



# Training on Re3gistry / INSPIRE Registry

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# Re3gistry Software / INSPIRE Registry

- *“Sharing meanings, connecting minds”*




# Installation Options

-  **docker** allows consistent environments and easier scaling but requires more initial setup.

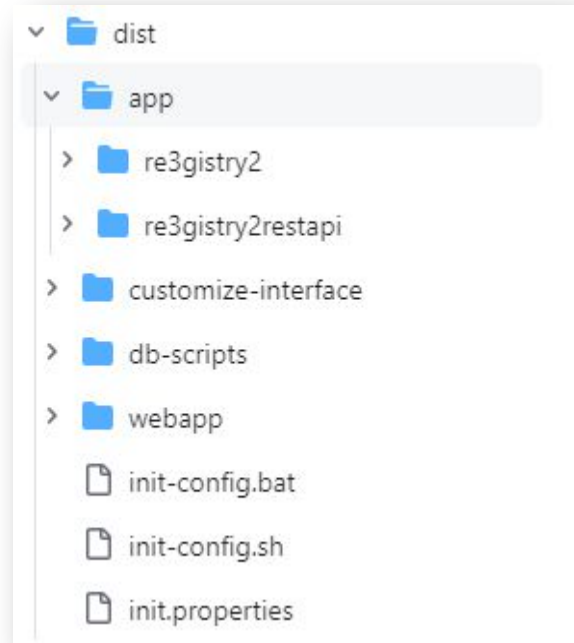
<input type="checkbox"/>	Name	Image	Status	CPU (%)	Port(s)	Last started	Actions
<input type="checkbox"/>	re3gistry2-build-helper		Running (6/6)	3.28%		1 hour ago	■ ⋮ 🗑
<input type="checkbox"/>	mailserver 5cdeba351b7a 🗑	marcopas/docker-mailserver	Running	0%	2500:2500 🔗 <a href="#">Show all ports (3)</a>	1 hour ago	■ ⋮ 🗑
<input type="checkbox"/>	reg-postgres 12f6cb197f8d 🗑	postgres:10.20-alpine	Running	1.71%	5432:5432 🔗	1 hour ago	■ ⋮ 🗑
<input type="checkbox"/>	swagger-ui e02bb7036617 🗑	swaggerapi/swagger-ui	Running	0%	8082:8080 🔗	1 hour ago	■ ⋮ 🗑
<input type="checkbox"/>	reg-solr 7243578a6b82 🗑	solr:8.11.1	Running	1.34%	8983:8983 🔗 <a href="#">Show all ports (2)</a>	1 hour ago	■ ⋮ 🗑
<input type="checkbox"/>	reg-tomcat b05aca39133b 🗑	tomcat:7.0.109-jdk8-adoptopenjdk-hotspot	Running	0.22%	8000:8000 🔗 <a href="#">Show all ports (4)</a>	1 hour ago	■ ⋮ 🗑
<input type="checkbox"/>	reg-httpd d2ffe06da105 🗑	httpd:2.4.53-alpine	Running	0.01%	80:80 🔗	1 hour ago	■ ⋮ 🗑

# Installation Options


-  Provides an easier setup and fastest deployment.

Git hub

<https://github.com/ec-jrc/re3gistry/tree/master/dist/app>



- **OsGeo Live** is a Linux based distribution ready to deploy multiple open source applications. You can try and deploy a Re3gistry instance easily.



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## Re3gistry

**About**

The Re3gistry 2 is a reusable open source solution for managing and sharing "reference codes". Initially developed as a central component of the EU's [INSPIRE](#) infrastructure, it provides a consistent central access point where labels and descriptions for reference codes can be easily browsed by humans and retrieved by machines. Reference codes are exchanged between applications to uniquely reference some "thing". They can be used to define sets of permissible values for a data field or to provide a reference or context for the data being exchanged. Examples are enumerations, controlled vocabularies, taxonomies, thesauri or, simply, 'lists of things'. The Re3gistry 2 supports organisations in managing and updating reference codes in a consistent way. The Re3gistry software version numbers comply with the Semantic Versioning Specification 2.0.0.

## Core Features

- User-friendly editing interface to easily add, edit and manage the registers and reference codes
- Management of the full lifecycle of the reference codes (based on the ISO 19135 Standard)
- Highly flexible and customisable data models
- Multi-lingual content support
- Support for versioning
- RESTful API with content negotiation (including OpenAPI 3 descriptor)
- Free-text search



- Supported formats: HTML, ISO 19135 XML, JSON, RDF/XML, Re3gistry XML, CSV, ATOM
- Service formats can be easily added or customised (default formats: JSON and ISO 19135 XML)
- Multiple authentication options
- Externally governed items referenced through URIs
- INSPIRE register federation format support (option to automatically create the RoR format)
- Web-app to access the reference codes in a human readable way.

