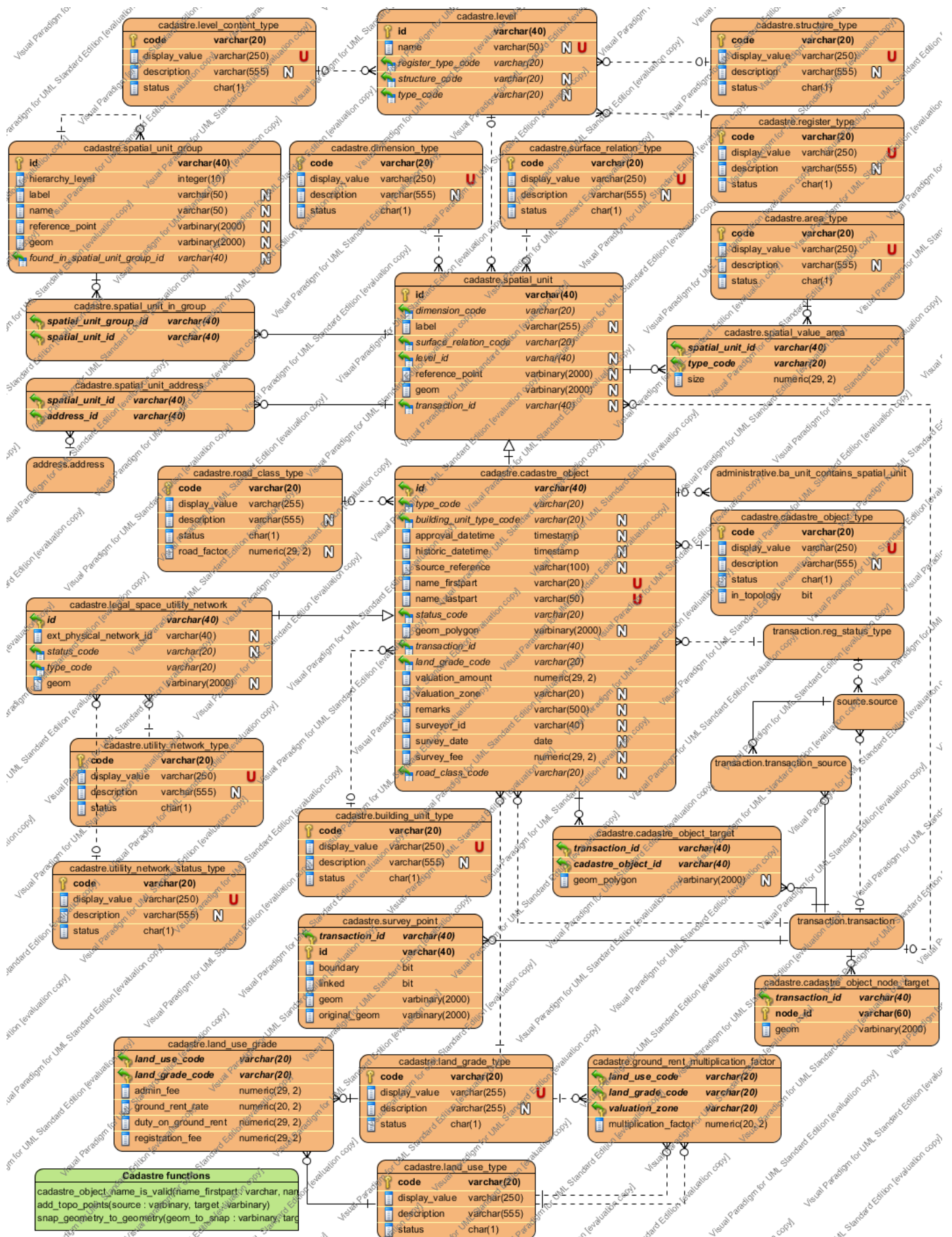
**Function: getsysregprogress*****Parameters***

Name	Type	Direction	Description
fromdate	varchar		
todate	varchar		
namelastpart	varchar		

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

Allocates numbers 1 to 9999 for dispute number

## cadastre



## 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 teh 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_fk46	<b>From columns:</b> dimension_code <b>To Entity:</b> dimension_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_unit_surface_relation_code_fk47	<b>From columns:</b> surface_relation_code <b>To Entity:</b> surface_relation_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_unit_level_id_fk48	<b>From columns:</b> level_id <b>To Entity:</b> level <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement



spatial_unit_transaction_id_fk127	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
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**Relationships (to)**