# Migration



*Uuids are unique identifiers of a reference code, for the migration to work properly it is important not to make manual modifications to the database.*

The Re3gistry software allows to easily migrate your data from previous versions. You just need the new and the old database and automatically all the items will be updated to the new version.

**Re3gistry installation wizard**

- Welcome
- Registry manager
- Installation type
- Set up**
- Summary

### Migration

To migrate your existing Re3gistry content to the newer version of the software, please, enter the details of the database where you are currently storing the Re3gistry content.

Address	<input type="text"/>	*
Port	<input type="text"/>	*
Name	<input type="text"/>	*
Username	<input type="text"/>	*
Password	<input type="password"/>	*

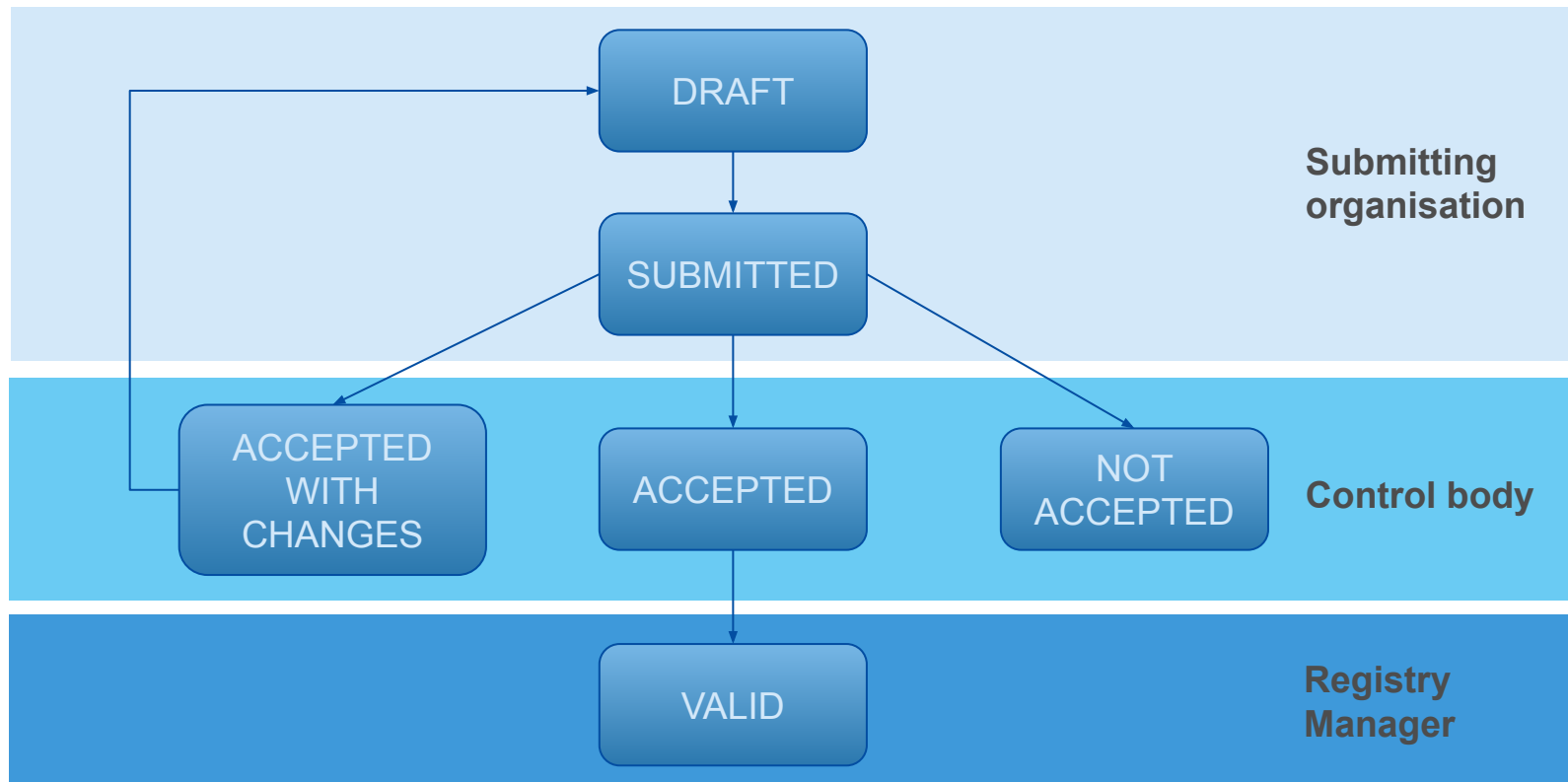
[Save and continue](#)

# Getting started with the Re3gistry

Installation and Migration process

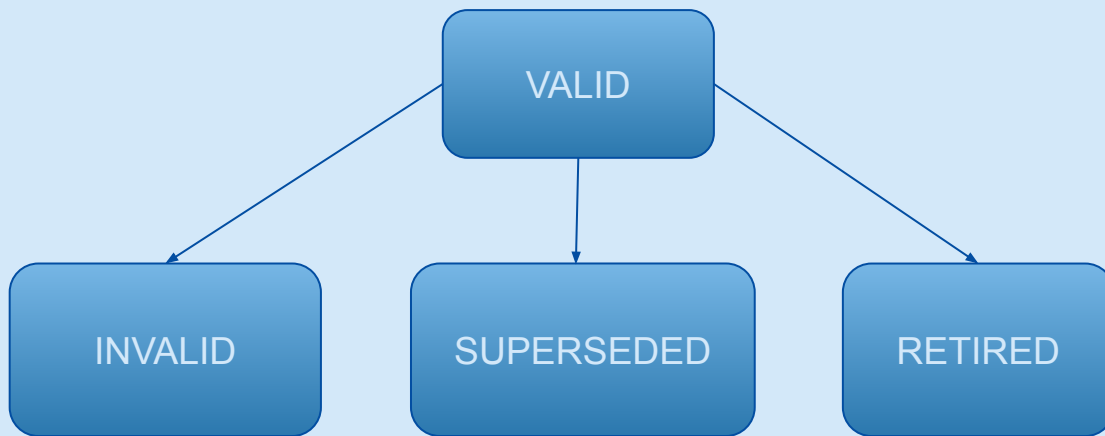


# Workflow status (based on the ISO 19135 Standard)





# Workflow status (based on the ISO 19135 Standard)



- **INVALID:** If it is considered an **error** on a "valid" reference code. Generally, it is replaced by a new "valid" reference code (successor).
- **SUPERSEDED:** The reference code has been **replaced** by a new or a different "valid" reference code (successor)
- **RETIRED:** When a reference code is **no longer recommended for use** and its replacement is not planned

# Data governance

Item status values

# Q&A SESSION



# Coffee break 15'



# Simplified workflow

- The purpose of this functionality is to make the use of the Re3gistry more flexible and applicable in other areas.
- It is possible to select the option Simplified workflow in the Re3gistry Software installation.

The screenshot shows the 'Installation type' screen of the Re3gistry software installation. On the left is a sidebar with navigation links: 'Welcome', 'Registry manager', 'Installation type' (highlighted with a blue bar), 'Set up', and 'Summary'. The main content area is titled 'Installation type' and instructs the user to 'Choose the installation type you wish to perform.' There are two radio button options: 'Installation' (selected) and 'Migration'. Below these, there is a section titled 'Type of workflow' with the instruction 'Select the governance model you would like the registry to apply.' It offers two radio button options: 'Following ISO 19135' and 'Simplified workflow' (highlighted with a red box). The 'Simplified workflow' option is described as 'Recommended if the data management will be handled entirely internally in the same organisation, or within a small group of contributors, not requiring such formal process.' At the bottom right, there is a blue button labeled 'Save and continue'.

Installation type

Choose the installation type you wish to perform.

☒ Installation

Choose this option if you want to install the Re3gistry software for the first time and to create a registry from scratch.

☐ Migration

Choose this option if you want to upgrade a preexisting Re3gistry instance. This option will keep your settings and content.

Note that this option **will work only on an existing instance running on Re3gistry version 1.3.X**

Type of workflow

Select the governance model you would like the registry to apply.

☐ Following ISO 19135

Recommended if you plan to receive contributions from different organisations and manage them following a formal and standardised governance process.

☒ Simplified workflow

Recommended if the data management will be handled entirely internally in the same organisation, or within a small group of contributors, not requiring such formal process.