Name	Information	Description
cadastre_object_id_fk52	<b>From columns:</b> id <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	
ba_unit_contains_spatial_unit_spatial_unit_id_fk58	<b>From columns:</b> spatial_unit_id <b>From Entity:</b> ba_unit_contains_spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_value_area_spatial_unit_id_fk83	<b>From columns:</b> spatial_unit_id <b>From Entity:</b> spatial_value_area <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_unit_address_spatial_unit_id_fk85	<b>From columns:</b> spatial_unit_id <b>From Entity:</b> spatial_unit_address <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
spatial_unit_in_group_spatial_unit_id_fk89	<b>From columns:</b> spatial_unit_id <b>From Entity:</b> spatial_unit_in_group <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
ba_unit_cadastre_object_id_fk130	<b>From columns:</b> cadastre_object_id <b>From Entity:</b> ba_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
rrr_cadastre_object_id_fk141	<b>From columns:</b> cadastre_object_id <b>From Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

## 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_fk46	<b>From columns:</b> dimension_code <b>From Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <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: 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_fk47	<b>From columns:</b> surface_relation_code <b>From Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <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: 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_fk49	<b>From columns:</b> register_type_code <b>To Entity:</b> register_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
level_structure_code_fk50	<b>From columns:</b> structure_code <b>To Entity:</b> structure_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement
level_type_code_fk51	<b>From columns:</b> type_code <b>To Entity:</b> level_content_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement

### Relationships (to)

Name	Information	Description
spatial_unit_level_id_fk48	<b>From columns:</b> level_id <b>From Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement

**Data**

Nr	id	name	register_type_code	structure_code	type_code
1	cadastreObject	Cadastre object	all	polygon	primaryRight

## 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_fk49	<b>From columns:</b> register_type_code <b>From Entity:</b> level <b>From cardinality:</b> 0..* <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: 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_fk50	<b>From columns:</b> structure_code <b>From Entity:</b> level <b>From cardinality:</b> 0..* <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: 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_fk51	<b>From columns:</b> type_code <b>From Entity:</b> level <b>From cardinality:</b> 0..* <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 Geografici	Extension to LADM	c
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## 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_fk52	<b>From columns:</b> id <b>To Entity:</b> spatial_unit <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	
cadastre_object_type_code_fk53	<b>From columns:</b> type_code <b>To Entity:</b> cadastre_object_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_status_code_fk54	<b>From columns:</b> status_code <b>To Entity:</b> reg_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_building_unit_type_code_fk55	<b>From columns:</b> building_unit_type_code <b>To Entity:</b> building_unit_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
cadastre_object_transaction_id_fk56	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_land_grade_code_fk138	<b>From columns:</b> land_grade_code <b>To Entity:</b> land_grade_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_road_class_code_fk144	<b>From columns:</b> road_class_code <b>To Entity:</b> road_class_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

**Relationships (to)**

Name	Information	Description
ba_unit_contains_spatial_unit_spatial_unit_id_fk59	<b>From columns:</b> spatial_unit_id <b>From Entity:</b> ba_unit_contains_spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	
legal_space_utility_network_id_fk90	<b>From columns:</b> id <b>From Entity:</b> legal_space_utility_network <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	
cadastre_object_target_cadastre_object_id_fk93	<b>From columns:</b> cadastre_object_id <b>From Entity:</b> cadastre_object_target <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

application_spatial_unit_spatial_unit_id_fk1	<b>From columns:</b> spatial_unit_id <b>From Entity:</b> application_spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
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### ***Triggers***

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

## 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_fk53	<b>From columns:</b> type_code <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
spatial_unit_temporary_cadastre_object_type_fk126	<b>From columns:</b> cadastre_object_type_code <b>From Entity:</b> spatial_unit_temporary <b>From cardinality:</b> 0..* <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: 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> building_unit_type_code <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	

### Data

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

## 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_fk67	<b>From columns:</b> type_code <b>From Entity:</b> ba_unit_area <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
spatial_value_area_type_code_fk84	<b>From columns:</b> type_code <b>From Entity:</b> spatial_value_area <b>From cardinality:</b> 0..* <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 Area::::Area Sorvegliata		c
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**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_fk83	<b>From columns:</b> spatial_unit_id <b>To Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_value_area_type_code_fk84	<b>From columns:</b> type_code <b>To Entity:</b> area_type <b>From cardinality:</b> 0..* <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_fk85	<b>From columns:</b> spatial_unit_id <b>To Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	FLOSS SOLA relationship - no refinement
spatial_unit_address_address_id_fk86	<b>From columns:</b> address_id <b>To Entity:</b> address <b>From cardinality:</b> 0..* <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> found_in_spatial_unit_group_id <b>To Entity:</b> spatial_unit_group <b>From cardinality:</b> 0..* <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> spatial_unit_group_id <b>From Entity:</b> spatial_unit_in_group <b>From cardinality:</b> 0..* <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_fk89	<b>From columns:</b> spatial_unit_group_id <b>To Entity:</b> spatial_unit_group <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement
spatial_unit_in_group_spatial_unit_id_fk89	<b>From columns:</b> spatial_unit_id <b>To Entity:</b> spatial_unit <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement

## 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_fk90	<b>From columns:</b> id <b>To Entity:</b> cadastre_object <b>From cardinality:</b> 1 <b>To Cardinality:</b> 1	
legal_space_utility_network_status_code_fk91	<b>From columns:</b> status_code <b>To Entity:</b> utility_network_status_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..1	LADM relationship - no refinement
legal_space_utility_network_type_code_fk92	<b>From columns:</b> type_code <b>To Entity:</b> utility_network_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	LADM relationship - no refinement

## 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_refinement	<b>From columns:</b> status_code <b>From Entity:</b> legal_space_utility_network <b>From cardinality:</b> 0..* <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 <b>From Entity:</b> legal_space_utility_network <b>From cardinality:</b> 0..* <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

## 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_fk9	<b>From columns:</b> cadastre_object_id <b>To Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_target_transaction_id_fk9	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	



## 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_fk95	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## 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 <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	

## Table: cadastre\_object2

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_use_code	varchar(255)	True	'residential'	

### Constraints

Name	Type	Explanation
cadastre_object2_name	UNIQUE	Combination of () is unique
cadastre_object2_pkey	PRIMARY KEY	Combination of (id) is the primary key

### Triggers

Name	Event
remove	before delete
new	before insert
geommodify	after insert or update of geom_polygon

## 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
land_use_grade_land_grade_code_fk133	<b>From columns:</b> land_grade_code <b>From Entity:</b> land_use_grade <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ground_rent_multiplication_factor_land_grade_code_fk135	<b>From columns:</b> land_grade_code <b>From Entity:</b> ground_rent_multiplication_factor <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
cadastre_object_land_grade_code_fk138	<b>From columns:</b> land_grade_code <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <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_grade_code_fk133	<b>From columns:</b> land_grade_code <b>To Entity:</b> land_grade_type <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
land_use_grade_land_use_code_fk134	<b>From columns:</b> land_use_code <b>To Entity:</b> land_use_type <b>From cardinality:</b> 0..* <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
10	institutional	grade1	100	200
10	institutional	grade2	100	200
10	institutional	grade3	100	200
10	institutional	grade4	100	200
10	institutional	grade5	100	200
11	institutional	grade6	100	200

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	25
27	0	25
28	0	25
29	0	25
30	0	25
31	0	25
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	25
53	0	25
54	0	25
55	0	25
56	0	25
57	0	25
58	0	25
59	0	25
60	0	25
61	0	25

62	0	25
63	0	25
64	0	25
65	0	25
66	0	25
67	0	25
68	0	25
69	0	25
70	0	25
71	0	25
72	0	25
73	0	25
74	0	25
75	0	25
76	0	25
77	0	25
78	0	25
79	0	25
80	0	25
81	0	25
82	0	25
83	0	25
84	0	25
85	0	25
86	0	25
87	0	25
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
10	0	25
10	0	25
10	0	25
10	0	25
10	0	25
11	0	25

## 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_grade_code	From column 195: land_grade_code To Entity: land_grade_type From cardinality: 0..* To Cardinality: 1	
ground_rent_multiplication_factor_land_use_code	From column 196: land_use_code To Entity: land_use_type From cardinality: 0..* To Cardinality: 1	
ground_rent_multiplication_factor_valuation_zone	From column 197: valuation_zone To Entity: land_use_type From cardinality: 0..* 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: 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_fk144	<b>From columns:</b> road_class_code <b>From Entity:</b> cadastre_object <b>From cardinality:</b> 0..* <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: 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
land_use_grade_land_use_code_fk134	<b>From columns:</b> land_use_code <b>From Entity:</b> land_use_grade <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ground_rent_multiplication_factor_land_use_code_fk135	<b>From columns:</b> land_use_code <b>From Entity:</b> ground_rent_multiplication_factor <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
ground_rent_multiplication_factor_valuation_zone_fk137	<b>From columns:</b> valuation_zone <b>From Entity:</b> ground_rent_multiplication_factor <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
rrr_land_use_code_fk143	<b>From columns:</b> land_use_code <b>From Entity:</b> rrr <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 0..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 Agriculture		c
15	agricNonIrrigated	Non-irrigated Agriculture		c
16	agricRangeGrazing	Range Grazing or Forestry		c
17	agricOther	Other Agricultural Use		c
18	agricIntensive	Livestock, Poultry, or Horticulture		c
19	other	Other	(NULL)	c
20	benovelent	Benovelent		c
21	devotional	Devotional		c