Save and continue

# Simplified workflow

- It allows you to publish directly without having to go through each of the steps and statuses established when making a change proposal.
- Therefore, you would not need a **Submitting Organisation** to make the change nor the approval of the **Control Body**.
- It is centralised in a single user
- This option is available since [v2.4.0](#) version















# Specific Re3gistry features

Simplified workflow



# Users and groups

- Depending on the user's role (the group they belong to), the tabs displayed in the menu bar change:

 Admin  Content  Structure  Submitting Organisations  Registry Manager	Registry Manager
 Admin  Content  Register Manager	Register Manager
 Admin  Content  Submitting Organisations	Register Submitter
 Admin  Content  Control Body	Control Body



# Registry manager features

- The **Registry manager**, has the highest privileges in the system and can perform different tasks:
  - Make any action and publications on the reference codes.
  - Manage the structural elements of the system.
  - Manage both users and groups
  - Manage data export (cache)

# Registry manager - Users and groups

- When an instance is installed from scratch, the possible user roles that the Re3gistry creates by default are:
  - Registry manager
  - Register owner
  - Register manager
  - Control body
  - Submitting organisations
- The system is highly flexible in managing the roles:
  - The user is assigned to one or more groups.
  - One group can be associated to one or more registers

**Re3gistry sandbox - admin interface**

Admin Content Structure Submitting Organisations Control Body Register Manager Registry Manager name@example.com Sign out

## Registry manager dashboard

Actions Users **Groups** Data export

**Groups** [+ Add a group](#)

Name	Insert date
<a href="#">Control Body</a>	2022-05-17 11:52:01
<a href="#">Register Manager</a>	2022-05-17 11:52:01
<a href="#">Register Owner</a>	2022-05-17 11:52:01
<a href="#">Register Submitter</a>	2022-05-17 11:52:01
<a href="#">Registry Manager</a>	2022-05-17 11:52:01

# Registry manager - Users and groups

- The Re3gistry creates default groups during installation, but custom groups can also be created. The Registry Manager is responsible for creating new groups:

## Registry manager dashboard

[Actions](#)[Users](#)[Groups](#)[Data export](#)

Add a group

← Back to Groups

Local ID

examplegroup

\*

Name

Example Group

\*

E-mail

examplegroup@example.com

\*

Web site

Save changes

# Registry manager - Users and groups

- New users can be created by the Registry Manager.
- When created, users are assigned to an existing group.
- To enhance security protocols:
  - An email containing activation and deletion link of the account is sending.
  - The email will also include a temporary password that must be changed before logging in for the first time.

[Actions](#) [Users](#) [Groups](#) [Data export](#)

**Add user** [← Back to Users list](#)

**Name**

Example user \*

**E-mail**

exampleuser@gmail.com \*

**Associated groups**

Status	Group
<input type="checkbox"/>	Registry Manager
<input type="checkbox"/>	Register Manager
<input type="checkbox"/>	Register Owner
<input type="checkbox"/>	Register Submitter
<input type="checkbox"/>	Control Body
<input checked="" type="checkbox"/>	Example Group

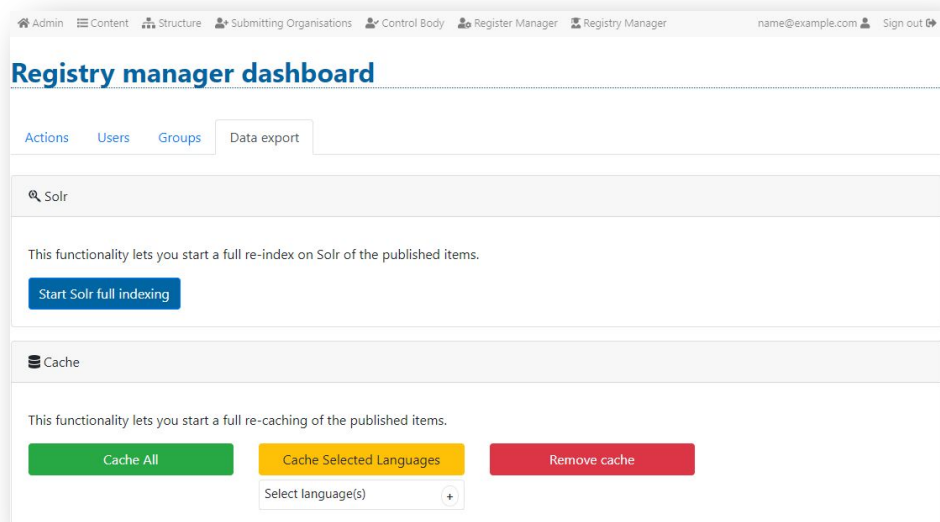
Show 10 entries Showing 1 to 6 of 6 entries

[Previous](#) [1](#) [Next](#)

Save changes

# Registry manager - Data export

- The Data export subtab allows the registry manager to run a complete SOLR index and a complete CACHE of the items presented in the system.
  - **Solr:** This option helps to easily run a full export of the registry data to the Solr index on the published items.
  - **Button "Cache all":** This option helps to run a full cache of the active languages of the system.
  - **Button "Cache all - Selected languages":** This option helps to run a full cache on the languages you select in the widget among the existing ones. This option is available since [v2.5.3](#) version
  - **Button "Remove cache":** This option helps to remove the index of all the cache items.



# Structure

- The structure tab gives the user access to the **management of the data model** for each entity in the registry system by graphically **adding** and **managing** the **fields**.

Admin

Content

Structure

Submitting Organisations

Control Body

Register Manager

Registry Manager

name@example.com

Sign out

Manage the structure

Procedure order *	Local ID	Type	Parent	Base URI	Creation date	Actions
0	registry	registry		http://host.docker.internal	Fri May 03 09:12:25 GMT 2024	
1	exampleRegister	register	registry	http://host.docker.internal	Tue May 07 10:59:47 GMT 2024	
2	exampleRegister-item	item	exampleRegister		Tue May 07 10:59:47 GMT 2024	










- The main page of the structure tab contains the list of **content classes** available in the system.
- A content class is **automatically** created every time that a new register is created or added in the **content** tab.

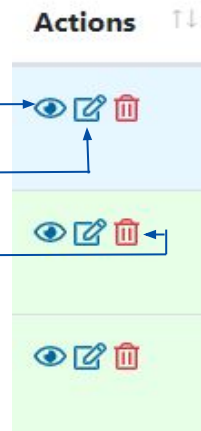
# Structure

Manage the content

- To make modifications in **management of the data model** , you can use the icons displayed in the actions column.

- View/Manage fields \_\_\_\_\_
- Edit \_\_\_\_\_
- Delete \_\_\_\_\_

Procedure order *	Local ID	Type	Parent	Base URI	Creation date	Actions
0	registry	registry		http://host.docker.internal	Fri May 03 09:12:25 GMT 2024	  
1	exampleRegister	register	registry	http://host.docker.internal	Tue May 07 10:59:47 GMT 2024	  
2	exampleRegister-item	item	exampleRegister		Tue May 07 10:59:47 GMT 2024	  



# Structure

## Structure dashboard

- In the structure dashboard, various aspects can be configured:
  - Field display order.
  - Establish hyperlinks for fields
  - Determinate field visibility in the public interface
  - Enable multivalued selections
  - Set fields as required
- Displaying fields in the available items table on the content page.

The screenshot shows the 'registry' structure dashboard. At the top, there are three buttons: 'Edit' (blue), 'Cache class' (green), and 'Remove' (red). Below these is a section titled 'Fields available for the registry registry' with an '+ Add field' button. A yellow note states: 'Note: the changes done in the table (check boxes) are automatically saved. Changes in the structure requires the execution of a new cache.' Below the note is a table with the following columns: Display order, Label, Type, Is hyperlinked, Hidden, Multivalued, Required, Show in table, and Actions. The table contains three rows of data. At the bottom, there is a pagination bar showing 'Show 10 entries' and 'Showing 1 to 3 of 3 entries', along with 'Previous' and 'Next' buttons.

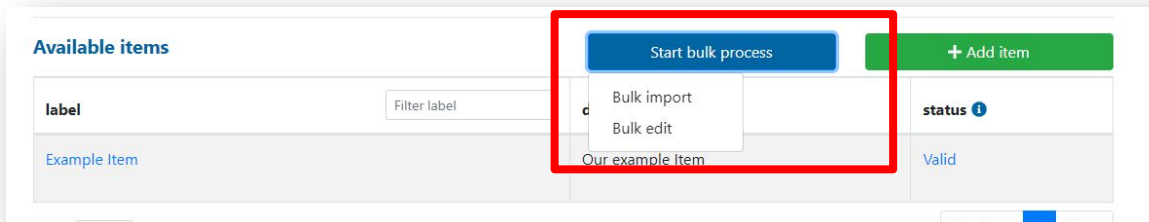
Display order	Label	Type	Is hyperlinked	Hidden	Multivalued	Required	Show in table	Actions
0	label	text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
1	contentsummary	longtext	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	registryManager	groupReference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	