## 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

**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

**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.

# bulk\_operation

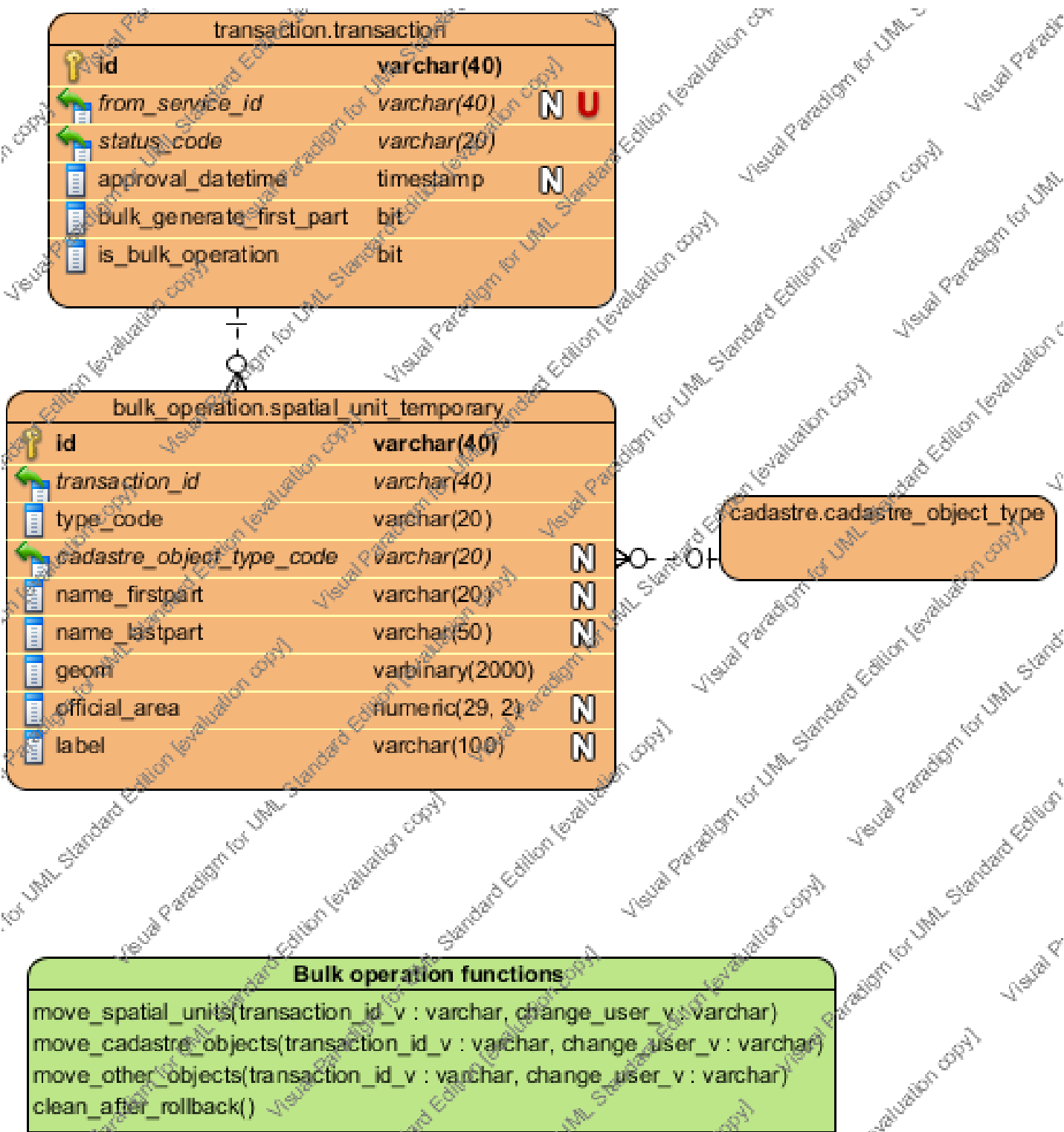


Table: spatial\_unit\_temporary

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_fk1	<b>From columns:</b> transaction_id <b>To Entity:</b> transaction <b>From cardinality:</b> 0..* <b>To Cardinality:</b> 1	
spatial_unit_temporary_cadastre_object_type_code_fk1	<b>From columns:</b> cadastre_object_type_code <b>To Entity:</b> cadastre_object_type <b>From cardinality:</b> 0..* <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.