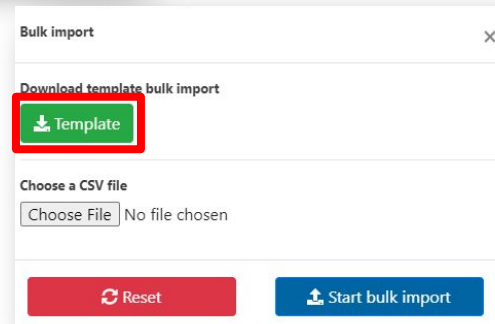
# Advanced editing

## Bulk Import/Bulk edit

- Bulk import and bulk edit is a feature to allow users to **insert** and **make modifications** to **multiple items at the same** time. This option is available since [v2.5.2](#) version



- To initiate a bulk edit or import, begin by uploading a .csv file containing the specific fields you wish to modify. Upon clicking the bulk import/edit button, a pop-up will appear, providing the option to download a template.



# Advanced editing

## Bulk Import

- To perform a bulk import, you need to fill in **all the fields** listed in the template. The fields in the template are separated by pipes (|) . It is crucial to maintain the same structure.

LocalID Language label definition				Template
item1	en	Item 1 example	This a example of an bulk import for item 1	Information of the items to import
item2	en	Item 2 example	This a example of an bulk import for item 2	

- When the process is complete, a congratulations message will be displayed, and the proposed items will appear in the table at the bottom.

New items proposed		
label	definition	status
<a href="#">Item 1 example</a>	This a example of an bulk import for item 1	<a href="#">Draft</a>
<a href="#">Item 2 example</a>	This a example of an bulk import for item 2	<a href="#">Draft</a>

# Advanced editing

## Bulk edit

- To perform a bulk edit, it is mandatory to enter the item's ID and the language. Fields that remain unchanged should be left blank.

LocalID Language label definition	Template
item1 en Item 1 modification	Information of the item to edit

- If we navigate to the 'Admin' tab, we can observe that the item has been edited.

Admin	Content	Structure	Submitting Organisations	Control Body	Register Manager	Registry Manager	name@example.com	Sign out
Welcome to your administration panel								
List of your pending items								
Name				Edit date				
Item 1 modification				2024-05-14 09:02:38				

# Available formats

- XML Registry: A Registry specific XML format
- XML ISO 19135: Geographic ReGister XML
- RDF/XML: Is a syntax, defined by the W3C, to express (i.e. serialize) an RDF graph as an XML document.
- JSON: Is a text format that is completely language independent
- CSV: A CSV (comma-separated values) file is a text file that has a specific format which allows data to be saved in a table structured format.
- ATOM: The Atom Syndication Format is an XML language used for web feeds
- ROR: An INSPIRE specific format meant to share items through INSPIRE applications

# API Swagger

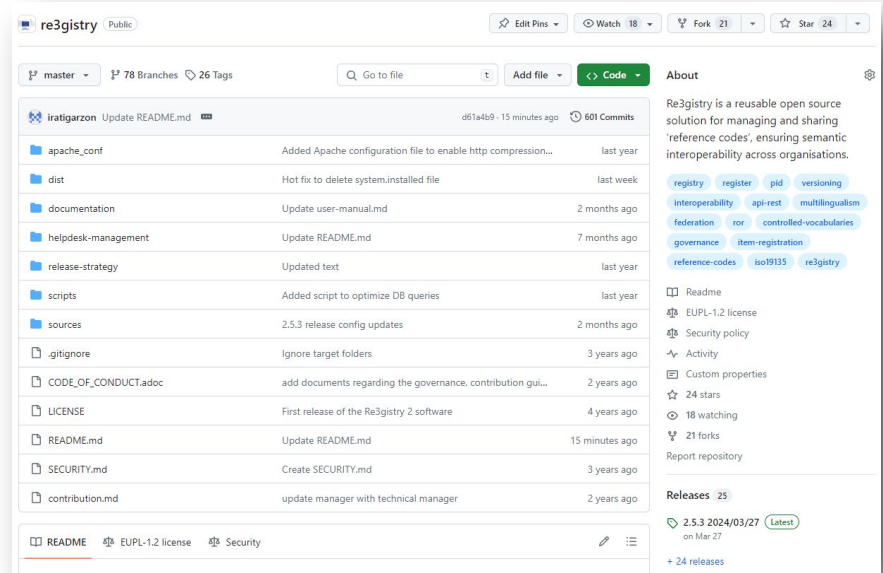
- The API Swagger brings a easy to understand explanation for the API of the Re3gistry2
- Just one endpoint is needed to bring all needed data to the frontend
- This makes the frontend fully customizable

The screenshot shows the Swagger UI for the endpoint `GET /rest`. The title is "Fetch a Register or Item". Below the title is a "Parameters" section with a "Try it out" button. The parameters are listed in a table:

Name	Description
uri string (query)	Uniform Resource Identifier <input type="text" value="uri"/>
uuid string (query)	Unique Item Identifier <input type="text" value="uuid"/>
lang string (query)	Language that content is returned in <input type="text" value="en"/>
format string (query)	Format of the returned content <input type="text" value="jsonc"/>
status string (query)	Acceptance status of the returned items <input type="text" value="proposed"/>
itemclass string (query)	Type of the returned item <input type="text" value="itemclass"/>

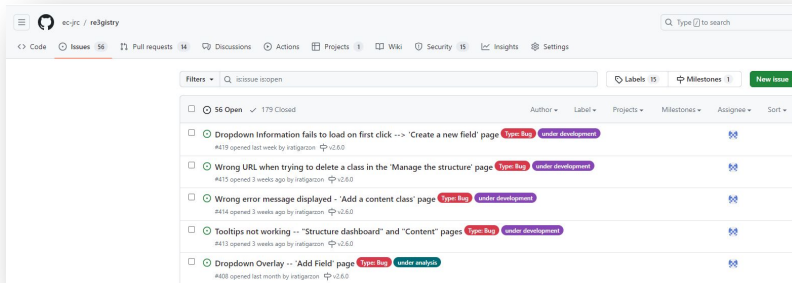
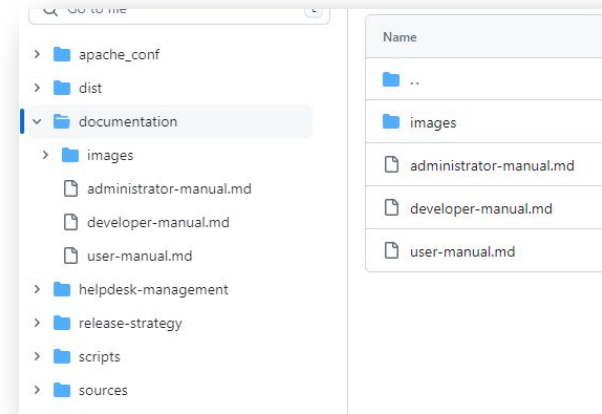
# Re3gistry software in Github

- The Re3gistry software code is exposed on a github repository <https://github.com/ec-jrc/re3gistry>
- As a reusable open-source software, contributions are welcome as explained in the contribution section. <https://github.com/ec-jrc/re3gistry/blob/master/contribution.md>



# Re3gistry software in Github

- A documentation is available, focusing on the different user profiles that the tool can have (administrator, developer, user)  
This is updated in each of the versions
- For bug reporting, a helpdesk is available.  
<https://github.com/ec-jrc/re3gistry/issues>  
Proposals and improvements are also welcome



# Re3gistry Software Github - Change log

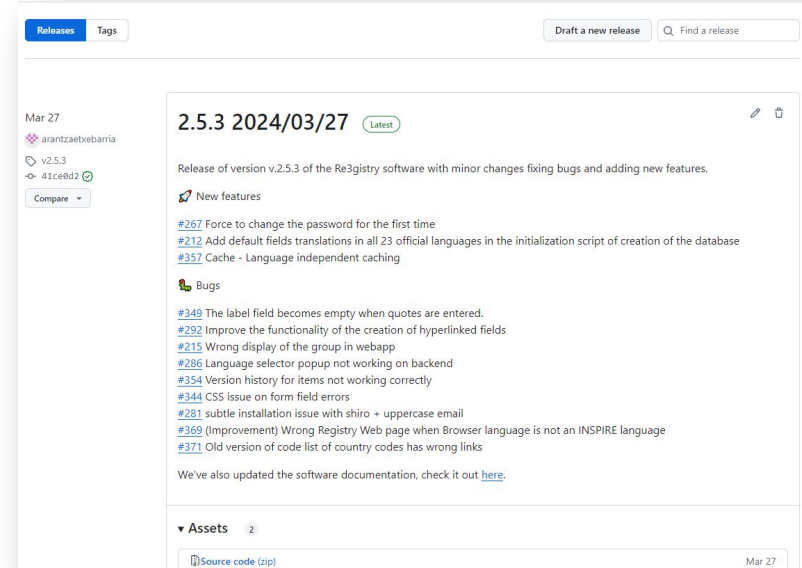
- You can view the different versions available <https://github.com/ec-jrc/re3gistry/releases>

## Latest release

- March 2024 (v2.5.3)
- <https://github.com/ec-jrc/re3gistry/releases/tag/v2.5.3>

## Next release

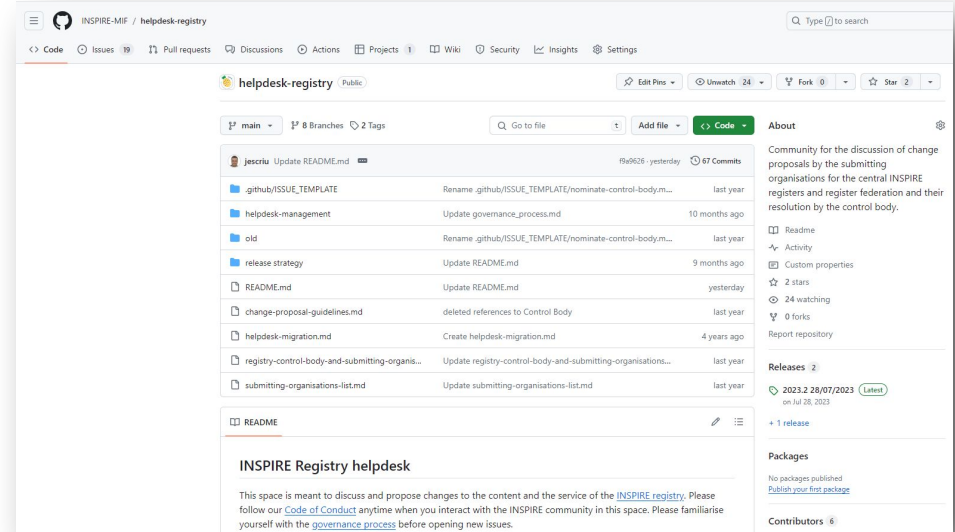
- A new release is scheduled for the end of **June** tha will be a major release v2.6.0





# INSPIRE Registry Github

- The INSPIRE Registry **repository** available here:  
<https://github.com/INSPIRE-MIF/helpdesk-registry>
- The **helpdesk** is an space to discuss and propose changes to the content of the INSPIRE registry  
<https://github.com/INSPIRE-MIF/helpdesk-registry/issues>



# INSPIRE Registry Github - Change log

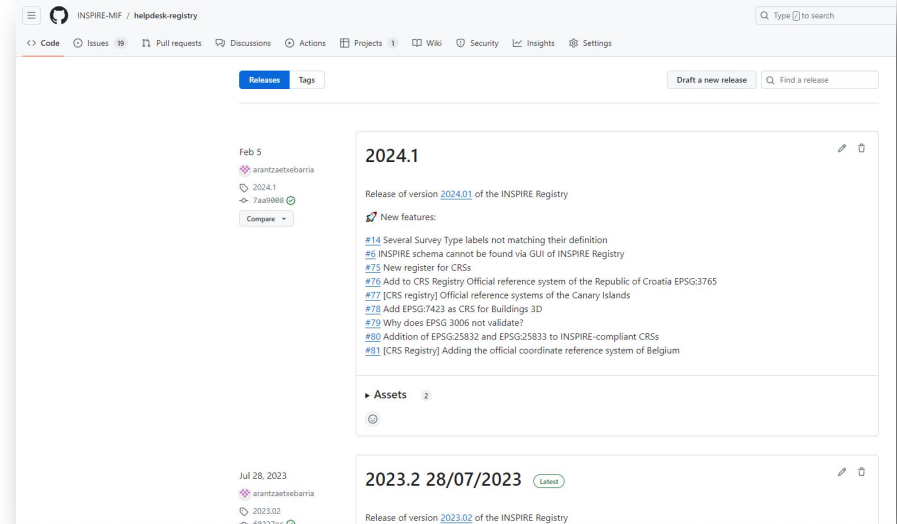
## Latest release

- 2024.01

<https://github.com/INSPIRE-MIF/helpdesk-registry/releases>

## Next releases

- 2024.1b - Intermediate release to Carry out pending changes derived from the amendment of Commission Regulation (EU) No 1089/2010)
- A new release is scheduled for the end of **July 2024.2**



# Q&A SESSION



# Thank you



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